



PRIME Analytical Reports

Unlocking Business Potential for Growth

Issue: 8, Vol: 1

March 2016

Champions and Under-Achievers:

An Analysis of Exports' Performance in Pakistan



PRIME Analytical Reports are independent evidence based studies on the investment climate, economic policies and demographic changes in Pakistan, prepared to improve understanding of business and policy challenges faced by the country's private sector to help steer it on path of growth. To find out more please visit:

<http://www.primeinstitute.org/prime-analytical-services.html>

Office No. 401, 4th Floor, Muhammad Gulistan Khan House, 82-East, Fazal-ul-Haq Road, Blue Area, Islamabad.

www.primeinstitute.org | research@primeinstitute.org

Table of contents

Introduction	4
1. Prospects for Exports	5
2. Technological Status of Pakistani Exports.....	9
3. Issues in Exporting Firms of Pakistan.....	11
3.1 Access to Finance	12
3.2 Infrastructure	12
3.3 Government Regulation.....	14
3.4 International Competition and International Market Regulations.....	15
3.5 Exchange Rate Policy.....	16
3.6 Trade Policy	17
3.7 Innovation.....	18
Conclusion	20
Technical Note.....	21

List of figures

Figure 1: Performance of Pakistani Exports	5
Figure 2: Textile Vs. Non-Textile & Non-Rice Exports Share	7
Figure 3: Export Map of Pakistan	8
Figure 4: World Demand and Pakistani Export with Respect to Technology.....	9
Figure 5: Export Performance and Technology	10
Figure 6: Percentage of Internal Funds in Working Capital Finance.....	12
Figure 7: Exports and Means of Transportation.....	13
Figure 8: Obstacles to Exports.....	14
Figure 9: International Price for Cotton and Rice	15

List of tables

Table 1: Performace of Major Exports of Pakistan	6
Table 2: Medium And Hi-Technology Export Products of Pakistan.....	11
Table 3: Issues in Transportation	13
Table 4: Innovation Response of Exporting Firms	19

BUSINESS MESSAGES

1. Productivity in Pakistani exporting firms is low due to less emphasis on innovation;
2. Pakistani exports do not increase much with increase in world income due to over-concentration in low technology products like textile and food;
3. One percent appreciation in exchange rate reduces exports by 1.2 percent;
4. High volatility in international price of cotton and rice has made a large chunk of export earnings inconsistent in Pakistan;
5. Export markets have decreased for Pakistan from 196 countries in 2006 to 184 countries in 2013;
6. Exporters report tax rates, tax administration, business licensing, and labor regulations as obstacles to exports;
7. Exporters should engage regularly with research organizations to devise new and innovative methods with regards to logistics, distribution, production, and management.

POLICY MESSAGES

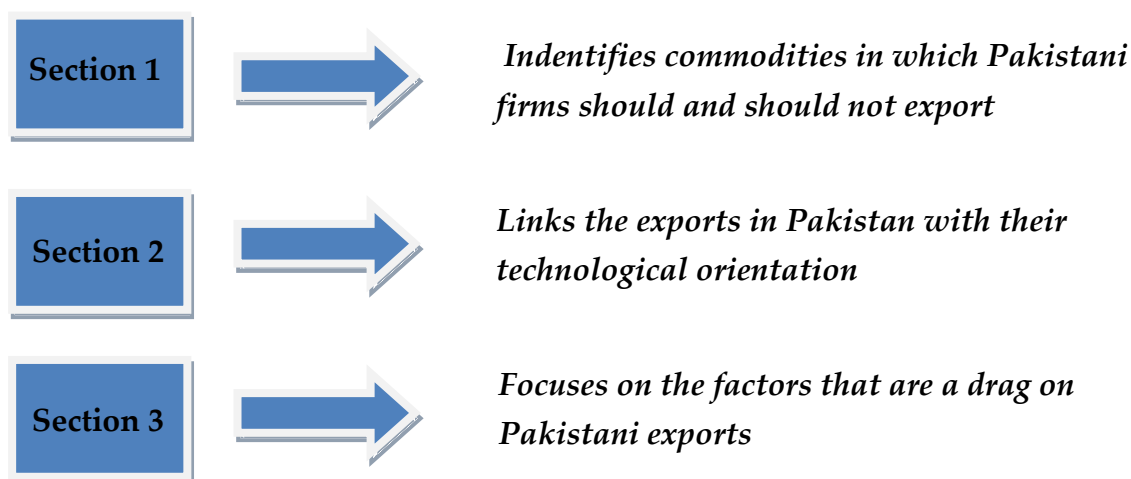
1. Government should shun protectionist trade policies and reduce import tariffs through new trade policy;
2. Excessive indirect taxes on businesses should be withdrawn to reduce the cost of doing business;
3. Efficient system of ensuring speedy clearance of customs should be established;
4. Financial laws that discriminate against small exporters should be removed;
5. A thorough assessment of potential effects of Trans-Pacific-Pact must be carried out;
6. Medium and hi-technology exporters of Pakistan should also be promoted abroad through export exhibitions;
7. Artificial appreciation of exchange rate must be avoided.

INTRODUCTION

Pakistan's share in world exports has stayed stagnant at 0.14 percent from 2010 to 2014¹. In contrast, developing countries exports registered fastest growth of 5.9 percent for major commodity groups followed by 2.9 percent for developed countries² in 2014. The share of Indian exports increased from 1.4 percent in 2010 to 1.7 percent in 2014³.

The regressive performance of Pakistani exports is mostly attributed to macro-level factors like energy shortages, political instability, or that Pakistani exports are not competitive in the international market. Despite the merits of these arguments, this report conducts a firm level analysis into micro factors that can help explain the reasons behind poor performance of Pakistani firms which export products and commodities. These factors can help exporting firms in Pakistan to address major obstacles towards their export potential. The report also identifies the commodities in which Pakistani firms can export. Finally, the report analyzes the technological status of Pakistani exports and attempts to draw lessons for Pakistani firms in this regard.

Structure of the Report



¹ This is calculated using UN-Comtrade, United Nation Trade Statistics.

² http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=975&Sitemap_x0020_Taxonomy=Statistics

³ This is calculated using UN-Comtrade, United Nation Trade Statistics.

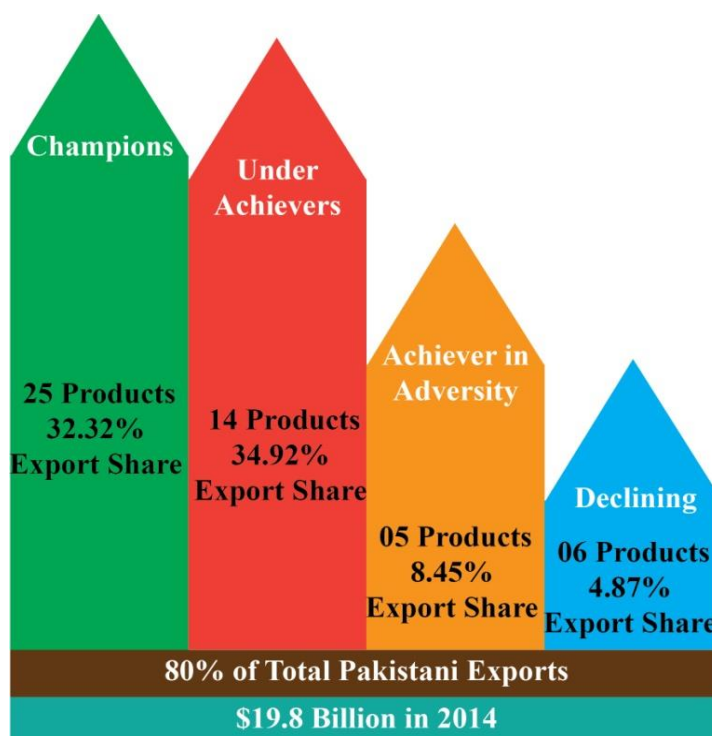
1. PROSPECTS FOR EXPORTS

In order to analyze potential Pakistani exports, this section evaluates 50 export commodities of Pakistan that make up for 80 percent of Pakistani exports during 2010 to 2014. These 50 commodities are categorized into four classes i.e. champions, underachievers, declining, and achievers in adversity⁴. The complete list of these commodities is presented in Table 1.

“Champions” refers to those set of commodities for which world demand⁵ has grown positively and export share of Pakistan in total world exports for that commodity has also grown positively⁶. “Underachievers” are those commodities in which export share of Pakistan has declined while world demand has increased. “Declining” consists of commodities that have witnessed negative growth in world demand and so has Pakistan export share in that commodity. “Achievers in adversity” are those commodities in which export share of Pakistan has increased but growth in world demand has decreased.

Figure 1: Performance of Pakistani Exports

Out of the 50 selected export commodities, 14 commodities are underachievers which constitute a little over one-third of Pakistani exports as shown in Figure 1. The world demand for these commodities has increased but Pakistani exporting firms have failed to capture this rising demand. It is interesting to note that Pakistan’s staple export product, i.e. rice, is also an underachiever. This reiterates the dismal outlook of Pakistani exports. However, most of the other commodities that are underachieving are largely textile-related commodities.



Author’s estimates based on UN-Comtrade Trade Statistics

⁴ Ahmed, H *et al.*, 2010. “A strategy for reversing Pakistan’s dismal export performance”. Centre for Research in Economics & Business, Lahore School of Economics.

⁵ The world demand is measured by total world import of that particular commodity.

⁶ The rise in export share of Pakistan in total world exports means that Pakistan has captured, to some the extent, the international market of that commodity.

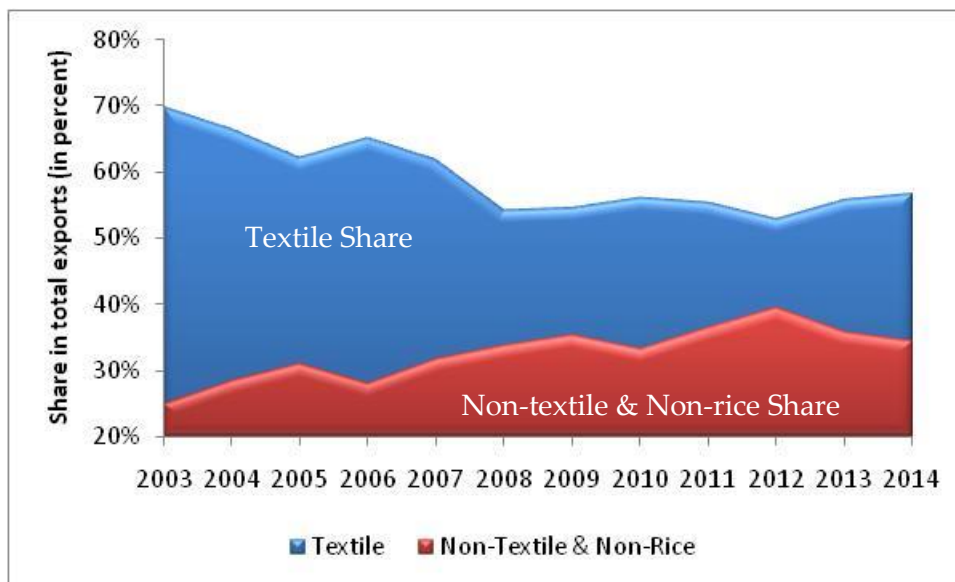
Table 1: Performance of Major Exports of Pakistan

	Products	Growth in World Demand (2010-14)	%Δ Pak Export Share in world Export	Export Share in total Pak Exports (2014)	Export Value in million \$ (2014)
Under-achievers	Knitted fabrics	2.7	-1.0	12.8	\$3,168
	Rice	0.2	-4.7	8.9	\$2,203
	Garments	4.7	-2.2	9.9	\$2,450
	Petroleum and products	7.1	-14.9	1.7	\$421
	Plastic	3.6	-7.9	0.6	\$149
	Jewelry	11.0	-18.4	0.4	\$99
	Potatoes	2.8	-1.3	0.2	\$50
Champions	Alcoholic Products	5.8	11.8	1.4	\$347
	Animal Oil and Fats	2.1	7.3	0.5	\$124
	Cement	0.1	0.5	2.1	\$520
	Clothes (Pullovers, gloves and related)	5.3	15.6	1.3	\$322
	Cotton Fabric	3.3	8.6	0.7	\$173
	Cotton Yarn	0.9	0.6	7.6	\$1,881
	Exercise tools	3.3	1.4	1.1	\$272
	Footwear	3.7	3.7	0.4	\$99
	Fruit	2.8	12.0	0.8	\$198
	Male clothes	7.8	3.9	6.1	\$1,510
	Meat	6.0	2.7	1.7	\$421
	Medical Instruments	5.1	3.1	1.4	\$347
	Medicaments	1.9	14.3	0.6	\$149
	Processed Leather	4.9	8.6	2.0	\$495
	Tents and sails for boats and related	3.7	19.7	0.5	\$124
	Tubes and Pipes	4.1	2.3	0.4	\$99
	Vegetable	10.4	11.6	0.3	\$74
Wheat and meslin	4.3	243.0	3.4	\$842	
Declining	Woven fabrics of cotton,	-2.1	-1.8	1.8	\$446
	Woven fabrics of synthetic staple fibers	-1.8	-9.4	1.3	\$322
	Cotton not carded or combed.	-2.3	-3.1	0.7	\$173
	Chromium ores and concentrates.	-2.8	-6.2	0.4	\$99
	Other woven fabrics of cotton.	-6.7	-1.8	0.7	\$173
Achiever in adversity	Women's or girls' blouses	-0.78	1.4	0.3	\$74
	Fabric of cotton, containing 8% or> by weight of cotton	-4.3	3.7	7.2	\$1,782
	Copper waste and scrap.	34.5	-0.2	0.4	\$99
	Carpets and other textile floor coverings, knotted, whether or not made up.	3.17	-0.26	0.5	\$124
	Total	-	-	80	\$19,800

Export markets have decreased for Pakistan

The champions' category is also dominated by textile related commodities, however, this class is a bit more diverse. It also includes commodities like medical instruments, medicaments, fish, fruits, and meat among others which are also identified as champion Pakistani exports. It is suggested that firms in Pakistan should export in these two sets of commodities i.e. underachievers and champions since world demand for these commodities has increased from 2010 to 2014 annually. Similarly, firms should not export in commodities categorized under declining.

Figure 2: Textile Vs. Non-Textile & Non-Rice Exports Share



Author's estimates using UN-Comtrade Trade Statistics

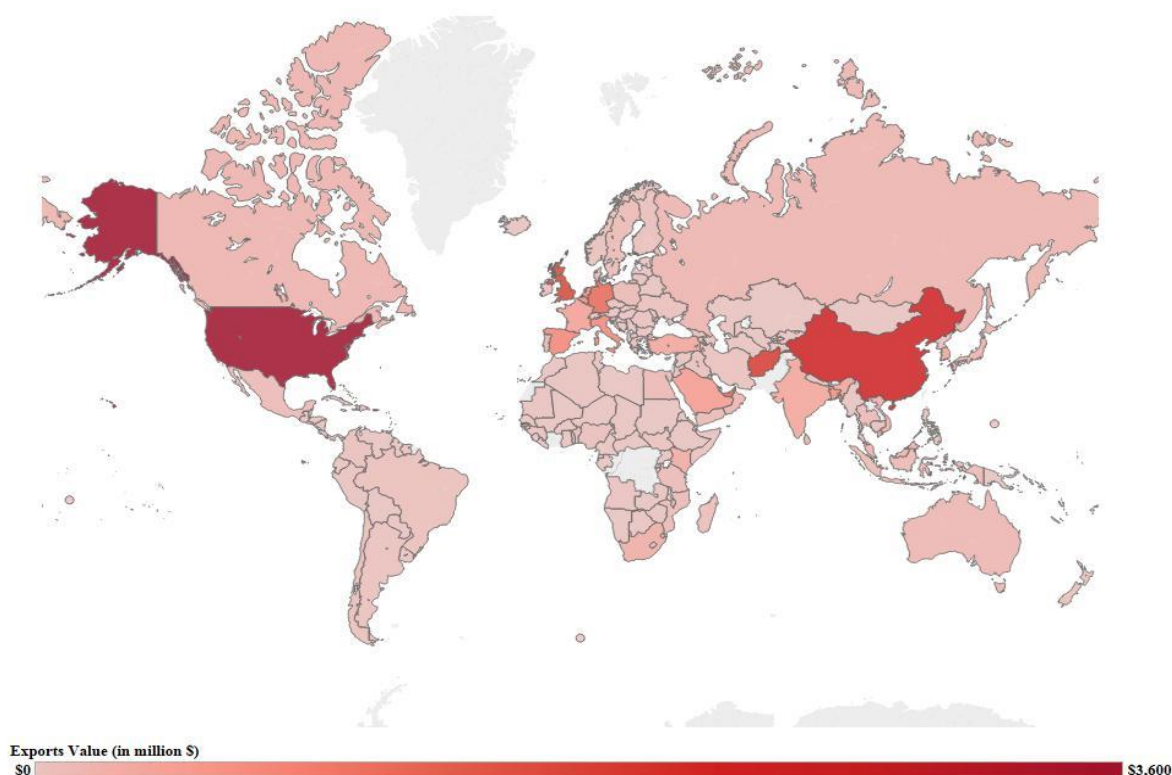
The sheer dependence of Pakistani exports on textile related products signifies that exports are highly concentrated in very limited type of commodities. This concentration in textile exports is lower than it used to be in early 2000s as shown in the Figure 2. However, the concentration of export based on textile-related products has resurfaced again in recent years while the share of non-textile/non-rice exports is decreasing.

Another way to assess this is through Herfindahl-Hirschman index. The Herfindahl-Hirschman index⁷ which measures the degree of concentration in export base has increased in Pakistan from 0.052 in 2013 to 0.089 in 2014⁸.

This over concentration in exporting products has a downside to it. The prospective markets for Pakistani exports also limits as a result of this over concentration as shown in Figure 3. This pattern is clear when the number of markets for Pakistani exports are analyzed which has decreased from 196 countries in 2006 to 184 countries in 2013⁹. In case of Bangladesh, its export markets have increased from 160 countries in 2006 to 173 countries in 2013¹⁰.

Figure 3: Export Map of Pakistan

**Global Footprint of Pakistani Exports
2014**



Developed by Author using UN-Comtrade Trade Statistics

Exporting firms in Pakistan often demand from government to secure markets for its products on concessionary terms. However, they fail to realize that unless they diversify

⁷ The Herfindahl-Hirschman index ranges between 0 to 1. If the value of the index is close to 1, it means that export base is highly concentrated in few products and vice versa.

⁸ Estimated by the author from UN-Comtrade, Trade Statistics.

⁹ World Trade Organization.

¹⁰ Ibid.

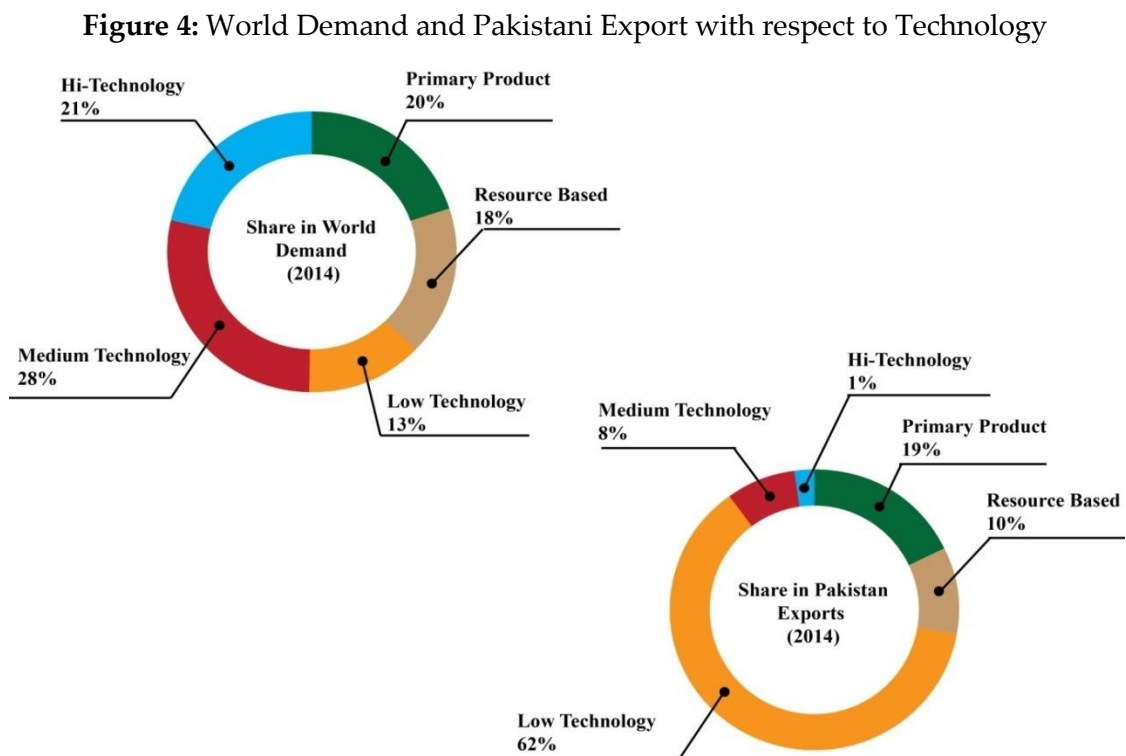
their product base they cannot even fully exploit these concessionary terms. As a result, this over concentration limits the options of Pakistani firms.

Textile-related concentration in exports has increased in recent years.

2. TECHNOLOGICAL STATUS OF PAKISTANI EXPORTS

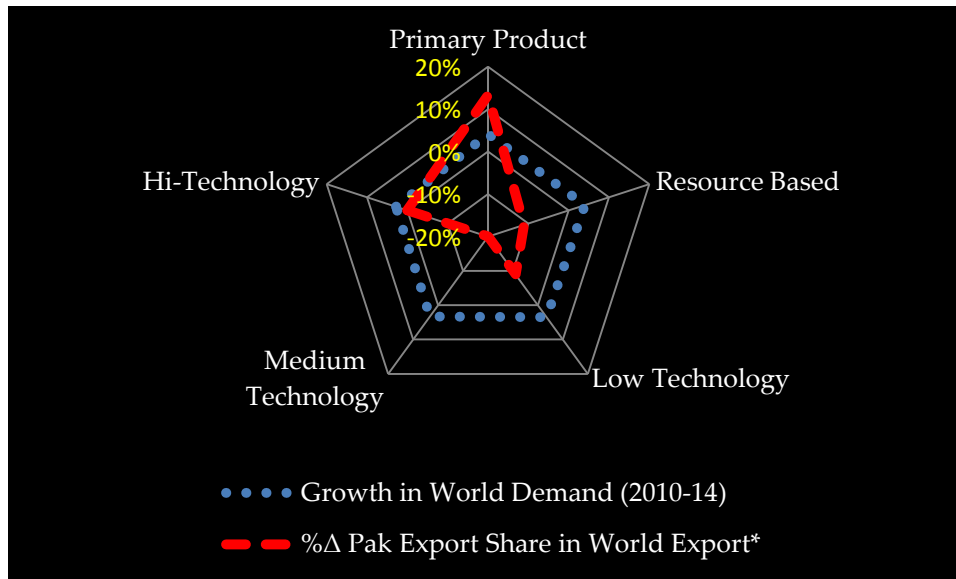
The preceding section identified commodities in which Pakistani firms should export. However, as mentioned, most of the commodities in champions and underachievers are textile-related which may reinforce the already entrenched over-concentration in export product base. The present section addresses this dilemma by studying technological orientation of Pakistani exporting firms and attempts to draw lessons thereof.

The technological structure of Pakistani firms is dominated by low technology exports. These low technology exports make up for almost two-thirds of Pakistani exports as shown in Figure 4. The second highest share of exports (19 percent) is for primary products which are not technologically intensive at all. On the other hand, the world demand is lowest for low technology exports as presented in the same Figure 4. Almost half of world demand is for medium technology and hi-technology products while the share of such products in total Pakistani exports is 8 percent and 1 percent respectively.



Comparing growth rates for products categorized by technology reveals that while world demand for almost each technology type products has increased, Pakistani exports has decreased for resource based, low technology, and medium technology exports. The share of hi-tech exports has not observed any increase in exports from 2010 to 2014. Consequently, Pakistan has failed to capture the rising demand in the world for products that employs such technologies. This is presented in Figure 5.

Figure 5: Export Performance and Technology



Developed by the Author based on UN-Comtrade Trade Statistics

The overriding lesson for exporting firms of Pakistan through this analysis is to export more technologically intensive products especially medium technology products and hi-technology products. A list of products that are based on medium and hi-technology is presented in Table 2. These products make up for 80 percent of Pakistan's medium and hi-technology exports.

It is important here to make clear distinction between the list of commodities identified as potential export options in Section 1 which are mostly textile-related and the list of commodities suggested in this section which comprises of household electrical equipment, medical instruments, and plastic etc. The champions and underachievers in Table 1 are short run options for exporting firms. However, if exporting firms are to secure a stable profit base in the long run, they should focus more on the list of commodities specified in Table 2. These commodities should be the true champion export commodities for Pakistani firms going ahead.

Table 2: Medium and Hi-technology export products of Pakistan

Commodities	Growth World Demand (2010-14)	Pak Exports	Technology
Woven Man-Made Fib Fabrics	2.4	\$402,500,000	Medium Technology
Alcohol Products	4.3	\$349,200,000	Medium Technology
Medical Instruments NES	5.4	\$340,900,000	Medium Technology
Medical Pharm Products	3.3	\$198,800,000	Hi-Technology
Prod of Condensation etc Polymerization etc prods	3.8	\$168,300,000	Medium Technology
Iron, Steels Tubes, Pipes etc	4.7	\$131,900,000	Medium Technology
Plastic Material	2.9	\$105,700,000	Medium Technology
Household Type Equipment NES	5.3	\$75,944,178	Medium Technology
Carboxylic Acids etc	3.4	\$74,648,468	Medium Technology
Engines and motors nes	1.0	\$41,589,910	Medium Technology
Telecom Equipment. PTS, ACC NES	6.8	\$39,182,312	Medium Technology
Pigments Paints etc	6.4	\$36,406,604	Hi-Technology
Soap, Cleansing etc	2.9	\$35,915,953	Medium Technology
Total		\$2,033,745,436	

Author's estimates based on UN-Comtrade Trade Statistics

3. ISSUES IN EXPORTING FIRMS OF PAKISTAN

One of the major takeaways from the previous two sections is that most of the exports of Pakistani firms are over-concentrated in one sector which translates into limited markets for Pakistani exports. This is one of the major drags that hinder Pakistani firms to fully exploit the positive swings in world trade. This section, on the other hand, emphasizes on firm level factors of Pakistani exporting firms that negatively impact the export potential. To this end, Enterprise Survey for Pakistan compiled by the World Bank for year 2013 is used¹¹. In this survey, those firms are analyzed which earn at least 10 percent¹² of their sales revenue from exports directly or indirectly¹³. In some instances, Enterprise Survey for India is also used.

¹¹ This is the latest available survey.

¹² The 10 percent sales revenue criterion for an exporting firm is also used by Enterprise Survey.

¹³ Indirect exports are through third party.

To explain the factors that have reduced the fortunes of Pakistani export firms, Pakistani exporting firms are compared with respect to seven factors. These factors are 1) access to finance; 2) infrastructure; 3) government regulations; 4) international competition and international market regulations; 5) role of innovation and technology 6) exchange rate policy and 7) trade policy. The last two factors are policy based.

3.1 Access to finance:

It is often held that limited access to finance is a hindrance faced by exporting firms in Pakistan. However, only 30 percent of exporting firms in Pakistan reported that this is an obstacle to their business.

Some further analysis shows that about 24 percent of exporting firms in Pakistan have reported that they have an established line of credit and loan with a financial institute. One reason for this may be that exporting firms in Pakistan rely more on other sources of finance than conventional financial institutions. This argument is vindicated by the Figure 6 which shows that Pakistani exporting firms rely more on internal funds or retained earnings than Indian exporting firms for their working capital needs.

Figure 6: Percentage of internal funds in working capital finance



Developed by the Author based on data from Enterprise Survey, 2013

3.2 Infrastructure

Infrastructure constraints remain eminent in Pakistan along with the perpetual energy crisis, both of which serve as major factors reducing exports. Enterprise Survey shows that on average, Pakistani exporting firms face 628 hours of power outages per month. In contrast, Indian exporting firms face only 56 hours of power outages in a month. As a result, average values of losses due to power outages for Pakistani exporting firms was \$21,737 in 2013 while for Indian exporting firms values of losses was only \$11,771 on average for the same year.

Pakistani exporters face 628 hours of power outages per month

The power crises also make it compulsory for firms to own an electricity generator which in turn increases the production cost. As per Enterprises Survey, 83 percent of Pakistani exporting firms own a generator for electricity. In terms of sufficient water availability, 12 percent of the exporting firms of Pakistan highlighted insufficient water availability as a concern.

With regards to transportation, 80 percent of the exporters share that it is an obstacle to their operations. This concern is dominated by cost and availability of fuel as the major hindrance with respect to roads and transportation. This is followed by road closures due to strikes and protests as shown in the Table 3.

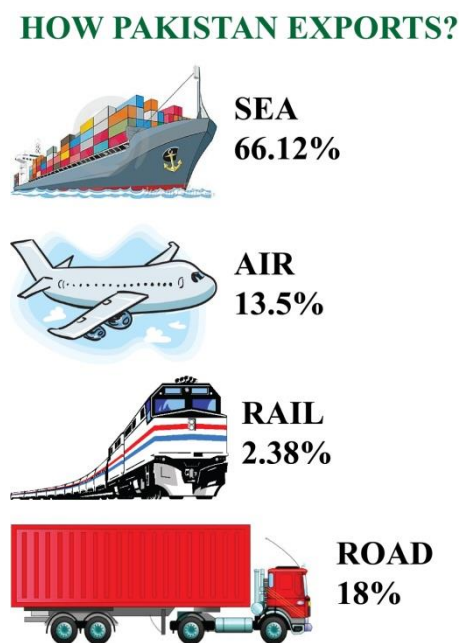
Table 3: Issues in Transportation

Issues	Percentage
The network and quality of roads	18.5
Cost and availability of fuel	44.0
Road closures due to strikes and protests	28.4
Time and distance to markets	3.31
Lack of competition in transportation companies	2.8
Availability and quality of transport vehicles	3.4

Author's estimates based on Pakistan Enterprise Survey, 2013

Most of the exports are conducted through sea as shown in Figure 7. Amongst other issues, delays in custom clearance significantly affect costs when transporting exports through sea¹⁴.

Figure 7: Exports and means of transportation



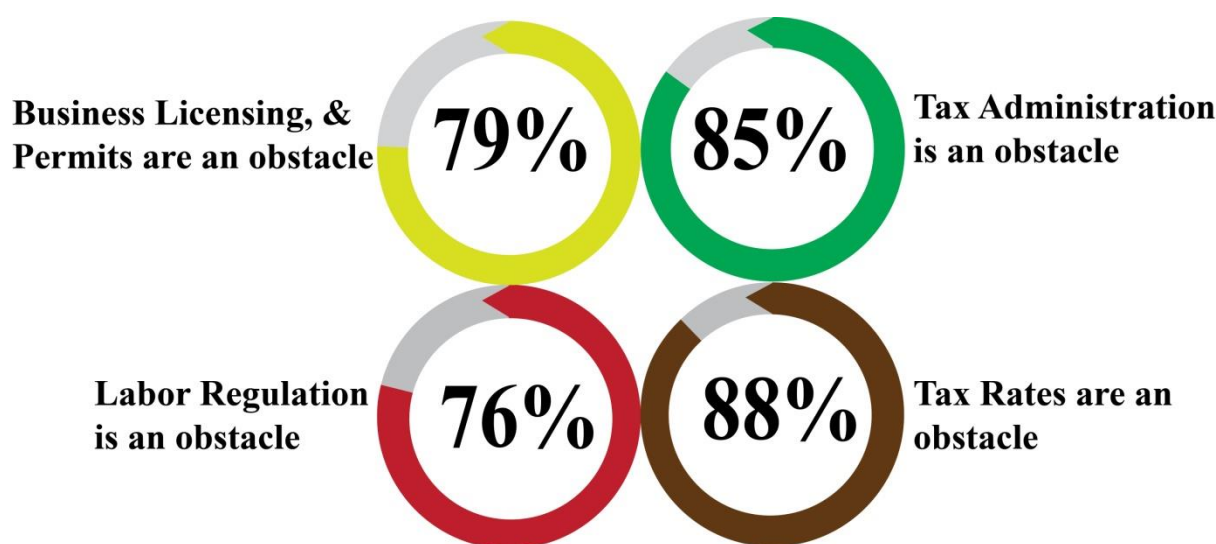
Author's estimates based on Pakistan Enterprise Survey, 2013

¹⁴ In Pakistan, on average custom is cleared in 10 days.

3.3 Government regulation

Four parameters are used to assess whether government regulations are negatively impacting exports in Pakistan. These parameters are tax rates; tax administration; business licensing and permits; and labor regulations. As shown in Figure 8, 88 percent of exporting firms in Pakistan reported that tax rates are an obstacle. Similarly, a larger share of Pakistani exporting firms reported that tax administration and rules related to business licensing and permits are obstacles.

Figure 8: Obstacles to exports



Author's estimates based on Pakistan Enterprise Survey, 2013

Furthermore, Enterprise Survey reveals that Pakistani exporting firms pay 2 percent of their annual sales revenue as informal gifts to public officials to get things done with regard to customs, taxes, licenses, regulations, and services etc. Subsequently, a staggering 97 percent of exporting firms in Pakistan believes that corruption is an obstacle.

For labor regulations, 76 percent of Pakistani firms which export believe that labor regulations are an obstacle. Labour regulations hurt the exporters through policies that make labor uneconomical for exporters to employ. These policies give wrong incentives to exporters who resort to under-staffing or employ unregistered

Box 1: Impact of taxes on exports

The recent plunge in global oil price has saved Pakistan \$2.9 billion worth of oil imports during the last seven months. This boon is supplemented by increase in worker's remittance to \$728 million during the same seven months.

However, trade deficit has increased in Feb, 2016 as exports take a nosedive due to numerous indirect taxes by the government. These taxes have increased the cost of doing business.

workers. This can further enable them to bypass labour regulations. Subsequently, exports of Pakistan are unfavorably dealt with due to non-compliance with international labour laws. The report in no way contends that labour regulations should be removed. Contrarily, it highlights that labour regulations should be framed in a way to ensure compliance without distorting the whole production process. To serve this, labour regulations should be framed in consultation with business community, especially exporters.

86%

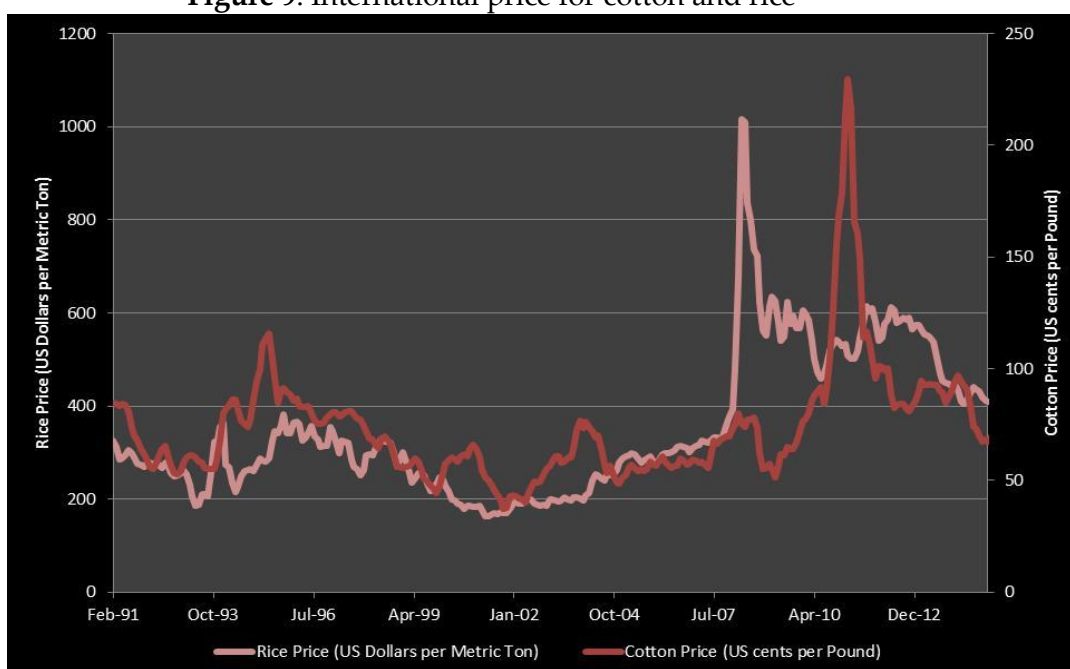
Exporters believe that price competition is a serious concern.

3.4 International competition and international market regulations

Pakistani export products face fierce price competition from other countries. In this regard, 86 percent of exporting firms in Pakistan report that international price competition is a serious issue. This is due to the limited export base of Pakistan which is dominated by textile and food products. Over-reliance on these products has left exporters exposed to price fluctuations in international market. These fluctuations are clear from Figure 9, which presents the international monthly price of rice and cotton from Feb-1991 to Dec-2014.

Moreover, the very nature of these products means that any increase in the world income does not increase exports for these products much. To test this argument, elasticity of Pakistani exports with respect to world demand is estimated¹⁵. The result shows that a 1 percent increase in world income increases Pakistani exports by 0.5 percent. The report here reiterates that non-textile and non-food exports base should be enhanced

Figure 9: International price for cotton and rice ¹⁶



¹⁵ The model fits the following function: $\ln(Exports)_t = \beta \ln(Global\ world\ product_t) + \mu_t$

¹⁶ Developed by author using data from indexmundi

Barriers

Pakistan is facing non-tariff barriers from India and Iran.

As for international market regulation, 77 percent of exporting firms in Pakistan held that meeting product specification and requirements is an obstacle towards their exports. With regards to non-tariff

export barriers, 80 percent of Pakistani exporters believe that this is an obstacle. This view is also shared by Secretary Ministry of Commerce Azmat Ali Ranjha that Pakistan is facing non-tariff barriers in markets like India and Iran¹⁷.

3.5 Exchange rate policy

Pakistan has historically kept its exchange rate over-valued¹⁸. The reason for this has been to keep imports cheaper. Moreover, in recent times, government has also pursued this policy to make its debt stock look smaller in domestic terms for political reasons. Coupled with this, it is also well documented that IMF also directs those countries which take loans from it to keep exchange rate from depreciating¹⁹. They do this by perking up foreign exchange reserves.

On the export side, this dents exports and reduces the competitiveness of exporting firms in Pakistan.

This phenomenon is known as "Dutch Disease" in economics²⁰. To empirically test this argument, the report uses standard economic technique²¹. The result indicates that a 1

Box 2: Dutch Disease and Pakistan

Dutch disease refers to reduction in exports associated with appreciation in exchange rates.

There are two ways through which Dutch Disease can infest an economy. First, a rise in foreign exchange reserves which appreciates the exchange rate.

Second, promotion of only few sectors in the economy through state-led intervention. As those sectors develop and export, the country earn foreign exchange which appreciates the currency. This endears the exports of other sectors in the economy. Thus, hurting their profit margins and reducing economic growth at large.

Over-emphasis on textile and food sector can also activate the second channel through which "Dutch Disease" can infest Pakistan.

¹⁷ <http://www.brecorder.com/agriculture-a-allied/183/23893/>. 9th March, 2016.

¹⁸ Ahmed, H *et al.*, 2010. A strategy for reversing Pakistan's dismal export performance. Centre for Research in Economics and Business, Lahore School of Economic.

¹⁹ Welter, P. Less is more! Future prospects for the International Monetary Fund, Fur Die Freiheit.

²⁰ Dutch Disease refers to reduction in exports through to appreciation in exchange rate.

²¹ The model runs the following model: $\ln(\text{Exports}_t) = \beta_0 + \beta_1 \ln(\text{exchange rate}_t) + \mu_t$

Box 3: Trans-Pacific Pact – What is it and why we should care?

Trans-Pacific-Pact is a trade agreement signed on 4 Feb, 2016 between 12 nations of the Pacific rim to remove trade barriers between themselves.

Pakistan's export volume to these 12 nations is 20 percent of its total exports and it also includes USA which is the biggest market of Pakistani exports.

Pakistan's textile export will come under pressure from Vietnam as articles of apparel and its related accessories, footwear, fish, are among the top 10 exports of Vietnam.

Similarly, fruits, meat, & fish will face competition from Chile. Medical instruments, rubber, plastics and rubber will face competition from Malaysia. Carpets, cereals, meat, and fruits exports can face challenges from Peru.

percent appreciation in Pakistan Rupee causes the exports to reduce by 1.2 percent. This result is also in line with the findings of Institute of Policy Reforms (IPR)²².

3.6 Trade policy²³

Historically, Pakistan has adhered to protectionist policies as a means for export-led growth. However, starting from early 1990s, it started drawing back on these protectionist policies only to reinstall them in 1995. This policy was reverted again in 2001 and 2002 as Pakistan became one of the least protected markets in South Asia. As a result, Pakistan experienced double digit growth rate in exports and its trade volume increased to 36 percent of GDP in 2008 from 25 percent in 1999-00.

Despite these gains, protectionist policy yet again re-emerged in 2008 as tariffs increased. These protectionist policies incentivize businesses to produce for the domestic market. This has also been the case with Pakistan as its trade volume reduced to 31 percent of GDP in 2014²⁴.

Even this regressive export performance has not prompted the government to expedite the announcement of new trade policy. The new trade policy which was expected to be announced last year is still delayed²⁵. The significance of a new trade policy becomes all the more important if viewed against the backdrop of trade-related Trans-Pacific-Partnership (TPP) which is expected to reduce Pakistani exports by 10 percent²⁶. This delay is supplemented by the inability on part of the

²² <http://www.dawn.com/news/1200188>. Accessed on 10th May, 2016.

²³ This sub-section draws heavily from: Javed, S. 2015. "Uni-Lateral trade liberalization". PRIME Institute, Islamabad.

²⁴ World Development Indicators 2014.

²⁵ <http://www.pakistanherald.com/article/9565/15-february-2016/struggling-exports-in-a-squeezed-space>

²⁶ <http://pakobserver.net/2016/02/29/tpp-agreement-can-hit-pakistani-exports-by-10pc/>

government to even fully apprehend the implication of TPP on Pakistani exports with respect to US market in particular. The government has recently sought assistance of the World Bank to assess the potential effects of TPP on Pakistani exports.²⁷

3.7 Innovation

Innovation is the least cited factor that can explain the dismal performance of Pakistani firms. However, Enterprise Survey reveals very interesting results that can shed light as to why exporting firms in Pakistan fare well below Indian exporting firms. As shown in Table 4, responses to 8 questions related to innovation by Pakistani and Indian exporting firms reveals that Pakistani exporters are less innovative than Indian. Importance of innovation for exports is also emphasized by other studies on export performance in Pakistan²⁸.

What ensues, as a result, is that productivity in Pakistani firms which export is less than Indian. To test this, the standard economic technique to calculate total factor productivity is used²⁹. Total factor productivity refers to the extent as to how efficient production is or how technological sophisticated firms are.

The results show that total factor productivity is 0.85 for Indian exporting firms while for Pakistan's exporters this is 0.53³⁰. This results matches with that of Section 2 that most of the exports of Pakistan is based on low technology.



Productivity of exporters is low in Pakistan as compare to India.

²⁷ <http://www.brecorder.com/top-stories/0/16558:assessing-impact-of-trans-pacific-partnership-on-exports-government-seeks-assistance-from-world-bank/?date=2016-02-15>

²⁸ Ahmed, H *et al.*, 2010. "A strategy for reversing Pakistan's dismal export performance". Centre for Research in Economics and Business, Lahore School of Economic.

²⁹ Appendix presents the methodology for total factor productivity.

³⁰ The numerical value for Total Factor Productivity itself has no interpretation. A higher numeric value refers to a higher technological sophistication and vice versa.

Table 4: Innovation Response of exporting firms

Questions	Pakistan	India
1 Has the establishment introduced new or significantly improved products or services?	45 percent	57 percent
2 Has the establishment introduced new or significantly improved methods of manufacturing products or offering services?	43 percent	63 percent
3 Has the establishment introduced any new or significantly improved logistics, delivery, or distribution for inputs, products, or services?	28 percent	55 percent
4 Has the establishment introduced any new or significantly improved supporting activities for your processes, such as maintenance systems, or operations for purchasing, accounting, or computing?	41 percent	63 percent
5 Has the establishment introduced any new or significantly improved organizational structures or management practices?	31 percent	56 percent
6 Has the establishment introduced any new or significantly improved marketing methods?	34 percent	59 percent
7 Did the establishment spend on formal research and development activities, either in-house or contracted with other companies?	32 percent	56 percent
8 Did the establishment give employees some time to develop or try out new approach or new idea about products or services, business process, firm management, or marketing?	39 percent	63 percent

Author's estimates based on Pakistan & India Enterprise Survey

CONCLUSION

The report has studied the performance of Pakistani exports and suggests the potential profitable products in which firms should export. To this end, two separate lists of products are presented.

In the first list, the global demand pattern of conventional export products of Pakistan is assessed and those products are earmarked for which global world demand has been increasing. It is observed that most of the products in this list are textile-related. This is no wonder because textile exports make up for a large chunk of Pakistani exports followed by food products. It is held in the report that this over-concentration has limited the markets in which Pakistan can potentially export.

Moreover, results have also shown that this over-concentration in textile and food products has left the exporters at the mercy of fierce price competition from neighboring countries and frequent over-valuation of exchange rate. Due to this over-concentration, the Pakistani export value does not increase much with increase in global income.

Consequently, in the second list, the report presents those products that employ medium and high technology. These products should be the real champion export products of Pakistani firms going forward for sustained profits for firms and economic growth.

It is recommended here that firms which export in Pakistan should be more technologically intensive. Moreover, being technologically intensive does not only mean installation of higher technology machinery. Even new and innovative ways to manage logistics, distribution or marketing a product amounts to high technology. Similarly, exporting firms should regularly undertake activities in collaborations with research organizations to think-over new ideas for managing and operating their businesses.

The analysis of factors that reduce exports in Pakistan has shown that exporters face both external and internal issues. Internal issues are headlined by lack of innovation in the firms which exports. External issues are even more pervasive and are dominated by stringent government regulations pertaining to taxation, business licensing and permits, and labour regulations. These issues are reinforced by delay in installing a liberalized trade regime and an over-valued exchange rate that reduces competitiveness of Pakistani exports. Furthermore, excessive hours of power outages dent exports prospective. Nevertheless, higher expected investment in power sector under CPEC will help reduce the number of power outages.

This increase in power availability is expected to increase exports in the future. However, there is no foreseeable improvement in other internal and external constraints to exporters. Therefore, any export gains may be countered by no or slow improvement in other factors outlined in the report.

Technical Note³¹:

To calculate the total factor productivity, Cobb-Douglas production function is estimated assuming constant returns to scale to the production function. However, production function exhibits decreasing returns to scale with respect to each variable. Since the data of enterprise survey is cross section of firms, robust standard errors are also calculated to allow for heteroscedasticity in the dataset. Total factor productivity is the residual of the Cobb-Douglas production function averaged across the exporting firms. The functional form and variable description is:

$$Q = AL^{\alpha}K^{\beta}I^{1-\alpha-\beta}$$

Where

$$\alpha, \beta, 1 - \alpha - \beta < 0$$

$$\alpha + \beta + (1 - \alpha - \beta) = 1$$

Q = Firm sales (Proxy for Output)

L = Total compensation of workers including wages, salaries, and bonuses (Proxy for Labor)

K = The replacement value of machinery, vehicles, and equipment (Proxy for Capital)

I = Cost of raw material and intermediate materials (Proxy for intermediate goods)

A = Total factor productivity

³¹ The methodology used for calculating Total Factor Productivity is based on Enterprise Note Series by Enterprise Survey.

<https://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/EnterpriseNotes/Productivity-23.pdf>



PRIME Analytical Services

Introduction

PRIME Institute is an independent economic policy think tank based in Islamabad striving for an open, free and prosperous Pakistan. Set up in January 2013, PRIME has published 26 reports and has organized around 50 events. It has published reports and papers on important policy and economic issues such as State Owned Enterprises, Housing Market, Trade Liberalization, Informal Economy, Public Debt, and Energy. For more information please visit: www.primeinstitute.org

PRIME Analytical Services

Unleashing Business Potential for Growth

PRIME Analytical Reports - Unlocking Business Potential for Growth; are evidence backed studies on the business environment in Pakistan. These monthly reports are prepared to improve our understanding of business and policy challenges faced by the country's private sector and to help it steer on the path of growth. To view sample reports, please visit:

www.primeinstitute.org/analytical-services/

Customised Reports

We issue customised reports for your specific industry and sector on relevant policy, regulation, taxation, competition law, tariffs, SRO and legislation that directly affects your business and investment decisions.

On special request, PRIME Institute can also arrange dissemination of these reports to relevant stakeholders in the public and private sectors. These reports are issued without prejudice and comply with the principles of editorial independence.

How to Subscribe

To subscribe, or to get a free trial copy, please email us at:

research@primeinstitute.org or

Call at: 051-831 4337-38

Benefits of Subscription

The subscribers to PRIME Analytical Reports will get these benefits:

1. 12 analytical reports in a year in hard copy.
2. Preferential terms for customised reports.
3. Opportunity to give suggestions on topics of reports subject to mutual consensus.

Note: Individual reports can be requested on special price.

Indicative Research Topics (2015-16)

1. Withholding Tax Regime
2. China Pakistan Economic Corridor: A Primer
3. Business within boundaries: Economic zones
4. Weaving Advantage in textile sector
5. Rising middle class: Exploring Business Potential
6. Natural Gas Crisis: Mining for a solution
7. Champions and Underachievers: An analysis of export performance of Pakistan
8. Labour Productivity: How to get ourselves ahead of the curve?
9. Innovation in Pakistani Firms: A Survey of Best Practices
10. Global Supply Chains and Pakistan: The Question of Comparative Advantage
11. CPEC- Opportunities for Private Sector?
12. Changing Investment Trends: A shift to domestic commerce

Refund Policy

PRIME Institute offers a refund of your subscription fee (balance) on a one month notice.

Subscription Fee

Rs. 75,000/- payable via a cross cheque in the name of PRIME Institute.