Political Economy Analysis for FCDO's Pakistan's Real Economy Programme (PHASE-I)

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This work has been done for FCDO's Pakistan's Real Economy Programme, commissioned to Consortium for Development Policy Research through Cowater UK Ltd. The team lead for this project was Umair Javed. The sector reports were prepared by Hina Shaikh, Usman Khan, Umair Javed, and Zara Salman. Ijaz Nabi served as the Senior Political Economy Advisor and Suleman Ghani was the Senior Public Policy Advisor for this project.

Executive Summary

Introduction

This assignment, spread over two phases, aims to document the political economy of growth in key areas of Pakistan's economy; it is primarily motivated by the wide degree of variation in economic performance across different eras in the country's history. Between 1947 and 1967, Pakistan made impressive infrastructure investments, enabling the development of a substantial manufacturing base from scratch, and the adoption of 'green revolution technologies' that led to an average growth rate of 6 per cent per annum. However, since then, despite the periodic impetus of technocratic reform efforts, Pakistan's economic growth remains anaemic, exports do not demonstrate the same dynamism as comparator countries in the region and beyond, and periodic current account and fiscal deficits produce boom-bust cycles with alarming frequency. Sustained growth and development remains elusive, which is a fact that can be traced to variations in the political economy context, rather than in the selection of policy choices.

To contextualize this very briefly, the temporarily stable arrangement of state-led development through a cohesive, elite-controlled bureaucracy, generous donor-support, and an incubated class of private sector entrepreneurs that dominated the 1950s and 1960s, was unable to sustain itself in the face of challenges posed by groups locked out of the development process. Subsequently, since the 1960s, the nature of economic policy-making and implementation has had to contend with factional and distributional conflicts of institutional (civil versus military), ethnic and class-based variants, without the requisite development of conflict-limits or broader rules for conflict resolution. This produces repeat cycles of political and economic instability, as factional conflicts resemble zero-sum games and no one faction or group is able to establish clear dominance over an extended period of time.

Given this context, this report sets out two tasks: the first is to provide a broad (horizontal) desk-based overview of the political economy of private sector economic activity in Pakistan, to uncover determinants of the state's behaviour that is central to the overall functioning of the economy, and which ***in the view of this report, has led to the cyclical pattern of macroeconomic growth witnessed in the preceding five decades.*** This analysis is complemented with a review of the entrenched barriers to development as well as the nascent opportunities for transformation afforded by the current political-economy dispensation. The second objective is to uncover how country-level macro and sector-level micro-political economy factors shape growth prospects and hindrances in private sector activity in five priority sub-sectors: Livestock (meat processing/export); Readymade Garments; Information Communications Technology (ICT); Automotive Spare Parts; and Horticulture.

Our headline finding in this domain is that sectoral growth remains constrained by both macro and micro-level factors, which includes the historical track record of government's economic management exemplified through persisting fiscal imbalances generated through imprudent and ad-hoc expenditure and constrained revenue collection (both dictated by political economy considerations), the insulated and heavily bureaucratized nature of decision-making, and entrenched patterns of rent-seeking within key sectors.

Methodology

The assignment was undertaken in two phases: Phase 1 (horizontal PEA report and priority economic sector PEA profiles) and Phase 2 (further horizontal analysis and PEA profiles of additional economic sectors). Across both phases the task involved identifying key stakeholders and then understanding the role and power dynamics across these players spanning the selected priority sectors. This current report (Phase 2) adds further insight into the key findings determined during Phase 1 of the assignment

The analysis in this report is conducted at both the country/macro and sector-level. The political behavior of actors at both these levels is determined by their interests, ideology, and institutional and regulatory structures within which they operate or are bound by.

Sector-level analysis across both phases of this assignment was developed using primary and secondary data. A desk review was carried out for each sector, which collated key facts and figures on sector size, evolution, productivity, export history, employment trends, and value-addition. An accompanying literature and policy review was able to establish patterns of governmental regulation governing the sector.

To uncover political economy trends that often remain unreported in the policy literature, detailed semi-structured interviews were carried out with key informants in each sector. These included representatives of large and small firms, associational representatives, and in some cases, relevant government officials. The instrument utilized to guide interviews is attached as an appendix to the report. The narrative data from interviews was systematically analysed, in light of the desk-review, using stakeholder-influence alignment charts.

Cross Cutting Political Economy Analysis Summary

In the contemporary period, the political economy of private sector growth in Pakistan is conventionally characterized as elite-captured, patronage-based or clientelistic, and said to be marked by entrenched patterns of rent-seeking behaviour. Understanding this characterization involves exploring the structural and institutional determinants of state-economy relations, including how various forms of interactions have germinated and become path-dependent over time, the historical legacies that shape actor and/or group behaviour, and how the formal and informal institutional make-up of the political and economic sphere functions.

Melding together an analysis of institutional actors, societal groups, and historical and structural determinants can best be done through the political settlement approach. A political settlement, for the sake of this assignment, can be defined as a combination of interactions involving the aforementioned agents that produces a particular distribution of power, and a given set of consequences.

Key Findings (Horizontal): Power Relations

1. **Extensive State Involvement**: The main finding from the literature review highlights that the state – the permanent bureaucracy, the military, and elite politicians – exercise considerable influence over the form and direction of private sector economic activity. The degree to which the state exercises autonomy in its management of the economy remains contingent on the level of organization within the sub-sector, its centrality to fiscal and foreign exchange goals, and its degree of embeddedness within key decision-making actors[1]. This evidence of this is available within the sub-sector analysis, which shows government developing concessionary policies for the well-organized, politically-influential and fiscally-relevant spinning (textile) sector, as well as greater protection for the historically entrenched automobile manufacturing segment, often at the detriment of higher-value added sub-sectors. At the same time, nascent sectors like meat processing that are not embedded with decision-makers or considered to be important sources of government revenue, are regulated adversely (such as through price controls).

2. **Imprudent Macroeconomic Management Anchored in a Fragmented Rent-Seeking Landscape:** Nearly every major industrial and services sub-sector – either collectively or in the shape of individual firms - tries to retain cross-party relations in order to extract favours, navigate enforcements, and ensure protection from excessive predation. This is alongside

[1] For more on the rise of new groups and its impact on Pakistan's economic growth see: Ali Cheema, "State and Capital in Pakistan: The Changing Politics of Accumulation," in *Corporate Capitalism in Contemporary South Asia: Conventional Wisdoms and South Asian Realities*, ed. A M Reed (London: Palgrave, 2003), pp. 82 -110

other ascriptive factions (such as ethnic groups and local patron-client ties) which are also competing for public resources, and thus dictate the government's expenditure and revenue-generating priorities. The key power relational outcome is that the number of economic claim-makers within the political sphere has expanded, and the avenues of claim-making – afforded by the opening up of participatory politics in various periods that link politicians to the private sector – have also become enlarged. Depending on internal organization and other characteristics of the sector, state actors can be found either enforcing autonomous decisions or providing expenditure and subsidy concessions to influential private-sector actors. These lead to worsening economic fundamentals in the medium-term, thus perpetuating forced slowdowns of the economy and creating cyclical patterns of growth across sectors. To use an example, the over-valuation of the exchange rate between 2013-2017 that led to export weakening and a subsequent fiscal crisis, was pursued by a government that was closely reliant on importers and traders for its political support.

Key Findings (Horizontal): Barriers to Development

Our analysis reveals that there are certain overarching political economy dynamics in Pakistan that impact all aspects of economic activity. These include corruption and rent seeking; predation by higher and local level bureaucracies; insulated decision-making processes; and low levels of policy and administrative capacity.

1. **Corruption and Rent-Seeking:** The scale of rent-seeking and suppression of competition varies from sector-to-sector, but is usually made possible through the utilization of sector (and sometimes even firm-specific) Statutory Regulatory Orders (SROs) granting particular types of concessions or exceptions, the imposition of import tariffs and non-tariff barriers that hinder the emergence of downstream economic activity, administrative decisions preventing particular types of economic enterprise, and the provision of support prices and subsidies (as in the case of agricultural commodities and the energy generation). While such instruments have enabled economic vibrancy in other regional contexts, such as East Asia, their utility is contingent on the ability of the state to enforce conditionalities, rules and laws in isolation from private actors. That commensurate ability, while once present in Pakistan during the 1950s and 1960s, is no longer present due to increased institutional-factional conflict, a decline in state cohesion, and erosion in bureaucratic competence.

2. **Predation by the Bureaucracy:** In sub-sectors marked by unorganized small and medium-sized enterprises, the burden of unfavourable regulation and predation is often highest, as bureaucratic actors retain an unchecked power differential over the private sector. Such businesses often have to encounter high costs of compliance, as well as experience harassment by local state officials. Basic regulatory tasks such as registration of businesses with local authorities, renewal of licenses, clearance of goods at ports and borders, and submission of tax returns and payments, are characterized by bureaucratic rents ranging from small, everyday bribes to large-scale extortion. Over and above these issues, features such as price-capping in certain sub-sectors and other types of bureaucratic control also hinder the entry of new firms and prevent the growth of small and medium-sized enterprises.

3. **Insulated and Ad-Hoc Decision Making:** The persisting hold of the bureaucracy in economic policy formulation and implementation processes also lends itself to highly insulated decision-making, which either provides preferential treatment to the bureaucracy itself, or to particular favoured private sector actors, while generally excluding much of the private sector from substantive representation. This is made worse by political and bureaucratic instability, in which government priorities and human resources often shift to short-term rent distribution and attainment, leading to ad-hoc measures and no sustained commitment to a fixed policy regime that would rationalize business behaviour and generate sustained growth.

4. **Absence of Policy and Administrative Capacity:** Finally, the last overarching issue within the management of the economy is the general lack of capacity within government on key

technical issues pertaining to economic reform, and the refusal to provide space to technocratic expertise in key departments. Several exemplary cases of this can be found within the federal government, where generalist bureaucrats continue to occupy the senior-most technical offices in ministries such as finance, petroleum, energy, and planning and development, and in key regulatory and advisory positions. Combined with a general scepticism towards private economic activity as a whole, the retention of bureaucratic oversight and control are key hindrances towards sustained private sector-led growth. What contributes to the exacerbation of the problem in the contemporary era is that sections of the elite bureaucracy have been fairly adept at evading accountability and reform, through strong reactive collective action, exemplified by pen-down strikes, backdoor manoeuvring, and withholding information; and by making themselves indispensable for the achievement of political (rather than economic) objective, through their control over localized administrative structures that are used to direct patronage, and through their broader management of local/municipal spending. This ensures that each regime, civilian or military, has to rely on the bureaucracy for distributional purposes, leaving no space for bureaucratic reform or accountability.

5. **Associational Imbalances:** Finally, the close review of 10 priority sectors through the course of this assignment reveals associational imbalances as an important constraining variable in sectoral growth. Business associations, in coordination with constituent businesses and government priorities, can provide services that enable competitiveness and growth. This includes access to supply chains and markets, marketing instruments and strategies, scale-based cost savings, dispute resolution, and skills-upgradation. However, these are not visible in most sectoral associations in Pakistan. The reasons are multiple, but our analysis has narrowed it down to regulatory structures shaping trade organizations, which place no compulsion on bodies to be professionally governed and productive, and the distribution of sectoral size – a relatively small number of large firms leads to cartelization and rent-seeking as seen in the case of textiles and the automobile industry; while the prevalence of a large number of small firms leads to associational weakness, informalization, and the use of associations for reactive or selective rent-seeking purposes by status-seeking entrepreneurs. The latter is particularly visible in the case of livestock, horticulture, and pharmaceuticals.

The following table provides a summary of the nature of horizontal factors constraining sector growth performance across the 10 priority sectors analysed in Phase I and Phase II:

Table 1: Summary of the horizontal factors constraining sector growth performance

Sector	Macroeconomic Fiscal Mismanagement	Corruption and Rent-Seeking	State Predation	Insulated Decision-Making	Associational Imbalances
Livestock	■		■	■	
Garments	■			■	■
ICT	■			■	
Auto-parts	■	■			
Horticulture	■			■	■
Chemicals/Plastics	■	■	■		
Pharmaceuticals	■	■	■	■	■
Transport/Logistics	■			■	■
Bed Linen	■				■
E-Commerce	■			■	

Key Findings (Horizontal): Opportunities for Transformation

Based on the assessment of the sub-sectors and the overall country-level political economy, there are two key areas that provide immediate opportunities for transformation and can act as capable drivers of change:

1. **Government Commitment:** Since stepping into office in 2018, the current PTI-led government has repeatedly stated its commitment to reforming the economy, enhancing productivity, improving the business environment, and eradicating corruption. The fact that the government places a strong rhetorical focus on rules-based governance is a welcome step, one that is made more salient by its commitment to an export-led growth agenda. It has signalled its seriousness on this front by adopting a more flexible exchange-rate policy, granting increased operational and policy autonomy to the State Bank, and initiating efforts at broadening the tax base to historically evasive sectors (such as retail and wholesale trade) so as to reduce the quantum of trade-related taxes. It has also been able to harness considerable foreign-qualified and highly skilled human resource talent in key governmental and quasi-governmental roles, which would increase baseline policymaking and implementation capacity. If successful, these steps would go some way in improving the persisting issue of rule-defying factional behaviour within state-business relations, as well as low-levels of state capacity by making the bureaucracy more accountable and amenable to private-sector activity.

2. **Dynamic Entrepreneurship in New Sectors:** Outside of traditional manufacturing sectors, a fast urbanizing and educated population is also making its mark across a range of services-based economic activity through dynamic entrepreneurship, such as in telecommunications, finance and banking, and ICT-related activity. While the overall scale of such sectors may be small (in terms of labor absorption in particular), the growth of the start-up space, with fast-growing ventures in the technology sector, is a cause for optimism, and signals Pakistan's potential for harnessing growth and export potential through new trajectories.

3. **Pressures on Performance-Based Legitimacy:** More generally, the rise of an educated middle class, with its vocalized demand for accountability and improved governance, and its desire for a higher standard of living, will continue to act as conducive sources of pressure on the government to pursue the kind of reform required to make the economy grow on a sustained footing. In terms of size estimates, the middle class (broadly defined as those who can consume beyond necessities) in Pakistan is now estimated to be around 35% of the total population, and is the most rapidly urbanizing in the South Asia region, with its economic dependence on the manufacturing and services sector. This is a significant change in a country historically characterized as overwhelmingly rural and agrarian, and carries implications for how electoral accountability works and on what issues.

   Accompanying this transformation is the rise of new institutional channels of information dissemination and sharing, such as electronic and social media. The use of social and traditional media to channelize demands for improved governance (previously absent due to weak parties and the lack of systematic state-citizen conduits of communication) is demonstrating its impact on the policy space and accountability, with federal and provincial governments eager to showcase their commitment to development and growth in order to garner public support. This eagerness is also visible in the way party manifestos have shaped up for the last two (2013, 2018) general elections, with each political party showcasing flagship development and reform projects from the sub-national level.

Sub-Sector Summary: Livestock (Meat Processing and Export)

Sector Overview: Livestock is the largest sub-sector within the agriculture sector, accounting for around 60% of the value addition in agriculture. This sector also forms about 11.22% of Pakistan's GDP and contributes around 35-40% to the incomes of over 8 million rural households. The meat producing segment within the livestock sector is predominantly concentrated in the provinces of Punjab and Sindh. Although the country is estimated to have the 10th largest cattle population in

the world with around 198 million live animals, its share in world trade remains miniscule. Pakistan is a net importer of live animals, with imports in this category amounting to US$ 33.95 million in FY 2018-19, and a net exporter of meat and edible meat offal, with exports valued at US$ 242.816 million in the same financial year.

Key players: Government players including, the Ministry of Food Security and Research and Provincial Ministries of Livestock and Fisheries, and industry associations as well as private sector players such as the National Agriculture Research Council (NARC), Pakistan Agriculture and Meat Company (PAMCO), Pakistan National Accreditation Council (PNAC), Livestock Exporters Association of Pakistan (LEAP), All Pakistan Meat Exporters and Processors Association (APMEPA), Pakistan Agricultural and Dairy Farmers Association (PADFA) and the Livestock and Farmers Breeder Association (LFBA), play a huge role in regulating and promoting the livestock sector in Pakistan.

Key Findings: Power Relations (Livestock)

1. **Poor Representation at the Producer Stage:** The livestock sector is marked by large-scale fragmentation with small producers/breeders dominated the landscape. Existing organizations formed to represent farmer interests are organizationally shallow, dominated by politically influential large farmers, and vehicles for status and rent attainment, especially through ties with the livestock extension and agricultural marketing system. Pakistan Agriculture and Dairy Farmers Association (PADFA), for example, is based out of Faisalabad and is closely associated with the family of a prominent politician in Punjab, Afzal Sahi, who has previously served as the speaker of the Punjab provincial legislature. Three of his immediate family members have served as Chairpersons or General Secretary of the organization. Similarly Livestock Farmers and Breeders Association (LFBA), established in 2006, is run by a board of 12 directors, of which four are active in provincial and national politics. The organization has no presence outside of the province of Punjab.

2. **Large Power Differentials in Rural Livestock Trading:** The political economy dynamic of rural wholesale markets is largely dominated by localized trading magnates (known as *arhtis*), who provide credit-lines to livestock farmers (in the form of feed, fertilizer, medical care for animals). These traders also have political protection, due to their role in local election financing and mobilizing peri-urban and rural vote blocs - along with vertical integration with downstream markets, thus allowing them to manipulate prices within localized settings. One example of such manipulation is to go on a 'buyers strike' (known as a "No Purchase" in local parlance) till the rate of the live animals goes down as cost of transportation is too high for the breeder/farmer to take the animal back. This also reduces the incentive for breeders to invest in improving livestock quality, as the current operational dynamics of the market keep producer returns quite low, while ensuring higher margins for middle-men/wholesalers.

3. **Value-Chain Conflicts in Formal Livestock Activity:** Organizations representing livestock traders (such as LEAP) and meat processors (APMEPA) carry conflictual relations, due to different incentives arising from their association with different business segments within the sector. Key arenas of contention include modalities of livestock trade, the issue of export and import of live animals, and enforcing traceability, certification and grading standards, and forms of government support. Larger integrated firms within the processing sector, such as Saifi Group and Al-Shaheer Group, are said to retain direct relations with key regulatory institutions, such as FBR and the State Bank of Pakistan in order to facilitate their business. There is very little industry-wide action, except on regulatory and taxation related matters. Given the disparity in terms of firm size and influence between major exporters and small (and largely informal) firms connected to the domestic market, industry-wide action is seen to be unlikely in the future as well. The persistence of such conflict through the value-chain also reduces the likelihood of any collective action emerging that would help in enforcing certified standards on quality of meat, traceability, and disease prevention.

Key Findings: Barriers to Development (Livestock)

1. **Power imbalances in traditional/rural livestock markets:** The manipulation of markets that often operate as monopsonies disincentivize greater investment in the breeding and production processes of livestock. Seller margins are kept purposefully low, while buyers' strikes are common in order to reduce animal prices. Many major rural livestock traders are politically and socially connected, which is why they are able to subvert existing regulations around market management and transparency. The still-prevalent practice of assessing price on the basis of per head animal (rather than live weight) is a legacy of this power imbalance, which limits the incentives available to farmers to improve quality.

2. **Government's Pricing Regime:** Beef and Mutton continue to be subjected to price regulations through the Price Control and Prevention of Profiteering and Hoarding Act, 1977. Such measures are designed to protect and prioritize urban consumers from fluctuations in prices, but in effect, they create a chain of disincentives within the meat production value chain. The imposition of fines and enforcement of the act itself remains uneven, while the determination of price varies from locality to locality (with multiple prices being determined by government-sponsored market committees even within one district, often on political and rent-seeking grounds). A shift towards market prices would realign incentives for rural producers, and also create incentives for greater investment certification and standards, as well as enlarge the market for brand-name retail for meat.

3. **Government Indifference**: The under-resourcing of livestock departments, the AQD, public-sector veterinary institutions are all examples of no clear or coherent policy towards the livestock sector, and in particular towards its non-dairy component. Despite meat exports fetching upwards of $200 million in the preceding fiscal year, the government still has no actionable plan to improve farm-to-table traceability, encourage feedlotting, and grow reared-for-meat investments that can operate at scale. The most pressing areas that need attention are breeding, quality control and health and halal certification, meat grading, and improvements in public and private slaughterhouse infrastructure.

4. **Corruption and leakages Customs and Sales Tax Enforcement:** FBR, which manages both the sales tax as well as customs regime around the livestock sector, has repeatedly been mentioned as a hurdle, especially for formal firms operating in the export space. The issue of sales tax refunds and smuggling of live animals at overland border crossings has also been raised as an issue by domestic meat processors and other associated sectors. Live animal exports, in particular, limit the supply available to the higher-value added domestic meat processing and exporting segments.

5. **Ineffective Associations:** Existing industry associations representing livestock farmers and breeders are particularly ineffective, which is partly an outcome of the structural fragmentation and scale of the sector. However, those organizations that do exist are dominated by large breeders (who are also often wholesalers) and are patronized by local government departments due to political and social relations. They are able to access subsidized veterinary care and other extension services and make little effort to improve the outreach of their organizations. This lack of effective representation is a major reason for the continued absence of traceability in the value chain and the failure of eradicating livestock diseases.

Key Findings: Opportunities for Transformation (Livestock)

1. **Changing Consumer Preferences in the Domestic Market:** Industry entrepreneurs suggest that domestic consumers are becoming more conscious of the quality and hygiene of meat products and are willing to pay a higher amount to bypass the traditional butcher system. This provides large firms who engage in meat processing and branded retail with an opportunity to cater to this demand. This trend is going to increase with increases in urbanization, disposable incomes, and the growth of a consumer-oriented, branded meat industry. Another key market

that is growing is local catering and restaurant businesses who are also becoming more aware about the use of higher-quality meat in their industry. It remains to be seen, however, whether this rising demand can incentivize the adoption of meat grading and hygiene standards across the entire supply chain, which are currently absent due to price-controls, lack of industry-wide collective action, and the government's indifference towards the sector.

2. **Export orientation within the Government:** The PTI-led government has repeatedly stated its desire to enhance exports from Pakistan, with halal certified meat exports being mentioned on several occasions by key government officials. The large halal meat market (estimated to be above $700 billion) provides a major opportunity for domestic entrepreneurs, which needs to be enabled by the government by making the Halal Certification Authority of the Ministry of Science and Technology to be more effective and better-resourced at the federal level.

Sub-Sector Summary: Readymade Garments

Sector Overview: The garments sector, consisting of knitwear (HS61) and woven (HS62), has the highest value addition in the textile industry and is the main revenue earner amongst textile products. It contributes around 8.5% to Pakistan's GDP and employs around 40% of the industrial labor force. Moreover, Pakistan is the 15th and 16th largest exporter of knitwear and woven garments in the world, respectively. In 2018, knitwear garment exports were valued at $2.86 billion and exports of woven garments stood at $2.58 billion. Furthermore, Pakistan's garments industry is clustered in Lahore, Sialkot and Faisalabad in the North, and Karachi in the South. The sector is also concentrated with a few large businesses which account for the greatest proportion of exports; around 10% of the businesses in the garments sector account for 90% of exports. This sector is also the most labor-intensive, least energy- and capital-intensive. A recent textile policy draft aims to increase Pakistan's textile exports target to $25.3 billion by 2025 and $50 billion by 2030, which highlights the immense export potential that the sector has to offer.

Within the textile value chain, the garments segment adds the highest value of about $20- 25/ kg of fabric. However, the sector encounters several barriers to development due to low quality of local raw materials in the initial stages. Cotton contamination and import duties on man-made fibres prevent garment manufacturers to export high quality raw materials and diversify their product categories.

Key players: The top apparel suppliers in Pakistan include Nishat Mills, Sapphire Group, Artistic Fabric, US Apparel, Mahmood Group, Gul Ahmed, Interloop, Masood Textile Mills, Klash Private Ltd. and Comfort Knitwear. In addition to this public sector players, including the Ministry of Commerce, and key industry associations, such as Pakistan Readymade Garments Manufacturers Exporters Association (PRGMEA), All Pakistan Textile Mill Association (APTMA) and Pakistan Hosiery Manufacturers & Exporters Association (PHMA) have vested interests in improving the business climate and export potential of this sector.

Key Findings: Power Relations (Readymade Garments)

1. **Political Dominance of Spinning over Garments:** The entrenched lobby of APTMA, which is led by spinners, continues to influence the government sector as these players use their wealth and political influence. APTMA over the years has been led by groups of major players and is dominated by large firms. APTMA members while proclaiming to only export, sell their products locally and hence, have used the zero-rate tax regime to enjoy benefits for goods they sell locally. The two garments associations, PRGMEA and PHMA comprise of mostly SMEs as members. Their membership is in thousands, but many firms have shut down. Yet they continue to be part of the association. These associations have been traditionally overshadowed by APTMA, as their lobby has been weaker. This dominance can be seen in negotiations with the government in issues such as energy rates which have greater impact on spinners than garments manufacturers.

2. **Internal Conflicts within the Garments Sector:** The bigger firms in the garments associations do not want to be part of the leadership. This is particularly the case for PRGMEA. Members of the associations also criticize the leadership for lack of vision, which would propel the role of associations to be stronger than its current role. In their opinion, associations are reactive in nature, instead of proactive in dialogue with the government. Their roles are more administrative, instead of action oriented, in terms of support for their members. Most notably, PHMA has seen internal clashes that impact its effectiveness as an association. This clash exists between the north and south zone. The south zone has bigger players than the north, so they do not let the smaller firms come to the forefront. These internal conflicts weaken the strength of the associations and consequently their lobbying efforts with the government.

Key Findings: Barriers to Development (Garments)

1. **Input quality and access**: One barrier to development in the initial stages is the quality of raw material used by Pakistani firms. Pakistan has a comparative advantage in garments because of cotton, which is produced abundantly and cheap labour. However, due to ineffective implementation of regulation such as the Seed (amendment) Act of 2015, the quality of cotton has been falling. Cotton is contaminated while picking and storing, as farmers are unaware of local standards and there is difficulty in enforcement as many growers are not registered, which means garments firms have to import this basic input too. This low quality is particularly apparent when Pakistani cotton is used in white or light coloured garments.

2. **Taxation and Refunds:** One of the biggest concerns that the industry has constantly raised to the government is the issue of sales tax refund. The Pakistan Tehreek-e-Insaf (PTI) government – as part of its structural reform agenda to lower the fiscal deficit ended the zero-rated industry subsidy, which exempted key stages of the exporting textile value chain from taxation, in June 2019. The sales tax rate has been restored to the standard 17% for exporters as well. However, the government promises to release tax refunds to exporters quickly so that it does not affect their liquidity. It has automated its system for this purpose. Yet, the industry claims that the FBR continues to keep refunds and process them slowly, as it boosts their revenues. The industry has demanded that exporters should not be taxed if the government cannot return the funds. The delay in fund release, in turn, is linked to the government's persisting inability and unwillingness to expand its tax base by taking on undocumented sectors and cutting back exemptions, instead of shaking off its reliance on taxes collected from the largely documented manufacturing enterprises.

3. **Energy tariffs**: Recently firms have raised the issue of the cost of energy as countries like Bangladesh and Vietnam are working with subsidized rates. APTMA has pushed for low energy rates particularly because energy costs for spinners are higher. In a recent SRO notified in January 2019, the price of electricity for the five export oriented sectors which includes textiles was reduced to 7.5 cents/kWh, making Pakistan competitive with Bangladesh and Vietnam. However, the Ministry for Energy has instructed DISCOs to charge add-ons in addition to this rate, making the cost as high as 13 cents. APTMA has expressed serious concern over this violation of the SRO notified and has asked the Ministry of Commerce to implement it correctly[2]. While energy is an important concern for the garments sector, other critical concerns such as product diversification through the use of new MMF materials get sidelined in discussions with the government, as these basic cost issues remain unresolved.

4. **Lack of Government Commitment on Industrial Zones**: The most prominent example of this barrier is of the Quaid-e-Azam Apparel Park (QAAP), which was an initiative, by the Punjab Government to have a specially designed park for the garments sector, for which

[2] Mushtaq Ghumman, "Power Tariff: Move Aimed at Charging All Add-Ons Irks APTMA," *Business Recorder*, January 16, 2020, https://www.brecorder.com/2020/01/16/562165/power-tariff-move-aimed-at-charging-all-add-ons-irks-aptma/)

planning started in 2013. The land was earmarked with consultation with the private sector. The Park aimed to provide space for over a 100 garment manufacturers and 134 SMEs including accessories suppliers. It was also declared as a SEZ. However, currently the QAAP is not yet open for firms. While some firms have been eager to buy land in QAAP, others find that the proposed plans are not realistic such as uninterrupted supply of energy. For SMEs, the cost of relocation seems high if the promised supply of skilled labour is not available. The Park aimed to lower the costs for SMEs through tax holidays and by training labour via its in house vocational institute. Recently, lobbying by a powerful group has resulted in the Apparel Park to be now considered as an estate open to all industries. The garments industry did not have the power to oppose this lobby.

Limited market access: Due to Pakistan's foreign relations, its affected image vis a vis security concerns and reputation of political instability, big clients are careful when investing in Pakistan. Some of the major brands have a cap on the amount of orders they will take from Pakistan as a risk mitigation strategy. When clients either do not want to visit Pakistan due to security concerns or have difficulty in getting a visa, it further limits expansion of orders Pakistani firms can place. This political economy limitation creates an additional challenge for garments firms in Pakistan. Foreign relations also impact imports from India that provides the cheapest option for man-made fibre. However, since these items fall on India's Negative List for Pakistan and cannot be traded with Pakistan, Pakistan cannot import from India. This plays into the larger political economy of poor trade relations with India and Pakistan's inability to let economics trump political concerns. Furthermore, when Pakistan imports from China, it is unable to avail the concession under GSP Plus, as under its rules, it must import raw material from Group III countries, which includes India, Bangladesh, Sri Lanka, Bhutan and Nepal[3]. Hence, Pakistan is once again unable to take advantage of trade with its immediate neighbour i.e. India.

5. **Inefficiencies in Customs**: Another barrier to development comes at the last stage of the production chain, which is the custom procedure that continues to affect firms' delivery of the product. Shipments are delayed due to checking by the Anti-Narcotic Force (ANF). They take time to check shipments and sometimes open packages, which damages the products. This harms the reputation of firms in front of their clients and also leads to use of emergency air shipment, which is costly. While these are simple changes that need to be made to help firms, the ANF refuses to change their methods as they emphasize on the importance of security over delayed shipments. This is linked to the broader political economy of Pakistan, as the country has a high security concern and therefore, law enforcement agencies have a lot of power. ANF's power, due to the precedence of security over economic concerns cannot be challenged.

Key Findings: Opportunities for Transformation (Garments)

1. **Improved Cooperation among Garments Firms:** There is some indication that the various associations representing the readymade garments sector are attempting to address the power imbalance vis-a-vis other segments by cooperating extensively on policy and regulatory matters such as easing import of man-made fibre. There is also a growing inclination among firms that one apex association may be required to counteract the influence of APTMA on government policy.

2. **Improved Support from the Government:** A draft of the Pakistan Textile Policy for 2020-25 has also been prepared for the ECC (Economic Coordination Committee) for approval. A textile taskforce was formed for this purpose that includes big players from the private sector such as Crescent, Soorty, Style Textile, Gul Ahmed, Sapphire and Interloop. Therefore, the recommendations for the new policy are more private sector driven than previous policies. This recent textile policy draft aims to increase Pakistan's textile exports target to $25.3 billion

[3] Khawar et al.

by 2025 and $50 billion by 2030, as well as devise a clear roadmap for the achievement of these targets.

Sub-Sector Summary: Information Communication Technology (ICT)

Sector overview: The ICT sector has emerged as one of the fastest growing services industry in Pakistan and among the top five net exporters. By 2019 ICT exports formed 4.25% of total exports[4] and reached a billion dollars for the first time in 2018. Overall exports are estimated to be higher at around $2.5 billion, including SME exports of $1 billion and by freelancers at $0.5 billion. More than half of ICT exports go to the United States ($563 million in 2018), followed by the United Arab Emirates ($91 million).[5]

There is slow but consistent growth along the full spectrum of the value chain which includes software development (57.8% of all ICT exports), business process outsourcing (both high end and low end at 7.23%) and knowledge process outsourcing (23.78%) in addition to vertical services that include complex/specialised input to specific industries (11.19%). A few notable, but only a handful of, firms (such as ARBI soft, 7Vals and BPL, Netsol, Systems and Techlogix) have gone beyond body-shopping – i.e. firms recruiting workers out on short to mid-term basis such as call centers –towards high value-added, innovative products or technology.

The industry has a few large firms with many smaller firms spread mainly across the urban centers. The State Bank reports at least 3,228 exporting firms with 56 exporting over $2 million and above. The highest value-added service exports are derived from a dozen large companies, most with over ten years of market experience and substantial business ties with the United States.

Overall, the sector is not capital but labour/knowledge intensive. The estimates of employment in this sector vary from around 120,000 to 300,000 IT professionals across Pakistan[6] with around 1-1.5 million freelancers.

Key players: The key players in the sector include the private sector mainly dominated by a few large firms and several SMEs and freelancers. Key policy/regulatory players specific to the industry include a Ministry of Information, Technology and Telecommunication (MoIIT), Pakistan Software Export Board (PSEB), Provincial IT Departments/Boards, National Incubation board, IGNITE (technology fund), IT parks. Other regulatory players include Trade Development Authority of Pakistan, Boards of Investment and Trade, and Higher Education Commission. Key private sector players include P@SHA (Pakistan Software Houses Association), several incubators and accelerators (with many government-supported as well) and technology institutes such as FAST, LUMS, UET etc.

Key Findings: Power Relations (ICT)

1. **Diffusion of responsibility:** The government is promoting the sector through multiple forums such as provincial IT boards, federal and provincial trade bodies and special platforms like the federal task force on IT and the recently launched Digital Pakistan campaign. This has important implications. The sector is attracting interest from several cross-cutting government players wanting to claim a stake in the sector's success. For example, TDAP has started engaging directly with the sole sector association P@SHA and supporting firms with resources that the government-operated Pakistan Software Export Board (PSEB) never had. On the flip side, too many players have made it difficult to gauge who holds the real power across government, creating overlap and diffusion of responsibility. Moreover, implementation of promised reforms remains weak. Government lacking capacity expects the private sector to provide support to put policies into action even in basic tasks like formulating PC-1s.

[4] "Trade in Services - State Bank of Pakistan," 2018
[5] P@SHA, 2018, https://www.pasha.org.pk/
[6] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services).*

2. **Public Sector Overreach**: IT firms view PSEB as a defunct/ irrelevant public sector organisation, providing an additional layer of bureaucratic red tape to business processes. PSEB cannot challenge government policies, take a stand for firms in front of senior politicians, ministers and bureaucrats or represent the private sector fairly. Its role as a representative of the industry is significantly curtailed and is merely administrative with no engagement in policymaking or research. Firms consider the annual fee charged by PSEB as an indirect tax, a form of rent-seeking which firms pay to register to avail tax holidays and other fiscal incentives. PSEB often competes with P@SHA on the size of its membership, knowing well that firms are mandated to register with PSEB, not P@SHA, to avail industry-wide incentives. For the past 2.5 years PSEB has not had a full time Managing Director. In five years, it only organized six outbound trade delegations to target markets, supporting an average of eight companies per year, i.e. less than 3% of its members. Following a regularisation of its workforce, PSEB has also lost dynamism that came with an evolving team. P@SHA on the other hand has an oversubscribed board with a revolving leadership.

3. **Skewed Representation:** While P@SHA is very active and plays a key role in impacting the policy environment, it is not always able to represent all its stakeholders equally well. It is more aggressive in pushing demands of smaller players whenever led by a chairperson belonging to an SME. Representatives of larger companies generally hold back such demands as they remain beneficiaries of the status quo. This also links to the more general point that overall representation of SMEs (not just in the IT sector) is weak in Pakistan. Some attempts, led mostly by larger companies, have been made to make parallel structures for SMEs in the ICT sector but none have materialized. SMEs remain constrained in terms of access to finance, foreign market and skilled workforce. High risk firms (mostly medium sized) are not encouraged, impacting Pakistan's participation in the value chain which remains in low-end products and services (point discussed below).

Key Findings: Barriers to Development (ICT)

1. **Intra-sector Culture:** A key reason holding the IT sector back is the overall culture perpetuated by a non-supportive ecosystem (a result of the power dynamics and public sector overreach discussed earlier and in detail in the sector report). Firms constantly restrict information flows that could benefit the industry, limiting positive spillovers and preventing the sector from growing organically. Collaboration between firms is limited, they cooperate only when they know each other and avoid bidding for the same projects. According to industry experts, firm growth has relied mainly on firm/individual level efforts and strong business linkages with Pakistani Americans overseas without special support from the government. Without such support in providing access to the global market, competition for such contacts remains intense. The lack of collaboration is also fuelled by local market constraints such as limited supply of skilled labor. When companies collaborate, they get exposed to each other's teams and can poach team members with such labor practices creating mistrust between firms.

2. **Weak understanding of industry demands:** Firms often feel frustrated when the government fails to recognise the diversity of the sector and their specific needs. MoIIT is only able to support the most common requirements of the different companies. The government machinery lacks specialized technical input to understand and respond to the needs of the sector. Most secretaries appointed at the Ministry are generalists with a vague understanding of the sector needs. The private sector is often relying on champions beyond the ministry to lead reforms.

3. **Labour Market Issues:** The ICT industry is highly skill and knowledge intensive. In Pakistan, unlike in India, only a handful of the thousands of graduates have the skills to meet the demands of the ICT industry. The overall structure of education does not cater to even the most basic demands of the industry. For example, no Pakistani university offers training in

games and animation even though the gaming industry has great potential for exports. In addition to specific IT skills, the workforce lacks creativity in developing innovative business models. Resultantly, firms are expected to create skills that do not exist amongst the workforce. Firms especially engaged in product development face in addition to a product risk (i.e. whether they have the right product fit in the market) an execution risk which is due to inadequate skills. When the entire spectrum of skills is not available locally, the return on investment is also accrued overseas. This also reinforces Pakistan's role in the global value chain. At the same time due to the difficulty in acquiring domain specialists poaching remains common.

4. **High risk professionals/firms not encouraged:** Mid-career professionals/firms have a higher chance of succeeding as they have experience, can adapt to changing circumstances and market demands and are more experimental/innovative in their approach. Yet, the ICT landscape in Pakistan is dominated by either very small or very large players. Most incubators/accelerators are targeting only young entrepreneurs while other sources of local funding are geared more towards well established businesses which are typically less risky. The mid-sized firms are not provided the space to grow. Lastly, in this era of investigations around corruption, overactive NAB, government employees are generally reluctant to spearhead innovative reforms.

5. **A Rising Freelance Industry:** While Pakistan has a thriving freelance industry, its contribution to growth is unclear. The large number of freelancers do not imply value added growth or higher export earnings as Pakistan occupies just $1 billion of the $250 billion global freelancing market. Yet the relentless rise in numbers points towards the inability of the industry to absorb all this talent. Freelancers have limited growth opportunities unless the surrounding ecosystem allows them to become part of the formal economy. Freelancers also create a void in the industry as firms lose out on the opportunity to learn from their experience unless they embed themselves within larger firms. By encouraging high-end freelancing (those earning more than $30k a year), the government is keeping the talent away from the mainstream industry.

6. **Inadequate Data Security and Infrastructure:** The internet has to provide channels for secure, reliable, private, communication which can be mutually trusted. While Pakistan's bandwidth for wired and wireless systems is reasonable by international standards, the quality of service remains low. International connectivity through submarine fiber optic cable is frequently disrupted due to ship anchors and shark bites. A recent study[7] ranks Pakistan seventh among countries having the worst cyber security. This becomes embarrassing for Pakistani firms. While MoIIT has drafted a bill on "Personal Data Protection Bill 2018", it is yet to be enforced.

7. **Domestic Standard Setting:** The software industry is not heavily regulated in terms of domestic standard setting. The multidisciplinary nature of production of ICT products and services makes it difficult to establish standards for quality of output, unless the service is provided, or product is developed for a niche industry where good/service has to comply with industry specific standards. However, the private sector is pressuring the government to develop local standards for various activities under the ICT industry. Again, the government lacks expertise to do so.

8. **Lack of funding:** Despite recent investments by Chinese companies, a proliferation of incubators, accelerators, start-up competitions, and conferences over the past decade, along with entry of a few notable venture capital firms, the capital raised by Pakistan is small in comparison to other players in the region. The issue is two-fold: regulations make it

[7] The study collected data from various sources including Kaspersky, Global Security Index (ITU) and the Global Strategies Index; Rebecca Moody, "Which Countries Have the Worst (and Best) Cybersecurity?," Comparitech, February 6, 2019, https://www.comparitech.com/blog/vpn-privacy/cybersecurity-by-country/)

cumbersome to set up a fund inside Pakistan; regulations make it hard to get money out of the country. Global VC investors find the process of investing, having shares issued and registered riddled with red tape. Due to over-regulation investment funds choose to operate from outside of Pakistan.

9. **Lack of a Payment Mechanism:** A key component of the business environment pertaining especially to the IT sector is the ease with which international payments can be made. Pakistan lacks an overall ecosystem to motivate a company like PayPal to enter the market. PayPal would have to pay the SBP-mandated $2 million license fee if it wanted to operate in Pakistan and even after earning between 2% to 3% on transactions, a $100 million transaction a year would not justify this license fee. The interbank dollar rate is significantly different from the open market rates to receive payments. Pakistan's weak standing in FATF also makes international transactions difficult. Overall, the choice of clients available to work with local start-ups and freelancers is restricted due to lack of a recognised payment gateway.

Key Findings: Opportunities for Transformation (ICT)

1. **Improved Governmental Focus on ICT:** A positive development for this sector has been renewed commitment by the government to reforming this sector, despite a political transition following the 2018 elections. The private sector views retention of the Ministry of Information Technology (MoIIT) as a major win. Presence of a ministry matters significantly in the government bureaucracy. It may not understand the dynamics of the sector, but it does recognize its economic potential providing the sector multiple platforms to engage with policymakers. Key reforms by the current and previous government are in the detailed sector report.

2. **Pakistan's Position in the value chain:** This is being held back by two key constraints, one is a lack of adequate skilled labor and second is the country's risk profile. Foreign clients refrain from outsourcing services to Pakistan that require frequent interaction and have an innovative component. However, restrictive visa regimes are being altered, travel advisories are being updated while foreign investment eased. All of this will provide an opportunity for Pakistan to engage in product development and high-end service provision reliant on deeper engagement with clients.

3. **Building the domestic market:** A vibrant domestic market for various software niches will give firms an opportunity to develop their expertise locally before serving global markets. A limited domestic market for IT products in various economic domains limits innovation. Access to and proximity to a market is essential to understanding the needs of the end users and reacting quickly to their demands, allowing firms to shift to more domain-specific value-added work.

4. **Government to open up procurement for the private sector:** Chinese government routinely facilitates young entrepreneurs to grow within state-dominated industries, enabling them to land government contracts and fast track. Pakistan's government can achieve something comparable by channelling local entrepreneurs into industries it fully or partially controls, such as defence, healthcare, ports, oil and gas, education and governance. Some big successes can be seeded on their back, making international venture capital sit up and take notice.

5. **Special Economic Zones for the IT sector:** SEZs, unlike parks, can be a quick fix to problems such as lack of supportive infrastructure, adequate security, safe and secure connectivity and effective implementation of laws/incentives such as tax breaks or cash backs etc. This will protect the industry from over regulation and interference by NAB and tax authorities and also help address lack of harmony between federal and provincial laws following the 18th amendment.

6. **Conforming to a central/overarching policy:** There is a need to converge to a central policy document, with timelines that stakeholders can conform to and avoid overlap. The Digital Policy recently announced can be supplemented with a plan of action, with short to medium to long term plans on how the core set of objectives can be achieved and assigning responsibilities to the various stakeholders/authorities.

7. **Improving supply of skilled labour:** While most solutions are long-term, some quick solutions exist. The ICT industry can introduce specialized standardized tests before recruiting, linking scores to universities to allow for self-correction. Pakistan can create innovation clusters in areas where industries and universities can come together to form specialized research hubs. Lastly, HEC remains the only government education structure with the outreach and capacity to undertake a countrywide overhaul of ICT education. Engagement with private academic institutions will not have impact on scale needed to propel the sector.

Sub-Sector Summary: Automobile Spare Parts

Sector Overview: The auto parts sector is a downstream segment of the automobile industry and contributes about 2.3% to Pakistan's GDP. This sector serves both the Original Equipment Manufacturer (OEM) and the replacement market segments. Pakistan is a net importer of auto parts, with imports and exports amounting to $344 million and $18 million in 2018, respectively. The sector mainly relies on imports, as only 4% of the auto-parts manufactured in Pakistan are exported. The major auto parts cluster is located in Lahore and its adjoining areas, which include more than 50% of Pakistan's informal establishments and mainly produces auto parts for tractors and motorcycles. There are 2,283 auto part units in Pakistan, and more than 1100 of these manufacturers generate direct employment for around 500,000 individuals, and indirectly create about 2.4 million jobs in the country.

The current capability of the auto parts industry is limited to the first two tiers in its supply chain, which only involve producing parts that conform to both local and international standards.[8] However, the local industry is not able to develop parts that can substitute imports and create as well as develop new parts, limiting the industry's overall export potential.

Key Players: The top auto parts manufacturers in Pakistan include Thermosole Ltd., Techman Engineering, Hawks Engineering Works, Lal Din Engineering, Metaline Industries Ltd., Omega Industries Pvt. Ltd., Infinity Engineering & School of Engineering, and National Automotive Company. Moreover, industry Associations such as Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM), Pakistan Automotive Manufacturers Association (PAMA), and Association of Pakistan Motorcycle Assemblers (APMA) also play a major role in the promotion and development of this sector.

Key Findings: Power Relations (Auto parts)

1. **Dominance of Automotive Industry:** The auto-parts industry cannot operate outside the boundaries set by the automotive industry. Thus, the business and competition strategy of the vehicle manufacturers determine the state of the auto-parts industry. The auto-parts industry saw major growth during the period of mandatory deletion, as vehicle manufacturers had no choice other than to invest locally and develop indigenous capabilities. All large auto-part producers/manufacturers today are the ones that were linked to producing parts for the main vehicle manufacturers. The OEM (vehicle manufacturers) lobby has been able to influence the policy environment significantly that has allowed substantial protection and resulting limited capabilities within the local industry - the auto part manufacturers are bound by contractual limitations especially on entering export markets. The OEMs report close to 70% deletion, however, that is in terms of volume of parts and not the value of parts. Most of the

[8] The capability in auto-parts in classified in 4-tires; tier 1: Auto-parts manufacturing capacity local standards; tier 2: auto-parts manufacturing international standards; tier 3: replacing imports with local content; tier 4: creating new products. Pakistan currently only has capabilities for tier 1 and tier 2 products.

engineering and engine parts that are of higher value are still imported. The OEMs control the flow of knowledge and capacity as design and engineering capabilities to self-design parts does not exist - to enter into the export market the industry needs capability to self-design parts which require a complete dies and mould value chain and skill set in place.

2. **Restrictions on Auto-Parts Manufacturers:** The large auto-part manufacturers are those that are linked with the major vehicle manufacturers. However, these auto-parts manufacturers are bound by strong licensing requirements and terms and conditions that hold them to tightly worded contracts. For example, these manufacturers are unable to export as they are only allowed to produce for local OEM facilities. Similarly, they are required to purchase imported parts to fit into their production only from designated factories allowed by the OEMs. They are unable to conduct their own research and development. These acts have reportedly resulted in vehicles being sold at higher prices to Pakistani consumers- the competition commission has on occasions issued notices to these major players in the industry on anti-competitive behavior. Thus, opening up the export market space is essential to improve quality and variety.

Key Findings: Barriers to Development (Auto-Parts)

1. **Weak Industry Representation:** PAAPAM is an elected body and therefore has a political nature and has a tendency to create like-minded groups, thereby limiting the sharing of opportunities and information. For example, some members of PAAPAM have signed MOUs with the Chinese to self-develop parts, however, the opportunities are not freely shared, in fact Punjab government under the Cluster Development Initiative is trying to bring three Chinese auto parts dies and mold manufacturers to establish B2B partnerships - this has faced hurdles by PAAPAM. There is also the issue of large, OEM-connected firms to retain control of PAAPAM, excluding small and medium sized enterprises from consultation and industry-specific opportunities.

2. **Persisting Supply Chain gaps:** The manufacturing process of an auto-part has to be designed first (this require R&D capability and reverse engineering and material engineering), then it will require design development of dies and molds, then manufacturing of molds, trying them out, setting the molds up and then maintenance of the mold. Current capability of Pakistani industry is limited to the first two tiers and the local industry at the moment is not able to develop parts that can substitute imported parts and also not in opposition to create and develop new parts. If the industry is not able to develop new parts, it will always have to work under licenses and export potential will be limited and dependent upon the allowances provided by the OEM. There is a case of market failure where knowledge and research required and the technology required is not available and therefore facilitation is required to address the gaps.

3. **Technological Lag:** The current phase is witnessing a structural change in the global auto industry, with fuel base changing from traditional engines to electric cars. This has encouraged large technology giants to jump into the auto industry and they have already started developing machine-based AI electric vehicles. This is posing a substantial challenge to the traditional auto manufacturers who after so many decades face a stronger competition with companies that are way ahead of them in research and development. Some local companies have started to work on newer technologies, however, there is a need to address the market failure is research and development and policy failure to attract partnerships.

Key Findings: Opportunities for Transformation (Auto-Parts)

1. **New Auto Policy 2017:** Under the Auto-policy of 2017, Pakistan offered significant incentives for new OEMs to start operations in Pakistan. This has resulted in significant interest - European and Chinese auto manufacturers have committed to invest in Pakistan, with at least 16 firms applying for greenfield and brownfield status. This is expected to result in increased

demand for parts locally both for primary supply and for the secondary market, especially once the mandatory localization thresholds kick in within the next 3 to 4 years. However, the policy allows import of CBUs initially to test out the market demand and preferences, there has to be s strong monitoring associated with the implementation of the policy to eliminate chances of companies just cashing out by selling initial CBUs imported and then leaving the markets. Those who are able to find a good market must be tied to making such investments.

Sub-Sector Summary: Horticulture – Citrus and Mango

Sector Overview: Considering the suitable agro-climatic conditions in Pakistan, the horticulture sector has a lot of growth potential in the country. Around 6% of the total cultivated area in Pakistan is devoted to the production of horticultural crops, whereas citrus fruits and mangoes account for the largest area devoted to fruit production in the country, spanning across 183,849 hectares and 167,899 hectares, respectively. Citrus also has the highest production in the fruit category, amounting to around 2.3 million tonnes in FY 2017-18; around 17% of the total production was exported. Similarly, around 1.7 million tonnes of mangoes were produced in Pakistan during FY 2017-18 and about 5-7% of the total production was exported. Hence, the country is a net exporter of both citrus fruits and mango, with exports valued around US$ 177 million and US$ 73 million, respectively. Moreover, production of both citrus and mangoes is concentrated in the province of Punjab, with around 2.2 million tonnes of citrus and 1.3 million tonnes of mangoes produced in the province during FY 2017-18.

Key players: These include the Ministry of National Food Security & Research, Pakistan Horticulture Development Export Company (PHDEC), Pakistan Agricultural Research Council (PARC), Citrus Research Institute Sargodha, Mango Research Institute Multan, Punjab Agri-marketing Company, Kinnow Growers Association and Mango Growers Association

Key Findings: Power Relations (Horticulture)

1. **Prevalence of a Level-Playing Producers Field:** The horticulture segment is characterized by the absence of large players in the market, which ensures that the power dynamics of the sector are fairly simple. This is one of the main reasons why development partners have found it easier to traditionally work in this sector. A prominent reason for this structure is small land holdings and the process whereby large landlords have contracted out their farms. It is because of this power structure that lobby groups in these sectors are weak and not able to influence much at the policy level. An example of this is that not many SROs have been issued for providing special provisions to these sectors. The lack of large players also imply the outcomes of previous programmes have been limited as the sector has not been able to invest as required.

2. **Imbalances in the Marketing System:** an important power dynamic within the sector is represented by the role played by middlemen/bulk purchasers. Initially, the middlemen represented the market agents who were buying fruits for the wholesale markets, but now the bulk purchasers also include the processors that have emerged post financial support of donors; for example USAID funded ten processing units in Multan for mango. The processors usually field their staff who try and negotiate purchase of entire farm's produce prior to the crop yield. This way they can purchase produce at much lower price thereby impacting the revenues earned by growers.

3. **Public versus Private Seed Interests:** Growers frequently report that the willingness and openness of authorities to approve seeds for new and better varieties is absent. Although this is usually quoted under the argument of quarantine and health and safety requirements, the real reason is that the government authorities want to have a claim on the patent of the seed variety which is not acceptable to the private sector who wants the market to operate freely. The local private sector and the international seed companies are also being restricted as there are examples where seed companies in order to promote their seed enter into anti-

competitive practices such as purchasing all local seed from the market. In short, there are multiple dimensions to the political economy of the seed market in addition to SPS issues - they key one being it allows for large market power resulting in monopolistic behaviour.

Key Findings: Barriers to Development (Horticulture)

1. **Challenges posed by fragmented producers' landscape:** The value chain analysis carried out for this study shows close to a 40% loss in the produce of kinnow and mango from farm to export destination. It is important to note that although the value chain is the same for both products, major losses of mango occurs during the orchard to processing plant, whereas, for kinnow the maximum losses occur during processing process. Given both these products are perishable the value chain issues relate to farming and handling processes of these fruits and also due to the lack of varieties that have higher endurance and longer shelf life. There have been a number of interventions to support good agricultural practices, however, these interventions have failed to produce sustainable results. A key reason for this is the cost required to implement these practices which are not feasible at small farm sizes that exist - in other words, the lack of large players in the market results in little adoption and retention of knowledge that is developed. This will require a major restructuring of the agriculture credit to enable small farms to invest in these techniques and technologies. As the sectors continue to struggle with adoption of good agricultural practices the produce fails to meet quality and SPS standards put in place by the majority of export markets.

2. **Price and power manipulation by middlemen:** the middlemen and commission agents enjoy significant power and often manipulate the market by distorting the prices and gaining abnormal rents. This particular set of agents over the years have gained power due to financial constraints faced by the farmers and lack of farm to market connectivity and no form of regulation to restrict any such behavior. The commission agents working for processors usually purchase fruit about one-third of the market price.

3. **Non-availability of seedless kinnow variety:** this is a critical issue and Pakistan is losing export markets due to the inability to produce seedless fruit. Some trials have been done but research and development and adoption of these varieties are still weak. There are research institutes that exist in both sectors; however, no meaningful output has been produced by them.

Key Findings: Opportunities for Transformation (Horticulture)

1. **Receptiveness and Effectiveness of Donor Programming:** The lack of large players in the producer landscape, and the historical take-up of donor-led programming to improve yields and quality remains a key opportunity that can be taken-up for future interventions. The receptibility of horticulturalists to external interventions, many of whom are progressive farmers, is significantly higher than in other agricultural segments, which bodes well given the value-addition potential of the sector. The government and development agencies including USAID, EU and DFID have over the years provided significant amounts of support to both citrus and mango sectors to help them graduate into export markets. A key area of support will be to develop innovative financing models where these sectors are able to finance new technologies and techniques that have already been documented to ensure that value chains become compliant with export market SPS requirements. Moreover, models that open up the seed market and ensures quality issues may also be supported to shift the sector to higher yielding varieties.

2. **Diversification in Product Flows:** The growth of the formalized/commercialized value chain in citrus and mango production and marketing is an important opportunity. This value chain produces higher quality produce with higher value additions and higher margins; this is more export oriented and includes growers/producers, processors and exporters. Recently, supermarkets such as Metro cash and carry stores have also entered the value chain,

especially in bigger cities like Lahore, Islamabad and Karachi, where they connect producers directly with their consumers. This has supported the development of certain minimum standards on quality and types of produce, however, growers do complain about the larger chains being hard price negotiators in shadow of meeting quality matrix.

1 Introduction and Context

1.1 Introduction

The overall objective of this assignment is to identify binding constraints within the economic and political environment in selected priority sectors and assess their potential to change with the aim of improving the quantity and quality of evidence available to FCDO.

The political economy of economic growth in Pakistan is conventionally characterized as elite-captured, patronage-based or clientelistic, and said to be marked by entrenched patterns of rent-seeking behaviour. Understanding this characterization involves exploring the structural and institutional determinants of state-economy relations, including how various forms of interactions have germinated and become path-dependent over time, the historical legacies that shape actor and/or group behaviour, and how the formal and informal institutional make-up of the political and economic sphere functions.

Melding together an analysis of institutional actors, societal groups, and historical and structural determinants can best be done through the political settlement approach. A political settlement, for the sake of this assignment, can be defined as a combination of interactions involving the aforementioned agents that produces a particular distribution of power, and a given set of consequences.

Since a key premise of the report is to uncover the political economy of economic growth and development, this section will focus on economic consequences of the existing distribution of power. In particular, our inquiry here is motivated by the simple fact that despite the periodic impetus of technocratic reform efforts, Pakistan's economic growth remains anaemic, exports do not demonstrate the same dynamism as comparator countries in the region and beyond, and periodic current account and fiscal deficits produce boom-bust cycle with alarming frequency. Sustained growth and development remain elusive, which is a fact that can be traced to the persisting patterns of interaction between the political and economic spheres, rather than simply as the absence of sound policy advice.[9]

1.2 Purpose, Approach and Methodology

1.2.1 Purpose

The overall objective is to enable FCDO Pakistan's Economic Growth Group to better understand the political economy of Pakistan's private sector, specifically a range of priority sub-sectors that are exporting or have the potential to export, with respect to the ownership interests of the 'elite'. The analysis will also make recommendations on which sectors of the economy are more open to competition and reform efforts to transform these sectors, so they are more integrated into global value chains, including identification of political change agents and entry points for development partners.

Specifically, this study will inform the prioritisation and sequencing of FCDO Pakistan support in different sectors of the economy through their Jobs and Economic Transformation programme where there might be greatest traction and interventions could have success, while steering away from areas where prospects for traction and impact are minimal (recognising that the political economy is dynamic and likely to change).

1.2.2 Approach

[9] For a review of Pakistan's 70 yearlong economic performance and the spectre of repeat boom and bust cycles please see: Rashid Amjad and Shahid Javed Burki, eds., Pakistan: Moving the Economy Forward, Eds. (Cambridge University Press, 2015).

These political economy constraints are rooted in structural and institutional power dynamics, and, in many cases, exhibit considerable spatial variation across different geographic locations as well. The analysis will take into account how sector-specific political economy factors influence economic outcomes across these three dimensions. A simultaneous purpose of the analysis will be to assess potential for sectorial transformation that can contribute to sustainable economic growth, through the type of evidence gathered during the PEA and made available to FCDO.

Some important political developments that will be explored in addition to those mentioned in section above include the current engagement with China under CPEC, the on-going macroeconomic stabilization and IMF conditionalities and a relatively new political government and how these factors play out in the industrial/business landscape and influence economic decision-making. Tough economic decisions following the IMF deal have placed an increasing pressure on the government to cushion the poor, create jobs and at the same time attract foreign investment.

The process of analysis revolved around:

a) Review of existing literature on Pakistan's industrial performance, with a specific focus on sectorial studies to set the context for the PEA and an understanding of the dynamics of each sector, specifically with reference to opportunities and barriers to growth.
b) Consultations with key stakeholders: The team engaged with relevant stakeholders (firms, politicians, bureaucrats, associations, chambers, relevant government institutions) to gain insights into the political economy landscape.
c) Detailed review of selected sectors that will include brief economic profiles and detailed analyses of thee power dynamics and political economy constraints.
d) Stakeholder mapping and analysis: This will include a mapping of key stakeholders Each stakeholder will be categorized in terms of their capacity to influence and their level of interest in the performance of the relevant economic sectors

1.2.3 Methodology

The work was undertaken in two phases: Phase 1 (horizontal PEA report and priority economic sector PEA profiles) and Phase 2 (PEA profiles of additional economic sectors). It starts by identifying key stakeholders and then understanding the role and power dynamics across these players spanning the selected priority sectors.

The PEA carries three primary components: 1) A horizontal PEA report highlighting macro-level and cross-cutting sectorial constraints and opportunities 2) Profiles of five priority sub-sectors which have the greatest possibility of being receptive to reform measures, 3) Profiles of five additional sub-sectors with adequate information to categorize them similar to the priority sectors.

The analysis is conducted at both the country/macro and sector-level. The political behavior of actors at both these levels is determined by their interests, ideology, and institutional and regulatory structures within which they operate or are bound by. This multi-tiered approach is designed to address the three core topics outlined in the TORs. The resultant profiles are developed to reflect the following:

1. State of development i.e. current sector profile and trends
2. Barriers to development pertaining to key binding constraints in the business, economic and political environment
3. Opportunities for transformation for each of the sectors including an assessment of the potential of these sectors and implications of the identified constraints in terms of economic growth, job creation gender balance, linkages with multinational firms and other spillovers to the local economy.

1.3 Sector Selection

At the outset, the original Terms of Reference (ToRs) laid out a set of proposed sectors: household linens, garments, leather, livestock, rice, sugar, horticulture, chemical and plastics, electronics, simple machinery and instruments, ICT (including business process outsourcing), transport and logistics. This long-list of sectors was compiled by FCDO Pakistan's Economic Growth Group, based on initial comparative economic analysis. For the purpose of this study, the team came up with a selection strategy to identify priority sectors for which the PEA will be carried.

A rapid evaluation exercise on the original long-list was conducted using secondary quantitative and qualitative data, while a set of Key Informant Interviews (KIIs) were carried out with the State Bank of Pakistan (SBP), the Pakistan Business Council (PBC), and a former senior official of the Ministry of Commerce, to suggest recommendations and validate the sector selection. After consultation with FCDO, the list was finalised

As in the sector long-list proposed through the ToRs, key economic variables considered during this exercise were export potential, contribution to overall economic activity, and labour absorption (where available). Additionally, a quick overview of shortlisted sectors' association activity and extent of supply chain was carried out to gauge baseline organizational and political dynamics.

Shortlisted sectors for phase 1 include:

1. Garments
2. Livestock
3. Information and Communication Technology (ICT)
4. Auto parts
5. Horticulture

In each of these sectors, the focus has been on the goods and services with the greatest export potential.

For phase 2, the sectors include pharmaceuticals, household linens, e-commerce, chemicals and plastics and transports and logistics.

1.4 Structure of the report

The report opens with a discussion of findings about cross cutting political economy constraints common to economics sectors across Pakistan. It analyses the context, key policy stakeholders and the power dynamics with economy-wide impacts across all sectors. This is followed by sector specific chapters where each chapter contains an economic overview of the sector, identification of key stakeholders, assessment of power dynamics, sector specific PE constraints and sector specific recommendations. The main political economy constraints were analysed as per the PEA template developed by the team.

2 Cross Cutting Political Economy Constraints

2.1 State of Development

Pakistan's economy (and the associated decision-making around it) is dominated by a range of actors, many of whom vary depending on the nature of economic activity and the sector under observation. However, based on a literature view of extant political economy accounts of Pakistan, and the sub-sector diagnosis carried out in subsequent parts of this report, it is possible to develop a list of key organizational actors/groups that are relevant to the overall functioning of the economy. Some of these are directly involved in the decision-making processes, while others shape the decision-making process through their presence in the political sphere.

2.1.1 Key Domestic Actors

Political Parties: As per its constitution, Pakistan is a Westminster-style constitutional democracy and the state's formal decision-making structure operates through an elected parliament, which delegates powers to the Prime Minister and his cabinet. The electoral system in place to elect the lower-house, the National Assembly, utilizes a Single Member Plurality (first-past-the-post) formula, with candidates competing on a partisan basis. Despite a chequered history with democratic government, all three of Pakistan's main national-level political parties, the PTI, PMLN, and PPP, are at least two decades old, with the oldest – the PPP – tracing its formation back to 1968.

The inadequacies of Pakistan's representative institutions are traceable to its weakly institutionalized mainstream political parties, which suffer from a lack of internal democracy, low levels of party organisation, high levels of elite capture, inhibited internal capacity for research and policy design, and power concentration at the top. Two of the three main parties, the PPP and PMLN, operate along dynastic lines of the Bhutto and Sharif family. While the PPP has undergone three leadership transitions, the PMLN is currently planning for its first with second generation family members of the erstwhile Prime Minister, Nawaz Sharif and his brother, Shehbaz Sharif, the former Chief Minister of Punjab province, expected to play a leading role.[10]

The PTI, currently leading the federal government, has not yet experienced a leadership transition and is thus not a dynastic party per se. However, it too suffers from problems commonly found in other, older parties. Decision-making authority remains concentrated in the hands of a few central leaders. Furthermore, as with nearly all mainstream parties, candidates are recruited from elite social groups, on their ability to finance and win an election, rather than their service to the party or their programmatic or ideological commitment. The 'self-finance' model of elections then increases the likelihood of misappropriation by winning candidates, who see it as a 'payback' for their initial investment.

The table below gives a brief summary of the institutional bases and political economy facets relevant to the main political parties.

Table 2: Political economy facets of Pakistan's main political parties

Party	Region of Influence	Resonant Electoral Base	Leadership motivation and Style	Political Economy Considerations	Ideological Drivers
Pakistan Muslim League-Nawaz (PML-N) (main opposition	Core: North and Central Punjab; Peripheral: South Punjab	Core: Punjabi businessmen (traders, merchants, small and medium-scale	Retain control of party leadership within family; centralized governance	Distribution of rents to core electoral base through tax emptions, large infrastructure	Marketization and liberalisation; Consumption-led Growth-oriented

[10] For more on this: Mariam Mufti, "The Political Party System of Pakistan" (dissertation, 2011).

party at the Center and in Punjab)	Hazara Division, KP	manufacturers) Peripheral: Large landowners;	systems through advisors and close confidants	development projects. Utilisation of patronage to retain voter base	management; Trade-driven foreign policy; Punjab-based majoritarian politics
Pakistan Tehreek Insaf (PTI) (ruling party in the center, and in the provinces of Khyber-Pakhtunkhwa and Punjab)	Core: Urban Punjab; Peshawar Valley, KP; Peripheral: Rural Punjab and Karachi	Core: White-collar middle and high-income households; Exporters and large manufacturers; Peripheral: large and medium-sized farmers in Punjab	Heavily reliant on charismatic authority of Imran Khan; use intensive media engagement; Decentralized authority in KP	Attract strong electoral candidates in Punjab through post-election promises; Distribute patronage to key elected officials in KP in preparation of 2018 election	Anti-corruption and 'good governance'; institutional reform
Pakistan Peoples Party (PPP) (ruling party in Sindh; largest party in Senate; leading opposition party in the centre)	Core: Rural Sindh and South Punjab; Peripheral: parts of KP	Core: Landlords, medium-sized farmers, and farm labour in Sindh; Peripheral: Landlords in South Punjab; Rural poor in pockets across the country	Reliant on legacy of Bhutto family; retain control of party leadership within family; Close control of party leadership over governance processes	Extensive spoils system through provincial government in Sindh; Retain influence and party financing through disbursement of patronage and rent-seeking opportunities	Social-democratic federalism; Sindhi and Seraiki ethno-nationalism

Military: While the constitution provides no formal role for the military in economic management, recent statutory interventions as well as the long-term legacy of praetorian rule, make the military a key player in Pakistan's political economy. Three distinct periods of military rule (1960s, 1980s, and 2000s) have seen the consistent expansion of the power of the military officer corps and its associated intelligence apparatus. Even in periods with ostensibly civilian-led governments, the share of resources devoted to military spending – 18.5% of federal government expenditure and 2.86% of GDP – ensures that the military influences the economy through spending trade-offs.

Over the years, the military has also increased its footprint in key sectors of the economy, such as Fertilizer, Power, Construction, Transport and Logistics (monopolistic), and Real Estate – through military-run or quasi-military organizations; and has, in the preceding two years, taken on a formal role in planning and development processes through newly-created institutions like the National Development Council (formed in 2019), and through the placement of serving and retired armed forces officers in key posts (such as the head of the China-Pakistan Economic Corridor Authority).

The Judiciary: The higher (Supreme Court and High Courts) and lower judiciary (District and Session Courts, Special Courts) are important actors given their centrality to contract enforcement and dispute resolution. Since the judicial independence movement of 2007, the higher judiciary has become extensively interventionist utilizing wide-ranging public-interest powers granted to it by the constitution. This has allowed it to intervene in the economy through price setting and regulatory measures, such as cancelling privatization contracts, fixing prices of goods and services, and adjudicating on collection of taxes. Much of this is done as a way of populist signalling to the media and the public at large, re-envisioning the judiciary's role as a public representative, rather than as an arena for dispute resolution.

At the same time, the lower judiciary - where most civil and business enforcement and dispute related matters are first administered - is plagued by efficiency, competence, and capacity issues. Case backlogs across the country are well into the hundreds of thousands; the sub-sector analysis revealed that businessmen are extremely wary of approaching the courts for redressal, and prefer to use associational or informal platforms of dispute and grievance resolution.

Federal Government (Ministry of Finance and others): The key federal government institution regulating the economy is the Ministry of Finance, led by the Finance Minister (currently an Adviser to the Prime Minister), and staffed by senior bureaucrats drawn from the elite Pakistan Administrative Service (PAS). The Ministry is the key nodal office in all budgetary and financing related decisions, with its senior bureaucrats exercising considerable sway on the policy process. It is also responsible for the country's dealings with the IMF, which ensures its centrality, especially during periods of IMF-provided assistance. At various points in the last 10 years, in particular 2013-2017, the Ministry has led the policy process for all related economic affairs Ministries, such as the Ministries of Commerce and Trade, Water and Power, Petroleum and Natural Resources, and Planning and Development. Formally, the Minister (or Adviser) of Finance also chairs the Economic Coordination Committee (ECC) of the federal cabinet, which is responsible for taking key decisions pertaining to the economy.

State Bank of Pakistan (SBP): Pakistan's central bank is responsible for maintaining monetary and foreign exchange stability, regulate Pakistan's predominantly privately-run banking sector, and play other key developmental functions in the macro economy. It has at various periods suffered from a lack of autonomy, with the Ministry of Finance exercising control over key functions including monetary and foreign exchange policies. Since the election of the PTI-led federal government, the SBP's operational autonomy has increased, with interest rate determination and currency management being carried out more independently.

Federal Bureau of Revenue (FBR): FBR is a semi-autonomous federal government entity primarily responsible for enforcing fiscal laws and collecting revenue. However, it also has significant policy-making authority (through Statutory Regulatory Orders), through which it can impose or withdraw duties and taxes. Its enforcement and policymaking functions have far-reaching consequences for private sector businesses in the country, and it has often served as a crucial site for rent-disbursements, predation, and regulation.

Elite Bureaucracy (PAS): The PAS cadre of Pakistan's centrally recruited civil services is responsible for administration and policy making, especially in economy-related ministries and departments at all levels of government. Despite being recruited as generalists, PAS civil servants are often posted as regulators, head administrators, and policymakers in key technical ministries, such as Finance, Water and Power/Energy, Planning and Development, and Commerce and Trade, as well as line departments at the provincial and local tiers of government. The internally cohesive cadre retains significant sway over the management of public affairs and has historically exercised a deep-seated scepticism of the private sector. Despite various attempts at reform, it has also over the years expanded its own remit, retained perks and privileges, and successfully retained its hold on decision-making processes.[11]

Provincial Government Line Departments: The most frequent interactions and regulations around economic activity takes place through line departments and district administration controlled by the provincial governments. These include regulations around land-use, registrations, access to municipal infrastructure, logistics, permissible types of economic activity, and, for the services sector in particular, taxation affairs. As mentioned earlier, many of these

[11] For a more detailed assessment of the bureaucracy's role in economic and urban management, see Nadeem Ul Haque, "Flawed Urban Development Policies in Pakistan" (Islamabad: Pakistan Institute of Development Economics, 2015)

entities are formally run by provincial governments through bureaucrats, mostly from the PAS cadre.

The Private Sector: Economic activity in Pakistan is dominated by private sector enterprises in manufacturing, services, and agriculture. Barring a failed experiment with nationalization in the 1970s, the economy has generally seen a reduction in major regulations on private sector activity, and over the years, has seen the re-emergence of large conglomerates with interests across a range of economic sectors. The largest and most corporatized businesses, primarily those listed on the Pakistan Stock Exchange (PSX), are found in Textiles, Food and Beverage (in particular Sugar), Automobile Manufacturing, Cement, Power Generation, Banking and Finance, and Fertilizer.

Key sub-sectors (for eg. Textile, Banking, Sugar, Automobile Manufacturing, Cement) are generally formalized, are important sources for foreign exchange and/or government revenue and have strong industry associations that are dominated by big firms. These industry associations, along with apex bodies such as the Federation of Pakistan Chambers of Commerce and Industry (FPCCI) and organizations such as the Pakistan Business Council (PBC), act as sector representatives and are generally the most active in lobbying and advocating for particular sectorial or general policies pertaining to the private sector. Small and medium sized businesses in other sub-sectors are represented through city-based Chambers and industry associations, and generally have less voice in decision-making.

Television and Print Media: Pakistan's media landscape currently hosts over 40 Urdu-language cable television news channels, which emerged since media sector liberalization in the early 2000s. With greater television and cable penetration to smaller urban and rural localities, the media has become a key interlocutor for the public at large on important political and economic affairs. The baseline level of discourse on economic issues is quite low, rife with sensationalism, TV journalists desire to represent 'common man's interests', and little understanding of complex economic issues. The English language press, which has circulation among a small, but elite urban demographic, fares much better in its understanding and representation of issues. It is also a key voice in advocating for particular types of reform.

2.1.2 Power Relations

Pakistan's political economy is characterized by an array of power-relations, depending on the particular configuration of actors and the type of sub-sector under question. In many cases, the state – the permanent bureaucracy, the military, and elite politicians – exercise considerable influence over the form and direction of economic activity. The degree to which the state exercises this autonomy is contingent on the level of organization within the sub-sector, its centrality to fiscal and foreign exchange goals, and its degree of embeddedness within key decision-making actors.[12]

Nearly every major industrial and services sub-sector – either collectively or in the shape of individual firms - tries to retain cross-party relations in order to extract favours, navigate enforcements, and ensure protection from excessive predation. Much of the contemporary political economy dynamic is related to the changing structural basis of the economy. From a predominantly agrarian economy, Pakistan has transitioned to one dominated by the services sector, and to a lesser extent, by manufacturing. Around 74% of its total GDP is derived from the latter two. However, agriculture remains the single largest employer in the country, with approximately 40% of the population engaged in farm-related activities.[13]

[12] For more on state autonomy and private-sector decision-making in Pakistan, see: Adnan Naseemullah, *Development after Statism*, vol. 3 (Cambridge University Press, 2017).
[13] Ministry of Finance, *Economic Survey of Pakistan 2018-19*, 2019.

From a political economy perspective, this transition has led to the emergence of new urban voters as well as political and economic elites associated with manufacturing and trading, competing with the traditional landed elites that have dominated politics for much of Pakistan's history. This means that the number of economic claim-makers within the political sphere has expanded, and the avenues of claim-making – afforded by the opening up of democratic politics in various periods – have also become enlarged.[14] As a result, state actors are caught between enforcing autonomous decisions and providing concessions to influential private-sector actors.

2.2 Barriers to Development

While the specific barriers to growth will be expanded upon in the sub-sector profiles, there are certain overarching political economy dynamics in Pakistan that impact all aspects of economic activity. These include corruption and rent seeking; predation by higher and local level bureaucracies; insulated decision-making processes; and low levels of policy and administrative capacity.

1. **Corruption and Rent-Seeking:** The scale of rent-seeking and suppression of competition varies from sector-to-sector, but is usually made possible through the utilization of sector (and sometimes even firm-specific) SROs granting particular types of concessions or exceptions, the imposition of import tariffs and non-tariff barriers that hinder the emergence of downstream economic activity, administrative decisions preventing particular types of economic enterprise, and the provision of support prices and subsidies (as in the case of agricultural commodities and the energy generation). These patterns of state-business interaction have emerged over the years and are particularly prevalent in industrial sectors such as Textile (spinning), Sugar, Cement, Power, and Automobile manufacturing.

2. **Predation by the Bureaucracy:** In sub-sectors dominated by small and medium-sized enterprises, the burden of unfavourable regulation and predation is often highest. Businesses often have to encounter high costs of compliance, as well as experience harassment by local state officials. Basic regulatory tasks such as registration of businesses with local authorities, renewal of licenses, clearance of goods at ports and borders, and submission of tax returns and payments, are characterized by bureaucratic rents ranging from small, everyday bribes to large-scale extortion. Over and above these issues, features such as price-capping in certain sub-sectors and other types of bureaucratic control also hinder the entry of new firms and prevent the growth of small and medium-sized enterprises.

3. **Insulated and Ad-Hoc Decision Making:** The persisting power of the bureaucracy in economic policy formulation and implementation processes lends itself to highly insulated decision-making, which either provides preferential treatment to certain private sector actors or excludes the private sector from a substantive representation. This is made worse by political and bureaucratic instability, in which government priorities and human resources often shift at short notices, leading to ad-hoc measures and no sustained commitment to a fixed policy regime that would rationalize business behaviour.

4. **Absence of Policy and Administrative Capacity:** Finally, the last overarching issue within the management of the economy is the general lack of capacity within government on key technical issues pertaining to economic reform, and the refusal to provide space to technocratic expertise in key departments. Several exemplary cases of this can be found within the federal government, where generalist bureaucrats continue to occupy the senior-most technical offices in ministries such as finance, petroleum, energy, and planning and development, and in key regulatory and advisory positions. Combined with a general

[14] For more on the rise of new groups and its impact on Pakistan's economic growth see: Ali Cheema, "State and Capital in Pakistan: The Changing Politics of Accumulation," in *Corporate Capitalism in Contemporary South Asia: Conventional Wisdoms and South Asian Realities*, ed. A M Reed (London: Palgrave, 2003), pp. 82 -110

scepticism towards private economic activity as a whole, the retention of bureaucratic oversight and control are key hindrances towards sustained private sector-led growth.

2.3 Opportunities for Transformation

Based on the assessment of the sub-sectors and the overall country-level political economy, there are two key areas that provide immediate opportunities for transformation and can act as capable drivers of change:

1. **Government Commitment:** Since stepping into office in 2018, the current PTI-led government has repeatedly stated its commitment to reforming the economy, enhancing productivity, improving the business environment, and eradicating corruption. The fact that the government places a strong rhetorical focus on rules-based governance is a welcome step, one that is made more salient by its commitment to an export-led growth agenda. It has signalled its seriousness on this front by adopting a more flexible exchange-rate policy, granting increased operational and policy autonomy to the State Bank, and initiating efforts at broadening the tax base to historically evasive sectors (such as retail and wholesale trade) so as to reduce the quantum of trade-related taxes. It has also been able to harness considerable foreign-qualified and highly skilled human resource talent in key governmental and quasi-governmental roles, which would increase baseline policymaking and implementation capacity.

2. **Dynamic Entrepreneurship in New Sectors:** Outside of traditional manufacturing sectors, a fast urbanizing and educated population is also making its mark across a range of economic activity through dynamic entrepreneurship, such as in ICT-related activity. The growth of the start-up space, with fast-growing ventures in the technology sector, is a cause for optimism, and signals Pakistan's potential for harnessing economic growth through new trajectories. More generally, the rise of an educated middle class, with its vocalized demand for accountability, improved governance, and desire for higher standard of living, will continue to act as conducive sources of pressure on the government to pursue the kind of reform required to make the economy grow on a sustained footing.

3 Livestock Sector

The following chapter provides an in-depth economic and political economy assessment of the livestock sector. Conventionally, the Livestock sector in Pakistan consists of three main sub-sectors: dairy, poultry, and meat. However, based on the sector-selection diagnostics carried out earlier, the focus of this chapter will be on the high-potential meat and meat processing sub-sector. Pakistan is estimated to have the 10th largest cattle population in the world, of around 198 million live animals[15]; nonetheless, its share in world trade remains miniscule. This chapter will first review the salient features and characteristics of the livestock sector (with a focus on meat and meat processing) as it has evolved over the preceding five-year period. It will then move on to the extant state of development for the sector, with a focus on key actors, internal relations, and existing patterns of state-sector relations. Finally, it will look at the barriers to sector growth and opportunities for transformation created by prevailing patterns of institutional and actor-based interactions.

3.1 Sector Overview

Livestock is the largest sub-sector within the agriculture sector, surpassing the crop sub-sector by contributing 60.54% to value added in agriculture in FY 2018-19. It also accounted for 11.22% of Pakistan's GDP in the same financial year[16]. The livestock sector mainly consists of dairy, meat, and poultry segments.

The growth in this sector can be realized by improvements in gross value addition in livestock from Rs.1, 384 billion in FY 2017-18 to Rs. 1,440 billion in FY 2018-19; this depicted a growth of 4% against the target of 3.8%[17]. The livestock sector continues to grow in Pakistan and has emerged as one of the key growth sectors in an otherwise stagnating economy. It is not only a source of foreign exchange earnings by exporting around 3.1% to the total exports in Pakistan, but also ensures food security by contributing 35% to 40% to the incomes of over 8 million rural households[18].

3.1.1 Meat and Meat Products

Meat and meat products are an important component of the livestock sector. Considering that meat is a main source of protein and essential vitamins and minerals, which fulfil a necessary dietary requirement for many, global demand for meat and meat products is constantly increasing. However, there has been more focus towards healthier, safer and more hygienic meat products. Pakistan especially has a lot of opportunities to grow in the international halal meat market, which is estimated to cross US$ 3 trillion[19].

In Pakistan, the livestock population which produces meat and meat products consists mainly of cows, buffaloes, sheep, goats, and camels. The following table below shows the estimated livestock population in Pakistan for different species that produce meat and meat products. The quality livestock gene pool in Pakistan includes Kundi and Nili-Ravi breeds of buffaloes, Thari and Red Sindhi breeds of cows, Kooka, Kajli, Dumbi and Thali breeds of sheep and Baro, Teddy and Kamori breeds of goats. More importantly, amongst these livestock breeds, the Thari cow is especially well-known for rapid weight gain[20].

Table 3: Estimated Livestock Population in Pakistan

[15] Primary animal variants included in the livestock sector are buffalo, sheep, goats, cows, and camels.
[16] Ministry of Finance, *Economic Survey of Pakistan 2018-19*, 11-33.
[17] Ibid, 26.
[18] Ibid, 26.
[19] Muhammad Sohaib and Faraz Jamil, "An Insight of Meat Industry in Pakistan with Special Reference to Halal Meat: A Comprehensive Review," *Korean Journal For Food Science Of Animal Resources* 37, no. 3 (June 30, 2017): pp. 329-341, https://doi.org/10.5851/kosfa.2017.37.3.329.
[20] Sohaib and Jamil, 330.

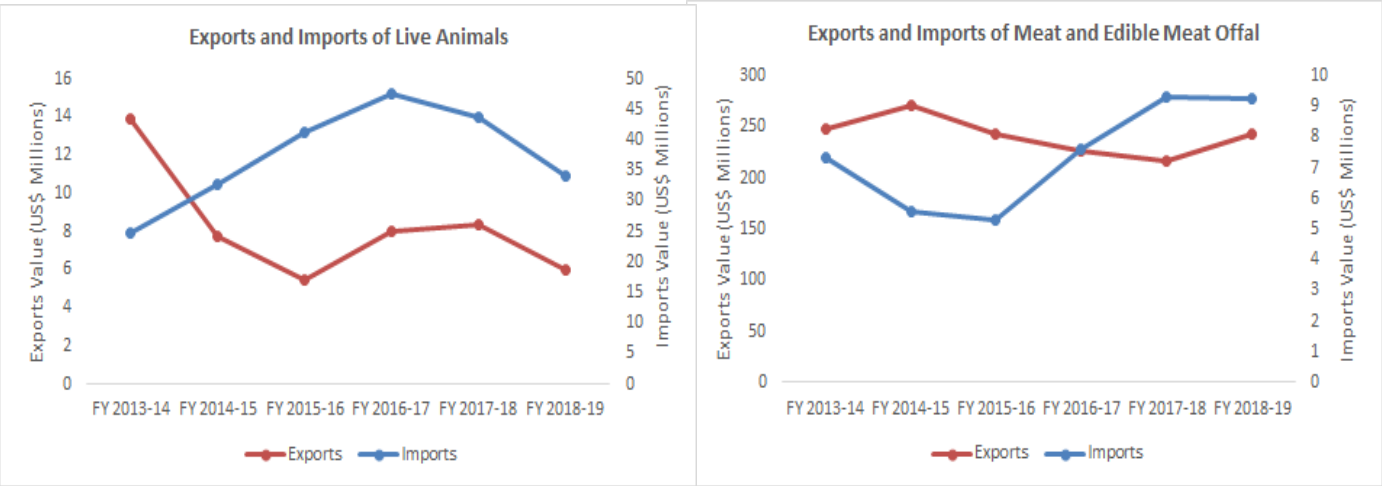
Estimated Livestock Population			(Million Nos.)
Species	**2016-17**	**2017-18**	**2018-19**
Cattle	44.4	46.1	47.8
Buffalo	37.7	38.8	40
Sheep	30.1	30.5	30.9
Goat	72.2	74.1	76.1
Camels	1.1	1.1	1.1

Source: Pakistan Economic Survey 2018-19[21]

3.1.2 Exports and Imports

Pakistan imported live animals worth US$ 33.95 million in FY 2018-19, whereas its exports in this category were only worth US$ 6.024 million in the same financial year. However, Pakistan's exports of meat and edible meat offal were worth US$ 242.816 million in FY 2018-19, compared to its imports which were around US$ 9.273 million in the same financial year[22]. Pakistan's imports of meat and edible meat offal depict an increasing trend post-2015, followed by a slight decrease in FY 2018-19, whereas the exports depict the opposite trend. Exports in this category were decreasing up until FY 2017-18, after which they are moving upwards. However, Pakistan remained a net importer in the live animal category. Pakistan's exports and imports for HS Code 01 - Live Animals and HS Code 02 - Meat and Edible Meat Offal are shown below in Figure 1-2.

Figure 1 - 2: Exports and Imports for HS Code 01 and 02



Source: UN Comtrade[23]

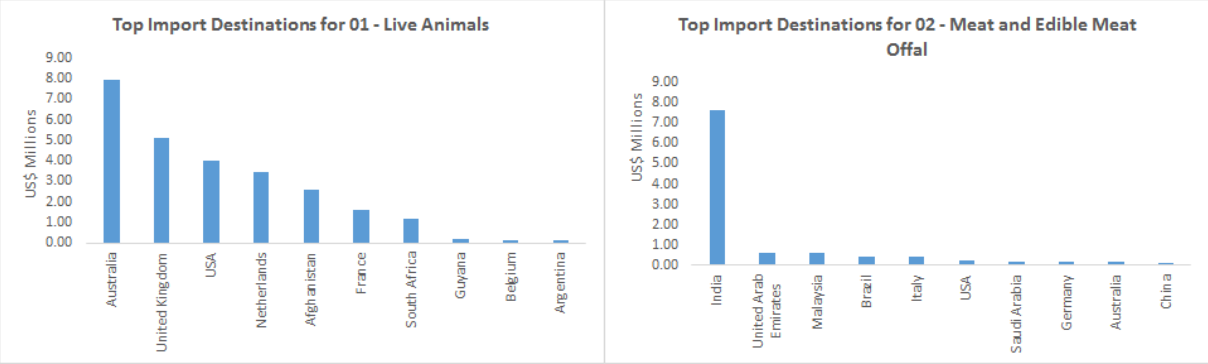
In 2018, Pakistan exported the highest value of live animals to Afghanistan, valued at around US$ 8.5 million[24]. This constituted about 87% of the total exports in HS Code 01 - Live Animals' category. It was followed by Saudi Arabia, where live animals valued at around US$ 0.5 million were exported[25]. Moreover, for the HS Code 02 - Meat and Edible Meat Offal category, United Arab Emirates was the top export destination for Pakistan, with exports valued at around US$ 90.6 million in 2018[26]; constituting about 39.9% of exports within this category. It was followed by

[21] "Pakistan Economic Survey 2018-19", 26.
[22] "Export Receipts and Import Payments by All Commodities - State Bank of Pakistan," 2018.
[23] "Export Receipts and Import Payments by All Commodities - State Bank of Pakistan," 2018.
[24] UN Comtrade, 2018, https://comtrade.un.org/.
[25] UN Comtrade.
[26] Ibid.

Saudi Arabia, Kuwait and Vietnam which had 16.1%, 15.7% and 11.2% of the total exports within this category[27].

On the other hand, Australia is the top destination for imports of live animals, with imports amounting to around US$ 7.9 million in 2018. It was followed by the United Kingdom and the United States of America; accounting for about US$ 5.1 million and US$ 3.9 million imports. However, India was the top import destination for meat and edible meat offals, with imports amounting to US$ 7.6 million[28]. The top 10 import destinations for HS Code 01 and 02 are shown below in Figure 3-4.

Figure 3 - 4: Top Import Destinations for HS Code 01 and 02



Source: UN Comtrade[29]

3.1.3 Industrial Landscape for Meat and Meat Processing

The meat producing segment within the livestock sector is predominantly concentrated in the provinces of Punjab and Sindh. The following table shows the areas that have the largest concentration of farm animals within these two provinces. The provinces of KPK and Balochistan source meat products from these two provinces as well

Table 4: Areas in Punjab and Sindh with the largest concentration of the livestock sector

PUNJAB	Sindh
Northern Punjab Sargodha	**Northern Sindh** Sukkur Larkana Dadu Shikarpur Khairpur Mirs
Central Punjab Lahore Sahiwal Jhang	
Southern Punjab Bahawalpur Vehari Lodhran Multan Rahimyar Khan	**Interior and Southern Sindh** Nawabshah Thatta

Source: State Bank of Pakistan[30]

In Pakistan, around 84.1% of the farmers own 1-6 cows, whereas in the case of buffaloes the same herd sizes are maintained by 83.4% of the farmers. Moreover, farmers who own 1-30 flock sizes of goats and sheep are around 88.9% and 97.7% respectively. Less than 1% of the farmers

[27] Ibid.
[28] Ibid.
[29] Ibid.
[30] State Bank of Pakistan, *Beef Value Chain in Pakistan,* pp. 1-53, http://www.sbp.org.pk/publications/ChainReport/2015/Report on Beef Value Chain in Pakistan.pdf.

own more than 50 animals, indicating that the meat segment is concentrated with farmers operating as SMEs[31]. Considering that bigger herd sizes lead to greater efficiencies, smaller herd sizes in Pakistan explains inefficiencies in production within this sector.

It is important to know that Pakistan's meat value chain is the extension of the dairy value chain as animals are raised for milk and then after the end of their lactation period they are used for their meat. Although there are no dedicated beef brands in Pakistan, the meat value chain is a Rs. 1.3 trillion market. Although yields in modern feedlot is around 70% to 80% higher than conventional farming, it is new to the country and only a few modern farms exist in both rural and urban areas of Pakistan[32]. Moreover, farmers who are considered bankable possess between 7-50 large animals, and these only account for 16% of the national production[33].

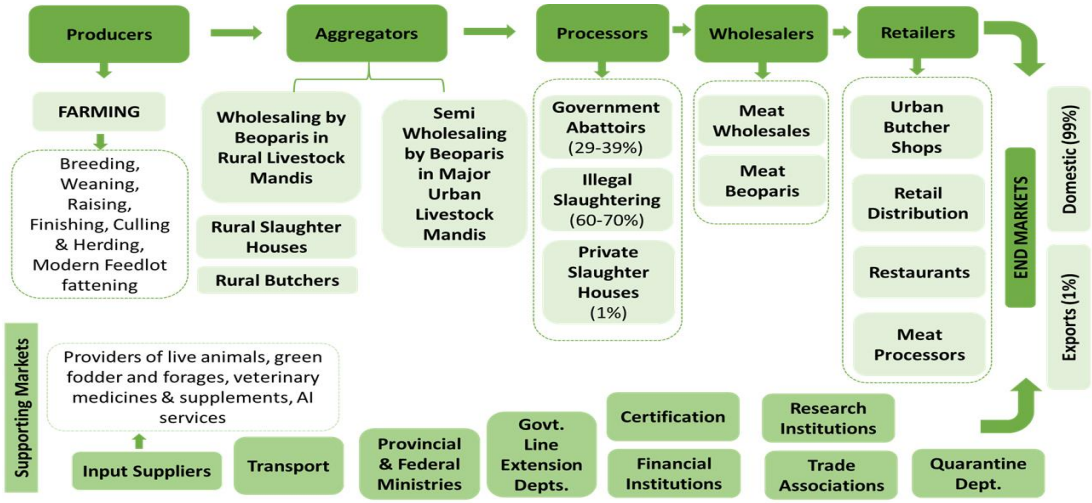
69% of the end consumers of this sector are based in rural areas, 30% are urban market consumers and only 1% of Pakistan's meat is exported[34]. In the domestic market red meat is historically brought fresh by consumers from butcher shops, where it is custom cut according to individual preferences. There are a few companies which are engaged in meat processing, including a Peshawar based company called Euro Foods, a German retail chain known as METRO and big players such as Engro Foods that are recently entering the market. However, the way forward lies in the promotion of exports, where returns are higher; exports of beef and mutton segments have 3.5 and 2.2 times higher returns respectively compared to domestic sales[35].

On the other hand, the poultry segment has progressed more towards controlled shed systems and Pakistan now has more than 6,500 controlled environment poultry sheds, indicating a move towards modernization and use of advanced technology. This segment also directly and indirectly generates employment for around 1.5 million people[36].

3.1.4 Value Chain

It is important to understand the value chain in the meat segment of the livestock sector to understand how meat and meat products are produced, processed and marketed in Pakistan. The figure below depicts Pakistan's meat value chain map.

Figure 5: Meat Value Chain Map



[31] "Beef Value Chain in Pakistan", 10.
[32] Ibid.
[33] Ibid, 9.
[34] Ibid, 6.
[35] Ibid.
[36] Ministry of Finance, *Economic Survey of Pakistan 2018-19*, 28.

PARC – Pakistan Agricultural Research Council has identified five channels through which marketing of these ruminants takes place. These channels are differentiated from each other on the basis of the stakeholders in meat marketing and their quantitative significance.

- Channel 1: Rural farmers sell 80% of meat animals to the village middlemen, 15% to the rural butchers and 5% in the live animal mandis.
- Channel 2: Village middlemen sell 2% of the meat animals to rural butchers and 98% animals in the live animal mandis.
- Channel 3: Of the meat animals purchased from the mandis, 52% are bought by contractors, 31% are bought by urban butchers, 15% are bought by animal traders and whole sellers and 2% are bought by rural butchers.
- Channel 4: Contractors buy meat animals and sell 72% of them to urban butchers, 27% to traders and whole sellers and 1% to exporters.
- Channel 5: The traders and whole sellers then sell 84% of the meat animals they have to urban butchers and remaining animals are sold to the slaughter houses.

Although livestock markets (mandi's) have been established by the local municipal authorities in Pakistan, these markets are largely managed by the private sector (contractor). Meat animals are brought for sale to these privately managed animal mandis and a contracting fee per animal is collected. These markets lack amenities for animals such as water, shelter, fodder etc. Attention is not given to provision of facilities for animals such as loading/unloading, weighing of animals and veterinary care. Sale of animals is based on per head basis instead of the live weight of animals.

3.2 Key Players

The following table shows the list of key players in the livestock sector.

Table 5: Key Players in the Livestock Sector

Name	Classifications	Functions
Ministry of Food Security and Research	Government Agency	The Ministry of National Food Security & Research formulates policy and coordinated economic planning with the aim of promoting the agriculture sector and ensuring food security.
Provincial Ministries of Livestock and Fisheries	Government Agency	Each province has its ministry for livestock and fisheries, which is responsible for developing the livestock with the respective province through management of dairy and poultry farms, improvements in animal health, and enhancement of other extension services.
National Agriculture Research Council (NARC)	Research Center	NARC is the largest research centre of the Pakistan Agricultural Research Council (PARC). It offers a common platform for stakeholders in the agricultural sector to jointly engage in research within this sector.
Pakistan Agriculture and Meat Company (PAMCO)	Government of the Punjab owned, non-profit R&D organization	PAMCO is involved in the processing, exporting and supplying of processed chicken, mutton & buffalo meat.

Pakistan National Accreditation Council (PNAC)	Government Agency	Federal government entity that is mandated to regulate and approve Halal Certification providers across Pakistan
Livestock Exporters Association of Pakistan (LEAP)	Industry Association	LEAP is a licensed trade organization representing livestock exporters across a range of segment categories; the association is dominated by traders of live animals.
All Pakistan Meat Exporters and Processors Association (APMEPA)	Industry Association	APMEPA is a non-licensed trade organization representing meat processors and exporters.
Pakistan Agricultural and Dairy Farmers Association (PADFA); Livestock and Farmers Breeder Association (LFBA)	Industry Associations	PADFA and LFBA are smaller industry associations stated to represent the interests of livestock farmers and breeders

Other relevant stakeholders that are involved in promoting and regulating the livestock sector include Buffalo Research Institute Bahawalnagar, Fodder Research Institute Sargodha, Pakistan Standards and Quality Control Authority (PSQCA), University of Veterinary & Animal Science Lahore, Faisalabad Agriculture University.

In addition to these actors, the overall regulatory space for the sector is dominated by the Federal Board of Revenue (FBR), in particular the Customs Wing that retains oversight of export and import of meat, live animals, and related products. The border administration, including Rangers, Frontier Constabulary, and its associated security and paramilitary apparatus is also a key player within the livestock sector's overland trade component.

3.3 Power Relations within the Sector

3.3.1 Stage 1: Livestock Breeding and Production

Any diagnostic of the livestock sector has to take into account its fragmented and largely informal nature at the production stage, especially compared to other key sectors within manufacturing or services. More than 80% of all livestock are raised by an estimated 30-40 million small-scale producers with less than six animals per household who use various value chains to get their product to market.[37] From an analytical perspective, this raises challenges in mapping out the various institutional and actor-based interactions that take place in the early stages of the value chain. The interests of livestock farmers, who number around 8 million households, are formally represented by various organizations such as PADFA and LFBA, as well informal organizations that operate at the local and regional level.

However, the actual degree of representativeness of these organizations is marginal at best. Existing organizations generally represent the interests of politically-connected, large livestock and dairy farmers and have little geographical outreach beyond a handful of districts in Punjab and Sindh. PADFA, for example, is based out of Faisalabad and is closely associated with the family of a prominent politician in Punjab, Afzal Sahi, who has previously served as the speaker of the Punjab provincial legislature. Three of his immediate family members have served as Chairpersons or General Secretary of the organization.

[37] Michael Bradfield and Tahir Ismail, "Meat Value Chain Assessment of the Livestock Sector in Pakistan" (USAID, 2012), pp. 1-63, http://agribusiness.org.pk/wp-content/uploads/2015/04/9.Meat-Value-Chain-Assesment-Dec-27-2012.pdf.

Similarly LFBA, established in 2006, is run by a board of 12 directors, of which four are active in provincial and national politics. The organization has no presence outside of the province of Punjab.

According to journalistic accounts on the sector, these associations have mostly been utilized for engaging with the provincial agriculture departments, and in particular, extracting concessions from livestock extension (training and facilitation) services. They are also utilized to raise the public profile and visibility of their key members, especially those in leadership positions. There is little indication that these organizations have the resources or the intention to formally organize the millions of farmers that form the production side of the livestock sector.

Another perennial issue identified at the producers' stage is that existing organizations (as well as the producer field in general) is fixated on dairy production, with meat being classified as a by-product. As a result, there has been very limited emergence of corporate feedlot businesses that can increase meat production productivity; another consequence is that associational dynamics of the breeding sector are skewed towards the protection of dairy industry interests, including the conservation of local breeds, improving milk production, and establishing sale/purchase networks with large milk producers, rather than focusing on the production and processing of meat (including certification and standard setting).

3.3.2 Stage 2: Livestock Trading

Much of livestock trading happens in largely informal markets spread across rural Pakistan. Semi-wholesalers procure livestock from rural areas and then sell them to larger trading or processing firms, or to business consumers within major urban centres. According to those familiar with the industry, rural wholesale and urban semi-wholesale accounts for approximately 70% of total trading, with the vast majority of meat from this channel being sold through private butcher shops.

The political economy dynamic of rural wholesale markets is largely dominated by localized trading magnates, who provide credit-lines to livestock farmers (in the form of feed, fertilizer, medical care for animals). These traders also have political protection due to their role in local election financing and mobilizing peri-urban and rural vote blocs - along with vertical integration with downstream markets, thus allowing them to manipulate prices within localized settings. One example of such manipulation is to go on a 'buyers strike' (known as a "No Purchase" in local parlance) till the rate of the live animals goes down as cost of transportation is too high for the breeder/farmer to take the animal back.

Other parts of this supply chain – such as the formal livestock trading/export segments - are comparatively better organized than the livestock production and rural wholesale segment. However, there are a number of policy-related and regulatory conflicts prevalent in this space, which represent the different incentive structures of various actors.

While it claims to be a representative of the entire livestock sector, the Livestock Exporters Association of Pakistan (LEAP) is dominated by businesses engaging in live animal (cattle, goat, sheep) trading and export (especially to bordering countries such as Iran and Afghanistan). LEAP was formed in 2006, and is one of three industry associations within the livestock sector to retain formal recognition and registration with the Directorate General of Trade Organizations (DGTO) office of the Ministry of Commerce. It is comparatively well organized and has a membership base of 525 firms spread out in all four provinces. However, it is dominated by firms operating in the province of Khyber-Pakhtunkhwa and within the northern districts of Punjab province (particularly Attock and Rawalpindi). This is likely on account of the nature and geography of the over-land trade business in live animals.

LEAP through its planning documents has set itself a number of lofty objectives in terms of improving market access, export growth, and standards and certifications for livestock farming. It has also had some success in engaging with regulatory institutions like the Customs Wing of the

FBR in order to facilitate improved customs processing and sales and customs tax refunds at various points. However, much of its work has remained concentrated in lobbying the government for placement of key association members in the Trade Development Authority of Pakistan (TDAP) funded delegations to international exhibitions and fairs.

The biggest challenge faced by sections of LEAP's leadership and membership base comes from the interests of other segments within the livestock chain, namely meat processors and exporters, which are represented by the All Pakistan Meat Exporters and Processors Association (APMEPA). APMEPA is currently a non-DGTO registered industry association with 52 members divided into a North and a South Zone, and includes several major integrated firms that have a presence in the meat processing, export, and domestic retail businesses.[38]

The two segments represented by these two organizations have differing and conflictual incentives which play out in the realm of government regulation of the export space. From 2013 onwards, the government, on the lobbying of APMEPA, tanneries, leather manufacturers, and rural livestock wholesalers, placed a non-exception based restriction on the export of live animals, as notified first in Export Order 2013 and subsequently upheld in Export Order 2016. The reasoning was to ensure an adequate supply of livestock for domestic consumption and availability of hides and skins for other associated industries.

The export ban on live animals has remained largely in place since 2016, due to support from the judiciary, as well as the consistent lobbying efforts by various segments of the livestock sector. However, it has produced a significant and growing informal market of live animal cross-border trade, depriving the government of valuable foreign exchange revenue. The modalities of part of this trade have been operationalized through the 'gift baggage' scheme, whereby individual exporters have been sending animals abroad through existing loopholes in export regulations. A more significant degree of live animal trade is taking place through informal and illegal channels, including overland crossings with Afghanistan and Iran in Balochistan (given heavier regulation at the Torkham crossing in Khyber-Pakhtunkhwa). Various accounts now state that animal traders (including some foreigners from Iran and Afghanistan) directly procure large quantities of live animals from major markets in Karachi, Multan, and Peshawar, and then transport them across the border with the help of border security and Customs officials.

3.3.3 Stage 3: Livestock Processing

Apart from APMEPA, there is no apex body representing the meat producing industry in Pakistan. Even APMEPA has failed to submit its compliance documents to DGTO and therefore does not have the status of a licensed trade body. Larger integrated firms within the processing sector, such as Saifi Group and Al-Shaheer Group, are said to retain direct relations with key regulatory institutions, such as FBR and the State Bank of Pakistan in order to facilitate their business.[39] There is very little industry-wide action, except on certain key issues, such as the aforementioned ban on live animal exports, which gained wide support from big and small firms, as well as other associated sectors.

Given the disparity in terms of firm size and influence between major exporters and small (and largely informal) firms connected to the domestic market, industry-wide action is seen to be unlikely in the future as well. This, as will be discussed later, remains a key hurdle in mainstreaming farm-to-table traceability through certification and documentation of the meat supply chain. In the absence of representative apex bodies that can work with smaller firms and

[38] Zenith Meat and Al-Shaheer Group (Meat One), two of the biggest meat producers with a large presence in both meat export and domestic retail, are founding members of APMEPA.
[39] Up to 80% of the total revenue from sales of large firms in the meat production/processing business are earned through red meat exports, mostly to the Middle East. Branded domestic retail is a relatively new market, and one which is only catering to upper-income consumers in big cities, while retail to businesses (such as restaurants and catering companies) retains an approximately 70% share in domestic sales.

processors, the potential for the meat industry, especially on the export front, will remain curtailed outside of markets that do not require pedigree certification.

3.4 State-Sector Interactions

The livestock processing space is also characterized by a range of various short-lived government initiatives, none of which have proven to be particularly successful. At various times, federal and provincial governments have set up companies and authorities, such as the Livestock and Dairy Development Board, the Punjab Agriculture and Meat Company, the Punjab Halal Development Agency etc. which have either been given inadequate resources or have had unclear mandates. Similarly, the federal government's Animal Quarantine Department of MNFRS, tasked with approving export-oriented slaughterhouses (including those with halal certification) and related services, operates with a limited budget and takes a long time providing the required certificates, constraining the options available to entrepreneurs. As a result there are only 15 slaughterhouses approved for export-quality international standards.

Many government initiatives, after the first few years, have seen reduced funding, especially for non-dairy related work. This in itself is an outcome of the dominance of the dairy sector, both in terms of its prevalence as well as the political influence of large-scale national and multinational corporations that operate within this space, which continues to hamper the kind of support provided to the meat processing segment by the government as a whole.

One obvious drawback of government neglect/indifference has been the inability to provide an enabling environment for large firms and corporate ventures that can guarantee farm-to-table traceability and secure the required certifications for meat export. One major reason has been the retention of red meat within the price regulation regime of the government under the, which allows the government to set maximum retail prices in localized domestic markets through District Price Committees.

Unlike pasteurized/branded milk, which is seen as a distinct value-added product, meat as a commodity is viewed as the final product. While the imposition of the retail price regime around meat is uneven, district administrators (Deputy and Assistant Commissioner's office) are often found enforcing fines on small retailers as well as larger branded ventures like MeatOne and Zenith. This has strong reverberations for the entire value chain, as it reduces margins and prevents livestock producers from obtaining a fair price for cattle reared specifically for meat purposes and dissuades large-scale investment and formalization in the sector as a whole. According to one informant, a major reason for the continued survival of the livestock production sector (beyond dairy) has been the ability to garner returns from other by-products (offals, skins/hides etc.) since the price regulatory regime is not particularly conducive to growth.

There is also a persisting lack of attention being given to meat processing by the provincial governments, which are responsible for much of the regulation around the sector. While both Punjab and Khyber-Pakhtunkhwa governments have published separate livestock policies (distinct from the agricultural policy), these have remained constrained by intrinsic weaknesses, such as lack of clear ownership, mandates, under-resourcing, and no monitoring.

Since taking office in 2018, the PTI-led federal and provincial governments have repeatedly stated its commitment to uplifting the agricultural sector on 'emergency' footing. This has partly translated into more attention towards the livestock sector as well, primarily based on its consistent outperformance of the overall growth rate in agriculture. Following this commitment, a number of new opportunities and measures have been devised to enable growth, with the following ones focusing specifically on the meat and meat processing segment:

- Project "Save & Fattening of Calf" for increasing livestock productivity and quality worth Rs. 5.3 billion announced in 2018-19 under the Prime Minister's Agricultural Emergency program:

- Improve quality and ensure disease free livestock for export of halal meat
- Fetch meat export markets for export enhancement
- Enhanced export of livestock products & by-products
- Farmers able to sell fattened calves at a profit
- Rear the breeds that international meat market wants

- Budgetary measures undertaken in 2018:
  - Custom duty of 3% on import of bulls meant for breeding purposes is withdrawn
  - Custom duty on the import of feeds meant for livestock sector is reduced from 10% to 5% and is also exempted from sales tax
  - Custom duty on cattle feed premix is reduced to 5%

Large-sized entrepreneurs involved in meat processing have exhibited cautious optimism about the segment's prospects under the new government but are generally unsure whether structural problems across the entire value-chain can be resolved with the initiatives that have been announced.

3.5 Stakeholder Influence-Alignment

High	**AQD** **MNFSR** **FBR** **HANDLE WITH CARE** **MEET NEEDS** **ENGAGE AND CONSULT IN INTEREST AREA** **TRY TO INCREASE LEVEL OF INTEREST** **AIM TO MOVE HERE**	**APMEPA (Large Exporting Firms)** **Prov Govt. Livestock Departments;** **LDDB** **LEAP** **TOP PRIORITY** **KEY PLAYER** **FOCUS EFFORTS ON THIS GROUP** **INVOLVE IN GOVERNANCE / DECISION MAKING BODIES** **ENGAGE & CONSULT REGULARLY**
INFLUENCE / POWER Low	**LOW PRIORITY** **LEAST IMPORTANT** **INFORM VIA GENERAL COMMUNICATION** **AIM TO MOVE** **PARC, UVAS,**	**NEED HELP TO PARTICIPATE** **SHOW CONSIDERATION** **MAKE USE OF INTEREST THROUGH INVOLVEMENT IN LOW RISK AREAS** **KEEP INFORMED & CONSULT ON INTEREST AREA** **POTENTIAL SUPPORTER/ GOODWILL AMBASSADOR** **Breeder/Producer Associations** **Pvt Slaughterhouses**
	Low **INTEREST** High →	

3.6 Barriers to Development

The meat segment in Pakistan's livestock sector suffers from both a range of structural as well as institutional/regulatory issues[40]; this section of the report will focus on those barriers which are categorically rooted within underlying political economy and policy preference dynamics. The key among these are:

Power imbalances in traditional/rural livestock markets: The manipulation of markets that often operate as monopsonies disincentivize greater investment in the breeding and production processes of livestock. Seller margins are kept purposefully low, while buyers' strikes are common in order to reduce animal prices. Many major rural livestock traders are politically and socially connected, which is why they are able to subvert existing regulations around market management and transparency. The still-prevalent practice of assessing price on the basis of per head animal (rather than live weight) is a legacy of this power imbalance.

Government's Pricing Regime: Beef and Mutton continue to be subjected to price regulations through the Price Control and Prevention of Profiteering and Hoarding Act, 1977. Such measures are designed to protect and prioritize urban consumers from fluctuations in prices, but in effect, they create a chain of disincentives within the meat production value chain. The imposition of fines and enforcement of the act itself remains uneven, while the determination of price varies from locality to locality (with multiple prices being determined by government-sponsored market committees even within one district).

Government Indifference: The under-resourcing of livestock departments, the AQD, public-sector veterinary institutions are all examples of no clear or coherent policy towards the livestock sector, and in particular towards its non-dairy component. Despite meat exports fetching upwards of $200 million in the preceding fiscal year, the government still has no actionable plan to improve farm-to-table traceability, encourage feedlotting, and grow reared-for-meat investments that can operate at scale. The most pressing areas that need attention are breeding, quality control and health and halal certification, meat grading, and improvements in public and private slaughterhouse infrastructure.[41]

Corruption and leakages Customs and Sales Tax Enforcement: FBR, which manages both the sales tax as well as customs regime around the livestock sector, has repeatedly been mentioned as a hurdle, especially for formal firms operating in the export space. The issue of sales tax refunds and smuggling of live animals at overland border crossings has also been raised as an issue by domestic meat processors and other associated sectors.

Ineffective Associations: Existing industry associations representing livestock farmers and breeders are particularly ineffective, which is partly an outcome of the structural fragmentation and scale of the sector. However, those organizations that do exist are dominated by large breeders (who are also often wholesalers) and are patronized by local government departments due to political and social relations. They are able to access subsidized veterinary care and other extension services, and make little effort to improve the outreach of their organizations. This lack of effective representation is a major reason for the continued absence of traceability in the value chain and the failure of eradicating livestock diseases.

[40] Key structural issues include the continued social importance associated with dairy over meat farming, which discourages investment in feedlotting; the scale of livestock farming itself, in which 80% of producers are small-sized farmers and breeders with herds numbering less than 5 animals; the gradual reduction of farm size which reduces grazing area and area available for cultivation of livestock feed; growing urbanization, which is creating a structural shift away from employment in agriculture (and its related) sectors.

[41] There are around 325 public slaughterhouses and around 50 registered private slaughterhouses

3.7 Opportunities for Transformation

Existing market dynamics and the incentive structures facing actors constrain growth and the overall opportunities available for the meat industry in Pakistan. However, two key structural and institutional trends may provide opportunities that can be harnessed, provided the government is able to manage the sector more effectively.

Changing Consumer Preferences in the Domestic Market: Industry entrepreneurs suggest that domestic consumers are becoming more conscious of the quality and hygiene of meat products, and are willing to pay a higher amount to bypass the traditional butcher system. This provides large firms who engage in meat processing and branded retail with an opportunity to cater to this demand. This trend is going to increase with increases in urbanization, disposable incomes, and the growth of a consumer-oriented, branded meat industry. Another key market that is growing is local catering and restaurant businesses who are also becoming more aware about the use of higher-quality meat in their industry.

Export orientation within the Government: The PTI-led government has repeatedly stated its desire to enhance exports from Pakistan, with halal certified meat exports being mentioned on several occasions by key government officials. The large halal meat market (estimated to be above $700 billion) provides a major opportunity for domestic entrepreneurs, which needs to be enabled by the government by making the Halal Certification Authority of the Ministry of Science and Technology to be more effective and better-resourced at the federal level. Provincial governments will also have to improve local infrastructure and improve support services provided to breeders/producers.

3.8 Proposed Reforms: Winners and Losers

	Proposed Recommendation	Likelihood of Reform	Winners	Losers
1	Deregulations: Denotify Beef and Mutton prices and exclude it from Price Control and Prevention of Profiteering and Hoarding Act, 1977; ensure animal sales on live-weight rather than per head	First is possible considering that government is currently revisiting profiteering and hoarding legislation; Second is difficult as it involves changes in highly decentralized animal markets	Incentivized meat producers, wholesalers, retailers. Opportunities for differentiation on quality and standards.	Rent-seeking municipal bureaucrats; some urban consumers as the deregulated regime adjustment takes place; wholesalers who take advantage of livestock market imbalances to lower purchase prices
2	Creating a provincial and central database on traceability of animals. This would also help in fostering the efforts of provincial and federal governments in registration of all animals within the defined region, information on feed provision, insemination & vaccination, and disease occurrence	There is some pressure for this as consumption patterns change and progressive retailers and exporters strive to maintain quality standards	Exporters will benefit from farm to fork traceability; branded retailers will be able to capitalize through first-movers advantage; consumers will benefit from better quality products	Regressive farmers, breeders, and wholesalers, who benefit from the lack of standards currently in place.

	amongst the herd population.			
3	Support to livestock extension department to improve breeding and vaccination processes	Difficult reform to implement as livestock extension departments suffer from years of underfunding and poor organizational practices.	Farmers/breeders and consumers will benefit from improved farming practices	Existing work shirking employees of the livestock extension department; farmers who obtain preferential treatment under the current system.
4	Working with sub-sector associations to improve awareness of breeding practices	There is now a likelihood given growth in local demand and recognition of export potential on part of the government.	Progressive farmers/feedlotters/exporters and retailers.	Large, politically connected farmers and businessmen who have captured sector-associations for preferential treatment from government departments.

4 Garments Sector

4.1 Sector Overview

The garments sector is one of the most important segments of the textile industry, which contributes significantly to Pakistan's economy. Pakistan is the 4th largest cotton producer in the world, accounting for about 7% of the world's cotton production. The textile industry, as one of the largest industrial sectors in Pakistan, accounts for one-fourth of industrial value addition[42]. Although the textile value chain consists of several segments, the garments segment has the highest value addition and is the main revenue earner amongst textile products. In 2017, the garments sector contributed almost 8.5% to Pakistan's GDP, employing 40% of the industrial labor force[43]. The garments segment consists of both knitwear (HS61) and woven (HS62), as shown below in the table.

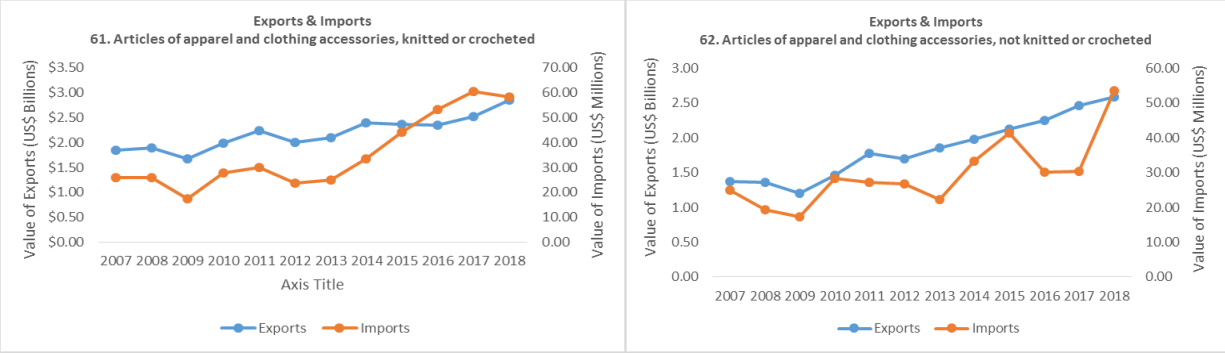
Table 6: HS61 and HS62

HS Code	Description
HS61	Apparel and clothing accessories; knitted or crocheted
HS62	Apparel and clothing accessories; not knitted or crocheted

4.1.1 Exports and Imports

Garments exports have increased from 21% of textile exports in 2001 to 42% in 2016 and have experienced the highest growth within textile export products[44], with value of exports continuing to rise as shown in the figures below. Within garments sector, knitted Ready-Made Garments (RMG) exports were valued at $2.86 billion and woven RMG stood at $2.58 billion in 2018[45], representing 1.49% and 1.32% of world exports in these categories respectively, and ranking Pakistan as the 15th and 16th largest exporter of knitwear and woven garments in the world.

Figure 6 - 7: Value of Exports and Imports of HS 61 and 62

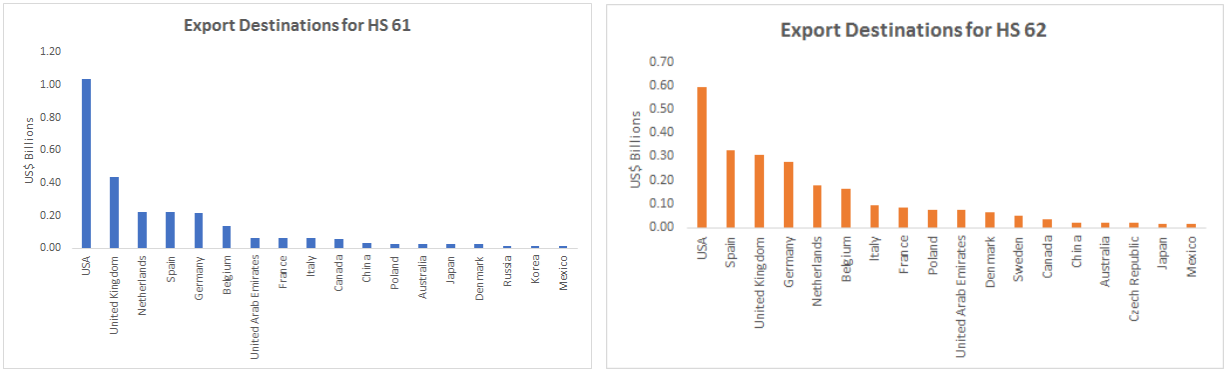


Source: UN Comtrade[46]

Similarly, the figures below show Pakistan's top export destinations for garments (HS 61 and HS 62) for 2018. USA is the top export destination, with knitted RMG exports valued at $1.03 billion and woven RMG stood at $595 million in 2018[47].

[42] Hassaan Khawar et al., "Pakistan's Readymade Garments Sector: Challenges and Opportunities" (CDPR, 2019), pp. 11.
[43] Khawar et al., 11.
[44] Khawar et al., 2.
[45] UN Comtrade, 2018, https://comtrade.un.org/.
[46] "UN Comtrade."
[47] "UN Comtrade."

Figure 8 - 9: Top Export Destinations for HS 61 and 62



Source: UN Comtrade[48]

4.1.2 Industrial Landscape

Pakistan's garments industry is clustered in the South (Karachi) and North (Lahore, Sialkot and Faisalabad). The garments cluster in Lahore specializes in mainly denim products, while Faisalabad is concentrated in hosiery items or knitwear. On the other hand, Karachi produces denim, woven and knitted garment products, whereas Sialkot, being more diversified, exports sports and technical wear garments in both knitted and woven categories. It is important to note that the rest of the garments value chain, including fabric and accessories manufacturing, and dyeing, is still geographically fragmented[49].

The garments industry is concentrated with a few large companies, which are responsible for generating the greatest proportion of Pakistan's exports in this sector. Around 10% of the businesses in the garments sector account for 90% of exports[50], while the small and medium scale, local firms in this sector only generate minimal export volumes. The number of companies that export garments during FY2016-17 was 4,954. These firms generated export revenue valued at US$4.7 billion under HS code 61 and 62[51].

In terms of product categories, the larger exporters mostly produce a narrower range of products. Around 6 out of the 8 largest exporters within the garments sector specialized in individual products, where one specific HS code accounted for at least 84% of exports. The HS code 620322, which includes men's or boys' trousers or related products, generated over US$10 million as part of garments exports in FY2016/17[52].

In addition to this, small and medium-scale enterprises are 90% of the firms in this sector, and their export-oriented products vary within at least 203 HS codes categories. Exports in HS code 611610, which include gloves, mittens and mitts, coated or covered with plastics or rubber, are usually covered by these SMEs[53]. The differences in the products exported by larger and smaller firms in the garments industry are more evident within the men's or boys' cotton suits, jackets and pants HS code category. Although, it is the largest exported HS code, it only has the fourth leading output for SMEs[54].

[48] Ibid.
[49] Khawar et al., 21.
[50] Stacey Frederick and Jack Daly, "Pakistan in the Apparel Global Value Chain" (Duke Global Value Chains Center, 2019), pp. 29
[51] Frederick and Daly, 29.
[52] Frederick and Daly, 29-30
[53] Frederick and Daly, 29-30
[54] Ibid, 29-30

Furthermore, the garments segment is the most labour-intensive, least energy- and capital-intensive. It, therefore, provides employment to 2.38% of the labour force[55]. The table below lists the top apparel suppliers in Pakistan.

Table 7: Top Pakistani Apparel Suppliers

Pakistani Apparel Suppliers	Global Buyers	Segments/Products	Location	Workers in Pakistan	Year Established
Nishat Mills	New Look, Target, Gap, C&A, Levi's	Weaving, dyeing, finishing, woven apparel	Lahore, Faisalabad	1000-5000	1951
Sapphire Group	—	Yarn, Fabric, Knitwear, Woven apparel	Lahore	25000	1970
Artistic Fabric & Garment	Gap, C&A, New Look, Target, VF	Denim manufacturing/yarn	Karachi	5000-10000	—
US Apparel & Textile (US Denim)	Tesco, Levi's, C&A	Denim fabric; Jeans	Lahore	18,250 (1,650 denim)	1975
Mahmood Group	—	Yarn, woven	Kabirwala Multan	12500	1935
Gul Ahmed Textile Mills	M&S, Target	Yarn, stitching	Karachi	10000+	1953
Interloop Limited	Tesco, Target, H&M, C&A, Levi's	Hosiery	Lahore, Faisalabad	15000	1992
Masood Textile Mills	Levi's, Target	Yarn, knit fabric, knitwear	Faisalabad	22000	1984
Klash Private Ltd.	Europe	Knit fabric, Knit cotton tops	Faisalabad	10000	2002
Comfort Knitwear	H&M	Yarn, Dyeing, Knitwear	Lahore	7,500 (5,500 apparel)	1987

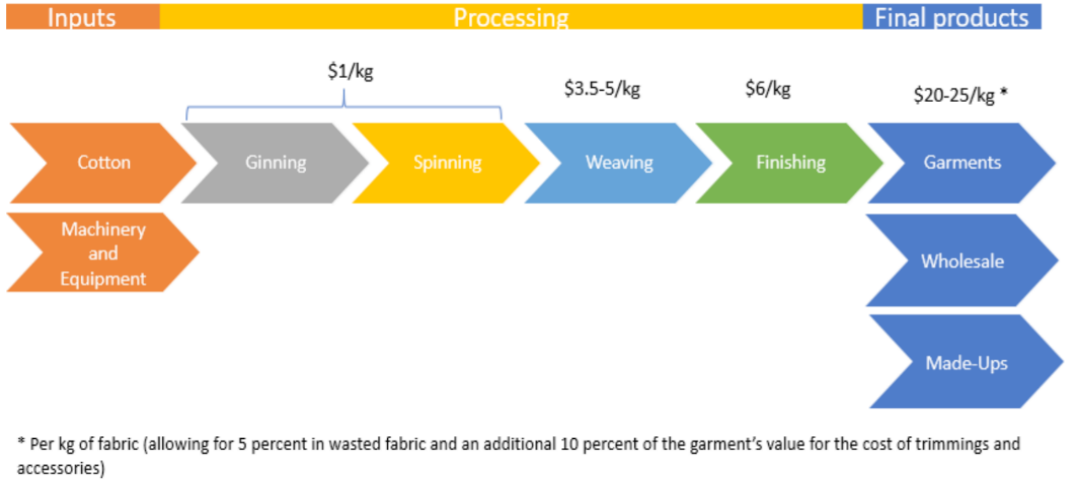
Source: Frederick and Daly[56]

4.1.3 Value Chain

Within the textile value chain, the garments segment has the highest value addition of about $20-25/ kg of fabric and the price of garment products has nearly tripled in the international market during the last 16 years[57].

[55] Khawar et al., 2.
[56] Frederick and Daly, 36
[57] Khawar et al., 13.

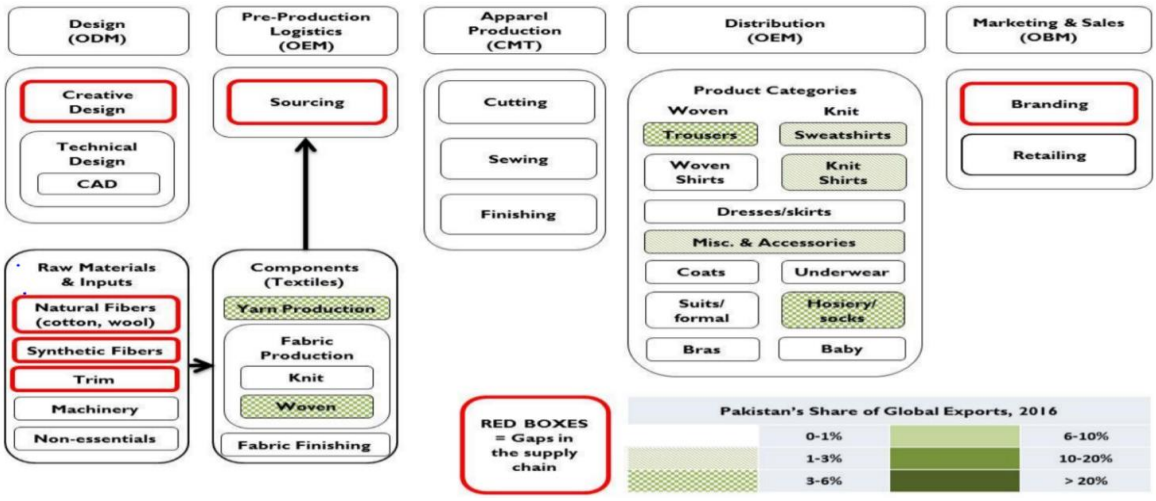
Figure 10: Structure of the Textile Value Chain



Source: Khawar et al.[58]

The garments value chain consists of five key stages: design (ODM); pre-production logistics (OEM); apparel production (CMT); distribution (OEM); and marketing & sales (OBM). As shown in the figure below, the green boxes depict categories, where Pakistan has the highest shares of the global market. The share of global exports with the trousers and hosiery/socks categories is between 3-6%, whereas Pakistan's still has 1-3% share of global exports for sweatshirts, knit shirts, and accessories. Pakistan export activity is limited for the categories in white. Moreover, the boxes outlined in red depict gaps in the supply chain[59].These gaps are either seen in the design and input part of the value chain or branding. Pakistani firms have been stuck in creating products driven by the consumer. Limited technological capacity has impacted the ability of firms to create new materials. There has also been limited investment in design and branding due to high costs, which most firms are unable to afford. Branding has also been a challenge due to Pakistan's overall image as a country.

Figure 11: Garments Value Chain



Source: Frederick and Daly[60]

[58] Khawar et al., 13.
[59] Frederick and Daly, 28.
[60] Frederick and Daly, 28.

4.2 Key Players

As the garment sector caters to both domestic and international markets, government ministries and key associations of prominent players have vested interests in improving the investment climate and the ease of doing business. Below is a list of key stakeholders in the garments sector.

Table 8: Key Players in the Garment Industry

Name	Classification	Functions	Members	Election Procedures
Ministry of Textile Industry (MINTEX)	Government Agency	MINTEX formulates the textile policy and coordinates with other government agencies/institutions to facilitate and promote the textile sector. It also monitors the compliance of international standards throughout the textile value chain and establishes links with global partners. MINTEX also collects and disseminates textile related statistics, commercial intelligence, international demand patterns and market access, as well as provides training and skill development for enhancing productivity and improving quality throughout the textile value chain. The Government of Pakistan has recently merged Commerce and Textile Divisions, and now the Ministry of Commerce and Textile has been renamed as the Ministry of Commerce.	NA	NA
Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA)	Industry Association	PRGMEA is responsible for providing assistance to ready-made garment manufacturers and exporters and facilitating a better export environment by offering support services and information to its members and relevant government bodies.		PRGMEA has annual elections for Zonal Managing Committee (ZMC) members. 8 ZMC members from the South (including one women entrepreneur) and 7 ZMC members from the North Zone were selected for the 2017-18 elections.
All Pakistan Textile Mill Association (APTMA)	Industry Association	APTMA represents textile spinning, weaving, and composite mills. It connects Pakistan's textile mill owners with various stakeholders in this sector and represents their interests to relevant government agencies.	396 textile mills: 315 spinning, 44 weaving and 37 composite units.	Elections are held every year. APTMA is divided into 3 zones; Punjab, KP and Sindh-Balochistan each of which has a chairman. There is an overall secretariat – who

				are the principal officer bearers.
Pakistan Hosiery Manufacturers & Exporters Association (PHMA)	Industry Association	PHMA represents the hosiery and knitwear industry of Pakistan. It aims to accelerate growth in this sector, while also generating employment.	871 registered members	Elections are held to fill 7 seats from each zone (Northern and Southern)

In addition to these players, there are government institutions that regularly interact with the private sector and whose role has an impact on the private sector. These players include:

- Federal Board of Revenue (FBR) – it is directly responsible for tax collection and has influence on tax policy. It is the arm of the Ministry of Finance in terms of formulating and implementing fiscal policy measures.
- State Bank of Pakistan (SBP) – it is responsible for implementing the monetary policy of the country. It manages credit and currency and hence plays a key role when it comes to exchange rate stability, interest rates and credit policy.
- Trade Development Authority of Pakistan (TDAP) - is an arm of the Ministry of Commerce, which works on trade development for Pakistan's industry. Its main focus is on trade fairs to connect firms to international clients.

4.3 Power Relations within the Sector

The textile sector due to its economic prominence has always had a strong public-private interaction. Over the years it has lobbied with the government asking for various forms of protection. However, the garments sector hasn't been at the background of this lobbying because traditionally spinning and other lower value-added products have been given more importance. Due to favourable policy incentives from the government, investment has been heavily focused towards the spinning sector. According to PRGMEA, in the 10-year period 1999- 2009, of the estimated US$7.5 billion invested in the textile sector, nearly 80% was in spinning, weaving and finishing activities. While only 12% was invested in garments and made ups[61]. Despite this investment, yarn of fine count has been produced in a limited capacity. For example in 2016-17, only 5.4% of the total production was of fine and super count. Moreover, only one-third of the total production is exported. The rest is used domestically[62].

Since Pakistan grows cotton, it has a comparative advantage in cotton textiles. Historically, Pakistan has used this advantage to export raw cotton as well as low value-added cotton products. Since, the spinning sector requires relatively low inputs such as labour and has low barriers to entry, it has attracted many large players that have used their influence as Pakistan's main exporters to get favourable policy measures. However, over time demand and profit margins in low value added products have fallen and the global trends have suggested that in order to increase exports, the sector must move up the value chain and export garments. Hence, the focus on the garments sector in Pakistan is relatively new.

The entrenched lobby of APTMA, which is led by spinners, continues to influence the government sector as these players use their wealth and political influence. APTMA over the years has been led by groups of major players. Initially it was led by influential, wealthy families like the Saigols and Manshas. More recently, a new group has taken the position of leading the association. Gohar Ejaz, head of Ejaz group of textiles has previously been chairman of the association. However, even as a new chairman has been elected, he continues to hold a strong influence on who is elected and on major decisions made by the association. One of the factors that affect the formation of these groups in APTMA is 'baradari'. Support in elections are made on the basis of

[61] Khawar et al.
[62] Khawar et al.,

kin ship affiliations. Hence, if more members of the same baradari or related baradari are voting, then that group becomes stronger.

APTMA as an association claims to represent the interest of the entire value chain including garments. Some if its members are garments manufacturers, who have created backward linkages and have started producing yarn. Hence, APTMA cites the example of these firms to show the government that it represents garments firms as well. But these firms are small in number and are usually members of garment associations as well. As APTMA is comprised of large firms, it leverages that strength to its advantage when negotiating with the government.

The government too relies on large-scale manufacturers to discuss any policy concerns. Some of the discussions take place outside the associations. The same big players are called upon to discuss reform. Hence, owners of Gul Ahmed, Nishat, Sapphire and Koh-i-Noor are called upon mostly for private sector consultation. These are old, wealthy groups that have influenced policy over the years. Newer players find it difficult to penetrate this circle. Some exceptions have been seen such as Interloop and Style Textile, whose exceptional export performance has been noticed by the government, and has gotten them a seat at the negotiation table.

The two garments associations, PRGMEA and PHMA comprise of mostly SMEs as members. Their membership is in thousands, but many firms have shut down. Yet they continue to be part of the association. These associations have been traditionally overshadowed by APTMA, as their lobby has been weaker. This is also attributable to elected leaders with weak performing firms. The bigger firms in the associations do not want to be part of the leadership. Members of the associations also criticize the leadership for lack of vision, which would propel the role of associations to be stronger than its current role. In their opinion, associations are reactive in nature, instead of proactive in dialogue with the government. Their roles are more administrative, instead of action oriented, in terms of support for their members. Consequently, garments as a sector have received less importance from the government than the rest of the textile chain.

In the past year, PRGMEA has received more importance from the government. This is due to two reasons. Firstly, the government has realized that APTMA members while proclaiming to only export, sell their products locally and hence, have used the zero rate tax regime to enjoy benefits for goods they sell locally. PRGMEA members are all exporters; hence, they do not take undue advantage of the regime. Secondly, the International Apparel Federation held a mega fair in Pakistan in November 2019, at the behest of PRGMEA, which showed the government how interested foreign brands are in investing in Pakistan and the potential for growth in this sector. This fair was arranged and financed by PRGMEA members and was a big success, as it was the first time one of the world's largest fashion apparel convention was held in Pakistan

PHMA has seen internal clashes that impact its effectiveness as an association. This clash exists between the north and south zone. The south zone has bigger players than the north, so they do not let the smaller firms come to the forefront. Since the knitwear process starts from yarn, some of the PHMA members become part of APTMA, especially when they feel their interests are not being looked after.

Both associations also work together on issues that are common to both knitwear and woven garments. However, some industry members do not see the need for two separate associations, as both type of firms face the same issues. They suggest that by combining the two associations, their lobby with the government would be stronger and they would be able to compete with APTMA.

4.4 State – Sector Interaction

4.4.1 State Support for the Private Sector

On the government side, the Ministry of Textiles, since its formation in 2004, has been responsible for reforms in this sector. This includes creating the 5 year textile policy to help develop the sector sustainably[63]. The first National Textile Policy (2009-14) was made in response to constraints faced by the industry. This included regulatory concerns, lack of skills and infrastructure and energy concerns. However, the policy was considered more of a long list of aspirations than actual, action-oriented solutions. There was usage of vague terms such as "increase the supply of efficient human resources;" or "evolve a legislative framework that sets standards for each stage of processing". There was also a promise of a technology up-gradation fund and a textile investment fund that would help modernize the sector in terms of machinery. However, the policy focused more on providing credit facilities, instead of focusing on reducing the risk associated with new technology. Overall, the policy was considered ineffective, as the funds released were lower than promised, due to budget cuts and IMF pressure on reducing spending[64].

The second textile policy (2014-19) was also considered to be insufficient in terms of catalysing growth in the sector, especially for the value added products. Focus was on subsidies and low credit, which was largely availed by spinners rather than garments producers. The credit schemes in this policy were costly and distortionary as they focused on export refinancing (that is the SBP had to refinance loans extended by commercial banks, sometimes at higher interest rates). Moreover, the R&D support provided in this policy was also not considered adequate by the industry[65].

In addition to this policy, the PM Exporter Package (2017-18) was introduced to alleviate some of the major concerns of the sector. This included expedited sales tax refunds on exports and higher drawback rate under the Drawback on Local Taxes and Levies (DLTL) cash subsidies. The sector showed favourable reaction to this package as it met some of its immediate demands[66]. However, it only helped ease cash constraints and did little to improve the productivity of the sector.
Recently**,** the draft of the Pakistan Textile Policy for 2020-25 has also been prepared for the ECC (Economic Coordination Committee) for approval. A textile taskforce was formed for this purpose that includes big players from the private sector such as Crescent, Soorty, Style Textile, Gul Ahmed, Sapphire and Interloop. Therefore, the recommendations for the new policy are more private sector driven than previous policies.

This recent textile policy draft aims to increase Pakistan's textile exports target to $25.3 billion by 2025 and $50 billion by 2030, as well as devise a clear roadmap for the achievement of these targets. The following are the key objectives proposed under the Textile Policy for 2020-25[67]:

- Restoring profitability of cotton farmers, through increase in cotton yield, improvement in the quality of cotton and decrease in farmers' cost of production;
- Devising regionally competitive energy pricing, which must be fixed for five years;
- Strengthening manmade fiber/filament sector by improving its export potential and international competitiveness;
- Prompting the sales tax refund system;
- Reviewing the abolition of Zero-Rating;
- Ensuring long term financing facilities for the entire textile value chain;
- Improving the textile industry's capacity through the introduction of bankruptcy law;
- Establishing textile clusters and Export Processing Zones;

4.4.2 Dynamics of Key State Players

[63] Khawar et al., 37.
[64] Matthew McCartney, "The Political Economy of Industrial Policy: A Comparative Study of the Textiles Industry in Pakistan," *The Lahore Journal of Economics* 19, no. Special Edition (September 2014): pp. 105-134)
[65] Khawar et al.
[66] Khawar et al.
[67] Khayyam Munawar, "Textile Policy of Pakistan 2018-2023," *The Nation*, November 14, 2019, https://nation.com.pk/14-Nov-2019/textile-policy-of-pakistan-2018-2023)

The Ministry of Textiles has recently been merged with the Ministry of Commerce under the measures taken by the PTI government to save resources. However, there is no Minister that heads the ministry in the current government. An advisor to the PM on Commerce has the duties of the Minister. Positive reviews of the advisor have been garnered, since he is from the private sector and both ministry officials and the industry are of the view that a technocrat is not politically biased about reform. Hence, is more likely to make progressive decisions that take the sector forward. The industry is also of the opinion that they have more access to the advisor unlike previous politicians. However, this access is for larger firms. Traditionally larger players have been able to approach bureaucrats or politicians through personal connections. However, SMEs do not have this opportunity nor do they have a platform that will take forward their concerns.

Moreover, the interest of the Secretary of the Ministry of Commerce, who now oversees textiles as well, is diluted since he is looking after various other industries. The garments industry asks that the ministry should at the minimum be consistent with its policy. Changing secretaries and ministers should not affect decisions, if particular reforms are clearly set out in the textile policy. The government needs to look beyond tackling short-term concerns and policies must advocate for changes that improve competitiveness in the long term.

On the other hand, resources available to a country like Pakistan limit the ministry. It has to prioritize, so that the maximum players can benefit from its policies. Hence, it posits that differentiating between small and large firms for most policy issues is difficult, because if a particular benefit is provided to smaller firms, then the large firms find loopholes to take advantage of them. Firms register themselves into smaller divisions to benefit from the SME targeted policy.

In addition to the Ministry of Textiles, FBR and State Bank of Pakistan play an important role in the reform process for garments. The issue of taxation has been a long drawn concern that has created bad blood between the public and private stakeholders. With FBR, sales tax refunds have been a cause of contention, as the private sector insists that their liquidity is affected when refunds are not given. The FBR has introduced an automated system (FASTER) that aims to facilitate a quick refund process, if 'Form H' as it is commonly known is filled properly. The industry claims that this system is not working, the form is complicated and their refunds are still stuck. They suggest that the FBR considers this sales tax inflow as an interest free loan used to show higher revenues. Some industry members disagree and suggest that if the form is understood and correctly answered, refunds are given quickly. The Ministry of Textile claims that the industry does not want to declare its exact inventory, which the form asks. Hence, their refunds are not given. The form requires matching of inventory with vendors as well, so the system is built in a way that ensures related industries should also be registered in the system. This can be complicated for firms, as smaller vendors may be unwilling to come in the FBR's system.

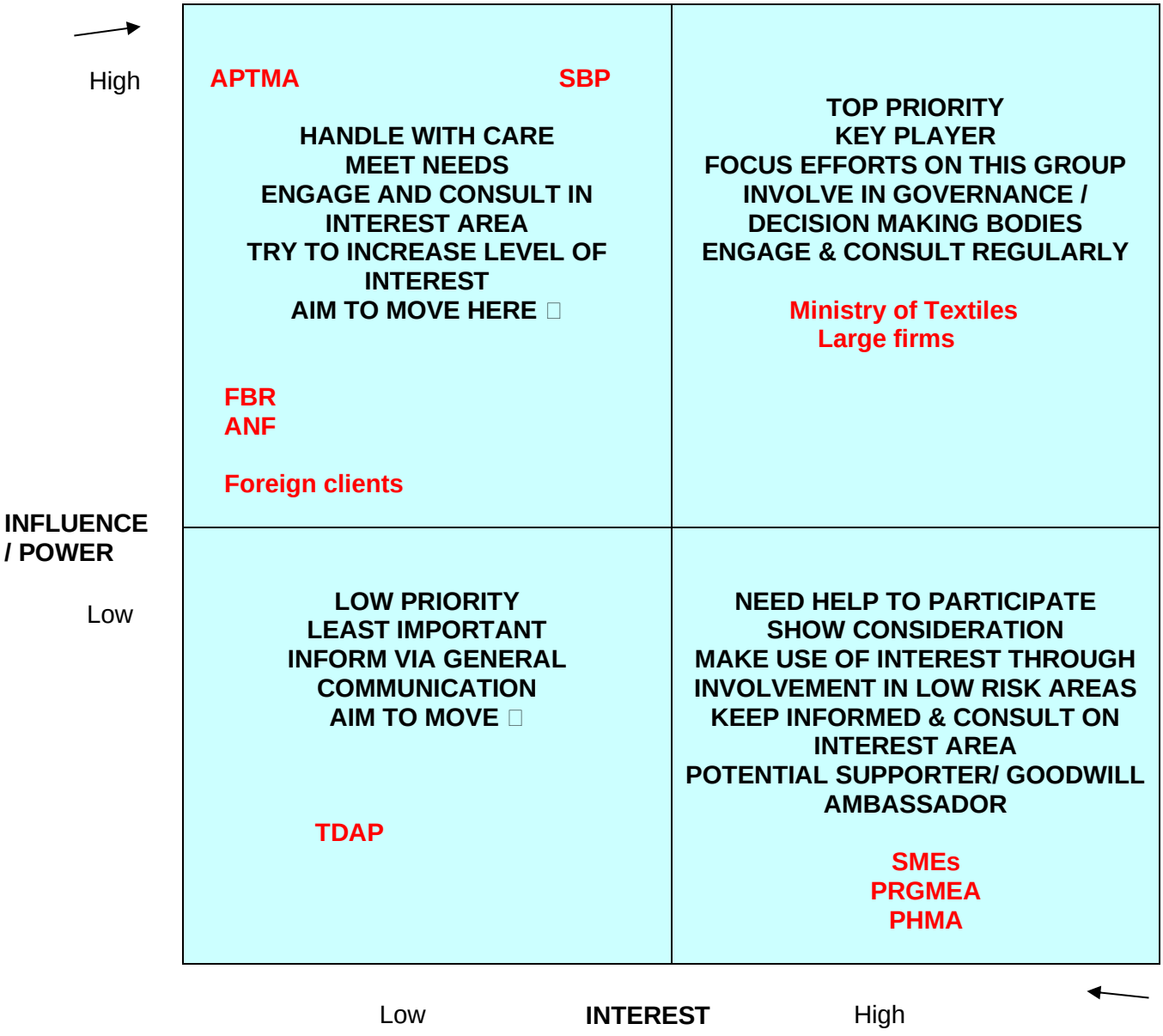
The State Bank is instrumental in the reform to improve access to credit. It provides Long Term Financing Facility (LTFF) for Plant & Machinery at 5% to aid firms in acquiring the latest machinery. It also provides the cheapest loans to the textile sector for their working capital at 3% under the Export Financing Scheme (EFS). These subsidized rates are instrumental in helping garments firms decrease cost in the current economy where the rupee has devalued. The SBP has also launched a SME policy in 2017 that aims to improve the regulatory regime of SMEs, simplify their loan procedure, improve risk coverage and help them in non-financial advisory service. However, the SMEs still find there are issues in access to finance, as they have to provide collateral to get a loan. That remains one of the biggest challenges for most SMEs.

The Trade Development Authority of Pakistan's (TDAP) mandate gives it the ambit of helping firms reach international clients through fairs and exhibitions and to develop projects through the Export Development Fund (EDF). Yet the garments industry feels it falls short of its ambit. TDAP is unable to help firms connect to major clients. The effort of getting new clients is made by firms

on their own. Moreover, the EDF is not used for any development programme benefiting the industry, while the industry keeps paying 0.25% of its value of exports.

4.5 Stakeholder Influence-Alignment

Potential for reform – Assessing Winners, Losers, and likelihood of Reform efforts



4.6 Barriers to Development

Producing garments is a complex process that involves various stages in the production chain. Political economy factors affect this production chain at each stage and create challenges that affect competitiveness of firms. Following are the key barriers at each stage of the production chain:

4.6.1 Input quality and access

One barrier to development in the initial stages is the quality of raw material used by Pakistani firms. Pakistan has a comparative advantage in garments because of cotton, which is produced abundantly. However, due to ineffective implementation of regulation such as the Seed

(amendment) Act of 2015, the quality of cotton has been falling. Cotton is contaminated while picking and storing, as farmers are unaware of local standards and there is difficulty in enforcement as many growers are not registered, which means garments firms have to import this basic input too.This low quality is particularly apparent when Pakistani cotton is used in white or light coloured garments. There is limited investment in developing new cotton germplasm and there is inadequate implementation of the Plant Breeder's Rights Act that promotes and protects plant varieties. Firms like Sapphire want to invest in developing new germplasm, but the government is not giving approval, since it requires amending regulation. Moreover, Sapphire is afraid to hand over their germplasm prototype to the government for testing, because there are no intellectual property rights to protect it.

Another concern in terms of inputs is man-made fibre (MMF) such as polyester. In order for Pakistani exports to remain competitive and in sync with global trends, Pakistan must start producing garments with man-made fibre. However, due to the lobbying efforts of 3-4 polyester firms, import duties on polyester remain. Local polyester does not meet the standards which foreign clients demand nor does it offer much variety. While importing is possible under Duty and Tax Remission Scheme (DTRE), it affects lead time in production. The current tariff regime is such that it is the lowest for fibre (7%) and highest for fabric (16%). This was to encourage developing blends between cotton and MMF. However, while the world has moved on to a 50:50 mix, Pakistan still remains at 80:20 mix due to the monopoly of local firms, which makes it uncompetitive. This means that Pakistan is losing out on approximately 70% of the global market.

While the final products that garments sector produces are all regulated by international standards, the domestic institution for standard setting, Pakistan Standard and Quality Control Authority (PQSA) can have an important role in ensuring domestic firms have the necessary standards that can propel them to become exporting firms. Moreover, with new standard testing and regulations demanded by clients, PQSA must stay up to date so that these tests can be carried out locally, instead of firms bearing the cost of sending them internationally.

However, currently none of the garments firms take PQSA standards seriously, which makes this institution irrelevant for the exporting sector. They find that the customers have a more strict quality regime than PQSA.

The labour input is also affected by quality. There are organizations such as Technical Education and Vocational Training Authority (TEVTA) and Punjab Skills Development Fund (PSDF) that have garments related programs to provide trained workers to firms. However, the industry is of the view that the quality of these workers needs to improve. The institutions should not measure their success by the number of workers employed in factories, but by comparing their skills to international benchmarks. Larger firms are able to hire international consultants to train their workers and enable them to learn working with the latest technology. Smaller firms have to use whatever level of skilled labour they can acquire in the market. Moreover, labour inspectors who are part of the mechanism of the government's quality control do not actually check labour conditions. They are part of the rent seeking system in which the larger firms have managed to avoid their inspections or appease them through a set payment system, while smaller firms struggle to deal with them.

4.6.2 Tax

One of the biggest concerns that the industry has constantly raised to the government is the issue of sales tax refund. The government has provided a zero-rating status to five major exporting sectors including garments over the years. The main benefits of the scheme included zero-rate sales tax on inputs and products. The government's motivation behind this was to promote exports by making Pakistani products more competitive in the global market as countries like Bangladesh have introduced similar policies. However, the zero-rated regime has been criticized for having created perverse incentives for manufacturers. The regime was meant for only exporters, but was being utilized by firms to sell their local products as well.

Consequently, the Pakistan Tehreek-e-Insaf (PTI) government – as part of its structural reform agenda to lower the fiscal deficit ended the zero-rated industry subsidy in June 2019. The sales tax rate has been restored to the standard 17% for exporters as well. However, the government promises to release tax refunds to exporters quickly so that it does not affect their liquidity. It has automated its system for this purpose. Yet, the industry claims that the FBR continues to keep refunds and process them slowly, as it boosts their revenues. The industry has demanded that exporters should not be taxed if the government cannot return the funds. However, in the current economic downturn and with the new IMF programme, this seems improbable. The delay in fund release is linked to the government's persisting inability and unwillingness to expand its tax base by taking on undocumented sectors and cutting back exemptions, instead of shaking off its reliance on taxes collected from the largely documented manufacturing enterprises. The garments sector is affected more so by the end of the zero tax rate regime, because its global competitors are taking advantage of this regime. While larger firms can work with less cash flow, smaller firms are now being forced to shut down, as the combined effect of inflation and this liquidity issue has brought them under a crisis.

4.6.3 Energy

Energy has been another issue that has been constantly discussed between the government and the industry. In the last decade, the issue was more about energy supply as load shedding was common. More recently, it is about the cost of energy as countries like Bangladesh and Vietnam are working with subsidized rates. APTMA has pushed for low energy rates particularly because energy costs for spinners are higher. It accounts for 20 to 25% of their cost, while for garments; it costs 3 to 5% or if vertically integrated 5-6% of total costs. Hence, energy becomes high on the agenda when negotiating with the government. However, for the garments sector, other important concerns such as product diversification through the use of new MMF materials gets sidelined in the discussion.

In a recent SRO notified in January 2019, the price of electricity for the five export oriented sectors which includes textiles was reduced to 7.5 cents/kWh, making Pakistan competitive with Bangladesh and Vietnam. However, the Ministry for Energy has instructed DISCOs to charge add-ons in addition to this rate, making the cost as high as 13 cents. APTMA has expressed serious concern over this violation of the SRO notified and has asked the Ministry of Commerce to implement it correctly[68].

Many of the larger garments firms have their own captive power generation for a more reliable supply of energy. Firms like Sapphire are now looking to further set up their own LNG plant and sell to other firms. However, this option is not available to smaller firms. They have to rely on expensive rates that make them uncompetitive. In addition, low quality supply of electricity, where there are fluctuations and disruptions, affect machinery and raise maintenance cost as well as creating delays in meeting deadlines.

4.6.4 Industrial Estates/Parks

Industrial Estates or Apparel Parks are a way to assist firms by providing them facilities in an organized manner under one roof. They aim to speed up custom procedures and provide a constant supply of utilities. If the estate is declared a Special Economic Zone (SEZ), then income tax is exempted for ten years and custom duties on importing capital goods one time are also exempted[69]. Bangladesh has used SEZs to attract a lot of investment in the garments sector and to reduce the costs of firms. However, they have not been as successful in Pakistan. Most of the land in such designated zones is more expensive than normal land. There is a lot of speculation,

[68] Mushtaq Ghumman, "Power Tariff: Move Aimed at Charging All Add-Ons Irks APTMA," *Business Recorder*, January 16, 2020, https://www.brecorder.com/2020/01/16/562165/power-tariff-move-aimed-at-charging-all-add-ons-irks-aptma/)
[69] Board of Investment, *Special Economic Zone Framework in Pakistan*, https://invest.gov.pk/sez.

which means people buy land for investment and profit and do not use it to set up their factory. This can be articulated through the example of the Quaid-e-Azam Apparel Park (QAAP), which was an initiative by the Punjab Government to have a specially designed park for the garments sector. The land was earmarked with consultation with the private sector and the Park was designed to house labour, generate its own power, have a water effluent plant, as well as a skills centre. The Park aimed to provide space for over a 100 garment manufacturers and 134 SMEs including accessories suppliers. It was also declared as a SEZ. However, currently the QAAP only has a boundary wall and groundbreaking, which was to occur in 2017, has not happened as yet. While some firms have been eager to buy land in QAAP, others find that the proposed plans are not realistic such as uninterrupted supply of energy. For SMEs, the cost of relocation seems high if the promised supply of skilled labour is not available. The Park aimed to lower the costs for SMEs through tax holidays and training labour via its in house vocational institute. Recently, lobbying by a powerful group has resulted in the Apparel Park to be now considered as an estate open to all industries. The garments industry did not have the power to oppose this lobby.

4.6.5 Market access

One key barrier impacting garments firms post-production is market access. Due to Pakistan's foreign relations, its affected image vis a vis security concerns and reputation of political instability, big clients are careful of investing in Pakistan. Some of the major brands have a cap on the amount of orders they will take from Pakistan as a risk mitigation strategy. When clients either do not want to visit Pakistan due to security concerns or have difficulty in getting a visa, it further limits expansion of orders Pakistani firms can place. The ability to visit and inspect vendor premises in person is an important part of building future relations. This political economy limitation creates an additional challenge for garments firms in Pakistan.

Another issue of access is based on tariff concessions. China under the new FTA agreement has given more tariff concessions compared to CPFTA I, with lower tariffs than the top 5 competing suppliers to China in a range of garment products[70]. However, Bangladesh has taken advantage of a head start on tariff concessions and has taken a huge chunk of the market. Pakistan's earlier weak trade negotiations have affected Pakistan's garments export performance.

Another challenge faced by Pakistani garments firms is that Pakistan is unable to import from India that provides the cheapest option for man-made fibre. However, since these items fall on India's Negative List for Pakistan and cannot be traded with Pakistan, Pakistan cannot import from India. This plays into the larger political economy of poor trade relations with India and Pakistan's inability to let economics trump political concerns. Furthermore, when Pakistan imports from China, it is unable to avail the concession under GSP Plus, as under its rules, it must import raw material from Group III countries, which includes India, Bangladesh, Sri Lanka, Bhutan and Nepal[71]. Hence, Pakistan is once again unable to take advantage of trade with its immediate neighbour i.e. India.

4.6.6 Customs

Another barrier to development comes at the last stage of the production chain, which is the custom procedure that continues to affect firms' delivery of the product. Bureaucratic hurdles delay shipments, as custom clearing facilities which are officially operated 24/7 cannot be accessed on all days or even at all times. Dry ports tend to take more time because they do not have the same scanning facilities as the Karachi port. Other hurdles also delay shipment such as the checking by the Anti-Narcotic Force (ANF). They take time to check shipments and sometimes open packages, which damages the products. This harms the reputation of firms in front of their clients and also leads to use of emergency air shipment, which is costly. While these are simple changes that need to be made to help firms, the ANF refuses to change their methods as they

[70] Nazish Afraz and Nadia Mukhtar, "China Pakistan Free Trade Agreement Phase 2 A Preliminary Analysis" (CDPR, 2019), pp. 1-87
[71] Khawar et al.

emphasize on the importance of security over delayed shipments. This is linked to the broader political economy of Pakistan, as the country has a high security concern and therefore, law enforcement agencies have a lot of power. ANF's power, due to the precedence of security over economic concerns cannot be challenged.

However, custom related hurdles are not limited to the last stage of production. They also impact the imports of raw material. One such issue is the approval required from the IOCO office on the input-output ratios and permitted wastage allowance, which determine the quantities of raw materials that can be imported. While both yarn and fabric fall under the DTRE, such approval increased lead-time by 35-45 days. To facilitate Punjab based firms, an IOCO office was also opened in Lahore, as the Karachi office would take longer for them. However, this new office still hasn't reduced lead-time[72]. This feeds into the broader issue of how red-tapism affects firm's delivery and how firms have to use personal connections to speed up processes or to get various approval.

4.7 Opportunities for Transformation

Some of the challenges faced by the garments sector have garnered more attention due to various vested interests while others have been neglected because there has been no organized effort to push for those reforms. The recommendation can help the garments sector gain a more organized voice and tackle key issues constraining the sector:

- Create a single association for both woven and knitwear with an elected board of directors and a proper secretariat. Various sub-committees can be formed that oversee particular issues facing the industry. The sub-committees can then work towards conducting research and proposing solutions for their issue. The role of the new association would be more dynamic and proactive. It would step in where government institutions have failed, such as working on international exhibitions and inviting big foreign clients. It would also help firms stay connected with world trends by providing research through a pool of combined resources. With additional resources and a more organized platform, lobbying with the government is likely to be more successful. It will also counteract the lobby of APTMA, which represents other parts of the textile value chain, or any other lobby (such as the one opposing QAAP). BGMEA is a successful example to follow.

The government itself has a key role to play in reducing the political economy factors impacting the sector. It can take small steps that can make a sizable difference in improving the competitiveness of firms. The following recommendations include those initial steps:

- On one hand, the big players in the garments industry should counter the polyester lobby in order to reduce the import duties to a minimum on MMF fabrics. Now that the government is taking note of the new garment players like Style Textiles and Interloop, their lobby would be more effective if joined strategically with other players. On the other hand, the government must find a way to appease both sectors. One way would be to subsidize the polyester manufacturers in another way such as subsidizing inputs, which would still protect them, while reducing tariffs on MMF fabrics, so that the garments industry can import them and become more competitive.

- In order to make Apparel Parks or Industrial Estates more attractive and feasible for SMEs, the government can use public-private partnership to develop high storied buildings that can be leased floor by floor to SMEs. This would not extend too many resources from the government's side, and it would be an effective way to attract SMEs who can benefit from the facilities in the industrial estate. Leasing the land to all firms who want to develop in the

[72] Naved Hamid and Ijaz Nabi, "Implementing Policies for Competitive Garments Manufacturing" (CDPR, 2017), pp. 1-53.

area is a strategy that should be employed to end speculation and make the land more affordable and attractive to all firms.

- There is a lack of trust between the government and the private sector. Even if the government does take steps to help the sector, those steps are lost in the history of distrust. One way to improve relations with the garments sector is to utilize the 0.25% that garments firms pay out of their export value for the Export Development Fund and initiate programmes through that fund in order to help the sector. This can include hiring international consultants who can train the trainers in Pakistan to improve skills or who can help firms improve their business processes or develop new products.

4.8 Proposed Reforms: Winners and Losers

	Proposed Recommendation	Likelihood of Reform	Winners	Losers
1	Create a single association for both woven and knitwear with an elected board of directors and a proper secretariat.	This is possible if major players from both PRGMEA and PHMA work together to show the positives of a strengthened single lobby. Some players have indicated interest in following the example of BRGMEA so there is some likelihood.	All garments firms part of both associations, especially if the lobbying power of the sector increases.	APTMA, which will now have a rival association that has more exporter earnings to show the government and hence more bargaining power.
2	The big players in the garments industry should counter the polyester lobby in order to reduce the import duties to a minimum on MMF fabrics.	Likelihood has increased in recent times, as the garments sector has received more prominence due to individual successes (e.g. Interloop) and their involvement in the government taskforce for textiles as well as success of the sector as a whole vis a vis the mega fair held by the International Apparel Federation.	All garments players as they will be able to use MMF fabrics to increase exports. The larger firms will be the biggest winners because they are already paying high import duties.	Polyester manufacturers who are selling low quality of polyester yarn to the market. They will have foreign competition.
3	The government can use public-private partnership to develop Apparel Parks/garments specific industrial estates in order to benefit SMEs.	Not very likely, as Pakistan has not seen successful examples of PPPs. Quaid-e-Azam Apparel Park is already mired in difficulties in opening up to the public.	SMEs as they would be able to relocate to the park/estate at a lower cost and with more leasing options than current estates. The government would also be a winner as it would reduce its expenditure and create more revenue by	Informal labour force, which is currently employed by SMEs. They may not be able or willing to relocate and may lose jobs. Others may not want to be part of a regulated/registered labour force.

			boosting the SME sector.	
4	One way for the government to improve relations with the garments sector is to utilize the 0.25% that garments firms pay out of their export value for the Export Development Fund and initiate programmes through that fund in order to help the sector.	There is likelihood if there is a strong lobby by the sector.	SMEs, as such initiatives mostly target and benefit smaller firms such as skills development or business process development.	The government as the funds currently are not being used properly and are going in the government kitty. Moreover, other sectors will also start demanding their share to be put to use.

5 Information Communication Technology Sector

5.1 Sector Overview

The Information and Communication Technology (ICT) sector has emerged as one of the fastest growing services industries in Pakistan more than a 100% growth in its value. It has seen a $3.5 billion increase in the last 4 years and could turn into a $20 billion industry by 2025[73].

The sector is diverse comprising both goods and services and is strongly linked with other sectors such as textile, automotive, pharmaceutical, fertilizer, power, health, telecommunication, entertainment, education. It is also deeply embedded in the Global Value Chain (GVC).

ICT exports have been fuelled primarily by a rise in demand from companies based in countries like the US, UK and EU to offshore[74] several non-core business operations to Pakistan in exchange for higher efficiency[75]. Such a global value chain consists of both high and low-end services/products[76]. It also consists of general business (provided across all industries i.e. horizontal) services and then some industry specific (i.e. vertical services).

5.1.1 Product Description

Broadly, ICT service exports can be categorized into the following:

1. **Information Technology Outsourcing (ITO):** This is the basic building block of the value chain, centered primarily on software development, essentially code writing and the best entry point in IT production. ITO goods and services include personal computer operating systems, hardware and software application development, and network security applications. Software developers remain the driving force behind the IT ecosystem in Pakistan which is home to 360k software developers and at least 10k IT graduates each year[77]. Product development/ maintenance is limited forms only 10% of ITO exports.

2. **Business Process Outsourcing (BPO)**: This is a highly diverse category comprising of activities related to management of (mostly non-core) business functions, including low-end (primarily customer support) services and high-end (repetitive yet judgment-based) activities such as finance and accounting, human resources management and supply chain management. Pakistan is ranked amongst the top fifty destinations to relocate BPO processes[78] as the sector continues to expand. This segment has experienced rapid growth since 2002, expanding into a $200 billion industry[79]. However, the focus is more towards low-

[73] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services)*, https://invest.gov.pk/it-ites.
[74] The terminology relating to sourcing, outsourcing, offshoring, and in-sourcing has not been standardized. "Outsourcing" refers to procurement of material inputs or services by a firm outside the original firm. Outsourcing can be domestic (onshore) or international (offshore). This analysis focuses on international sourcing (offshoring-outsourcing to developing countries particularly). Offshoring, outsourcing, is defined as procuring a service or material input from a source in a foreign country. It includes both non-captive offshoring (sourcing to a firm in a foreign country) and captive offshoring (global in-house sourcing to a subsidiary in a foreign country).
[75] In products this means that the production design and engineering elements of a product are finalized in one country, while the assembling and packaging is outsourced to another which, in turn, could use components shipped from more countries to produce the final output, which is then be re-exported back to the original country (and other destination economies) to be marketed and sold in its final form
[76] State Bank of Pakistan, *Special Section 1: Global Value Chains (GVCs) – Implications for Pakistan,* 2020, pp. 85-100, http://www.sbp.org.pk/reports/quarterly/fy20/First/Special-Section-1.pdf.
[77] Various estimates suggesting this could be as high as 28,000 graduates each year.
[78] As per the Kearney's Global Services location index reported in Vivian Couto and Karina Fernandez-Stark, "Pakistan in the Offshore Services Global Value Chain" (Duke Global Value Chains Center, 2019), pp. 1-61.
[79] State Bank of Pakistan, *Special Section 2: Performance of ICT Exports of Pakistan, 2019*, pp. 101-107.

end services such as call centers (see box below[80]) and other information services[81]. Almost 90% of the revenue in this sub-sector is derived from such activities. Yet, overall these activities are just 10% of total ICT exports.

3. **Knowledge Process Outsourcing (KPO):** These are specialized activities that require professional licensing such as in the legal and financial field and capture the highest value addition. Examples include legal, business intelligence and data analytics services. Pakistan is not very active in this area.

TRG Pakistan Limited

TRG Pakistan Limited is a leading holding company which invests and acquires business process outsourcing services, online customer acquisitions, medicare product marketing and contact center optimization services through its subsidiary, The Resource Group International Ltd (TRGIL).

Most of the company's revenue comes from its call center business subsidiary, known as IBEX, and then the second highest revenue source is its Afiniti subsidiary, which employs artificial intelligence to link employees with customers to improve profitability.

TRG had significant growth in its consolidated revenues in the first 9 months of FY 2019; revenues reached Rs. 51.3 billion, representing a 43.5% increase over the same period last year. This increase could be attributed to growth across major subsidiaries, including IBEX which alone accounted for Rs42.7 billion.

Source: Pakistan Today

4. **Verticals**: Companies that provide services for vertical/specific industries are one of the most sophisticated firms in the ICT sector. One example is NetSoL Technologies in Pakistan (see box below[82]), providing both IT and KPO services for the Financial and Insurance sector. Other examples include Medical Transcription and Billing Company (MTBC), specializing in high-end IT solutions for healthcare, LKMR, responsible for software development and data analysis for companies in the energy sector (mainly oil and gas exploration).

[80] Taimoor Hassan, "These 4 Pakistani Companies Have Shown Higher Profits and Yet Their Share Prices Have Plunged. Is the Stock Market Stupid?," *Pakistan Today*, October 21, 2019, https://profit.pakistantoday.com.pk/2019/10/21/these-4-pakistani-companies-have-shown-higher-profits-and-yet-their-share-prices-have-plunged-is-the-stock-market-stupid/)

[81] State Bank of Pakistan, *Special Section 2: Performance of ICT Exports of Pakistan*, 101-107.

[82] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services).*

NetSoL Technologies

Netsol is a market leader in the ICT sector of Pakistan, providing innovative IT solutions in the global asset finance and leasing industry. The company works with more than 200 partners worldwide and employs more than 1,500 personnel globally.

Netsol has engaged in several successful projects since the start of 2019. It secured a $30 million, five-year contract with a European tier-one global auto captive to implement both NFS Ascent™ Retail and Wholesale platforms in China. Moreover, Speed Leasing also selected Netsol for the implementation of the LeasePak Cloud™ SaaS platform and M-Account platform, powered by the NFS Digital™ suite. The company also started a data migration project for an existing customer in 2019. This project is expected to generate around $500,000 in additional revenues.

Netsol's gross profit was $8.2 million for the first quarter of FY 2019 as compared to its gross profit at $4.8 million for the first quarter of FY 2018. This increase in gross profit was primarily due to an increase in total revenues of $3.6 million, which was able to offset a minor increase in cost of revenues of $152,000.

Source: Board of Investment

There is slow but consistent growth along the full spectrum of the value chain. Several firms have gone beyond body-shopping – i.e. firms recruiting workers out on short to mid-term basis such as call centers –towards high value-added, innovative products or technology. Yet these firms are only a handful. Several companies in Pakistan are also doing process automation using Artificial Intelligence such as ARBI soft, 7Vals and BPL. Netsol, Systems and Techlogix are big names in IT products and several other bright examples are emerging. 7Vals has even developed an inventory management software that is now being used by close to 100 fortune 500 companies. A host of companies are also specializing instead of offering generic services[83]. Many multinational IT firms, including Cisco, S&P Global, and Mentor Graphics – have already opened offices across the country, relying on Pakistani talent to deliver IT services to global markets.

5.1.2 Exports and imports

Exports and Imports

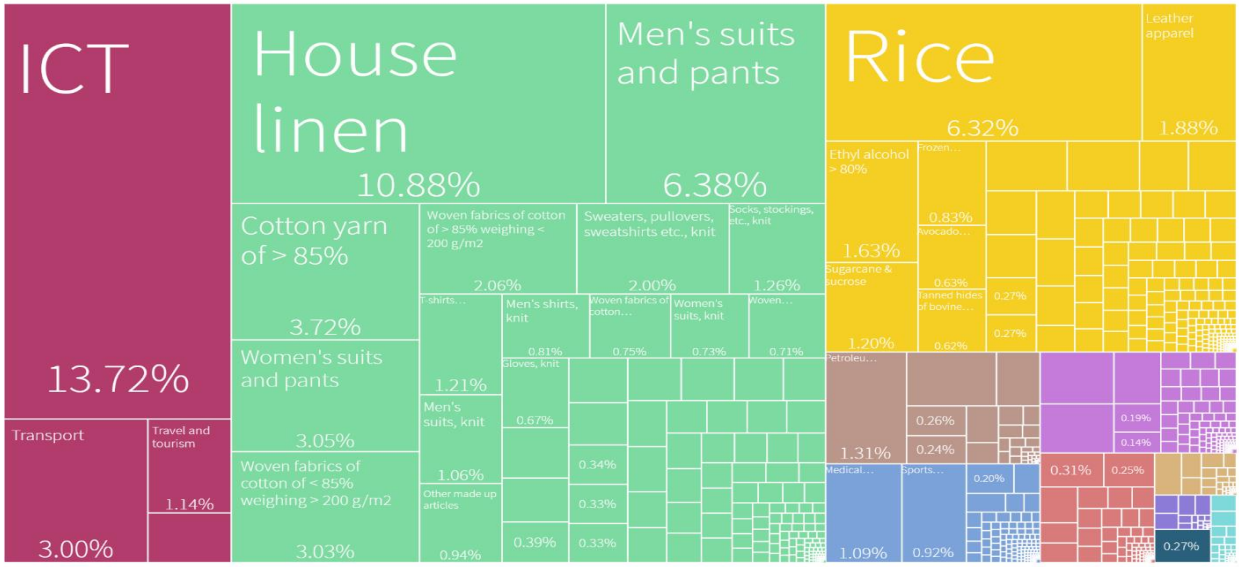
The ICT sector consists of a large freelance industry which may lead to an underreporting of total exports[84]. SBP reported data also does not include a range of non-IT sectors such as financial services, automobiles, and health care contributing to ICT exports. Despite this, the IT industry is already among the top five net exporters of Pakistan[85].

[83] Systems – Mortgage Processing, Netsol – Automobile Leasing, Cure MD – Medical practice management, LMKR – Oil and Gas, Primatics Financial – FAS 157 Valuation opinions, TRG – Operational complexity, DGS – lead generation and conversation

[84] A lot activity in ICT sector is part of the underground economy. Firms and individuals may bypass proper documentation to evade taxation. The cumbersome registration procedures as well as lack of awareness and may be discouraging firms from getting registered.

[85] UN Comtrade, 2018, https://comtrade.un.org/.

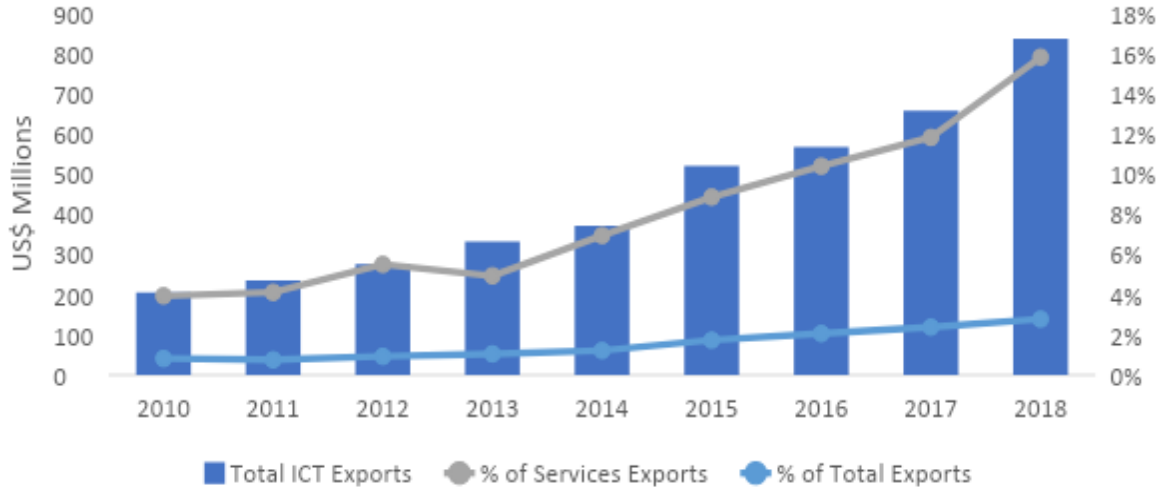
Figure 12: Export Mix of Pakistan - The Atlas of Economic Complexity



Source: The Atlas of Economic Complexity[86]

As a share of total exports, ICT exports grew from 1% in 2005 to 4.25% by 2019[87], having the highest net exports in the services industries. ICT exports touched a billion-dollar mark for the first time in 2018 (i.e. exports from registered firms using formal banking channels). However overall exports may be higher at $2.5 billion, including SME exports worth $1 billion in the grey market and exports by freelancers at $0.5 billion. Hence the overall contribution of ICT could be as high 10% of the GDP. However, 70% of all official ICT exports belong to the computer services segment (included computer software and software consultancy), followed by call centers[88].

Figure 13: Pakistan ICT Exports as a share of both total exports and services exports

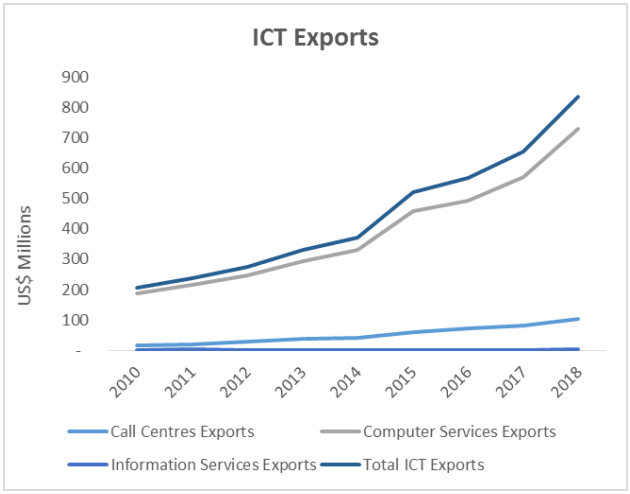


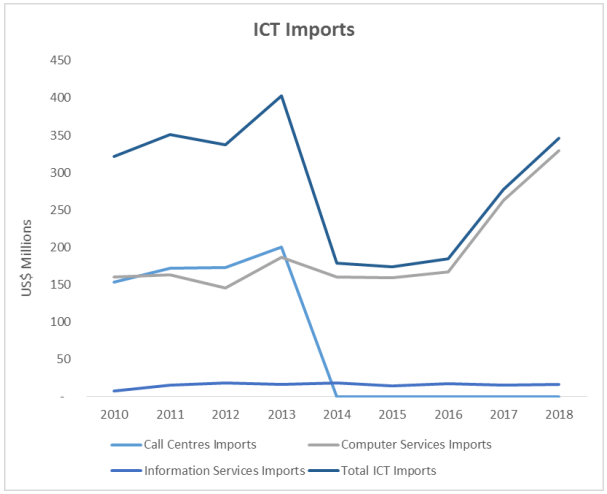
Source: State Bank of Pakistan[89]

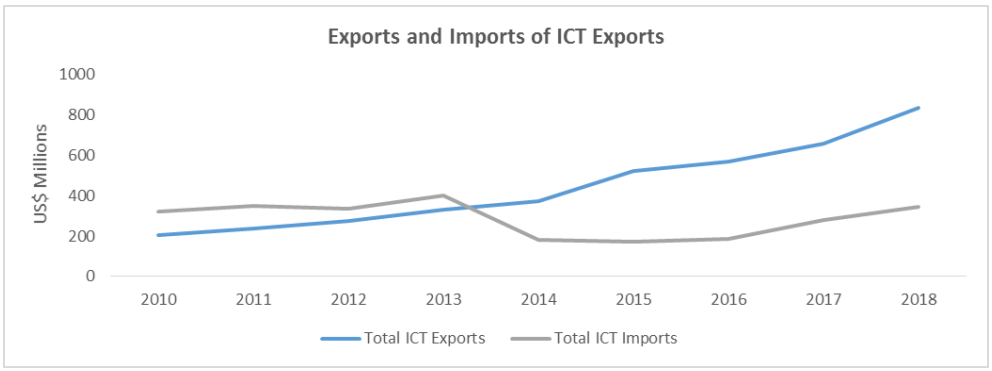
Exports have been rising more steeply than imports indicating a positive contribution of this sector to the overall Balance of Payments.

[86] "Export Basket in 2017 - The Atlas of Economic Complexity," 2017.
[87] "Trade in Services - State Bank of Pakistan," 2018
[88] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services).*
[89] "Trade in Services - State Bank of Pakistan," 2018.

Figure 14 - 15 -16: Exports and Imports from the ICT sector





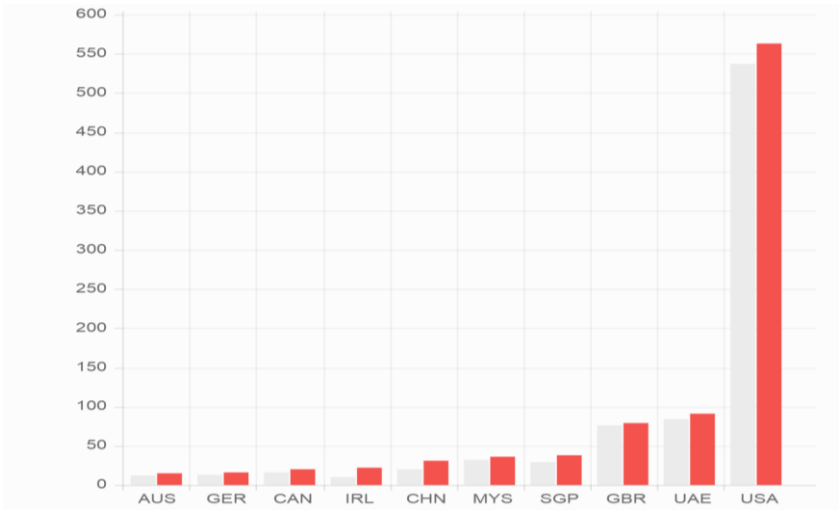


Source: State Bank of Pakistan[90]

Trading partners

More than of half the ICT exports are destined for the United States (with exports valued at $563 million in 2018), followed by the United Arab Emirates (exports valued at $91 million)[91].

Figure 17: Export Destinations in the ICT sector



Source: P@SHA

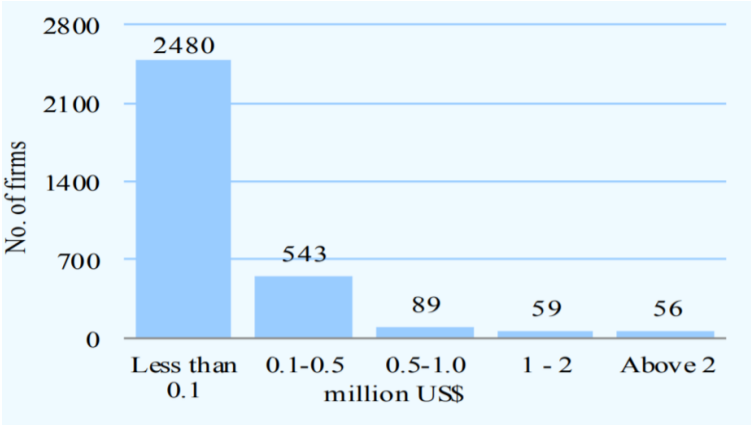
[90] Ibid.
[91] P@SHA, 2018, https://www.pasha.org.pk/

5.1.3 Industrial Landscape

Firm Size

The ICT industry consists of a few large firms with several smaller firms spread across Pakistan but concentrated mainly in the urban centers such as Lahore, Islamabad and Karachi with some presence in smaller cities like Faisalabad and Peshawar. The SBP reports around 3,228 exporting entities. Only 56 of these firms are exporting over $2 million and above. 76% of the firms in this sector produce a total of less than US$ 0.1 million exports[92]. These small may comprise of just an individual, a group of individuals, micro enterprises up to ten employees or medium sized companies up to 200 employees. The highest value-added services exported are derived from just a dozen large companies. Most have over ten years of experience in the market and substantial business ties with the United States with some providing high-end solutions[93] to large verticals in the US in Financial and Insurance, Healthcare and Energy sectors[94].

Figure 18: Distribution of Firms by Size of Export Receipts



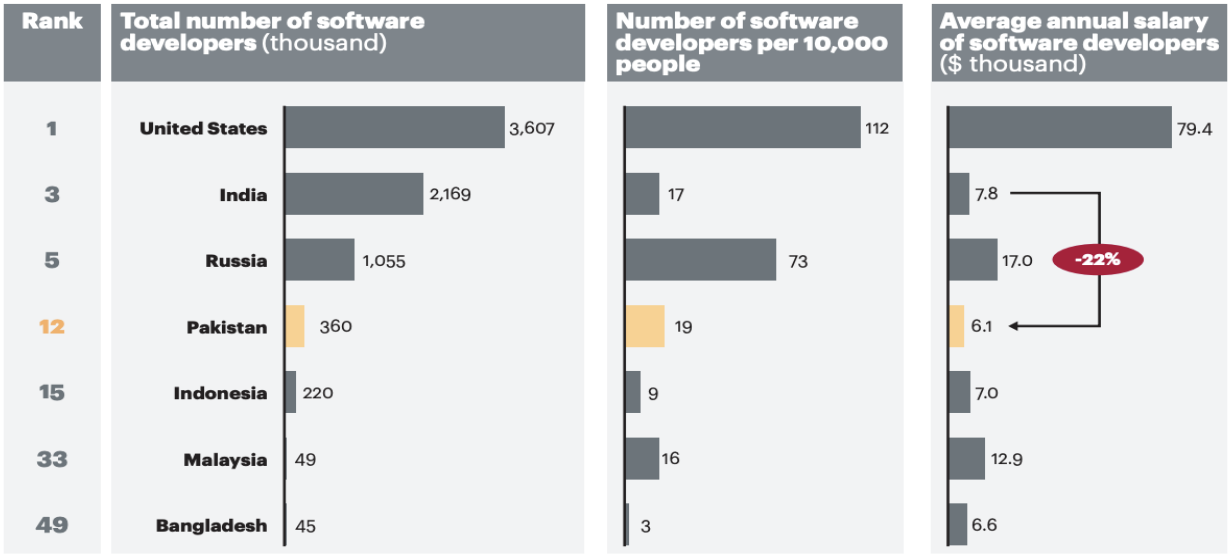
Source: State Bank of Pakistan[95]

Employment generation

The ICT sector is not capital but labour intensive. In fact, it is knowledge intensive which means it relies on a certain kind of labour to really do well. Overall labor is cheap in Pakistan and it is ranked high among world leaders for low cost IT experts. The average annual cost of a software engineer in Pakistan is one fifth of the cost in USA and Europe[96]. The estimates of employment in this sector vary from around 120,000 to 300,000 IT professionals across Pakistan[97].

[92] State Bank of Pakistan, *Special Section 2: Performance of ICT Exports of Pakistan,* 101-102.
[93] development and distribution of enterprise resource management and customized solutions for specific industry sectors
[94] Couto and Fernandez-Stark, 26.
[95] State Bank of Pakistan, *Special Section 2: Performance of ICT Exports of Pakistan*, 102.
[96] "Why Pakistan," PSEB (PSEB, n.d.), https://www.pseb.org.pk/why-pakistan2.
[97] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services).*

Figure 19: Employment in Software Development



Source: Digital Entrepreneurship Ecosystem in Pakistan 2017[98]

Key regulatory/policy changes in the past 3 years

Pakistan may have been slow to catch on but there is now wide recognition of the significance of this sector for the country's economy. The government is carrying out initiatives and rolling out policies that are highly supportive of the ICT space in Pakistan. It has proposed a regulatory structure that intends to boost both the outward-looking and domestic ICT industry by providing an enabling environment.

There have been attempts to make regulations simpler for start-ups. The Federal Board of Revenue launched a three-year tax exemption scheme in 2017 for start-ups registered with the Pakistan Software Export Board (PSEB). Tech start-ups have a tax holiday on exports. In the same year, the government also approved licenses for Pakistan's first Private Equity and Venture Capitals funds[99].

Some of the key reforms recently approved, but with some yet to be implemented include the following[100]: a) 100% foreign ownership of equity of IT and ITeS firms; b) 100% repatriation of profits to foreign investors; c) Tax holiday for venture capital funds until June 2024; d) Extension of the tax holiday on IT exports from 2019 to 2025; e) Zero Income tax for PSEB registered IT start ups (3 years) f) 5% cash reward on IT exports g) reduction of sales tax to 5% on IT within the Federal Areas h) accelerated depreciation of 30% on computer equipment i) the State Bank of Pakistan (SBP) has allowed banks to open Internet Merchant Accounts, j) availability of instant, reliable and high-speed internet connectivity, k) Government supported tech incubators like Plan9 and National Incubation Center set up l) Software Technology Parks (STPs) have been set up with fibre-optic connectivity.

The Securities and Exchange Commission of Pakistan (SECP) recently launched an exclusive start-up portal to encourage technology innovation in Pakistan. The portal features list of start-ups, simplified user experience for registration, access to mentors and incubation centres, online

[98] "Digital Entrepreneurship Ecosystem in Pakistan 2017" (Jazz, 2017), pp. 8.
[99] Abdur-Rahim Syed and Asim Bokhari, "Starting up: Unlocking Entrepreneurship in Pakistan" (McKinsey & Company, 2019), https://www.mckinsey.com/~/media/mckinsey/featured insights/middle east and africa/pakistans start up landscape three ways to energize entrepreneurship/starting-up-unlocking-entrepreneurship-in-pakistan.ashx.
[100] "Why Pakistan".

guides and video tutorials for start-up companies[101]. Other policy initiatives include provision and development of technical training centers, IT parks, and co-working spaces and incubators.

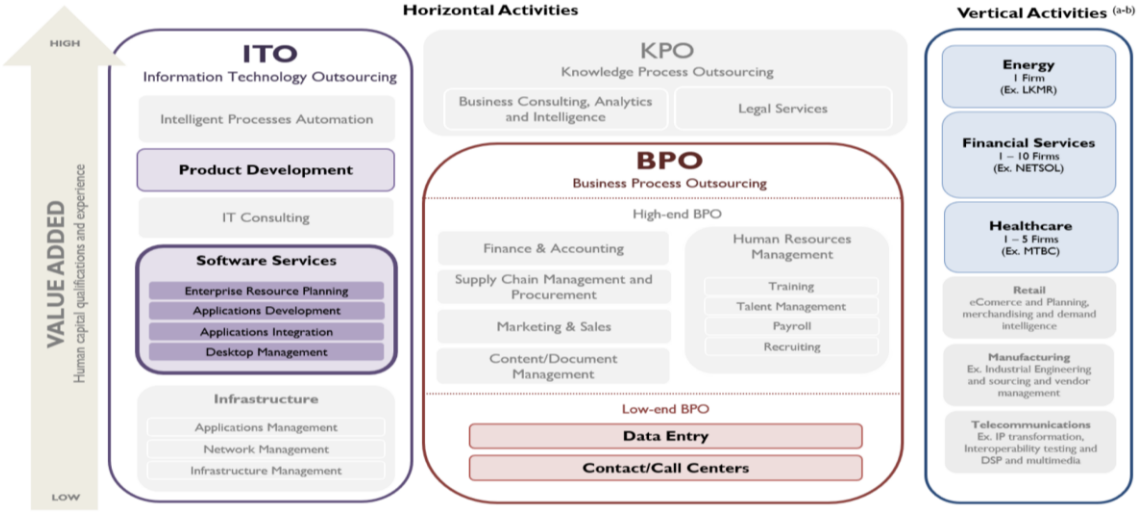
The new government has also established a 17-member task force on IT and telecommunications comprising members of the tech sector to advise policy changes and develop strategic plans to strengthen the technology ecosystem of Pakistan. In terms of implementation progress remains slow.

In 2018, Pakistan also approved its first ever Digital Pakistan Policy to transform IT and other sectors of the economy. Under the landmark policy, the country aims to double its overall IT exports by 2020. However, this policy is not accompanied by a time-bound plan.

5.1.4 Value Chain

The following diagram shows Pakistan's participation in these services as of 2017. Grey segments indicate where Pakistan is not very active.

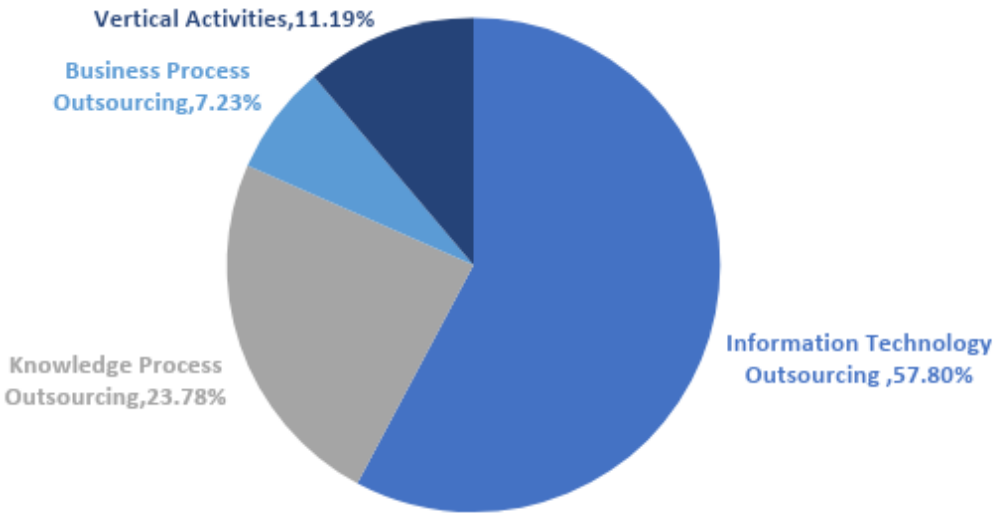
Figure 20: Pakistan's participation in the ICT Global Services Value Chain



Source: Couto and Fernandez-Stark[102]

[101] "SECP Launches Startup Portal to Encourage Tech Innovation," *Daily Times*, November 6, 2019, https://dailytimes.com.pk/495657/secp-launches-startup-portal-to-encourage-tech-innovation/)
[102] Couto and Fernandez-Stark, 26.

Figure 21: Composition of Pakistan's Exports of ICT Services Value Chain (FY 19)

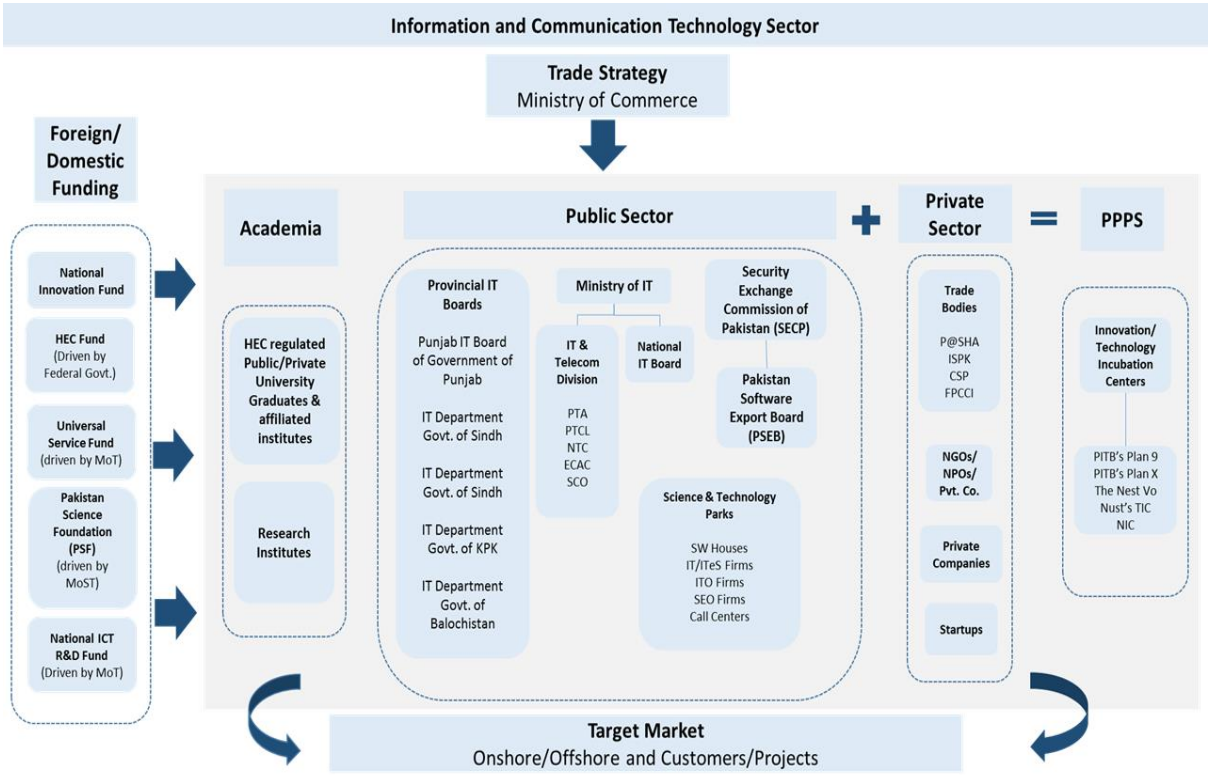


Source: State Bank of Pakistan[103]

5.2 Key Players

The ICT sector consists of both private and public sector stakeholders. Figure below depicts the manner in which these key stakeholders interact with one another, catering to the needs of both the domestic and international target market.

Figure 22: Key Stakeholders in the ICT Sector



Source: Multiple; authors depiction

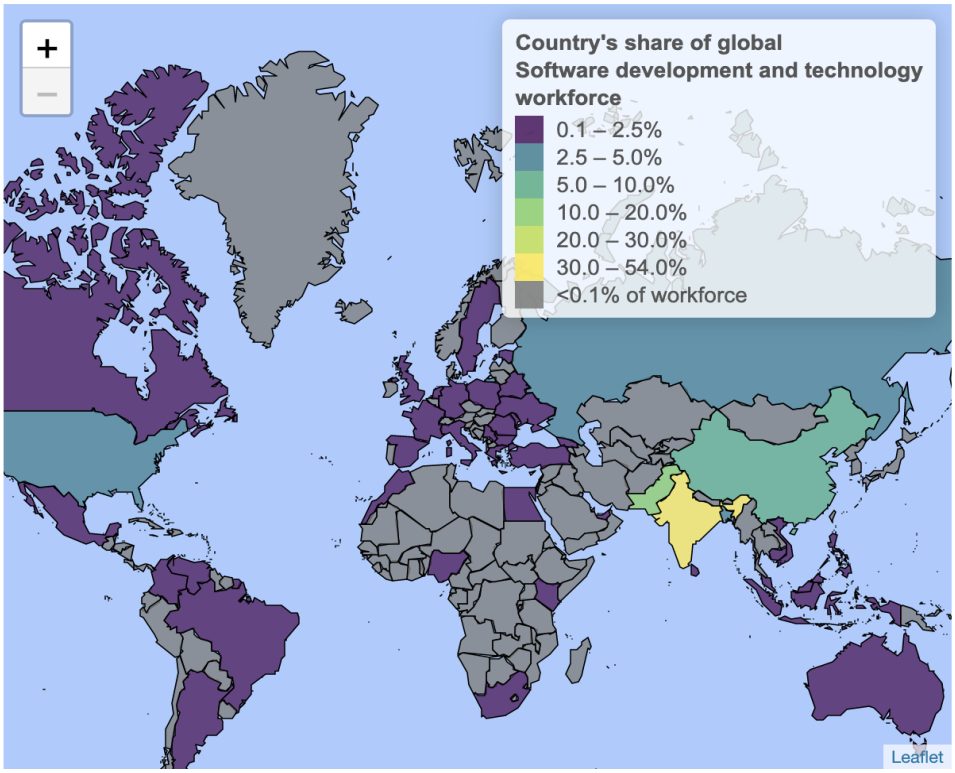
[103] State Bank of Pakistan, *Special Section 1: Global Value Chains (GVCs) – Implications for Pakistan,* 94.

Key private sector players

Large Firms and SMEs: These include IT companies registered with PSEB and, unlike freelancers, channel their earnings through the formal banking channel. The sector is dominated by SMEs mostly exporting in the grey market[104] and usually founded by returning expats or successful former freelancers.

Freelancers: Pakistan has a growing freelance industry in the ICT sector[105]. A significant percentage of the freelancing global workforce for software development and technology is based in Pakistan, making it among the top five providers of online freelancers, beating both India and Bangladesh[106]. Conservative estimates place this number between 1 to 1.5 million[107].

Figure 23: Pakistan's share of global software development and technology workforce



Source: The Online Labour Index[108]

These numbers do not necessarily translate into value added growth or higher export earnings. Pakistan occupies just $1 billion of the $250 billion global freelancing market. Pakistani freelancers are mainly engaged in low-end work and due to limited international payment gateways their earnings either stay in foreign banks or recorded as remittances[109].

[104] Grey market is a market in which goods have been manufactured by or with the consent of the brand owner but are sold outside of the brand owner's approved distribution channels—an activity that can be perfectly legal.
[105] The small and medium scale firms and freelancers are an important part of the gig economy. In fact, in 2018, Pakistan had the third largest population of professionals related to the global online gig industry. A gig economy is a free market system in which temporary positions are common and organizations contract with independent workers for short-term engagements.
[106] "Index Economy-Gig Global" (Payoneer, 2019), https://pubs.payoneer.com/images/q2_global_freelancing_index.pdf. According to Payoneer's Global Gig Economy Index, Pakistan has ranked at 4th position of fastest-growing freelance markets in Asia, beating both India and Bangladesh at 7th and 8th position, respectively. It is experiencing a year on year growth of 47%.
[107] 1.15 million Pakistanis are registered with freelancing.com and Pakistan ranks 5th on UpWork.
[108] "The Online Labour Index by Oxford Internet Institute," 2020
[109] Foreign employers generally make their transactions through only PayPal; PayPal gives an additional payment reversal/dispute resolution facility to employers and helps to increase trust between transacting parties; and domestic

Key policy/regulatory players in the ICT sector

Ministry of Information, Technology and Telecommunication: This is an apex policy making body since 2002 under which the IT & Telecom Division and National IT Board (NITB) work. The bifurcation can get confusing as several services in the IT sector (such as voice over IP) could fall under either division. MOIIT is responsible for planning, coordinating and taking policy decisions in-coordination with other public-private institutions. It is also the principal counterpart of the private sector and the sole sector association, P@SHA. The Ministry recently launched a DigiSkills program, a large scale national Digital Skills Training Program across the country, to offer up to a million trainings in the future of work using technology, especially catering to freelancers. However, the private sector feels it can be much more decisive and play a stronger role in pushing the interests of the ICT sector.

Pakistan Software Export Board (PSEB): Public sector efforts for the ICT industry are coordinated by the PSEB - a government body under the Ministry since 1995. It registers IT companies against an annual fee. Registration enables firms to benefit from ongoing and potential fiscal and non-fiscal incentives, as well as to transfer payments (mostly in US dollars) to and from foreign clients. PSEB is also mandated to promote the offshore services industry in both the domestic and international markets. It however has not been able to develop sufficient marketing strategies (very few outbound trade delegations to target market) and support mechanisms. Generally, PSEB has little to do with policymaking, undertaking research etc. and is focused on its administrative role with narrow mandates. For the past 2.5 years it has not had a full time Managing Director. In five years, it only organized six outbound trade delegations to target markets, supporting an average of eight companies per year, less 3% of its members[110].

Provincial IT Departments/Boards: These boards are run by the provincial governments. They plan, coordinate and execute IT related projects, workshops, conferences, seminars at the provincial and national level and are most active in KP and Punjab. They also facilitate educational institutions towards producing a skilled IT workforce for the industry. The Punjab Information Technology Board (PITB) has taken a lead role in encouraging entrepreneurship, setting up incubators and accelerators and facilitating one-window operations, now being followed in KP.

Punjab Board of Investment and Trade: Provides IT services and infrastructure to the local government and private businesses and develop policy alternatives and plan initiatives for building an internationally competitive IT industry.

Trade Development Authority of Pakistan: Is a continuation of the former Export Promotion Bureau, and a government agency mandated to develop programs and projects directed at ensuring export market access to the country. Given the renewed focus to this sector, TDAP is showing its support to the sector and filling in for PSEB, organising delegation trips, access to fairs and lobbying for other regulatory concerns.

PASHA: The Pakistan Software Houses Association (P@SHA) is the sole industry supporting institution also acknowledged by the Ministry of Commerce as such since 1992. It lobbies and advocates on behalf of the industry to ensure government support, provides input into formulating policies to strengthen the industry and addresses queries from potential clients and foreign agencies interested in outsourcing to Pakistan. Unlike PSEB, P@SHA's role in the policy landscape is recognised and valued. It is led by a chairman elected each year by members of the body. It has a governing body constituting 10 members. Till 4 years ago, it would be a challenge to meet this quorum. Last two years the governing body has been oversubscribed with around 14-15 members. The enthusiasm comes from the fact that the members are mostly representing

freelancers or exporters of digital content have to pay extra to settle their transactions via alternative channels (Payoneer and Skrill).

[110] Couto and Fernandez-Stark, 26.

young companies led by young entrepreneurs who are excited to use this platform to voice out their concerns and engage with the government to resolve their issues.

IGNITE: The federal government launched Ignite in 2007 as a national technology fund to support digital innovators through incubators and start-up events. It also provides venture capital. Formerly the National ICT R&D Fund, it was set up when the government mandated a certain percentage of gross revenue generated by all telecom service providers to be allocated to the development and research of ICT. The company is owned by the Government and administered by the MoIIT.

Software IT parks: Pakistan has more than 15 IT parks with IT enabled infrastructure, of which 13 are being managed by PSEB. These parks are operating in Lahore, Karachi, Islamabad and Rawalpindi providing just under million square feet of space[111]. These parks however do not address the concerns such as unpredictable year around operations, lack of quality bandwidth, unreliable power and security, inaccessibility, lack of expandability and lack of parking space for those getting affected the most. In several parks space is mostly occupied by government or telecom agencies. For smaller companies or young entrepreneurs, these buildings are often unaffordable.

Incubators & Accelerators: There are now several smaller start-up incubators and accelerators across Pakistan run by both the public and private sector[112]. These are meant to support development of spinoffs and entrepreneurs' access to financial and technical resources along with value added services such as intellectual property rights. At least 20 incubators have been established in collaboration with Plan9[113] - a PITB run technology incubator. So far, it has created 1400 jobs and made an investment worth $5.8 million, with over 180 start-ups now graduated[114]. Academic institutions such as Bahria University, National University of Science and Technology (NUST), Institute of Business Administration (IBA) and Lahore University of Management Sciences (LUMS) are all running start-up incubation programmes focused on artificial intelligence, augmented reality, block-chain, robotics or mobile technology. The private sector is following suit, with the emergence of incubators and accelerators supported by foreign organizations such as Google's Nest I/O. However, many of these incubators and accelerators have mentors that do not have the background in the industry and are hence unable to provide appropriate guidance.

Higher Education Commission: HEC works with private stakeholders to update the IT tertiary courses curricula and develop basic technical courses for freelancers. It regulates universities which produce IT professionals. It also provides funds and other facilities for ICT related projects and programs. A total of eight business incubation centres have been established by HEC[115]. However, it is generally perceived to stifle innovation and the curriculum is not current or reflective of the IT industry's needs. HEC does not encourage interdisciplinary education but it has the power to bring changes on a large scale.

5.3 Power relations within the sector

5.3.1 A renewed focus on IT, too many stakeholders, too little action

A positive development for this sector has been a renewed commitment to reforming this sector, despite a political transition following the 2018 general elections[116]. The private sector views the

[111] "IT Parks," IT Parks (PSEB, n.d.), https://www.pseb.org.pk/pseb-programs-3/it-parks-2.
[112] To put it briefly, incubators provide a fully equipped space for entrepreneurs to nourish and execute their start-up and provide mentoring and networking sessions. Whereas in an accelerator, the start-up is given a specific amount of time and a small investment to make it work.
[113] A technology incubator (named after the first free-share operating software by Bell Labs) was launched in 2012
[114] "Plan9 At a Glance," Plan9 (Plan9, n.d.), https://plan9.pitb.gov.pk/plan9_at_glance#p9bs05.
[115] Board of Investment, *Sector Profile Tech (IT and IT Enabled Services).*
[116] The previous government released the National Digital Policy, extended the tax holiday on exports till 2025, brought down GST to 5% in the federal capital and approved a 5% cash reward on exports (that is yet to be implemented).

retention of MoIIT as a major win for this sector[117]. In the government bureaucracy, a ministry matters significantly. An actual ministry to cater to the needs of one industry implies the government is serious about reforming this sector. It may not understand the dynamics of the sector, but it does recognize the economic potential of this industry. In fact, it is fast becoming the flag bearer, pushing the sector through every forum, via IT boards, via TDAP, and now recently through appointment of high-profile technocrats to push for a vision for Digital Pakistan.

There is also a growing perception that the government is becoming more open to engaging with the private sector to formulate policies. Academics and bureaucrats who have not generated substantial jobs or ever built their own company have been representing important forums for long. This could change. The government's approach to bringing in people from the private sector on platforms such as the PMIT taskforce, is considered by many as a beneficial step for the sector's growth.

And while the private sector is excited about all this commotion, there is an element of overlap and diffusion of responsibility. One of the interviewees alluded to the many proverbial cooks spoiling the broth with some stakeholders entering the forefront only to claim a stake in the potential success of one of the fastest growing sectors of the economy. In a period of economic adjustment, the government is also under pressure to meet revenue targets. Recently, TDAP has directly started engaging with P@SHA, and supporting the IT firms with resources that PSEB never had. The different stakeholders lack clarity and coordination and do not have the budget or capacity to deliver.

Despite private sectors voice echoing everywhere, implementation remains poor. With everyone contributing to the conversation, the private sector still ends up running from pillar to post for resolution to issues. The government looks to the private sector to create capacity or provide support to put policies into action. They are unable to even develop PC-1s to kick-start interventions. The private sector neither has the resources nor the time from their primary job of running an IT business.

It is difficult to gauge who holds the real power. The Minister of IT is not from the leading party and hence its role is not very strong. However, the private sector can go to champions elsewhere in the government such as the new minister of Planning (earlier former finance minister) and advisor to commerce are very interested in the IT sector and will play a key role in pushing reforms forward.

5.3.2 Pakistan's position in the value chain

The power dynamics of the eco-system are also determined by the position of the ICT sector both within the local economic policy landscape and within the global value chain. Pakistan's position in the global value chain determines to a large extent the kind of engagement Pakistani firms have with the foreign clients. At the lower end of the value chain, interaction between the buyer (usually based outside of Pakistan) and supplier (locally based firm or individual) remains limited. The supplier simply has to comply with the customer's specifications and obligations comprehensively captured in a Service Level Agreement (SLA). The interface between the supplier and buyer changes as value-addition increases. It becomes more interactive and less of a top down approach.

The human capital requirements at different levels of this value chain also affects the role of firms and individuals within the industry. Employees located in the lower part of the value chain can be less educated with fewer years of experience than those higher up the value chain. Software development companies may employ IT graduates from Tier-II and Tier-III universities. However, firms that do the actual product development and need to perform complex tasks engage

[117] The Ministry of Textiles was recently abolished and brought under the Ministry of Commerce and this did not go well with the textile firms.

exclusively with IT graduates from Tier-I universities such as LUMS, NUST and FAST[118]. This determines the overall dynamics of the labour supply for this sector.

5.3.3 Weak understanding of the industry demands

At a disaggregated level, the prevalent mindset remains risk averse and does not consider the service industry in general as a key enabler of growth, especially in comparison to the more traditional manufacturing sectors. Even though in terms of exports, IT is only second to textiles and has shown growth in double digits, faster than the textile or sports good industry. In fact, some of the top players in the ICT sector, can compete well in size and scale with some giants in other leading sectors of the economy[119].

Thus, firms often feel frustrated when the government fails to recognise the diversity of the sector, specific needs of the firms and the corresponding gravity of their concerns. As a result, MoIIT is only able to support the most common requirements of the different company types. In fact, while the government often quotes examples of the IT sector from India, Malaysia and the Philippines, there is little recognition their governments supported the IT industry with exceptional fiscal and long-term policy programs that created billions of dollars in sustainable exports. Firms so far feel, the IT sector has been able to grow despite the government, not due to any tangible effort on its part.

Overall firms feel the government has a narrow understanding of how the sector works and how diverse it is and that a one stop shop may not be the most effective solution to their concerns. Most secretaries appointed at the Ministry have been generalists as supposed to specialist with a vague understanding of the dynamics of the sector. The government machinery lacks specialized technical input and the competence to understand and accordingly respond to the needs of the sector.

5.3.4 Role of PSEB versus P@SHA

For many IT firms, PSEB has become defunct or an irrelevant entity and simply adds another layer of bureaucratic red tape. PSEB as a public sector organisation cannot take the government on and represent the private sector fairly. It will never be able to take a stand for the firms in front of senior politicians, ministers and civil servants. Hence its role as an association of the industry is curtailed significantly.

The structure of PSEB has also evolved in a manner that makes it less accountable and more complacent with the status quo. For several years it was run like a company, where employees were hired on a contractual basis. Recently its workforce has become regularised making PSEB less dynamic as an organisation and complacent with the status quo.

It's only role seems to be administrative, i.e. allowing firms to access incentives by registering with the organisation which the private sector finds coercive. The fee charged by PSEB is considered by the industry as an indirect tax, a form of rent-seeking which firms have to pay in order to become recognised or registered. PSEB often competes with P@SHA on the size of its membership, but the comparison does not mean much as given a choice, firms would not become members of PSEB except to access industry-wide incentives.

On the other hand, P@SHA takes on a bigger, more active and far more relevant role. For example, exemptions for the IT exports that were scheduled to expire in 2019, were extended till 2025 solely by the efforts of P@SHA. As the sole industry-wide association it plays a key role in the policy domain carefully articulating the industries demands to senior most policymakers. While the association is very active and plays a key role in impacting the policy environment, it is not always able to represent all its stakeholders equally well. This may impede the design and

[118] This preference has been confirmed by several members of the IT FIRM.
[119] Netsol owner's worth is 1.3 million compared to 1 million of Bashir Ali Mohammad (Gul Ahmad)

implementation of effective sector development measures. P@SHA plays a more aggressive engagement with the government in pushing forward the demands of smaller players whenever the association has been led by a chairperson belonging to an SME. Representatives of larger companies hold back the demands of the smaller companies as they are beneficiaries of the status quo.

Overall representation of SMEs is weak in Pakistan. There have been some attempts, mostly led by larger companies, to make parallel structure for SMEs (in the ICT sector) but none have materialized. The Lahore chamber of commerce does not represent the SME well.

5.3.5 Culture of mistrust within the industry

The positive spillovers within the industry may get diluted due to a competitive culture, especially fuelled by a mismatch between the supply and demand of labour. Local market constraints, such as limited supply of skilled labour, create a notion of mistrust between the firms due to prevalent labour practices and discourages a culture of collaboration between firms. Where smaller companies can potentially benefit a lot more from the experience of those that have been in the market since decades, they lose out due to rising competition. When companies do collaborate, they get exposed to each other's teams and can poach others team members. Domestic firms already find their MNC counterparts a threat due associated with their access to and use of superior technology and a better trained workforce[120]. Pakistan loses some much-needed IT experts to Western countries or to a set group of large IT companies paying higher salaries because they can afford to. Here government organizations like the HEC are stuck in their own regimented ways, not willing to acknowledge the diverse set of skills needed or offer specialized degrees to meet the needs of the industry.

Firms especially established by people returning from abroad now rely on a network (for incubation, entrepreneurship or even a basic developer network to discuss challenges of building software) that was not functional in mid-2000. When the IT sector was picking up the IT companies were focused more on building their own capacity and core competencies and less on the ecosystem which continues to lack even today.

5.3.6 Firm growth reliant on personal contacts, not government support

Expansion of the ICT industry, especially in terms of exports, has been propelled by entrepreneurs' connections with Pakistani Americans based in the US. While it is true that brain drain has lowered the availability of appropriate human capital[121], Pakistani expats settled in the US have now become a strategic asset for the country's offshore services industry. Similar to large companies, freelancers often have some personal or business connections with a relative or acquaintance in the US, which helped establish them as services exporters. Thus, the stronger the links with well to do Pakistani's settled in the US, the better the prospects for engaging in IT business catering to foreign markets. Though dated but a 2013 study revealed that Pakistani-Americans formed the largest foreign-born Muslim group in San Francisco Bay Area that includes the Silicon Valley[122]. This overseas network has become a potential customer base, especially for IT firms engaged in services software (deemed low risk investment and could start with a few people).

[120] Abdul Baseer Qazi, "Knowledge Flows and Networks in the ICT Sector: The Case of Pakistan" (dissertation, 2015), pp. 1-318.
[121] In the last two years alone, some 884,000 young Pakistani have left the country, according to the official registrations at the bureau of emigration. The record indicates more than 300,000 Pakistanis left the country in 2018. The figure soared to 500,000 this year in 2019; Waqas Ahmed, "Brain Drain: Ten Million Pakistanis out for Greener Pastures," The Express Tribune, December 20, 2019, https://tribune.com.pk/story/2121628/1-brain-drain-ten-million-pakistanis-greener-pastures/.
[122] Riaz Haq, "Haq's Musings," *Haq's Musings* (blog), May 16, 2016, http://www.riazhaq.com/search?q=silicon valley Pakistani americans.

Cashing in on Foreign Ties – A few examples

Afiniti (artificial intelligence start-up) and Careem (taxi hailing service) are two tech-based companies engineered in Pakistan by Pakistanis but leveraged strong ties with foreign lands. Afiniti's AI software has main developed in Lahore while Careem's technology in Karachi.

Before being taken over by Uber, Careem was giving the American competitor a run for its money in a region stretching from Pakistan to the Middle East and North Africa. The company cofounded by Mudassir Sheika, a Pakistani national, is headquartered in Dubai in the United Arab Emirates.

Careem's software was developed by its technology partner VentureDive based in Karachi. VentureDive was started by serial Pakistani entrepreneur Atif Azim who sold his earlier start-up Perfigo to network equipment giant Cisco for USD 74 million in 2004, according to a report in Tech in Asia.

DC based AI technology firm Afiniti, founded by serial Pakistani-American entrepreneur Zia Chishti. The company grew out of the technology used in the Pakistan-based call center business of The Resource Group (TRG) also founded by Zia Chishti. Bulk of the Afiniti development team is located in Thokar Niaz Baig, Lahore. In addition, the company has development team members in Islamabad and Karachi.

Source: Riaz Haq

A framework that enables firms to absorb spill overs and a supportive ecosystem has to be provided by the government. In many countries (like India, Estonia[123] and the Nordics), governments are often the single-largest user of IT products and governments try to support their IT industries through local procurement. If start-ups can bid for public projects under less stringent procurement rules, they can grow and compete with larger vendors. Pakistan already has several success stories in such as NADRA, which is now one of the top identification solutions providers in the world. Such projects create a platform for IT companies to mature their products and then sell them around the world. Governments in Pakistan do not provide local IT firms access to such a platform. The role of the technology/IT boards is also focused more on executing projects rather than building capacity for procurement.

5.4 State-sector interaction

Before the 1980s, software services outsourcing was limited to large domestic firms in a limited number of developed countries. The 1990s saw a rise in the demand for low cost labor to provide globally standardized IT services in several developing countries. This also happened to coincide with the economic liberalization phase in Pakistan. In early 1990s, computers and related equipment were exempted from import duties. At the same time the ICT sector received a boost following the introduction of Satellite Communications technology. This period also saw the creation of public and private associations such as P@SHA and PSEB.

Introduction of the Internet by PTCL in 1995 gave birth to a whole new market and private Internet. Service Providers (ISPs) started mushrooming, competing for market share. Pakistan Telecommunication Corporation was privatized in 1991, resulting in the formation of Pakistan Telecommunication Corporation Limited (PTCL) in 2003. Till then PTCL was a public limited company enjoying a monopoly over basic telephony infrastructure and hence the cost of various services for operators other than PTCL remained too high. Customers were forced to continue using PTCL, as no other options were available. By 2000, the political environment did not remain conducive for the evolution of the industry and progress stalled. There was consolidation and

[123] The birthplace of Skype.

weaker firms were forced to leave the market. Pakistan's software exports remained at $30 million in comparison to the $3.9bn of neighbouring India[124].

The sector enjoyed very little institutional support and access to financing. The negative perception of Pakistan in the world led to the relocation of many software projects to other countries. Efforts by PASHA and PSEB brought limited success. Following 2002- 2007, when economic sanctions were lifted and US aid started pouring in, software exports rose. From 2007 to 2012 (period coinciding with the war on terror) IT exports dwindled again and FDI fell.

No formal ICT Policy existed till 2000. The Telecommunication Act of 1991 was the primary source for ICT friendly policies in Pakistan. It encouraged private sector participation and resulted in the awarding of licenses for mobile phone operators, card-operated payphones, paging and, later, data communication services. The first formal ICT policy (called IT Policy and Action Plan 2000) was drafted in 2000, laying the seeds for opening up the ICT sector for privatization. 'Deregulation Policy for the Telecommunication Sector' was introduced in July 2003 and consequently licenses were given to private operators for ICT operations in the same year.

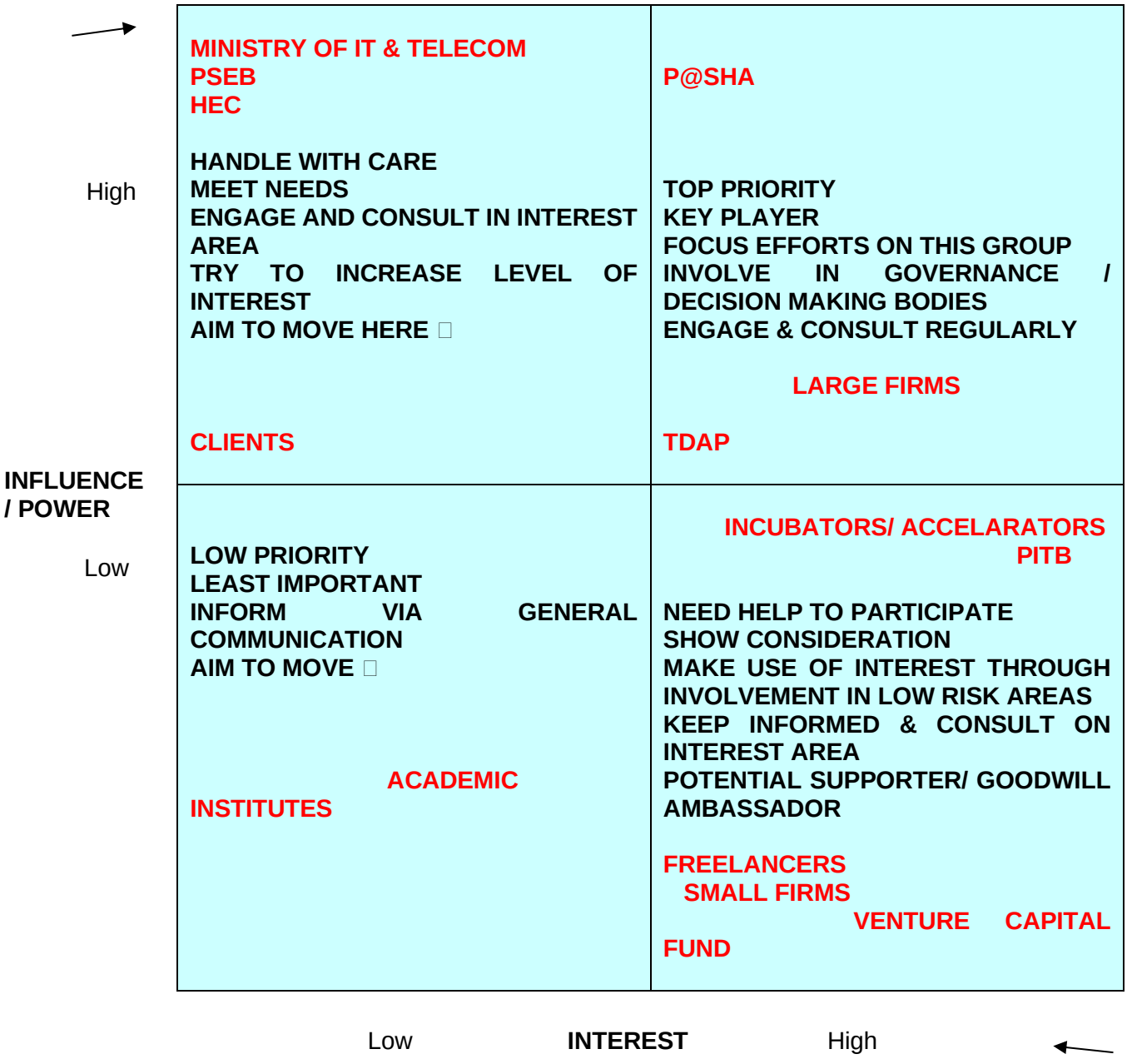
In 2000, a new IT and Telecommunication Division under the Ministry of Science & Technology (MoST). However, in November 2002, a separate ministry for Information Technology was created and the IT & Telecommunications Division became a part of the new Ministry of Information Technology (MoIT).

The active start-up scene and rapid expansion of the digital economy indicate some positives in the country's policy environment. The most important of these may be its liberal foreign investment policies. Pakistan allows 100% foreign ownership and there are no restrictions on the repatriation of profits and capital. Another important positive is the role played by the Punjab government through the PITB (and ITU) in terms of providing a voice to the emerging industry on policy issues, establishing, as already discussed, one of the first and most active incubators (Plan9) in the country and facilitating the entry of major international companies into Pakistan. Similar set-ups are also being run in KP by the KP IT board.

5.5 Stakeholder Influence-Alignment

Potential for reform – Assessing Winners, Losers, and likelihood of Reform efforts

[124] Noemi Sinkovics et al., "Knowledge Connectivity in an Adverse Context: Global Value Chains and Pakistani Ofshore Service Providers," *Management International Review* 59 (2019): pp. 131-170.



5.6 Barriers to Development

It may seem that Pakistan is a highly attractive destination for IT firms. While this is not entirely untrue, and there is a lot of potential[125], there is also a lot that slips through the cracks. Pakistan has a young workforce with a rising youth bulge. It has a renewed focus on the tech and IT industry with a keen emphasis on promoting the start-up culture. It has over 10,000 IT graduates each year and a large market of over 200 million. It has a large ex-pat community to open up opportunities for the sector. Yet the country hasn't yet created an ecosystem where an entrepreneur is born, raised, and educated in Pakistan and will register his or her company locally and achieve a valuation of a billion US dollars.

The World Economic Forum (WEF) released the Global Competitiveness Report 2019 early this year. On competitiveness, Pakistan was ranked at 110th among 141 economies, slipping three positions down from last year. In all of South Asia Pakistan ranked fifth. On the whole India was

[125] CAD for 2018 was USD 16 bn while our military budget is USD 13, and WhatsApp was sold to FaceBook for USD 17 bn!

68th, followed by Sri Lanka (the most improved country in the region) at 84th, Bangladesh (105th), Nepal (108th) and Pakistan (110th). Pakistan was better than the low-middle-income group average on only one account – affordability.

Relative to its neighbours, Pakistan ranks low on most key enablers of a digital economy, i.e., infrastructure, affordability, consumer readiness and content (as per World Bank indicators). Broadband and mobile penetration (both basic and data/internet-enabled mobile phones) remains relatively low. According to GSMA Intelligence's report on mobile taxation in Pakistan, the majority of the population (59.7% of the population, or 120 million people) is still unconnected to a mobile network[126]. Unique subscriber mobile[127] at around 40 is amongst the lowest in South Asia.

The broader ease-of-doing-business issues do not pertain to the ICT industry alone but are pervasive across the economy. Regulations remain innumerable and overlapping across departments with an inspector led management across sectors. Moreover, Pakistan has a deep-rooted culture of rent-seeking, associated with power. Rent seeking may be perpetuated through a nexus of power with diverse privileged groups, visible across the social order. For example, law enforcement and tax authorities can disrupt normal operations. FBR has reportedly sent tax notices to companies around taxes that were not applicable. There is a risk that company's assets can be frozen in bank accounts unless speed money is issued. In this context, Pakistan may be well behind its neighbors in building a supportive eco-system for the ICT sector.

5.6.1 Lack of a supportive culture at the level of the government

A key reason holding the sector back is the overall (*non-supportive*) culture within the IT sector. The competitive environment is not always positive nor healthy. Firms constantly restrict information flows that could benefit the industry. This limits the positive spillovers and prevents the sector from growing organically. As mentioned above, industry experts feel growth has been driven by firm/individual level efforts and strong business linkages with Pakistani Americas overseas. This is not to say that there is no collaboration between firms. There is cooperation when people know each other and then they also avoid competing over bidding for the same projects. At some level such competition encourages firms to stay on their toes. However, any special focus from the government to create a supportive culture is limited.

In Pakistan it is far cheaper and convenient to bootstrap – i.e. launch a business such as a service company with little or no outside cash or other support - than in the US mainly owing to lower costs and the support infrastructure provided by family and friends. However, The ICT sector requires an ecosystem that is supportive even of failures whereby the companies have an opportunity to learn from such failures and re-define their trajectory till they find the right product fit. This takes time, money and effort for which the government should provide a conducive environment.

To succeed or simply survive, firms may even be willing to take on smaller, peripheral projects as an intermediate step towards gaining access to networks and markets. However, a step-up strategy to creating more sustainable business in the ICT sector is characterized by a long-term orientation. The rationale is that, over time companies and individuals can demonstrate that they have the necessary capabilities and understanding, and the right attitude. One way to do that is to work for the government. When local companies develop products for the government, they test on a greater scale and help build a strong profile for the company. However, Pakistani firms get very limited opportunity to commercialize their products through a public sector platform and several firms complain that corruption in the procurement process prevents such firms from

[126] "Reforming Mobile Sector Taxation in Pakistan: Unlocking Economic and Social Benefits through Tax Reform in the Mobile Sector" (EY, 2019), https://www.gsma.com/publicpolicy/wp-content/uploads/2019/04/GSMA_Pakistan-Report_WEBv3.pdf.
[127] A 'unique mobile subscriber' is defined as an individual person that can account for multiple 'mobile connections'

executing large scale projects. Only few firms are engaged in some substantial work for the government and these are already big players[128].

5.6.2 Local market conditions limit supply of skilled labour

The ICT industry is highly skill and knowledge intensive. It can withstand persistent power outages or disruptive energy supplies, but it will not flourish without an adequate supply of skilled labour. Indian software companies turned into billion-dollar companies at the back of thousands of engineers graduating each year having the right skill set and willing to adapt to new demands. However, in the case of Pakistan, only a handful of the thousands of graduates have the right skills to meet the demands of the ICT industry for both products and services. The inadequate supply is more a function of insufficient skills rather than the overall number of graduates.

5.6.3 Lack of innovation and a growth mind-set

Silicon Valley workforce is expected to produce results and think about how to achieve targets communicated by the clients. Moreover, the IT industry is characterized by short innovation cycles and this requires constant investment in technical training and skills development to enhance companies' capabilities. In Pakistan the education system does not nurture this kind of thought process or encourage innovation. The secondary and higher-grade curriculum promotes convention and obedience, often at the expense of experimentation or creativity. Educational institutions do not inculcate an innovative growth mindset nor do they invest in Research & Development (R&D). In 2017, the country's expenditure on R&D was just 0.24% of its GDP. Therefore, it is no surprise that in the annual Global Innovation Index, Pakistan was ranked amongst the bottom 16, while neighbouring India was ranked 52, out of a total of 121 countries[129]. For producing creative outputs in the ICT sector Pakistan ranked 104.

Pakistani companies are often expected to create skills that do not exist amongst the workforce. Several firms have to develop in-house standards, training facilities and policies to provide their employees an opportunity to operate like they would in more advanced markets. The country also lacks creativity in developing innovative business models. Developing scalable business models is a first crucial step towards attracting large sums of money or venture capital funds. This is only possible if the firms are supported by the right ecosystem, academic background and organizational culture.

Pakistanis are culturally risk averse when it comes to occupational choices. Children are often forced to opt for mainstream career choices, such as engineering, medicine and teaching, which are more likely to ensure a steady income flow. At the same time, a typical household has limited capital funds not enough to allow young people to get involved in activities such as entrepreneurship which are deemed risky. It is hence a major challenge to find passionate founders with a growth mind-set to reach out and grab resources needed to grow and experiment.

5.6.4 The choice between product development and services

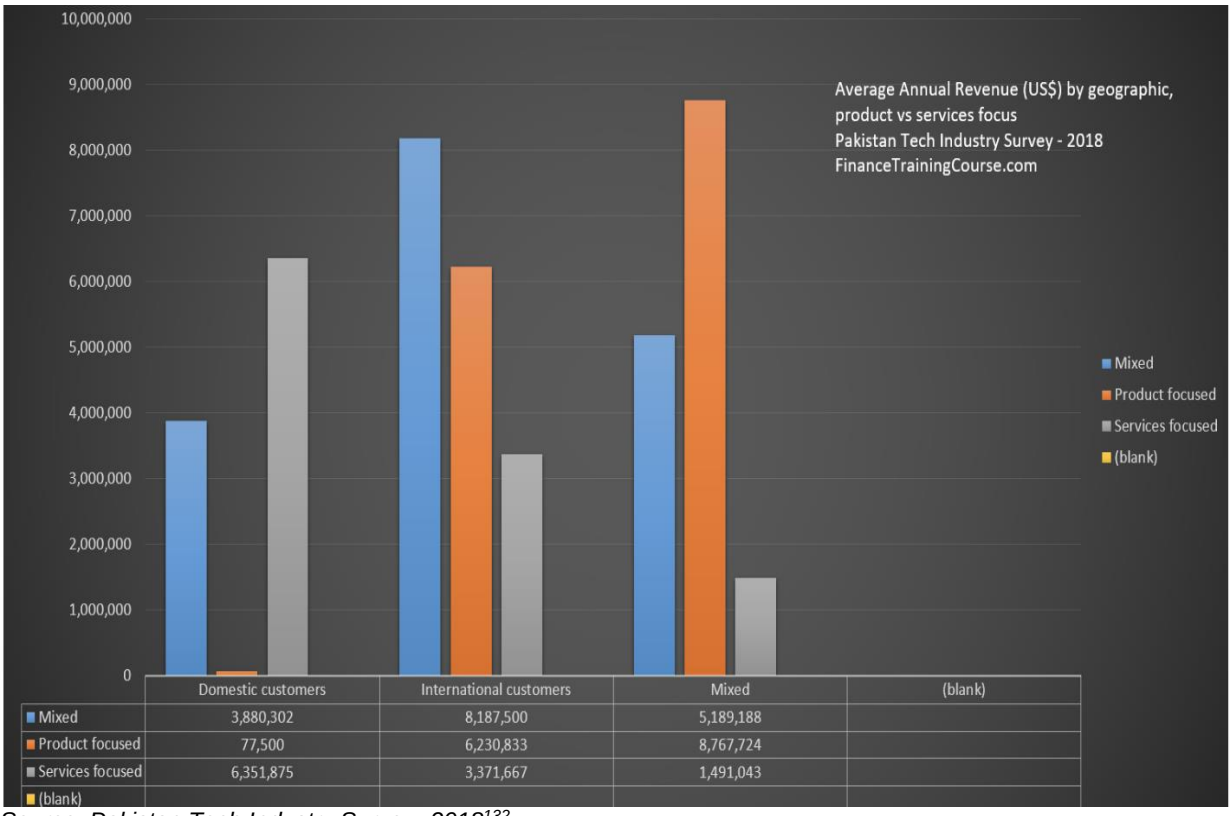
Facing such labor market constraints firms often prefer to engage in software development where clients define both the problem and the solution expecting no value addition. Product development, on the other hand, relies on a workforce with more refined skill set, based on knowledge about product design, technology and marketing. This kind of multidisciplinary education is not common in any academic institute in Pakistan[130].

[128] NetSol does some work internally for motor-vehicles registration in Punjab.
[129] "Global Innovation Index," 2019. Global Innovation Index (GII) is an annual ranking of countries, parameterized by their capacity and success for innovation. It is published by Cornell University's Institute Européend 'Administration des Affaires (INEASD) and the World Intellectual Property Organization (WIPO), which is one of the 15 specialized agencies of the United Nation.
[130] One of the interviews who owns a company, based in Lahore, said that he offered to teach a course at LUMS on technology entrepreneurship and be open to students from different departments but was told it could either be in the business or CS department.

Since the required skills do not exist amongst Pakistani graduates' firms that choose to undertake product development, as opposed to services, have to also invest in skills development. In addition to a product risk (i.e. whether they have the right product fit in the market) the companies also face an execution risk (due to inadequate skills). For product development to be a profitable venture and generate revenue, it is ideal that the entire spectrum of skills available locally. If product development happens in Pakistan and marketing takes place overseas, the return on investment will be accrued abroad and the business will not generate any earnings for Pakistan.

The scale of the difference between products and services is surprisingly large[131].

Figure 24: Pakistan-Tech-Industry-Survey-2018 – Who bills more in US$ terms? Products or Services?



	Domestic customers	International customers	Mixed	(blank)
Mixed	3,880,302	8,187,500	5,189,188	
Product focused	77,500	6,230,833	8,767,724	
Services focused	6,351,875	3,371,667	1,491,043	
(blank)				

Source: Pakistan Tech Industry Survey -2018[132]

5.6.5 Lack of core skills

The structure of education does not cater to even the most basic demands of the industry, let alone inculcate innovation and drive. Several large players have been educated and trained in the United States and their companies registered outside of Pakistan.

Pakistan has over 190 recognized private and public sector universities yet only handful (like LUMS, NUST and FAST) are Tier-I universities. Most product development companies only hire from Tier-I universities. Collectively these universities produce under 1000 graduates of the +20,000 graduates coming out of Pakistan each year. Unfortunately, no Pakistani university is

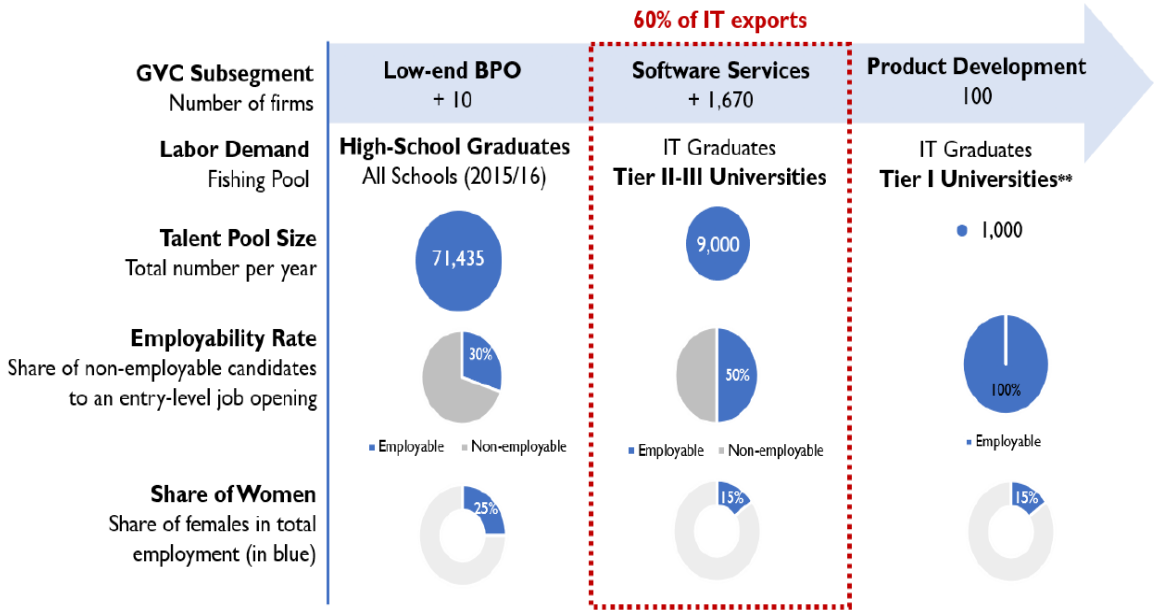
[131] Based on a survey of 94 IT companies across Pakistan; Jawwad Farid, "Pakistan Technology Industry Survey 2018," Finance Training Course, December 4, 2018, https://financetrainingcourse.com/education/2018/12/pakistan-technology-industry-survey-2018/.

[132] Ibid.

among the top 600 universities[133] across the world. This seriously restricts the quality of affordable skilled personnel and firm's ability to engage in good projects[134].

Lack of such skills limit the kind of work firms can engage in. For example, a local game ecosystem is not yet present in Pakistan despite the fact that more than 80% of the revenue generated from mobile phone applications on Google and App store are from games. However, game development skills are not available in Pakistan and several firms are simply unaware of the skills required to become a game developer or designer. Local companies engaged in game design have had to train their own employees and engage with other software companies having the right talent.

Figure 25: Pakistan's IT Talent Pool



Source: Couto & Fernandez-Stark[135]

For product design it is difficult to find the right skill set for ancillary disciplines that contribute to quality software development, like UX (user experience) and product design. Modern software interaction design requires skills in aesthetics (UI) and UX both. There are some UI experts in Pakistan but UX skills are very hard to find. This knowledge comes primarily from coursework in human-computer interaction or product design. These disciplines are virtually non-existent in Pakistani university curricula. Online courses are currently the short-term solution for this. No university in Pakistan offers a good course on games and animation which has great potential in the export market. A top company like LUMS does not teach human computer interaction (HCI) which is a prerequisite for software design[136].

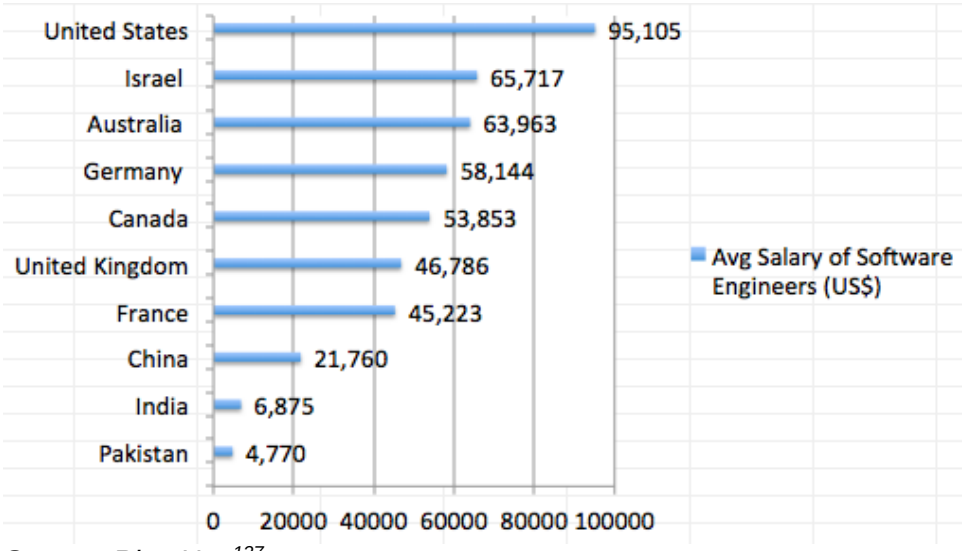
5.6.6 Employee Retention

Since skilled labour is a limited resource, retention of workforce is a key concern. Firstly, a good software or IT professional in Pakistan is not entirely dependent on Pakistani firms for employment. He/ she has access to the global market. The average salary of a software engineer

[133] The Times Higher Education World University Rankings 2019
[134] Arbi soft had to turn down a lot of good projects had to be turned down because they could not find the right talent at the right time.
[135] Couto and Fernandez-Stark, 33.
[136] They quoted a lack of qualified PHD teachers to teach this course. Although most people engaged in HCI which is a specialised field are practitioners rather than academics.

($110,000) in Silicon Valley is about 20 times more than the average salaries in India ($6,875) and Pakistan ($4,770).

Figure 26: Average Salary of a software engineer



Source: Riaz Haq[137]

This point is critical for the product industry where firms take big bets. For instance, if a core engineer leaves during the development of a product, the company will face a major setback. Such staff need to be paid well enough to not consider working abroad. The key to success of companies like NetSol[138] have been their prioritization of employee retention by offering employees' wages that are comparable with international levels[139].

However, poaching remains in Pakistan as most firms have difficulty in acquiring domain specific specialization. Firms are always in a rush to get to the top graduates. Employees of top firms at any given time have standing offers of a 20% to 30% higher salary. This also affects the degree of collaboration between firms and trust within the industry while employee turn-over remains high. However, salaries in this sector are not rationalized to the global market.

5.6.7 A rising freelance industry

While Pakistan has a thriving freelance industry, its contribution to growth is not clear. A large freelance sector may indicate immense potential of this sector, but it could also be symptomatic of a problem in the ecosystem[140]. Its relentless rise indicates absence of government support and the inability of the industry itself to absorb all this talent. The Forbes article states that many freelancers in Pakistan are under the age of 30[141]. A recent news report found 16.2% of bachelor's degree holders unemployed[142]. Hence lack of gainful and full-time employment may be forcing

[137] Riaz Haq, "Haq's Musings," *Haq's Musings* (blog), March 24, 2017, http://www.riazhaq.com/2017/03/h1b-visa-abuse-what-do-software.html)
[138] NetSol Technologies was founded in 1997 in Lahore and grew to become a global company with operations in Australia, China, Pakistan, Thailand, UK and the US. The company is engaged in the licensing, customisation, enhancement and maintenance of its suite of financial applications under brand names, NetSol Financial Suite (NFS) and NFS Ascent, for businesses in the lease and finance industry
[139] Usman Qadir, Musleh ud Din, and Ejaz Ghani, "Competitiveness in Pakistan: A Case Study of the ICT Industry" (PIDE, September 2019), https://www.pide.org.pk/pdf/Working Paper/WorkingPaper-168.pdf)
[140] Asra Rizwan, "Getting to Know Syed Ahmad, the Force behind Prime Minister's IT Agenda for Pakistan," TechJuice (TechJuice, January 23, 2019), https://www.techjuice.pk/syed-ahmad-prime-minister-task-force-it/)
[141] Elaine Pofeldt, "The Top 10 Fastest Growing Freelance Markets in The World," Forbes (Forbes, August 18, 2019), https://www.forbes.com/sites/elainepofeldt/2019/08/18/the-top-10-fastest-growing-freelance-markets-in-the-world/#69ddb218733b)
[142] Lubna Shahnaz and Umer Khalid, "Educated, Yet Unemployed," *Dawn*, July 1, 2019, https://www.dawn.com/news/1491311.

people to turn to freelance work. Freelancers will have limited career growth opportunities unless the surrounding ecosystem allows them to be embedded in the formal economy.

High freelancers are considered 'cancerous' for the industry by some key players as they create a void in the industry. They do not allow their contribution to the economy to be documented nor do they allow positive spillovers within the industry and a chance to other players to learn from their experience and to collaborate. High-end freelancing (those earning more than $30k a year) is especially detrimental, and the model is not sustainable unless they embed themselves in a company. Working alone the growth of the worker will stall after a while. They may make more money at the start but most companies after they have taken off, pay their employees a good salary competitive with the global market. By encouraging/incentivizing high-end freelancing, the government is keeping the talent away from the mainstream industry. Moreover, in the long run, no gig economy will not take care of worker rights. Hence freelancing is not only harmful to the industry but to the workers themselves.

5.6.8 Inadequate Data/internet security, Infrastructure and Standard Setting

In order to be trusted, the internet must provide channels for secure, reliable, private, communication, which can be mutually trusted. The internet allows for 'permission-less innovation', where anyone can create and offer a service whether they are in a remote town in Sindh or Silicon Valley. It makes formation of relationships faster, cheaper, and more convenient, due to radically reduced costs of communication stemming from internet technologies and in that sense is a core component of the ecosystem that allows such innovation to take place.

While the bandwidth for wired and wireless systems is reasonable by international standards, the quality of service is very low. International connectivity through submarine fiber optic cable is frequently disrupted due to ship anchors and shark bites. The most recent news of this was in December 2019[143]. Earlier in October, Pakistan faced a countrywide disruption. Previously an internet outage occurred in June 2019. Services were disrupted due to multiple cable cuts.

Pakistan has also had its share of cyber-attacks. A recent study conducted by Comparitech[144] ranks Pakistan 7th among countries having the worst cyber security. India and Bangladesh are ranked at 14th and 6th positions. Pakistan has a draft bill in the shape of the "Personal Data Protection Bill 2018 (PDPB)" proposed by the MoITT in July 2018. It is yet to be debated, voted on, and formulated into an enforceable law. Such incidences go a long way in embarrassing and exposing the weakness of Pakistan[145].

In terms of domestic standard setting, the software industry is not heavily regulated. The academic path is not well defined and the multidisciplinary nature of producing IT products/services does not make it simple to set up a set of standards for quality of output, unless of course the service is being provided or the product is being developed for a niche industry – such as a health sector solution, in that case the output has to comply to standards set for the health industry. There is increasing pressure by the private sector on the government to develop a local set of standards for various activities under the ICT industry.

5.6.9 Weak intellectual property rights structure

[143] "Internet Services across Pakistan Disrupted, Restored," *Dawn*, December 16, 2019, https://www.dawn.com/news/1522492.
[144] The study collected data from various sources including Kaspersky, Global Security Index (ITU) and the Global Strategies Index; Rebecca Moody, "Which Countries Have the Worst (and Best) Cybersecurity?," Comparitech, February 6, 2019, https://www.comparitech.com/blog/vpn-privacy/cybersecurity-by-country/)
[145] Voxel Communications was faced with virtual elimination in mid-2005 when the internet backbone breakdown eliminated a major part of the call-center business in Pakistan. Voxel had excess capacity and equipment in Islamabad that it lent to a client in exchange for outsourcing a certain number of seats to the company.

Technological innovation has become a core driver of growth. Policymakers can no longer ignore its connection with entrepreneurship and focus just on 'brick and mortar'. However, to enable investments in R&D based on intellectual capital, a framework is needed to facilitate strong intellectual property, anti-plagiarism and patent laws. Intellectual Property laws are the cornerstone of innovation, however in Pakistan IPO laws are very weak and take too long to process.

In Pakistan, only 10% of the 50,000 patents registered since 1947 are local. The rest are foreign i.e. filed by individuals based in other countries[146]. In Pakistan, by the time the process is over the technology goes obsolete. Hence most startups prefer registering their startups abroad and taking their technologies where their ideas are protected. According to the Intellectual Property Organization (IPO) of Pakistan, computer software is in fact excluded from patentability in Pakistan.

Overall, weak implementation of intellectual property laws promotes piracy and counterfeiting. Pakistan's image problem is exacerbated by the widespread use of pirated software and copyright infringements. On the flip side, software code patterns involve a lot of technicality and even if codes are stolen, without the supporting framework the code will not be able to add much value. Hence, firms are not strongly constrained by this risk, even in light of weak IP rights implementation.

5.6.10 Lack of venture capital

Pakistan faces a dearth of both early stage funding/seed investment and venture capital opportunities. Foreign funding on the whole continues to be a major challenge. This, in addition to limited financing for SMEs (a major component of the IT sector) is one of the bottlenecks, slowing the sector's growth. Of the three million SMEs in the country, banks have lent to fewer than 200,000 of them[147]. Hence, up-scaling opportunities remain limited. Things are changing but slowly. Many government and non-government incubators and accelerators are now operational, so some seed money exists to launch small business ventures. At the same time there is some increase in the domestic and foreign capital chasing equity investment opportunities.

Despite recent investments by Chinese companies, a proliferation of incubators, accelerators, start-up competitions, and conferences over the past decade, along with the entry of a few notable venture capital firms, the capital raised by Pakistan is small in comparison to other players in the region. There is only $0.06 per capita of venture capital money in Pakistan per year, while Bangladesh has $0.07, Nigeria $0.18 and India $3.72[148]. Only nine Pakistani start-ups received VC funding compared to 34 in Nigeria, 38 in the UAE and approximately 790 in India[149]. Overall, Pakistan's tech start-ups raised under $30 million in 2018 compared to countries such as Indonesia (excluding unicorns[150]) raised over $274 million in 2018.

The issue is two-fold: regulations make it cumbersome to set up a fund inside Pakistan; regulations make it hard to get money out of the country. The Private Fund regulations in Pakistan are a derivative of non-banking finance regulations (NBFC), making it difficult for venture capital to develop in Pakistan. The tax incentives are designed for mutual funds and modarbas[151] and are ineffective for venture capital funds. While local venture capital funds are not incentivized to invest their funds inside Pakistan, foreign investors also need incentives to enter and invest in

[146] Maqsood Ahmed, "Technology in Pakistan: A Slow March," *The Diplomat*, September 29, 2016, https://thediplomat.com/2016/09/technology-in-pakistan-a-slow-march/)
[147] Triska Hamid and Ayesha Ghaffar , "Ready for Investment in Pakistan," Wamda, August 25, 2019, https://www.wamda.com/2019/08/ready-investment-pakistan)
[148] Syed and Bokhari, 15.
[149] Syed and Bokhari, 14.
[150] A unicorn is a term used in the venture capital industry to describe a privately held startup company with a value of over $1 billion.
[151] A form of financial contract in some Muslim countries in which the investor (rab-ul-mal) entrusts money to a financial manager (mudarib) and any profits and losses are shared between them in an agreed manner.

start-ups in the country. Global VC investors find the process of investing, having shares issued and registered riddled with red tape. This would put off anyone who has the option to invest elsewhere in the world. Due to over-regulation thus investment funds choose to operate from outside of Pakistan.

5.6.11 Perception and branding issues

Success stories depend on building a reputation as trustworthy, talented players who can build long-term relationships with adventurous investors overseas. However, the country's risk profile, unfavourable travel advisories, and the issue of negative media perception has adversely affected the reputation of Pakistani firms among potential export clients. The scarcity of foreign operations within the country has reinforced Pakistan's perception as an unreliable location for offshore services especially at the high-end of the value chain. Western clients remain doubtful about the quality and reliability of Pakistan-based IT firms.

Research shows that a high level of political risk discourages foreign clients from outsourcing services that require frequent interaction and have an innovative component. For Pakistan this interaction is restricted due to a number of reasons:

Entering the global value chain through the ICT service sector is to a large degree reliant on investment from developed countries such as the US and UK, and leading economies from the demand side, like India. Restrictive visa regimes limit direct interaction of suppliers and buyers. Hence the relationship and trust needed to engage in trade of higher value-added services is not created. The dynamics of the engagement between the supplier and buyer hence changes the expectation from the firms, influencing the nature of firms that enter the industry to provide these services.

However, even in the contact/call-center industry, customers still want to visit offshore sights of operation as a quality assurance measure. However, most Americans are reluctant to travel to Pakistan for security reasons. This constraint is especially hard to overcome for new companies. The security situation not only prevents direct engagement with the client but may also dissuade clients from sharing confidential/sensitive data with Pakistani firms. This is one of the reasons why clients, in the ICT industry, hold all or most of the structural power in the relationship with their needs and preferences suppressing those of the suppliers/firms.

Pakistan's brand remains very weak. Companies try to dilute this connection when approaching foreign clients. However, relationship with brands is critical for sustaining business in this industry, even if that means doing low value work to build reputation. This also leads to a linear approach to growth, when companies rely on their personal contacts to establish their business. The industry is not focused on capacity building or improving the eco-system around. And in terms of scaling up and growing these companies remain more reactive than being pre-emptive. Yet this issue with perception and branding is more binding for larger companies that are looking to land contracts with big foreign players. Medium sized companies usually work through their personal contacts.

5.6.12 Lack of an internationally recognized payment mechanisms

A key component of the business environment in Pakistan pertaining especially to the IT sector is the ease with which payments can be made especially for the freelancer sector. The refusal of PayPal, the largest third-party services provided for international monetary transactions, to enter Pakistani market has been particularly difficult for freelancers. PayPal in Pakistan could potentially facilitate around 200k freelancers and over 7k registered small and medium enterprises (SMEs)[152].

[152] Secretary General of P@SHA, Shehryar Hydri said while speaking to Dawn. Ramsha Jahangir, "Freelancers Upset over PayPal Refusal to Operate in Pakistan," *Dawn*, May 18, 2019, https://www.dawn.com/news/1482982.

PayPal operates in about 200 markets and has 277 million registered accounts. Additionally, it allows its customers to send, receive and hold funds in 25 currencies. PayPal has been launched in both India and Bangladesh. Why aren't major international payment gateways — such as PayPal, Google Pay or Stripe — operating in Pakistan, even though they operate in similar countries?

Their refusal to enter the market, following a close meeting between PayPal officials and Ministry of Finance, is mainly based on the fact operating in Pakistan is not a sound business decision for PayPal yet. Pakistan needs to develop an overall ecosystem to motivate a company like PayPal to enter the market. Currently credit card penetration is less than three million. PayPal would have to pay the SBP-mandated $2 million license fee if it wanted to work in Pakistan. Even for a company like PayPal, which earns between 2% to 3% on transactions, a $100 million transaction a year could not justify this license fee. There are other operational concerns as well such as Pakistan lacks a reliant system to link PayPal to banks in Pakistan. Even in India, PayPal is not allowed person to person transfers or payments due to strict regulations. Individuals can only transfer money to banks in India via PayPal. Pakistan lacks a central system or a platform through which customers can transfer money to any bank in the country.

In the absence of an internationally recognized payment gateway, freelancers and SMEs have found other ways of providing services and receiving money from abroad. For example, SMEs open accounts abroad through their relatives or someone they know and receive payments there. From the government's point of view, this is a major leakage in the system. Moreover, the dollar rate for payments at banks is very different from the open market when using non-banking (informal) channels to receive payments. In addition, Pakistan's weak standing in FATF has also made international transactions difficult.

Besides reductions and delays in payments, the choice of clients available to work with local start-ups and freelancers is enhanced by use of such mechanisms. On Upwork (a global freelancing platform), clients often only trust PayPal for transactions. The problem thus goes beyond a lack of payment solutions for freelancers. It's not that there aren't other options but more that PayPal is a big and reliable name. Many clients would be reluctant to do business if the supplier did not have a PayPal account.

5.6.13 Market distortions

One downside of the fiscal and non-fiscal incentives provided by the government to the ICT sector such as zero corporate tax on ICT firms is that it distorts the market. While the government's intent here is to generate foreign exchange and push exports, the top talent in Pakistan would logically want to work only for export-oriented firms. Growth of the domestic market/local solutions would slow down and this may impact overall growth of the industry since there are high spillovers in the technology sector. Another consequence of this would be an increase in overall wages in the low-end of the market while local solutions would become available at a higher price.

5.6.14 Higher Risk businesses not well-funded

The ICT landscape in Pakistan is dominated by either small players or large players. Mid-level professionals are not being developed or encouraged in Pakistan. Mid-career professionals have a higher chance of succeeding as they have experience and can adapt to changing circumstances, responding to market demand. Most of the incubators/accelerators active in Pakistan are doing similar work and targeting young entrepreneurs. Industry experience is critical to success and thus the right balance is missing. High ticket investments in this sector are therefore limited.

This is also why certain genres of start-ups are emerging – for example ride sharing and e-commerce (mainly lifestyle business). Harder problems such as pollution control require

experience to find innovative solutions. Even organisations such as IGNITE that have the bandwidth to undertake risky investments generally make safe bets. Moreover, in this era of an active National Accountability Bureau (NAB), the government employees are reluctant to spearhead any reform. This lack of motivation is hampering the government's efforts to create an innovative IT industry and encouraged risk averse behaviour. Local funding organizations are more geared towards funding well-established, traditional businesses over startups, which are typically higher risk.

5.7 Opportunities for Transformation

Proposed reforms (if any):

5.7.1 Improving supply of skilled labor:

1. While most solutions are long-term, some quick fixes can be implemented. Industry can introduce a specialized standardized test to hire people. By making public the scores of every university a strong link can be created with the industry that would also allow for self-correction.
2. While Pakistan will not be able to create an institute like Stanford or even Information Technologies Institute (ITIs) that are spread across India, it can create innovation clusters in areas where industries and universities can come together to form specialized research hubs. However, this will still require identification of these areas, an overhaul of the higher education system and associated research institutions.
3. A fresh student takes at least one year to fit into the industry, so Pakistan also needs to promote a learning-by-doing environment.
4. HEC needs to make some serious decisions. It's the only government education structure that has the outreach and capacity to undertake a countrywide overhaul of ICT education. While engagement with private academic institutions is ongoing, it will not have an impact on scale which is what is needed to propel the sector.

5.7.2 Creating the right ecosystem

What is needed is the right ecosystem, similar to what is happening in Silicon Valley that drives innovation and entrepreneurship. Specialist firms working and interacting with each other are crucial to growth in Silicon Valley. This exchange helps the firms develop technologies and products compatible with the needs of the market. They also shape the market by establishing product standards that firms elsewhere have to conform to.

1. **Consolidating authority to a central agency:** Within the local eco-system, as is true of many developing countries, coordination and cooperation between relevant stakeholders, such as ministries, departments, academia, chambers, and firms, remains weak. The Ministry should be strengthened with capacity and funds to undertake implementation of the several reforms that have been announced so that benefits can start accruing at the earliest. There is also a need of convergence to a central policy document, with timelines that all stakeholders can conform to and avoid overlap. For example, the Digital Policy recently announced needs to be supplemented with a plan of action, with short to medium to long term plans on how the core set of objectives can be achieved and assigning responsibilities to the various stakeholders/authorities.

2. **Building the domestic market:** In Pakistan there is little interaction amongst the firms, thereby limiting innovation. One reason for this is the limited domestic market for IT products in various economic domains. Currently the ICT sector contributes to around 1% of the GDP[153]. The strategy should be to develop a domestic market for various software niches to give firms an opportunity to develop their expertise locally before serving global markets. A

[153] "Sector Profile Tech".

good functioning local market can be especially important for software development since marketing is the main determinant of the product as its development entails minimal cost. Access to and proximity to the market is therefore essential to understanding the needs of the end users and react quickly to their demands. For example, producers of software for the oil industry are now concentrated around Houston[154]. This allows firms to shift to more domain-specific value-added work.

5.7.3 Government should open up procurement for the private sector

Chinese government routinely facilitates young entrepreneurs to grow within state-dominated industries, enabling them to land government contracts, incentivizing mergers and acquisitions, and providing tax incentives for high growth entrepreneurial Chinese entrepreneurs are being fast-tracked through established local industries the government can assert control over. The Pakistan government can achieve something comparable by channeling local entrepreneurs into industries it fully or partially controls, for example defence, healthcare, ports, oil and gas, education and governance. Some big successes can be seeded on their back, making international venture capital sit up and take notice.[155]

Develop Special Economic Zones for the IT sector: Pakistan needs zones like the Dubai IT city and software technology zones, not parks where a cluster of firms exist in a vicinity with laws specific to that business applicable in that region, countering the risk of over-regulation by authorities such as FBR and other revenue authorities. This will also help address the lack of harmony between federal and provincial laws following the 18th amendment. SEZs can actually be a quick fix to the problems that include lack of supportive infrastructure, security concerns, safe and secure connectivity and ineffective implementation of laws/incentives such as tax breaks or cash backs etc. This will protect the industry from over regulation and interference by NAB and tax authorities.

It is clear Pakistan needs a framework to diversify the ICT industry into a more knowledge-intensive, and higher value-added sectors. However, the role of the government has to be clearly understood and defined in creating the right incentive structure to be put in place, apart from providing the requisite physical and social infrastructure. The major players will be the private sector – including the large, medium and small firms – an increasingly competitive environment.

5.8 Proposed Reforms: Winners and Losers

	Proposed Recommendation	Likelihood of Reform	Winners	Losers
1	Improve Pakistan's position in the value chain by making the visa regime less restrictive and improving the risk profile- both are being changed. Visa regimes are improving as is investment coming into Pakistan	Low given that this issue is not specific only to this sector. However, small improvements can make a big difference.	Startups, incubators and accelerators	Freelancers will face more competition. PSEB will lose its power/clout.
2	Build a domestic market which gives firms an opportunity to develop their expertise locally before serving global markets.	High especially post-covid – the need for smart tech-based solutions, service delivery and	Startups, incubators and accelerators will get to work for a larger market,	Freelancers will face more competition.

[154] Ashwani Saith and M Vijayabaskar, *ICTS and Indian Economic Development: Economy, Work, Regulation* (SAGE Publications India, 2005).

[155] Hassan Baig, "Can Pakistan Be the next Silicon Valley?," *Dawn*, June 27, 2016, https://www.dawn.com/news/1266069/can-pakistan-be-the-next-silicon-valley.

		online deliveries/e-commerce will go up.	more demand and bigger scale.	
3	Government to open up procurement for the private sector to allow private sector develop products on a larger scale and become more visible in the global market	High especially given high demand and reliance on technology	Startups, incubators and accelerators	PSEB, PITB will lose their position of power.
4	Special Economic Zones for the IT sector will protect the industry from over regulation and interference by NAB and tax authorities and help address lack of harmony between federal and provincial laws following 18th amendment	Medium – special economic zones in Pakistan have rarely been successful in fulfilling their actual mandate and often fall short of meeting industry needs one way or another.	Startups, incubators and accelerators, IT parks	Freelancers, PSEB, PITB will lose their position of power.
5	Conforming to a central/overarching policy with timelines that stakeholders can conform to and avoid overlap.	Medium – this is dependent on the political will.	PASHA, HEC	PSEB, TDAP will have their power challenged.
6	Improving supply of skilled labor by ICT industry introducing specialized standardized tests before recruiting, linking scores to universities to allow for self-correction. Pakistan can create innovation clusters in areas where industries and universities can come together to form specialized research hubs. Lastly, HEC remains the only government education structure with the outreach and capacity to undertake a countrywide overhaul of ICT education. Engagement with just private academic institutions will not have impact on scale needed to propel the sector.	Low – not something with immediate political mileage but definitely exponential gains in the long run. If investments are not made now, Pakistan can fall far behind its competition.	Startups, incubators and accelerators, HEC	Freelancers will face competition.

6 Auto Parts Sector

6.1 Sector Overview

The auto parts sector is a downstream segment of the automobile industry and contributes about 2.3% to Pakistan's GDP[156]. 70% of a car's parts, 90% of a tractor's parts, 92% of a two-wheelers' parts, and 78% of a three-wheelers' parts are manufactured locally, indicating the huge potential of this sector[157].

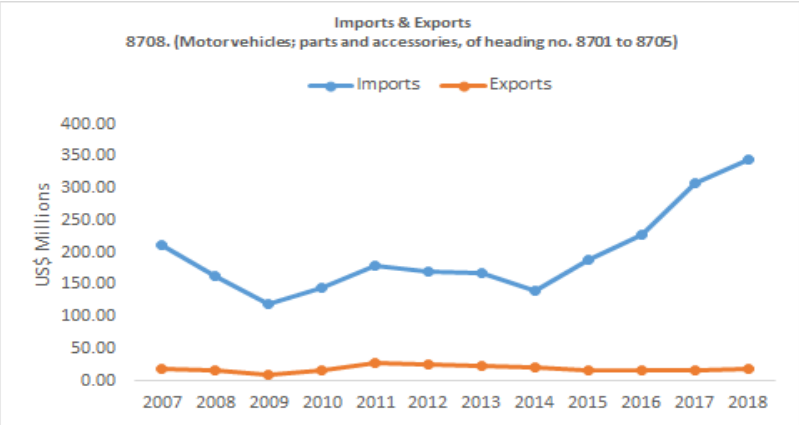
The HS code 8708 describes this sector as parts and accessories for motor vehicles under HS 8701 to 8705. Although there are around 20,000 components in a vehicle, Pakistan's auto parts sector is mainly involved in manufacturing auto parts for cars, two and three wheelers, trucks, tractors, and buses. Major product categories consist of engine parts, trim, body parts, electrical parts, and suspension parts[158]. In addition to this, the different categories of work under this sector includes forging, sheet metal work, machining, chemicals, plastics, electronics and electrical work[159]. It is important to note that the competence of the dies/molds industry is directly linked with the auto parts sector.

The auto parts sector serves two major market segments: Original Equipment Manufacturer (OEM) sales for the assembly of new cars, and the replacement market[160]. The former provides a blueprint for manufacturing auto parts with the exact specifications that are required by the local OEM. The replacement market, however, is larger and less restrictive in terms of quality standards and licensing requirements. There is a large import bill for the sector as well which represent 30% import of parts of OEMs and 70% for replacement market.[161]

6.1.1 Exports and Imports

In 2018, Pakistan's imports under the HS code 8708 category were valued at $344 million, while its exports amounted to around $18 million[162]. Currently, only 4% of the auto-parts manufactured in Pakistan are exported[163], whereas there is still a huge reliance on imports, as shown in the figure below.

Figure 27: Value of Exports and Imports of HS 8708

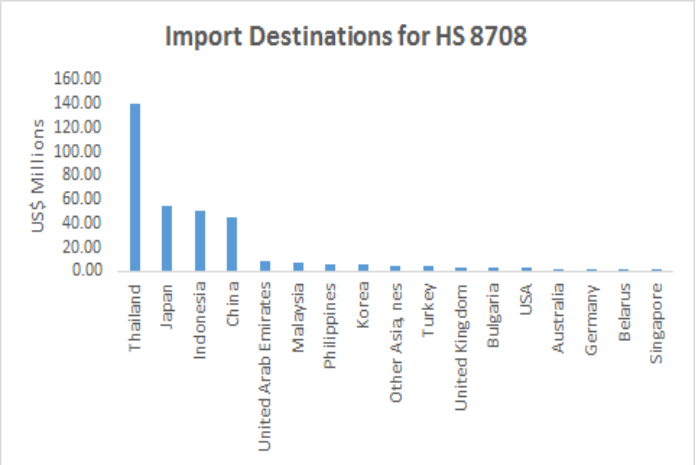


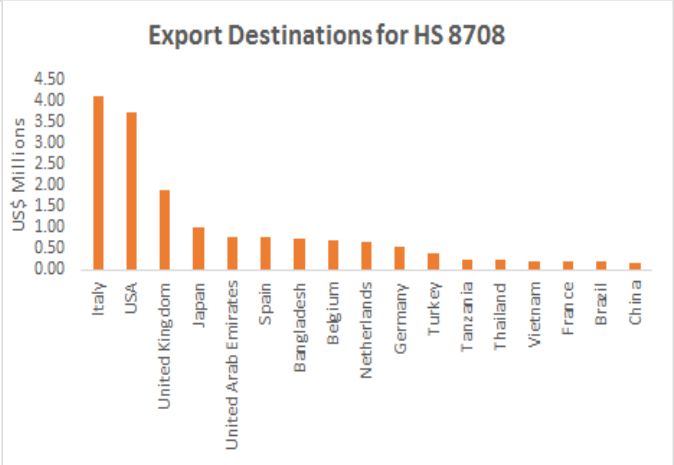
Source: UN Comtrade

[156] Trade Development Association of Pakistan. *Report on Auto Parts*, 2019.
[157] Board of Investment. *Sector Profile Automotive and Auto-parts manufacturing*, https://invest.gov.pk/automobiles.
[158] Trade Development Association of Pakistan. *Report on Auto Parts.*
[159] "Automotive Parts Sector Overview" (The Pakistan Credit Rating Agency Limited, October 2019), https://www.pacra.com.pk/uploads/doc_report/Autoparts Sector_1571148325.pdf.
[160] Board of Investment. *Sector Profile Automotive and Auto-parts manufacturing.*
[161] Stakeholder consultation
[162] UN Comtrade, 2018, https://comtrade.un.org/.
[163] Board of Investment. *Sector Profile Automotive and Auto-parts manufacturing.*

The figures below show the top import and export destinations for HS 8708. In 2018, Thailand was the largest import destination, with imports valued around US$ 140 million, followed by Japan, Indonesia and China. On the other hand, in 2018 Italy was the largest export destination with imports of around US$ 4 million[164].

Figure 28 - 29: Top Imports and Exports Destinations for HS 8708





Source: UN Comtrade

6.1.2 Industrial Landscape

The auto parts sector is largely dispersed, in clusters across large cities of Pakistan. The major cluster is situated in Lahore and its adjoining areas, which includes more than 50% of Pakistan's informal establishments[165]; another major cluster lies in Karachi. The cluster in Lahore mostly produces auto parts for tractors and motorcycles[166]. Below is the list of cluster locations with Lahore and Karachi.

Table 9: Major Cluster Locations for the Auto Parts Sector

City	Cluster Location
Lahore	Badami Bagh
	Mecleod Road
	Bilal Gaang
	Kot Lakhpat
	Thokar Niaz Baig
	Multan Road
Karachi	Hub Chowki
	Port Qasim
	Landi
	Korangi Industrial Area

The table below shows the production capacity of the two main industrial clusters in Lahore and Karachi and the key firms involved.

[164] UN Comtrade.
[165] "Motor Vehicles and Trailers Auto Parts Manufacturing" (International Finance Corporation, 2011), pp. 1-18, http://www.sbp.org.pk/departments/ihfd/Sub-Segment Booklets/Motor Vehicles and Trailers-Auto Parts Manufacturing.pdf.
[166] "Automotive Parts Sector Overview" (The Pakistan Credit Rating Agency Limited, October 2019), https://www.pacra.com.pk/uploads/doc_report/Autoparts Sector_1571148325.pdf.

Table 10: Production Capacity in Lahore and Karachi Clusters

Lahore installed production capacity	Karachi installed production capacity
• 4-wheeler OEMs (Honda Atlas: 40,000 U, Millat Tractors: 60,000 U) • 3-2-wheeler OEMs (3-wheeler: 74,000 U, 2-wheeler: 2,080,000 U)	• 4-wheeler OEMs (Gandhara Nissan Ltd.; Master Motors – Mitsubishi; Pak Suzuki Indus Motor – Toyota; FAW)
Lahore capacity under evaluation/ planning	**Karachi capacity under evaluation/ planning**
• 4-wheeler OEMs (Hyundai Nishat 20,000 U, SOP in 2019; Renault 50,000 U, SOP in 2020; Dongfeng → Regal Automobile, SOP in 2018; BAIC 24,000 U → Sazgar Engineering works, SOP in 2019; United Motors; JAC)	• 4-wheeler OEMs (VW Commercial; Audi; Luck cement JV with KIA; Master Group JV with Foton; KMML JV with Chongqing Kuayue (Group) Co.; Master Motors in JV with Chongqing Changan Automobile; Dewan Farooq Motors JV with SYMC; Rahmat Group JV with BAW and LIFAN)

Source: UNIDO[167]

There are 2,283 auto part units including 83 assemblers and 2,200 manufacturers in Pakistan. Out of the 2,200 manufacturers, 450 are Tier 1, 425 are Tier 2 and 1,325 are replacement market suppliers[168]. Furthermore, more than 1100 of these manufacturers directly employ around 500,000 individuals, and indirectly generate employment of 2.4 million[169].

It is important to note that firms that are qualified as tier 1 manufacturers supply a range of parts by combining multiple parts. However, manufacturers within Pakistan's auto parts sector predominantly specialize in producing single unit parts. Although Pakistan initially entered the global automotive value chain as tier 3 manufacturers, supplying raw material for auto parts, few firms have grown to be tier 1 manufacturers, depicting vast export potential[170]. The table below lists some of the top registered auto parts companies.

Table 11: List of Registered Auto Parts Manufacturers

Company Name	No. of Employees	OEM Customers	Main Products/Processes
Thermosole Ltd.	> 200	Suzuki, Honda, Toyota, Hyundai, Daihatsu	Plastic blow & injection molding integrated in-house mold manufacturing
Techman Engineering	–	Honda, Suzuki, Toyota, Dewan	In-house mold making on CNC setup
Hawks Engineering Works	50 - 100	Suzuki, Honda, Toyota	Hinges, sticker, locks, latches, brackets, shackle plates, beam pipe, tractor parts
Lal Din Engineering	–	PAK two- and three wheelers	Steel sheet metal parts for two-three wheelers.
Metaline Industries Ltd.	–	Honda, Suzuki, Toyota	Specialized assemblies and sub-assemblies such as fuel tanks, oil pan, window regulators assy, seat adjusters assy, etc
Omega Industries Pvt. Ltd. - Road Prince	800	–	Motorcycle assembly (70cc, 110, 150, 250)

[167] "Auto Parts Cluster Lahore Operationalization of Auto Parts Support Centre (APSC) Assessment Report" (UNIDO, 2019).
[168] Trade Development Association of Pakistan. *Report on Auto Parts.*
[169] "Automotive Parts Sector Overview"
[170] Trade Development Association of Pakistan. *Report on Auto Part*

Infinity Engineering & School of Engineering	300	Honda, Toyota, Land Rover, Suzuki	Forging, precision machining, heat treatment, large-scale engineering school
National Automotive Company	_	Honda, Suzuki, Toyota	Forging, machining, heat treatment, surface Treatment

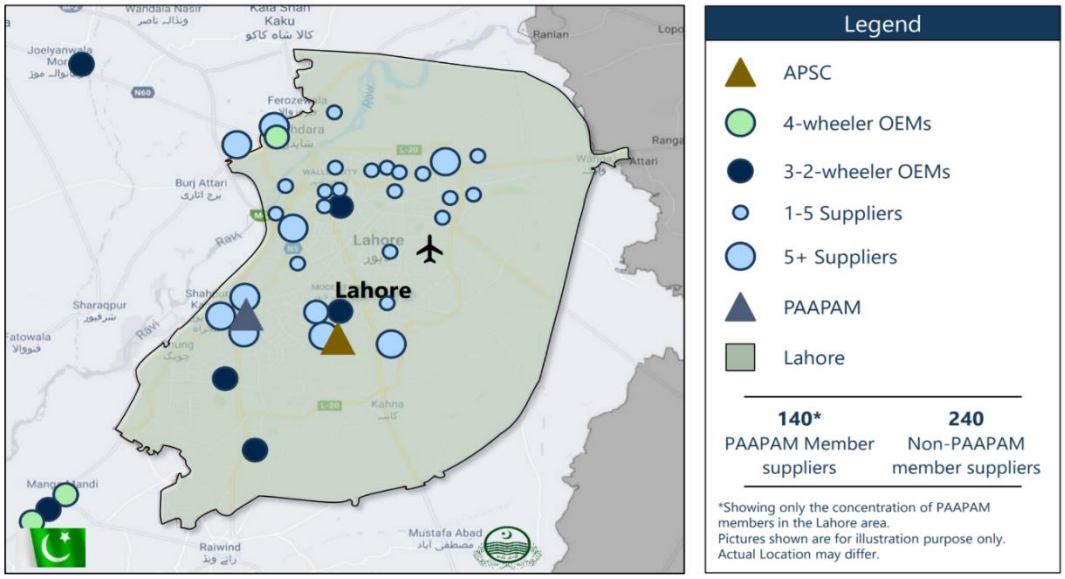
Source: UNIDO[171]

Nonetheless, Pakistan's auto parts sector is still in the lower value addition part of the global value chain and has not progressed towards higher value addition processes like research and development, branding and innovation. Moreover, it mostly manufactures for domestic OEMs rather than the parent OEM in the global market[172].

Localization of the Lahore Cluster

Lahore has a strong concentration of the automotive OEMs and suppliers, as shown in the figure below. Around 20% to 40 % of the 4-3-2-wheeler auto parts are localized in this cluster[173]. However, auto parts manufacturers still rely on reverse engineering techniques in this sector, rather than developing their own product designs. The Lahore cluster also has a strong presence of the engineering and dies/molds supporting industry.

Figure 30: Concentration of the Automotive OEMs and Suppliers in Lahore

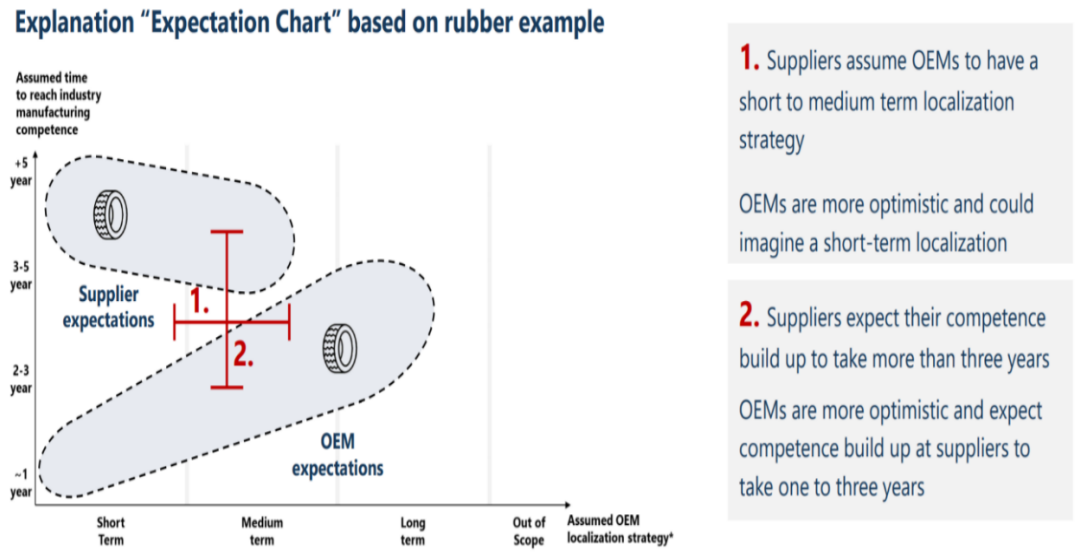


Source: UNIDO[174]

The further development of the auto parts sector requires an assessment of the informal setting within this cluster to set a blueprint for further communication between OEMs and Auto parts suppliers. Below is the expectation chart for suppliers and OEMs in the rubber segment within this cluster.

[171] "Potential Pakistan Participants for Business Dialogue" (UNIDO, 2019).
[172] Faisal Bari et al., "Regional Competitiveness Studies: Research Study on Auto Sector" (Institute of Development and Economic Alternatives (IDEAS), 2016).
[173] "Auto Parts Cluster Lahore Operationalization"
[174] "Auto Parts Cluster Lahore Operationalization"

Figure 31: Expectation chart for Suppliers and OEMs in the rubber segment



Source: UNIDO[175]

Key regulatory/policy change

The Automotive Development Policy (ADP) 2016-21 sets the direction for the auto parts sector in Pakistan. ADP requires all auto parts manufacturers to be registered with the Engineering Development Board (EDB), which monitors the imports of raw material and adherence to the concessionary duties fixed in the ADP.

The table below lists the SROs pertaining to this sector. SRO 655 and ADP, auto parts manufacturers are required to pay regulatory duties of 1%, 10% and 20% against the imports of raw material, components and sub-assembly of cars respectively[176].

Table 12: SROs related to the Auto Parts Sector

SRO	Description
655(I)/2006	• Partial Exemption of customs duty for vendors of Automotive • Sector on import of raw materials, sub-components, components, subassemblies and assemblies not manufactured locally
656(I)/2006	• Exemption of customs duty for OEMs of Automotive • Sector on sub-components, components, sub-assemblies and assemblies and direct materials, but excluding consumable.
693(I)/2006	• Levy of additional Customs Duty on Import of Specified • Goods for assembly/manufacture of vehicles.

Source: Federal Board of Revenue[177]

However, the actual cost of duty on importing parts is much higher as stakeholder interviews reveal that they add almost 80% to the actual invoice value.

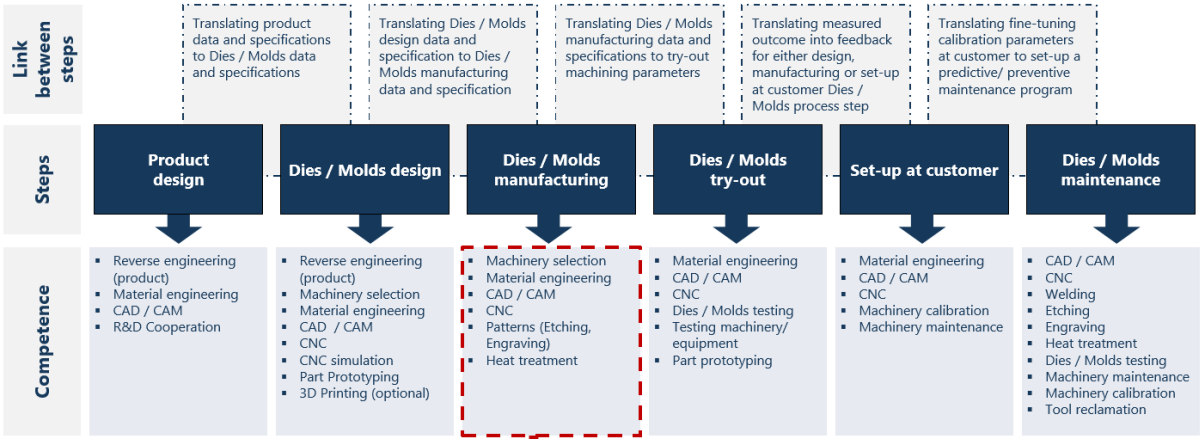
6.1.3 Value Chain

The supply chain of auto-parts depends on the level of capability that an industry is operating at. Broadly, there are four levels of capabilities in the auto part industry. The lowest tier involves producing parts that only conform to local standards; (ii) second involves production of auto parts

[175] "Auto Parts Cluster Lahore Operationalization"
[176] "Automotive Parts Sector Overview"
[177] "SROs/Notifications," Federal Board of Revenue, 2006, https://www.fbr.gov.pk/sros/.

that comply with international standards; (iii) substituting imported parts with local manufacturing and; (iv) creating new products. These supply chains along these different tiers of capabilities is strongly linked to the capacity of dies and mold design and development technology. The entire supply chain of auto-part development is provided below.

Figure 32: Supply chain of auto parts



Source: UNIDO[178]

A critical barrier in the supply/value chain is the limited capacity to develop quality dies and molds that are required if the industry has to develop new and original parts. The auto-sector lobby has played a very strong influence in restricting the development of auto-part design capacity as that opens up substantial export opportunity. The OEMs (Suzuki, Toyota and Honda) have managed the downstream flow of technology and capability and have kept auto-part manufacturers hostage to products linked to their supply chains. The limited capacity of manufacturing dies and molds in Pakistan is low, and unique for country trying to industrialize. This limited capability not only hinders the auto-parts industry but general manufacturing as a whole.

6.2 Key Players

The table below lists the key associations that promote and aid the auto parts sector in Pakistan, while also giving voice to small and medium scale businesses within this sector.

Table 13: Key Players of the Auto Parts Sector

Name	Classification	Functions
Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM)	Industry Association	PAAPAM aims to promote the interests of auto parts manufacturers and improve the sector's export potential through technical and management assistance and collaboration.
Pakistan Automotive Manufacturers Association (PAMA)	Industry Association	PAMA aids in policymaking for the automotive industry and acts as a principle source of statistical data related to this sector.
Association of Pakistan Motorcycle Assemblers (APMA)	Industry Association	APMA represents motorcycle assemblers and manufacturers with the aim to provide them with technical and consultative assistance.

[178] "Auto Parts Cluster Lahore Operationalization"

In addition to above industry stakeholders' associations, Engineering Development Board (EDB) under the Ministry of Industry is the main regulatory and policy support body for the automotive industry. However, post the discontinuation of the auto-deletion policy, EDB has mostly focused on tariff recommendations and providing policy support. The 2016-17 Auto-policy was announced by EDB under the ministry. However, EDB plays minimal role in regulating standards and quality of the automotive parts and vehicles.

Moreover, the automotive sales representatives and dealers have formed the All Pakistan Motor Dealers Association (APMDA) to represent their interests in dealings with the state.

6.3 Power Relation within the Sector

It is important to understand that the demand for auto-parts is a derived demand and is strongly linked to the production, demand and use of vehicles. The dependence on the demand for vehicles define the shape of business and commercial relations in the sector. As discussed above the automotive industry is broadly segregated as passenger 4-wheelers, two-three wheelers and tractors. The passenger car market is dominated by 3 key Japanese manufacturers; (i) Suzuki; (ii) Indus motor and; (iii) Honda. These companies since their establishment have played a strong role in shaping up dynamics of the sector.

In order to capture the political economy of the auto-parts industry it is essential to reflect upon the historic development of the automotive industry in Pakistan. The development of this parent industry can be categorized in the following phases:

6.3.1 Phase 1: 1947-63

Pakistan after independence started with non-existent capacity of any form of auto industry. The government supported the establishment of Semi Knock Down (SKD) Automobile assembly parts during these first phase of industrialization in the auto sector. In most of the cases the assembly operations were limited to assembling of the units imported in SKD condition and no substantial localization took place during this time and consequently, there was limited to no development of the auto-parts sector.

6.3.2 Phase 2: 1964-71

There was some progression on the manufacturing side during this phase and Ghandara motors successors of General motors &Sales Company initiated the local development of BedFord Trucks – this was accompanied by a deletion plan thereby laying some foundations for the start of the auto-parts industry. The first in-house metal, pressing and die making facility was also established during this phase. However, most other assemblers continued with the SKD assembling and thus hardly any meaningful localization took place.

6.3.3 Phase 3: 1972-88

After the Pakistan India war in 1971, the government announced the plan to nationalize industries and all 10 major automobile assembly plants were nationalized. To support the operation of these industries Pakistan Automobile Corporation (PACO) was created in 1973 as a holding corporation under the administrative control of the Federal Ministry of Production. PACO was consequential in bringing emphasis to develop local manufacturing facilities and the development of parts locally. This introduced the concept of assembling from Complete Knock Down (CKD) instead of SKD, and to move towards manufacturing components and to achieve a local content of 75% over a five-year period. This not only entailed utilization of the existing facilities in the country but also required the assemblers to plan for future investment to achieve 75% local contents if the manufacturing capability was not there.

As a result, a number of small and large industrial units that were mostly functioning in the unorganized sector were channelized into a more formal pattern of production management under

the PACO control. The number of units in almost all areas of automobiles developed in this phase. Suzuki started assembly of a range of vehicles (Cars, P/up, Vans & Jeeps) and Isuzu Trucks & Buses in the public sector. Awami Autos signed a Joint Venture Agreement with Suzuki Motor Co. of Japan and Pak Suzuki Motor Co. Ltd was established in 1983 to produce Suzuki range of vehicles. PACO also established two units in the public sector namely Baluchistan Wheels and Bolan castings.

6.3.4 Phase 4: 1989-2006

The policy of denationalizing public sector units of PACO (Pakistan Automobile Corporation) were transferred to the private owners. Indus Motor and Honda Atlas Cars came into existence as major players after Suzuki in the sector. The deletion programme also gained strength and momentum during this phase and to as the part manufacturers gained size Pakistan association of Automotive Parts and Accessories Manufacturers (PAAPAM) was established in 1988. Development of the Engineering Development Board (EDB) under the Ministry of Industries also provided a good platform for auto-part manufacturers to gain technology and investments under the deletion programme. However, in 2006, the deletion programme was discontinued under the TRIPS agreement and instead a Tariff Based System (TBS) was introduced.

6.3.5 Phase 5: 2006-present

The discontinuation of the deletion programme severely impacted the localization of parts and progress slowed down on this front. The Japanese manufacturing lobby became strong and since have influenced major policy and tariff decisions taken by the government. The 2016 auto-policy took the first real step to challenge the market power of the three Japanese assemblers when it provided substantial fiscal incentives to new market entrants.

As discussed above, the auto-parts industry cannot operate outside the boundaries set by the automotive industry. Thus, the business and competition strategy of the vehicle manufacturers determine the state of the auto-parts industry. The auto-parts industry saw major growth during the period of mandatory deletion, as vehicle manufacturers had no choice other than to invest locally and develop indigenous capabilities. All large auto-part producers/manufacturers today are the ones that were linked to producing parts for the main vehicle manufacturers. Suzuki enjoys just over 40% of the market share, Toyota around 30% and Honda close to 20%. The rest is mostly imported used cars that over the years under different policy regimes make way into the economy[179]. Similarly, for two/three wheelers Honda Atlas enjoys over 65% of the market share and in terms of tractors, FIAT and Millet has captured the entire market in almost equal shares.

The large auto-part manufacturers are those that are linked with these main market shareholders. However, these auto-parts manufacturers are bound by strong licensing requirements and terms and conditions that bound them to tightly worded contracts. For example, these manufacturers are unable to export as they are only allowed to produce for local OEM facilities. Similarly, they are required to purchase imported parts to fit into their production only from designated factories allowed by the OEMs. They are unable to conduct their own research and development. These acts have reportedly resulted in vehicles being sold at higher prices to Pakistani consumers- the competition commission has on occasions issued notices to these major players in the industry on anti-competitive behaviour. As mentioned above, the strong lobby has managed the development of the dies and molds sector in the country which is the backbone of developing a competitive and export driven auto-part industry. As a result of this concentration of power the following issues can be highlighted that impact the performance of the sector:

[179] Usman Qadir, "Pakistan's Automotive Industry: A Case of Stalled Development" (Islamabad: Pakistan Institute of Development Economics, 2016))

- The registered suppliers to OEMs have only grown to the extent that has been made possible by the OEMs. They face strict scrutiny on their production activities and in most cases are not allowed to make sales to anyone else.
- These large vehicle manufacturers have also established sister auto-part companies that are used in different ways to extract abnormal profits. For example, a large amount of transfer pricing occurs through these establishments. Moreover, parts are imported through these sister companies, which are then sold to vehicle manufacturers as locally manufactured parts (actually they are just assembled) to meet the deletion requirements.
- The second-tier manufacturers are importers who produce for the replacement market are able to make some space both in local markets and export, but are extremely constrained by the lack of technology, finance, and engineering support that is available to suppliers working with OEMs. Smuggling is also a critical issue that has plagued the performance and growth of local part manufacturers as they are unable to compete. Similarly, the valuation for duty and tariff has certain issues, most parts are officially recognized at a price lower than their actual price, therefore, making it difficult for importers to make payments.
- The OEM lobby has been able to influence the policy environment significantly that has allowed substantial protection and resulting limited capabilities within the local industry. The OEMs report close to 70% deletion, however, that is in terms of volume of parts and not the value of parts. Most of the engineering and engine parts that are of higher value are still imported. The OEMs control the flow of knowledge and capacity as design and engineering capabilities to self-design parts does not exist.
- PAAPAM is an elected body and therefore has a political nature and tendency to support those in power more than those that are not. Some members of PAAPAM have signed MOUs with the Chinese to self-develop parts, however, the opportunities are not freely shared.
- Post the discontinuation of the deletion programme and introduction of TBS, both EDB and Ministry of Industries has lost some clout in terms of regulating the sector. The lack of local quality standards provides OEMs to impart their own safety and quality standards which again restrict the capability building of local part manufacturers.
- In the two-wheeler market Honda Atlas is clearly the market leader and claims over 90% deletion, however, the other assemblers still rely on imported parts. However, there has been a long-drawn protection provided to the sector.
- Finally, the tractors manufacturing is almost 100% localized, however, under current licensing agreements, the manufacturers are not able to export tractors directly, however, informally Pakistani tractors are finding a strong clientele in African markets through secondary sales.

6.4 Stakeholder Influence-Alignment

High	**HANDLE WITH CARE** **MEET NEEDS** **ENGAGE AND CONSULT IN INTEREST AREA** **TRY TO INCREASE LEVEL OF INTEREST** **AIM TO MOVE HERE** □ **Ministry of Commerce** **Ministry of Finance** **FBR**	**TOP PRIORITY** **KEY PLAYER** **FOCUS EFFORTS ON THIS GROUP** **INVOLVE IN GOVERNANCE / DECISION MAKING BODIES** **ENGAGE & CONSULT REGULARLY** **Ministry of Industries** **Engineering Development Board** **SMEDA** **Punjab Small Industries Corporation**
INFLUENCE / POWER Low	**LOW PRIORITY** **LEAST IMPORTANT** **INFORM VIA GENERAL COMMUNICATION** **AIM TO MOVE** □ **Academia** **Research & Development (technical universities)** **Skills Training Institutes**	**NEED HELP TO PARTICIPATE** **SHOW CONSIDERATION** **MAKE USE OF INTEREST THROUGH INVOLVEMENT IN LOW RISK AREAS** **KEEP INFORMED & CONSULT ON INTEREST AREA** **POTENTIAL SUPPORTER/ GOODWILL AMBASSADOR** **PAAPAM** **PAMA** **APMA**

Low **INTEREST** High

6.5 Barriers to Development

The manufacturing process of an auto-part has to be designed first (this require R&D capability and reverse engineering and material engineering), then it will require design development of dies and molds, then manufacturing of molds, trying them out, setting the molds up and then maintenance of the mold. Current capability of Pakistani industry is limited to first two tiers and the local industry at the moment is not able develop parts that can substitute imported parts and also not in apposition to create and develop new parts. If the industry is not able to develop new parts, it will always have to work under licenses and export potential will be limited and dependent upon the allowances provided by the OEM. The Japanese lobby is influential and dominate the policy scene on the auto-circuit. The most recent example is where government modified the 'gift-import' scheme, where, the person gifting the car has to demonstrate funds generated by them to be able to send the vehicle to Pakistan. This policy change halted import of used vehicles, which formed an important segment for local part manufacturers.

There are over 10,000 different auto-parts that used in the manufacturing of vehicles and are made of different materials. For some main categories the issues for Pakistan are provided below[180]:

- 4-wheeler plastic parts: currently 40-60% localization for cars and 100% for tractors. For further localization there is a need to deploy new technology for example micro-laser cutters, also to move into export markets there is a need to build product design capacity.
- 4-wheeler rubber parts: currently 40-60% localization for cars and 100% for tractors. Again, capacity required to develop newer and efficient designs and develop indigenous materials.
- 4-wheeler sheet metal parts: currently 40-60% localization for cars and 100% for tractors. Need to develop new standards on raw material especially relating to sheet metal hardness; product design and development of dies and molds.
- 4-3-2 wheeler sub-assembly parts: localization is between 20-40%. Further localization will happen by building assembly manufacturing competence. There is a need to improve R&D, manufacturing engineering and management of productivity processes.
- 4-3-2 wheeler functional parts: localization is between 20-40%. Need to improve product design and mold and dies capability.
- Electronic parts: low level of localization. Need to address restrictions on import of certain machinery, development of materials, conductors, product design and R&D capabilities.
- 4-3-2 wheeler casting parts: localization is between 20-40%. Raw material quality is not reliable for casting and capability to design and develop molds and dies is missing.

The discussion above shows that there are policy level and as well manufacturing engineering level deficiencies that is restricting further localization and capability to develop new parts that can hit the export market. Moreover, lack material science technology and composite material development capability the sector will always lag behind its competitors as will not be able to manufacture new and innovative products,

Additionally, it is important to highlight that there is a structural change coming in the global auto industry, with fuel base changing from traditional engines to electric cars. This has encouraged large technology giants to jump into the auto industry and they have already started developing machine-based AI electric vehicles. This is posing a substantial challenge to the traditional auto manufacturers who after so many decades face a stronger competition with companies that are way ahead from them in research and development. Although, Pakistan is still operating at the lowest rung of technology and innovation, this global change is likely to alter the structure of the industry in Pakistan. In short, investment in quality and result oriented R&D and capable human resource will become even more important going forward.

6.6 Opportunities for Transformation

Under the Auto-policy of 2017, Pakistan offered significant incentives for new OEMs to start operations in Pakistan. This has resulted in significant interest - European and Chinese auto manufacturers have committed to invest in Pakistan. This will result in increased demand for parts locally both for primary supply and for the secondary market.

Moreover, the global auto market is rapidly changing. It is under constant pressure to innovate as customers are demanding new technology and costly features – often without additional willingness to pay. The regulators are increasing the compliances on environmental safety standards. The technology giants with significant resources are consistently investing to innovate in the mobility business, threatening traditional OEM dominance. The move away from fuel-based cars to battery operated is now a prevalent feature in many countries and smart cars without drivers can become a reality sooner than thought. In short, this rapidly changing auto-market presents immense opportunities but considerable challenges. Pakistani industry will have to move beyond the technologies and skills adapted for existing OEMs and invest and innovate if it is to

[180] Ibid.

become part of the GVC of this fast changing and technology enabled mobility industry. The changing designs and performance requirements of vehicles will require significant investment, redesign and reconfiguring of production techniques and facilities. The industry may be given special focus and supported by the following measures:

- There is a need to work on the policy side and build effective partnerships to increase the capability of dies and molds in Pakistan so that the country is able to develop and produce new products that can be exported and also able to substitute the quality of imported parts. This particular intervention is immediately required and must focus on allowing imports of appropriate technologies and development of composite and high technology materials.
- Engineering universities may be encouraged to start programmes that cover the future auto and mobility industry. The IT universities, engineering universities and auto-part manufacturers may be provided a common platform to work jointly on developing capabilities of manufacturing parts for next generation automobiles.
- The government should work in partnership with industry players to set up an auto-parts design and technology institute. The institute should conduct research for next generation cars and work with manufacturers to develop prototypes. For example, the shift from fuel based to battery operated cars have resulted in significant changes to the design and performance requirements of parts. The industry needs continuous support for research and innovation to become a key part of the global value chain.
- Under CPEC the government should leverage JVs with Chinese car manufacturers to support local part manufacturers to integrate into their GVCs.
- Like footwear, the auto-part industry also suffers significantly at the hands of smuggling. Curbing this will significantly increase the industry's growth potential and will make the sector more conducive for investments.
- Belarus has been identified as the ideal transfer country for Pakistan for auto-parts using the Growth Identification and Facilitation framework GIFF methodology.[181] Belarus is also best suited for transfer of technology for motor vehicles for transport of goods and for tractors.
- It is important that a monitoring system is developed that tracks the implementation of new OEMs committed to investment in the country. The policy currently allows preferential import of completely built units by these new entrants to test the market. However, some stakeholders fear that these manufactures may sell the initial quota of built units and then exit benefitting on preferential access. There is a need to open up the sector and this will only happen if the Japanese lobby in auto-sector is diluted.

6.7 Proposed Reforms: Winners and Losers

	Proposed Recommendation	Likelihood of Reform	Winners	Losers
1	Setting up facility and knowledge and design support facilities and institutes to upgrade the dies and molds value chains and shift the industry towards higher capability of developing 'new' parts.	This is possible if major players in the auto-parts industry work with relative provincial governments (Lahore and Karachi are the two hubs) to develop design capabilities and development capabilities of dies and molds that can reverse engineer new products.	All auto-part manufacturers and can invite more investments and open up the sector for export.	Some of the existing large-scale parts manufacturing units under licence with existing OEMs will lose as they are not allowed to manufacture beyond the OEM supply lines.

[181] The GIFF is a policy tool based on insights from New Structural Economics, which emphasizes both effective markets and government facilitation in order to achieve industrial diversification and upgrading. The GIFF allows countries to locate latent comparative advantage and leverage it to achieve structural change.

2	Support Joint Ventures with the Chinese to develop capabilities of developing parts that can supply the Chine Auto Global Supply Chains.	The auto-parts sector has been hit significantly due to COVID-19, however comprise a large number of SMEs who employ a large workforce. The provincial government will be keen to support these clusters and both Punjab and Sindh are likely to pursue partnerships under CPEC industrial collaboration.	All part manufacturers are likely to benefit from these JVs and resulting technology transfers. These will open up new markets and production lines. The provincial governments as will be able to get more investments and generate employment.	Importers of several parts may lose out if local capacity to develop those parts is established and also those who are bound by OEM licence agreements.
3	The government should support research and development on changing fuel technology in auto-industry.	A difficult one to implement as most existing cars and technology is at the lowest frontier and distance to new technologies is significant. However, federal government is keen to move towards electronic cars in future.	Existing and new players as there will be an attraction to gain on first mover advantage.	Auto-manufactures globally are feeling threatened by global technology companies who are coming up with smart auto-technologies. So those who are slow to graduate will be the losers.
4	Reduce/eliminate smuggling.	There is now a likelihood as for the first time a government is bringing an ordinance to control and reduce smuggling. The post COVID-19 situation also makes it an apt time to bring big transformational reforms	All local manufacturers and importers who trade formally.	The informal value chain supported by smuggling and the associated incomes of a large number of people attached.
5	Strong monitoring and enforcement of the Auto-policy to support establishment of assembly plant of new global auto-manufacturers	This will have to be pushed strongly because of a strong lobby of existing Japanese manufacturers.	Local economy and consumers, prices are likely to rationalise and choice will increase	Existing OEMs

7 Horticulture Sector

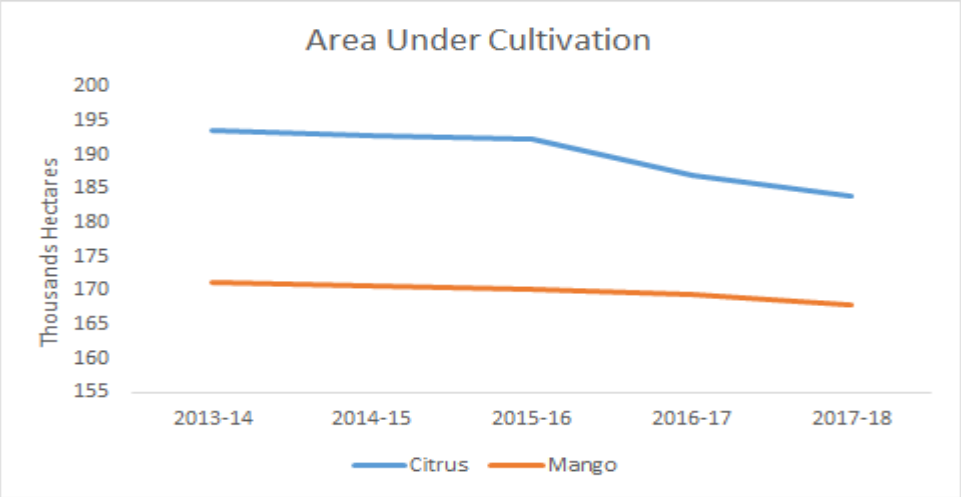
7.1 Sector Overview

The horticulture industry involves the production and marketing of fruits, vegetables, floral and landscape plants[182]. Blessed with a tropical to temperate climate, Pakistan is an ideal location to grow horticulture crops and export them in the global market. However, it is mainly the province of Punjab which due to its suitable agro-climatic conditions, contributes a major share to national horticultural production.

Horticultural crops such as fruits are a cheaper source of proteins, carbohydrates, vitamins, minerals, and dietary fiber, and hence, have the potential to overcome malnutrition and ensure food security. 6% of the total cultivated area in Pakistan is devoted to the production of horticultural crops, which is inclusive of 3.5% fruits, 2.0% vegetables and 0.5% ornamental plants cultivation[183].

Furthermore, in the FY 2017-18 around 779,948 hectares were allocated to fruit production in Pakistan, with the largest area being devoted to the cultivation of citrus and mango, which spanned over 183,849 hectares and 167,899 hectares, respectively[184]. However, it is important to note that the area under citrus and mango cultivation has been witnessing a decreasing trend over the past few years, as shown in the figure below.

Figure 33: Area under Citrus and Mango Cultivations in Pakistan



Source: Ministry of National Food Security and Research[185]

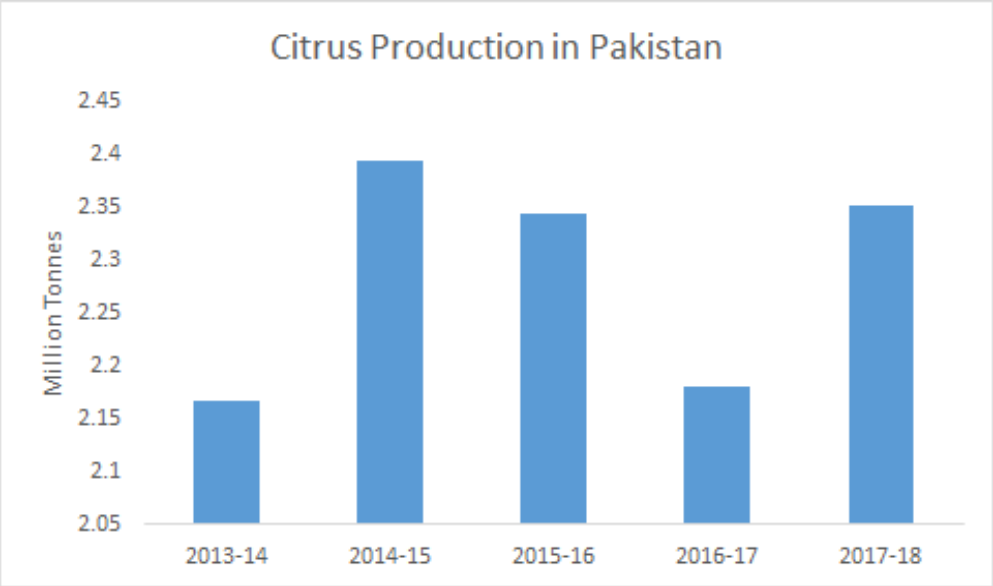
7.1.1 Citrus

Citrus had the highest production in the fruit category, amounting to around 2.3 million tonnes in FY 2017-18[186]. The figure below shows citrus production in Pakistan over the past few years. Around 2.2 million tonnes of citrus were actually produced in the province of Punjab, with negligible amounts being produced in the other three provinces[187]. Moreover, out of the total citrus

[182] State bank of Pakistan, *Guidelines for Horticulture Financing*, 2007
[183] Saba Hameed et al., "Potential of Horticultural Crops to Ensure Food Security in Pakistan," *J. Environ. Agric.* 1, no. 1 (2016): pp. 74-79.
[184] Ministry of National Food Security and Research, *Fruit, Vegetables and Condiments Statistics of Pakistan 2017-18*, 2019
[185] Ibid.
[186] Ibid.
[187] Ibid.

production around 17% is exported; this mainly includes exports of kinnow. The kinnow harvesting season in Pakistan begins in late November and ends in April[188].

Figure 34: Citrus Production in Pakistan

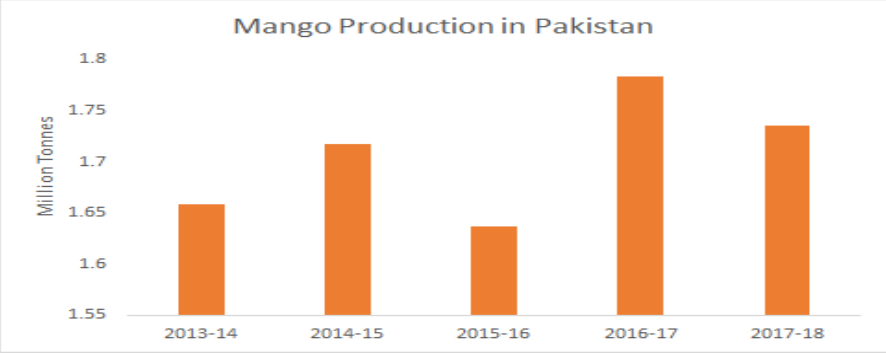


Source: Ministry of National Food Security and Research[189]

7.1.2 Mango

The mango season in Pakistan begins in May and ends around August and September. The country produces around 1.7 million tonnes of mangoes in FY 2017-18, as shown in the figure below. Around 1.3 million tonnes of these mangoes are produced in Punjab[190]. Mango exports are around 5% to 7% of the total production. Moreover, exports are generally directly towards Pakistan's diaspora community, which are the primary consumers of Pakistani mangoes outside Pakistan[191]

Figure 35: Mango Production in Pakistan



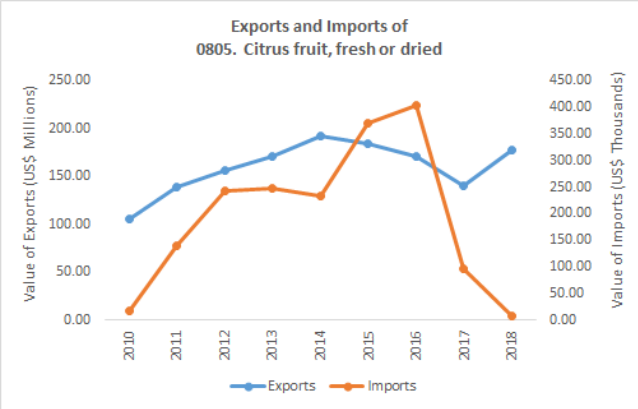
Source: Ministry of National Food Security and Research[192]

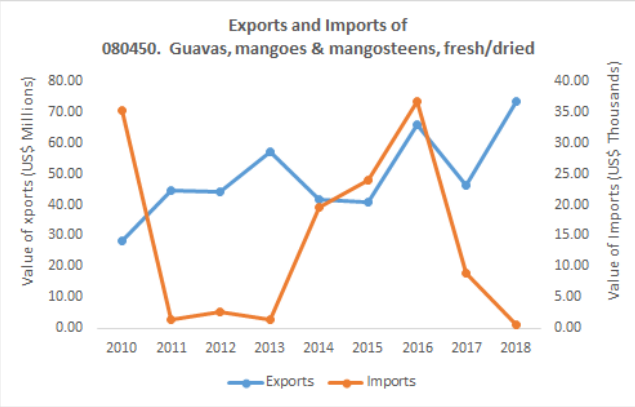
7.1.3 Exports and Imports

[188] "Opportunities for Pakistan in Indonesian Horticulture Market" (Pakistan Horticulture Development and Export Company, 2019).
[189] Ministry of National Food Security and Research, *Fruit, Vegetables and Condiments Statistics of Pakistan 2017-18*.
[190] Ibid.
[191] "Opportunities for Pakistan in Indonesian Horticulture Market"
[192] Ministry of National Food Security and Research, *Fruit, Vegetables and Condiments Statistics of Pakistan 2017-18*.

Pakistan is a net exporter of citrus fruits, with exports in 2018 valued at around US$ 177 million and imports amounting to only US$ 7,609[193]. It must also be noted that mandarins, locally known as kinnows, accounted for about 85.5% of the total citrus fruit exports in 2018[194]. Furthermore, in the case of mangoes, Pakistan's exports have increased in 2018 to around US$ 73 million, while its imports were valued at a negligible amount of US$ 561[195]. The country is a net exporter of mangoes and its imports in HS Code 080450 depict a declining trend post-2016. The export and import trends of HS 0805 and 080450 are shown in the figures below.

Figure 36 - 37: Value of Exports and Imports of HS 0805 and 080450

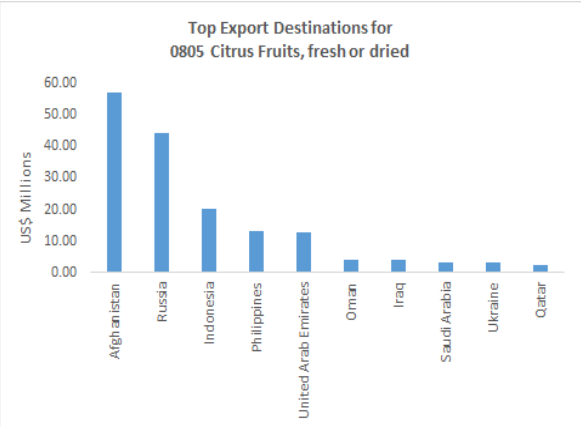


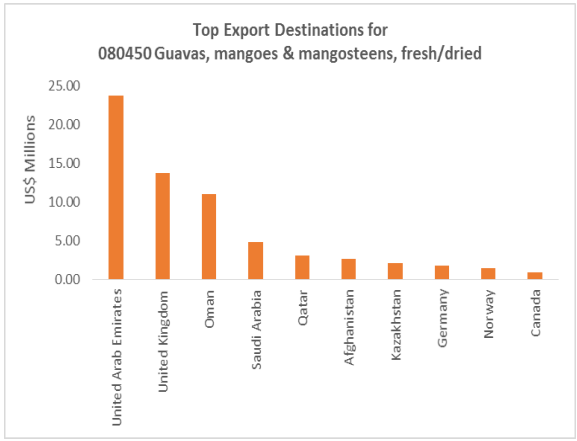


Source: UN Comtrade[196]

Afghanistan is the top export destination for citrus fruits, with exports of around US$ 57 million in 2018. It is followed by Russia and Indonesia, with exports of around US$ 44 million and US$ 20 million respectively[197]. Similarly, the United Arab Emirates is the top exporter for mangoes, with exports valued at about US$ 23 million in 2018. It is followed by the United Kingdom and Oman, with exports of about US$ 13 million and US$ 11 million respectively[198]. The top ten export destinations for citrus fruits and mangoes is shown in the figures below.

Figure 38 - 39: Top Export Destinations for HS 0805 and 080450





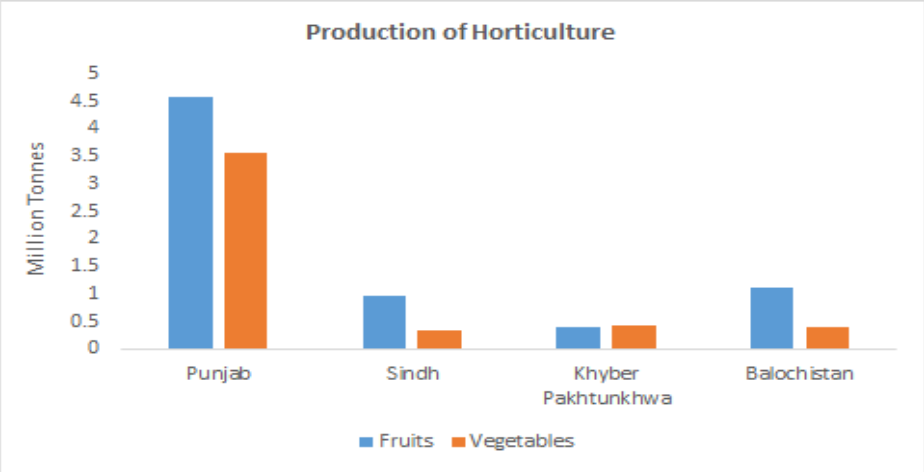
193 UN Comtrade, 2018, https://comtrade.un.org/.
194 Ibid.
195 Ibid.
196 Ibid.
197 Ibid.
198 Ibid.

Source: UN Comtrade[199]

7.1.4 Industrial Landscape

The production of horticulture crops in Pakistan is mainly concentrated in the province of Punjab, where around 4.5 million tonnes of fruits and 3.5 million tonnes of vegetables were grown in FY 2017-18[200]. The figure below shows the production of horticulture crops, mainly fruits and vegetables, for all 4 provinces for FY 2017-18.

Figure 40: Production of Horticulture in FY 2017-18



Source: Ministry of National Food Security and Research[201]

Pakistan cultivates around 250 varieties of mangoes; those grown commercially include Chaunsa, Anwar Ratul, Dasehri, Sindhri, Langra, Fajri and Maldha. They are mainly cultivated in the districts of Multan, Muzzaffargarh, Bahawalpur and Rahim yar Khan in Punjab and the districts of Hyderabad, Mirpur Khas, and Thatta in Sindh. In KPK, they are mainly grown in Peshawar, D.I Khan, Peshawar and Mardan. Moreover, there has been a new trend towards growing late varieties of mangoes in Punjab, which has extended its market period and exportable surplus[202].

The citrus fruit industry has a lot of growth potential, especially in terms of exports of kinnows, which form more than 90% of the total citrus exports from Pakistan. Moreover, the employment generated from both the production and marketing of kinnows in Punjab is estimated to be around 75,000 full-time jobs[203]. The district of Sargodha district had a 56% share of Punjab's total kinnow production in 2016-17, followed by Toba Tek Singh at 11.2%. As kinnow processing facilities are required to be located close to the kinnow growing area to avoid the fast deterioration of this fruit, concentrated production of kinnows in a geographical area offers a strong competitive edge[204]. However, it is important to note that a citrus orchard has a fruit-bearing life of around 20 to 30 years, which is lower than that of other citrus producing countries; this indicates the need to invest and develop in better production techniques and technology for Pakistan's citrus exports to be globally competitive[205].

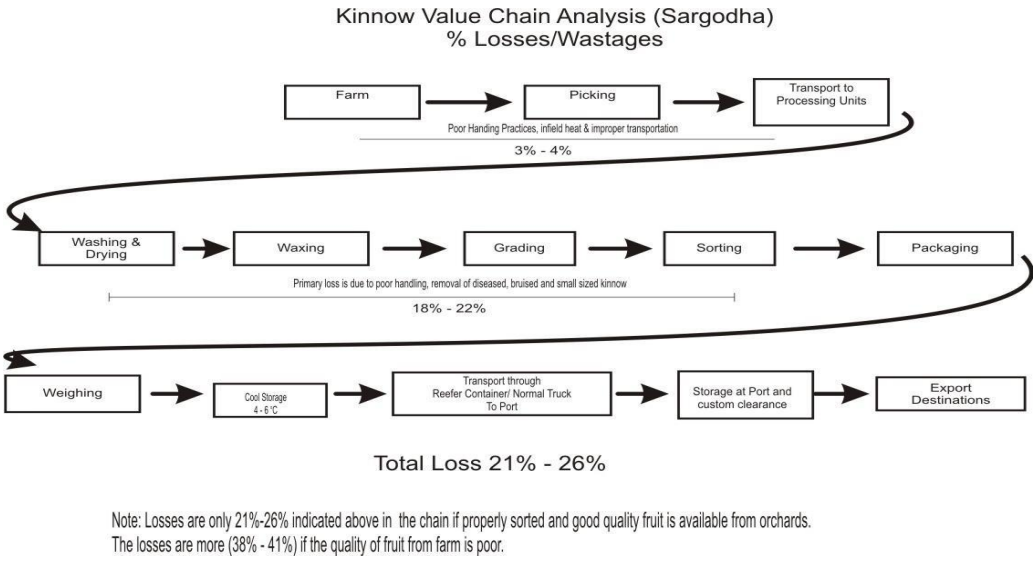
[199] Ibid.
[200] Ministry of National Food Security and Research, *Fruit, Vegetables and Condiments Statistics of Pakistan 2017-18*.
[201] Ibid.
[202] "Report on Mangoes From Pakistan" (Islamabad Chamber of Commerce & Industry , n.d.), pp. 1-13, http://www.icci.com.pk/data/downloads/66/210344805_1.pdf.
[203] Hameed et al., "Potential of Horticultural Crops to Ensure Food Security in Pakistan".
[204] Agriculture Department, *Feasibility Study Frozen Concentrated Kinnow Juice*, 2018.
[205] Hameed et al.

7.1.5 Value Chain

In the case of horticulture crops, especially citrus and mango, there are essentially two main product flows along the value chain. First being the traditional chain inclusive of growers/producers, contractors, commission agents and wholesalers. On the other hand, the second one produces higher quality produce with higher value additions and higher margins; this is more export oriented and includes growers/producers, processors and exporters[206]. Recently, supermarkets such as Metro cash and carry stores have also entered the value chain, especially in bigger cities like Lahore, Islamabad and Karachi, where they connect producers directly with their consumers[207].

However, to look at the key issues in value chains for citrus and mango it is important to use the value chain model that looks at the losses/wastage at each stage so a more holistic approach to address the constraints can be developed. The value chain suggests close to a 40% loss in the production of kinnow and mango from farm to export destination. It is important to note that although the value chain is the same for both products, major losses of mango occurs during the orchard to processing plant, whereas, for kinnow the maximum losses occur during processing process. Given both these products are perishable the value chain issues relate to farming and handling processes of these fruits and also the varieties that have higher endurance and longer shelf life. There have been a number of interventions to support good agricultural practices, however, these interventions have failed to produce sustainable results. A key reason for this is the cost required to implement these practices which are not feasible on an individual farm basis. The processes to implement global GAP is costly and also the certification and local skill level is not adequate.

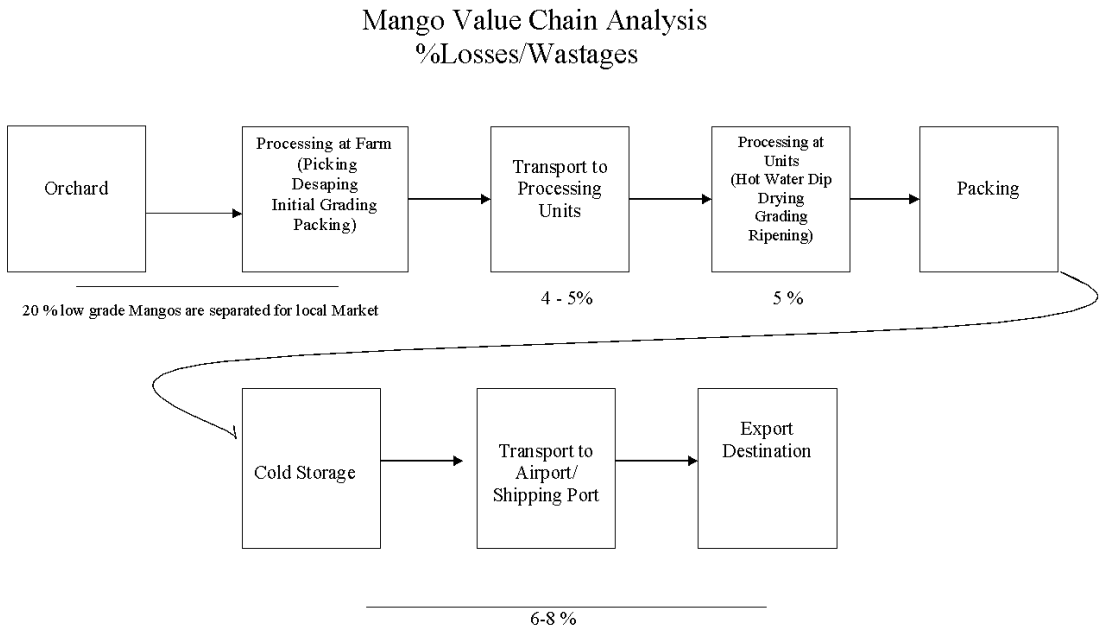
Figure 41: Kinnow Value Chain



[206] Muhammad Sharif, Umar Farooq, and Waqar Malik , "Citrus Marketing in Punjab: Constraints and Potential for Improvement," *The Pakistan Development Review* 44, no. 4 (2005): p. 673-694 , https://www.pide.org.pk/pdf/PDR/205/Volume4/673-69**4.pdf.**

[207] Sharif, Farooq and Malik, "Citrus Marketing in Punjab".

Figure 42: Mango Value Chain



Note: The above losses have been re-verified with UNIDO Expert
Source: UNIDO[208]

The key reason for the gaps identified along the value chain continue to result due to the cost implications for small farmers in meeting good agriculture practices. The farmers find it difficult to have access to enough finance to modify the practices along the supply chain, although information and codes for all these are well documented and available easily. The emergence of large super stores such as Metro, now Carrefour has somewhat disciplined the sector to follow some good practices such as wooden crates have been replaced with cardboard and plastic crates and the use of pesticide have somewhat been managed. However, the critical issue is that there is still not a huge culture to shop for fresh produce at these large superstores. The consumers still prefer to buy from local markets. Thus, on one side superstore requires higher quality standards and consistency of produce, while on the other they produce moves slow on the shelves. The farmers in this scenario do not get good price for the produce and they prefer to sell in local fresh produce markets.

7.2 Key Players

The table below shows the key players in the horticulture sector.

Table 14: Key player in the horticulture sector

Name	Classification	Functions
Ministry of National Food Security & Research	Government Agency	MNFSR is responsible for formulating and coordinating policy reform within the agriculture sector. Its main functions include the procurement of agricultural produce, provision of fertilizers, stabilization of import prices and promotion of exports within this sector through research and development.
Pakistan Horticulture Development Export Company (PHDEC)	Government Agency	PHDEC aims to support the development of the horticulture sector by improving the supply chain of horticulture crops and encouraging as well as facilitating exporters within this sector.

[208] "Enterprise Based Survey of Horticulture Sector", UNIDO, 2010.

Pakistan Agricultural Research Council (PARC)	Government Agencies	PARC coordinates and collaborates with both federal and provincial institutions to provide science based solutions to the agriculture sector. It is also responsible for the promotion of research and development within agriculture in Pakistan.
Citrus Research Institute, Sargodha	Ayub Agriculture Research Institute, GoPunjab	Citrus Research Institute Sargodha was established in 2003-04 by the Provincial Government to support the development of the sector. The institute renders advisory services through farmer gathering and individual orchards visits for the capacity building of the farmers. They are involved in key research areas especially seedless varieties, pest control and better harvesting
Mango Research Institute, Multan	Ayub Agriculture Research Institute, GoPunjab	Mango Research Institute was established in 2004 by the Provincial Government to support the development of the sector. The institute renders advisory services through farmer gathering and individual orchards visits for the capacity building of the farmers. They are involved in key research areas especially improving quality, enhancing shelf life and value-added varieties, farm management and yield enhancement.
Punjab Agri-marketing Company	GoPunjab	PAMCO is mandated to join hands with the private sector to create lucrative investment opportunities and in removing supply side bottlenecks.
Kinnow Growers Association	Private	It is a stakeholder body representing the interests of the Kinnow growers. Based out of Sargodha it is the platform organization that engages with the government
Mango Growers Association	Private	Again a stakeholder body representing the interest of growers and engage with public sector on matters of policy support for the sector.

The citrus and the mango sector comprise small to medium farm holders, some over the years have moved into processing houses and some have started to export. The government and development agencies including USAID, EU and DFID have over the years provided significant amounts of support to both these sectors to help them graduate into export markets. However, where exports have been made possible the scale is still small. USAID has invested significantly in setting up treatment facilities to help exporters meet the SPS standards and 10 plants have been set up for Mango in Multan. Similarly, both in Sargodha and Multan there are groups of progressive farmers- the ones that have usually engaged with these development programmes.

7.3 Power Relations within the Sector

Given the fact that there are no large players in the market, the power dynamics of the sector are fairly simple and that is the reason why these sectors have traditionally benefited from a large number of donor support programmes – it is easier to work in these sectors. A prominent reason for this structure is small land holdings and the process whereby large landlords have contracted out their farms. It is because of this power structure that lobby groups in these sectors are weak and not able to influence much at the policy level. An example of this is that not many SROs have been issued for providing special provisions to these sectors. A critical example is the structure of agriculture credit. Most of the credit goes to major crops and growers working in horticulture sectors are not able to access required credit and thereby remain complaisant in implementing good agriculture practices that can significantly reduce wastages and improve quality for export.

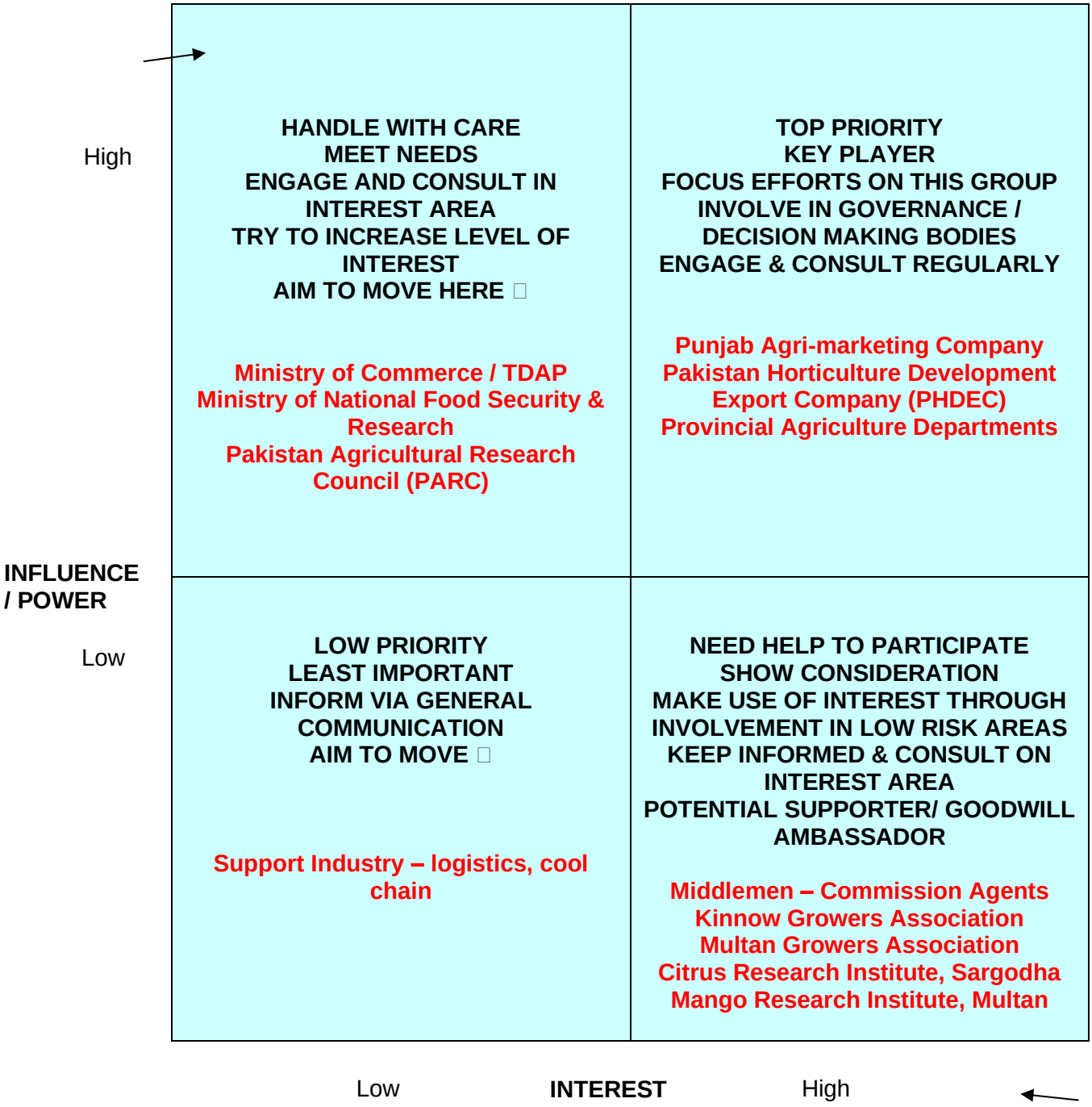
However, an important power dynamic within the sector is represented by the role played by middlemen/bulk purchasers. Initially, the middlemen represented the market agents who were buying fruits for the wholesale markets, but now the bulk purchasers also include the processors that have emerged post financial support of donors. The processors usually field their staff who try and negotiate purchase of entire farms prior to the crop yield. This way they can purchase produce at much lower price thereby impacting the revenues earned by growers.

Another important issue is the translation of subsidy given on fertilizers. Under the new mechanism, the subsidy is provided through coupons. These coupons have to be submitted with the purchasers' detail and the money is then refunded through easy paisa. As the level of education and awareness is low in growers, the refund process is flawed and not all the monies are returned to the actual purchasers of fertilizer. This is resulting in subsidy benefits not reaching the intended user.

Stakeholders have also reported that the willingness and openness of authorities to approve seeds for new and better varieties is absent. Although this is usually coated under the argument of quarantine and health and safety requirements, the real reason is that the government authorities want to have a claim on the patent of the seed variety which is not acceptable to the private sector who wants the market to operate freely. There is a need to address this conflict as Pakistan is still stuck at low value and low yield varieties, for example the export market requires seedless kinnow varieties and although successful experimenting has been done in Sargodha, getting seeds approved is still an issue. This also suggests the political economy of weak stakeholder lobby in the sector.

The emergence of large superstores has somewhat improved practices and consistency of the produce, however, the superstores still have not been able to attract substantial customers of fresh produce, and these slow-moving sales imply lower prices for growers. Therefore, a large number have again moved to selling in local markets where they get better prices.

7.4 Stakeholder Influence-Alignment



7.5 Barriers to Development

Based on the recent literature and value chain presented above the mango and kinnow sector face some critical challenges that need to be addressed. The main challenges include:

Inadequate quality management of the fruit: due to the high perishability and sensitivity of the fruit the quality deteriorates as it moves through the supply chain. The main issues in addition to varieties include; (i) poor handling at post-harvest level; (ii) inadequate use of technology; (iii) inconsistency in practicing good practices and: (iv) limited capacity of farmers, processors and exporters.

Variable quality of exporting firms: as discussed in the section above, there are no big players involved in the sector. Most farmers have low levels of education and so does the processors and exporters. No major brands or benchmark firms have emerged in the sector. This keeps the quality generally low and limits exports.

Minimal penetration in high end markets: Pakistani fruits are unable to access the high-paying markets of Europe and far East. This results in low dollar value per kg fetched by Pakistani exports. This is again mostly linked to low quality of exporters.

Price and power manipulation by middlemen: the middlemen and commission agents enjoy significant power and often manipulate the market by distorting the prices and gaining abnormal rents. This particular set of agents over the years have gained power due to financial constraints faced by the farmers and lack of farm to market connectivity and no form of regulation to restrict any such behavior.

Primitive farming and harvesting techniques: the farm management, tree pruning, planation, harvesting techniques all are inadequate result in high wastage and perishability of fruit.

Non-availability of seedless kinnow variety: this is a critical issue and Pakistan is losing export markets due to the inability to produce seedless fruit. Some trials have been done but research and development and adoption of these varieties are still weak. There are research institutes that exist in both sectors; however, no meaningful output has been produced by them.

7.6 Opportunities for Developments

In order to address the above-mentioned issues certain critical interventions are required as summarized below:

- There needs to be a stronger linkage of agriculture extension and mango and citrus research institute to create awareness and capacity on implementing the code of good practices. This will not improve yields and quality but will also increase compliance with international markets. The detailed code of practices have been developed for both kinnow and mango, however, implementation will require capacity building and financing. There is a need to include these sectors under the SME financing targets. Moreover, State Bank has agreed to create an electronic register of movable assets that can be used as collateral for financing- this needs to be implemented at the earliest to ensure the sectors invest in meeting the requirements.
- The farm to market roads and the cool chain infrastructure is still inadequate. For example, the Karachi port handles 80% of mango shipments but there is no proper temperature-maintained storage facility which impacts the quality of mangoes before they are even shipped.
- There is need to support market and business development and creating some benchmark brands that signal quality produce within Pakistan and leaving Pakistan – the practices of these businesses may then encourage others to improve quality.

- The capacity of quality inspection needs to be strengthened, a PPP based model may be explored to ensure relevant testing and certification facilities are made available at appropriate costs.
- The linkage of agriculture extension, agriculture research and work done at agriculture universities need to be joined up and modern vocation training institutes should be set up in the private sector to deliver mass training on farming, harvesting and good practices.
- Commercial production of new varieties such as seedless kinnow should be allowed and encouraged – there is a need to ensure SPS safety, however, the government should ease out the regulation to ensure that private sector markets are able to provide quality seed of higher value produce.
- The agriculture credit regime needs to be relooked at aligned with the needs of the sectors, especially in light of financing requirements to implement the codes of practices. This may also need incentives to develop the technology required locally.
- Organizations such as SMEDA should on cost sharing basis provide business development and export marketing services to enable small farmers/processors to become exporters of good quality high value fruits.
- The behavioural change communication to encourage consumers confidence in buying fresh produce from superstores can help in improving quality standards.

7.7 Proposed Reforms: Winners and Losers

	Proposed Recommendation	Likelihood of Reform	Winners	Losers
1	Enhance the linkage between mango and citrus research institutions, training facilities and extension services to practically implement codes of practices at farms.	This is tricky to implement as research centers and extension services have severe turf issues and it will take a real effort by the government to puch them to work together. However, Punjab Growth Strategy 2023 strongly supports this.	Growers will be the winners as they will be abe to get better yields and higher quality.	No real loser, except the breaking of power monopolies and access to funding of extension services and research cenetrs.
2	State bank to implement the electronic registry of movable assets to support collateral requirements.	This is quite likely, especially post COVID-19 the government is keen to support food security and provide easy credit to supply chains.	Growers and farmers will all gain by having access to more liquidity.	Banks may have an overload of customers whom they are not keen on catering for and the middlemen will lose power over growers.
3	Stronger enforcement of quality standards and food hygiene practices	This has always been a tricky areas as requires significant investment and also knowledge and research. However, posy COVIS-19 this will become even more important to ensure proper SOPs are followed to retain safety.	General public and over the medium to longer term farmers.	Initially farmers and growers as will have to invest in certain practices, but will eventually gain out of it.
4	Regulations and opening up of seed market.	This is a tricky issue as government takes a stance of quarantine issue and formation of private sector monopolies and thus have on purpose kept a strong control on the seed market. However,	Local farmers and growers.	The government will lose control and some seed companies that are already working.

		post COVID-19 food security is a big concern and the government will have to devise better ways to manage this.		
5	Behavioural change communication to encourage consumers to purchase fresh produce from standerdised super markets	The willingness will be there but behaviour change is a difficult intervention to manage especially in country like Pakistan.	Farmers, public and super stores	Local fresh fruit markets, however, these may need to be re-oriented based on social distancing under COVID-19.

Annexure

Annexure 1: Stakeholder Consultations

Livestock Sector

1. Ali Hammad Kazmi, LEAP and FPCCI – Livestock Trader
2. Shahzad Ghauri, APMEPA member – Meat Processor
3. Tariq Ghias, APMEPA member and Chairman, Zenith Foods – Meat Processor and Exporter
4. Khalid Hafeez Paracha, ex-Chairman LEAP – Livestock Trader and Processor
5. Hamza Bin Mazhar, Mazhar Farms – Cattle farmer/breeder
6. Riaz Bhatti, ex-Additional Secretary, Livestock Department, Govt. of Punjab – Government official

Garments Sector

1. Azfar Hasan – Chief Executive Officer/Partner at MATRIX Sourcing
2. Sajid Saleem Minhas – Chief Executive Officer at Delta Garments Limited – Former PRGMEA Chairman
3. Shahid Abdullah – Director, Sapphire Group of Companies
4. Shahzad Saleem – Chief Executive Officer at Style Textiles
5. Kanwaar Usman - Director of Textile Ministry's Research Development and Advisory Cell, Ministry of Commerce

ICT Sector

1. Mannan Amin – Co-Founder and President – TinTash
2. Imran Zia - Co-Founder at Sigmaud, former MD PSEB
3. Bilal Anwar - CEO of Web Concepts
4. Syed Ali - CEO | 7Vals
5. Khurram Zafar - Director, 47 Ventures Ltd. Member, Prime Minister's Task force on Technology Driven Knowledge Economy. Board Member/Director, Karandaaz Pakistan
6. Jahanzeb Burana - CEO, Punjab Board of Investment & Trade (PBIT)
7. Salman Amin – Director Entrepreneurship & Enterprise Development at Punjab Information Technology Board
8. Murad Akhter - Co-Founder & CEO Canada, TinTash

Auto parts Sector

1. Salman Aslam - Autoparts manufacturer and importer
2. Badar Islam, UNiDO lead on sector value chains
3. Cluster Development Initiative (CDI) - PSIC, GoPB

Horticulture Sector

1. Captain Tariq - Tariq farms Multan
2. Omair Bodla - Bodla Farms; 3. Badar Islam – UNIDO (Sector Lead, Value Chains)
3. Badar Islam, UNiDO lead on sector value chains

Annexure 2: Indicative Questions for Private Sector Stakeholder Interviews

1. Who are the key players (state and non-state actors)?
2. What are the power dynamics among these players?
3. Which groups have the capacity to act and make their voices heard?
4. What are the key reforms required for sector growth?
5. Who is championing these reforms, who stands against them?
6. How do decisions-making processes work within the sector?
7. How do decision-making processes work within government-sector interactions?
8. What is the past history of the sector, including previous reform initiatives? How does this influence current stakeholder perceptions?
9. What are possible entry points and the key political risks?
10. What has changed in the political context that is of relevance to the proposed reforms?
11. What is the role of key players who hinder export?
12. What prevents domestic standard setting?
13. How do gender norms reinforce power relations?

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