Constraints and Challenges of SME Development in the Developing Countries: A Case Study of India, Pakistan and Bangladesh

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Abstract

Private enterprise development in developing countries is very challenging, and developing SMEs is no different. In fact, developing SMEs, which can act as the engines of growth in the near future, becomes more challenging due to lack of proper finance. But this is not the only obstacle SMEs face. This paper is an endeavor to find out the main obstacles and challenges in SME development in three South Asian countries where the average income is low; namely – India, Pakistan and Bangladesh. Using firm level survey data collected by the World Bank in different years, this paper tries to point out the challenges, barriers, weaknesses and potential for improvement in the case of SME development by applying different statistical methods. This paper also presents a comparative overview of the current SME development scenario of the three countries. The findings point out a lot of similarities between the countries, and suggest a lot of ways in which this sector can be developed further by eliminating the barriers and developing institutions. Many of the constraints have been found to have negative effects, but access to finance and electricity seem to be the main constraints, as identified by many of the entrepreneurs of the countries under study. So, governments of these countries should give high priority in removing the constrains identified, especially lack of proper electricity supply and access to finance.

1. Introduction

Small and medium enterprises (SMEs) have slightly different definitions in different countries, but their role in the economic development is recognized in every developing nation. Not only do SMEs provide alternative sources of income for those who do not have access to formal sources, but the contribution of SMEs in total GDP is ever on the increase. The SMEs also serve the domestic demand of specific products quite effectively.

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But business operations in any country are not without problems, especially in the developing countries. For operating any kind of business, there is a need for dependable and effective sources of finance, both in the form of dept capital and equity capital. Big firms have much easier access to finance of different types than smaller firms, since banks require different levels of collateral for various amounts of loans. Small businesses generally do not have the goodwill or the required amount of collateral to get loans on a large scale. So, access to finance seems to be a big obstacle for SMEs to overcome. But this is not, by far, the only important obstacle for SMEs in the developing nations. SMEs, like any business, need sufficient amounts of electricity, smooth transportation systems and favorable regulatory environment to grow at higher rates. Also, some SMEs lack the efficient labor for reaching the full potential of any country.

Studies which identify the main constraints the SMEs face in Bangladesh, India and Pakistan using rigorous quantitative methodologies seem to be a rarity. Studies commonly available are generally qualitative in nature and tend to focus on the growth of business activities and their effects on economic growth, with little focus on Small and Medium Enterprises. The World Bank, however, administers surveys each year under its 'Enterprise Surveys' program to find out the constraints firms face in each country. The sample size of these surveys is generally more than one thousand, including firms of all sizes and of almost all sectors. These data themselves do not provide insights on the constraints faced by SMEs, but some general statistical analysis of the raw data collected by the World Bank from SMEs can help in deriving the main problems the SMEs specifically face.

This paper, therefore, aims at providing a comprehensive conclusion about the constraints SMEs in Bangladesh, India and Pakistan are facing and how they are affecting their market performance. This conclusion would be derived through firstly, determination of the constraints faced especially by the Small and Medium Enterprises (SMEs); secondly, analyzing the opinions of the SME owners about the constraints using simple statistical techniques; and finally, econometric techniques would be used to find out the impact of the constraints on the sales. Section 2 reviews the literature which deals with almost similar issues, section 3 provides an overview of the SME development scenario of India, Pakistan and Bangladesh, section 4 provides a detailed picture of the methodology used in this study, section 5 discusses the results obtained from the analysis, section 6 provides the major findings derived, section 7 discusses the policy implications, section 8 describes the limitations of the study and the final section concludes.

2. Literature Review

Many studies have highlighted the growth and development of the SME sector in Bangladesh, India and Pakistan and the factors responsible for it. According to many of these studies, SMEs contribute between 40 – 60 per cent of the total output or value - added to many South Asian developing economies, and also account for over 70 percent of total employment (Fan et al 2005; Nepal et al. 2004). However, a number of studies find that SMEs are frequently faced with constraints and challenges (Bannock et al. 2002; Batra and Mahmood 2001; Beck et al. 2004; Brunetti et al. 1998). The common constraints for SMEs typically include financing, overcoming institutional, legal and administrative barriers and accessing network support.

Among the studies highlighting the problems and prospects of SME sector in Bangladesh, Bhattacharya and Hossain (2006) reported that the complex documentation processes, lengthy releasing and clearing goods from ports, corruption in the customs department, lack of automated customs procedures act as major problems obstructing the growth of any business in Bangladesh, let alone SMEs. This also makes trading across borders difficult. Ahmed(2002) also highlighted the same sort of problems. However, Lester and Terry (2008) commented that as SMEs started becoming involved in export activities, these barriers became less severe, and the business environment and internal capabilities emerged as stronger barriers. Overcoming these barriers has become the key factor in developing the SME sector in Bangladesh, and the necessity for trade facilitation has become prominent. It is in this context that Prasad (2006) mentioned that trade facilitation initiatives had significant positive impacts on the private sector by increasing the volume of exports and imports, as well as through helping exporters find new markets. In addition, the Organization for Economic Co-operation and Development (OECD) emphasized that improved and simplified customs procedures had a significantly positive impact on trade flows (OECD 2005a).

A global survey on "Removing Barriers to SME Access to International Markets" by OECD-APEC (Asia-Pacific Economic Cooperation) identified a range of barriers that were detrimental to access by SMEs to international markets. Based on the survey results, Lester and Terry (2008) summarized four barriers as the most serious impediments to SMEs' access to international markets, which are: (a) a shortage of working capital for financing exports; (b) identifying foreign business opportunities; (c) limited information related to locating/analyzing markets; and (d) inability to contact potential overseas customers. These findings complement those of Duval (2007) which suggested that the focus of the multilateral trade facilitation agenda would ultimately need to be broadened to address the need of developing countries in Asia and the Pacific.

Wilson (2007) estimated that all countries could benefit from more efficient customs and administrative procedures, with the greatest benefits accruing to those countries with the least efficient customs and administrative procedures. Wilson et al. (2004) found a significant positive relationship between trade flow and port efficiency, customs environment, regulatory environment and service sector infrastructure. The study estimated that global trade in manufactured goods could gain as much as USD 377 billion from improvements in trade facilitation measures. Most of these gains would benefit developing countries in relative terms. Duval (2006) also concluded that the long-term benefits of trade facilitation would exceed the perceived implementation costs for all measures considered.

Schware and Kimberley (1995) focused on worldwide experience and identification of factors that make way for trade facilitation through the successful application of IT. The study found that accessible information and communication technology (ICT) could significantly improve trade performance. However, this technology must be accompanied by simplification of documentation, reengineering of procedures, appropriate training and availability of local expertise, and a reliable and cost-effective communications infrastructure. Automation has, therefore, been considered to be making sense only if it serves as a tool to support customs management practices (OECD 2005b). Duval (2006) and ESCAP (2006) made similar recommendations when emphasizing the establishment of an IT-based "single window" system and a modern risk management system for ensuring higher gains from trade facilitation. This holds particularly true in the context that trade and transport facilitation has become critically important for developing countries with a view to reaping the benefits from the opportunities of global production and changing trade patterns (UNCTAD 2005).

Among the more recent studies, Muhammad et al. (2010) in their study on SME development of Malaysia found that economic downturns mostly affected small SMEs with few working capital, skilled workforce, etc., especially those involved with trading and supplying products or services to other businesses. The major challenges faced by the SMEs during the bearish period thus became lower cash flows and limited financing. Ahmed, Rahman & Haque (2011) attempted to identify the constraints of development of manufacture based SMEs in Bangladesh. According to their study, lack of infrastructure support,

political unrest, shortage as well as price hike of raw materials, high financing cost and inadequate utility facility are some of the key factors for the slow development of manufacture based SMEs. Nagaraju and Vani (2013) in their study on India showed that commercial banks being the largest source of financing for SMEs, more participation in lending can result in excellent opportunities by proving a wide market to serve and make SME lending a profitable banking operation. Chowdhury et al. (2013) attempted to identify problems of SMEs in Bangladesh and potential solutions to that. The study surveyed 100 SME consumers and the problems identified by them were long waiting period for getting initial finance from banks because of tedious paper works, inability to provide collateral to get loans, inexperience in preparing sound financial systems for getting loans. As remedies the respondents advised financial incentives for sound business plan and public-private partnership in providing effective training. Another study (Khan et al., 2012) also reported similar problems faced by SMEs like lack of training for workers, harassment of government officials and poor supplementary utility facilities and sought integrated steps from government.

These studies mainly are of a qualitative nature, and lack rigorous quantitative analysis. Also, these studies mainly deal with the barriers impeding the growth of exports of SMEs. However, the Enterprise Surveys program of the World Bank has been recently conducting surveys worldwide on different firms, whose data are available on request. These data provide deep insights to the constraints the SMEs face in India, Pakistan and Bangladesh, but they have not been analyzed in detail as yet. This study aims to fill in this gap in the existing literature.
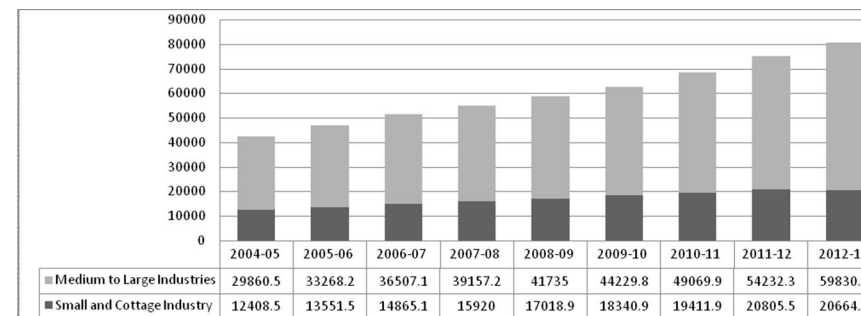
3. SME Sector in India, Pakistan and Bangladesh: An Overview

Small and medium-sized enterprises (SMEs) have a special and important role in the economic growth of South Asia and are a critical source for employment creation as well as income generation. The countries under study, namely, India, Pakistan and Bangladesh, are at different levels of development. India is well ahead in terms of economic growth than the other two countries, while Bangladesh is still considered as a Least Developed Country (LDC). However, Small and Medium Enterprises (SMEs) have been contributing handsomely to the economies of these countries, regardless of the size of the economy.

Bangladesh, India and Pakistan all have a growing and dynamic SME sector. The latest statistics of Bangladesh Small and Cottage Industries Corporation suggest that there are 103685 small and 830306 cottage industries, which

employ 36.14 lakh people and contribute approximately 5 percent of GDP. On the other hand, according to the SME Chamber of India, MSMEs (Micro, Small and Medium Enterprises) contribute 45% of the industrial output, 40% of exports, 42 million in employment, creating one million jobs every year and produces more than 8000 quality products for the Indian and international markets. In Pakistan, according to the latest statistics of Small and Medium Enterprises Development Authority (SMEDA) and economic survey reports of the country, small and medium scale firms represent nearly 90% of all the enterprises in Pakistan and employ 80% of the non-agricultural labor force. These figures indicate the potential and further growth in this sector.

In Bangladesh, however, the Ministry of Finance and the Bangladesh Bureau of Statistics (BBS) records data on industrial production using two broad categories: 'small and cottage industries' and 'medium to large industries'. At a much more disaggregated level, data is recorded according to different sectors, such as agriculture, horticulture, fishing, mining, manufacturing, etc. But no separate category for 'small and medium enterprises' (SMEs) is used, because SMEs fall into one of the categories described previously. Figure 3.1 shows the production of both the broad categories, i.e. 'small and cottage industries' and 'medium to large industries', measured in crore taka. From the figure, it is evident that the total industrial production is increasing, but the share of medium to large scale industries is evidently increasing, while small and cottage industries are lagging behind in terms of production growth.

|	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Medium to Large Industries	29860.5	33268.2	36507.1	39157.2	41735	44229.8	49069.9	54232.3	59830.6
Small and Cottage Industry	12408.5	13551.5	14865.1	15920	17018.9	18340.9	19411.9	20805.5	20664.7

Figure 3.1: Production of Industries in Bangladesh (in crore Taka)

Source: Bangladesh Economic Review, 2013 and BBS

The Bangladesh Bureau of Statistics, however, measures the quantum index of production for different categories, and one of those categories is the quantum index of production for small scale manufacturing, where the fiscal year 1995-96 is used as the base year. The data has been reported in figure 3.2. The figure

shows that small scale manufacturing industries have shown only minor increases from the 1st quarter of 2008-09 to the 2nd quarter of 2012-13.

Figure 3.2: Quantum Index of Small Scale Manufacturing Industries (4 digit level)
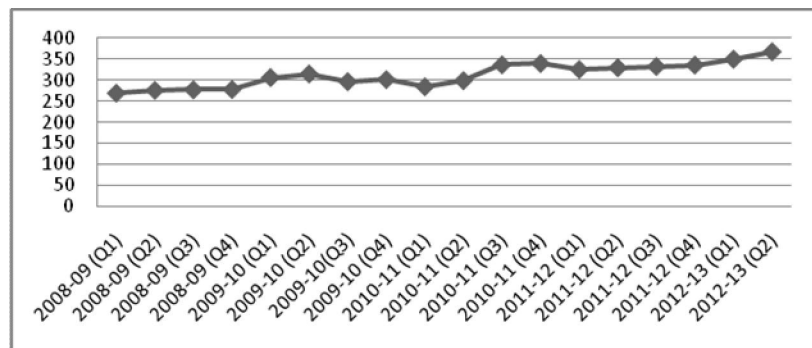
Source: Bangladesh Bureau of Statistics

The problem with data on SMEs in Bangladesh is that there is no separate 'SME' category in the national accounts. Data on Indian SMEs, however, do not suffer from this problem as the Indian Ministry of Micro, Small and Medium Enterprises (MSME) records data on SMEs regularly and separately. The data, however, also includes micro enterprises, which means that these databases record data not only on small and medium enterprises (SMEs), but on Micro, Small and Medium Enterprises (MSMEs). Figure 3.3 shows the production of MSMEs in the recent years.

Figure 3.3: Gross Output of Micro, Small and Medium Enterprises in India (in crores)
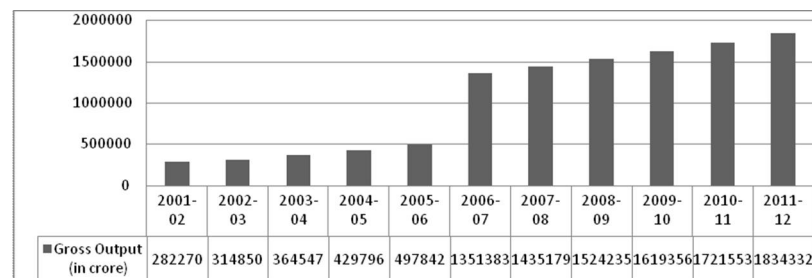
Source: Ministry of Micro, Small and Medium Enterprises (MSMEs), Government of India

The figure shows a sudden jump in the production of MSMEs from 2005-06 to 2006-07, caused by the inclusion of MSMEs of some other sectors as well. Still, the gross output is evidently increasing each fiscal year, and the increase is quite significant. In fact, from 2006-07 to 2011-12, the production of these enterprises has been increasing at around 6 percent per annum.

The Pakistan Bureau of Statistics and Ministry of Finance records data on two broad categories: 'large scale' and 'small scale'. Large industries fall under the 'large scale' category, while the rest fall under the 'small scale' category. So, all the medium and small enterprises automatically fall under the 'small scale' category.

Figure 3.4: Production of Small Scale Industries in Pakistan (in billion Rs.)
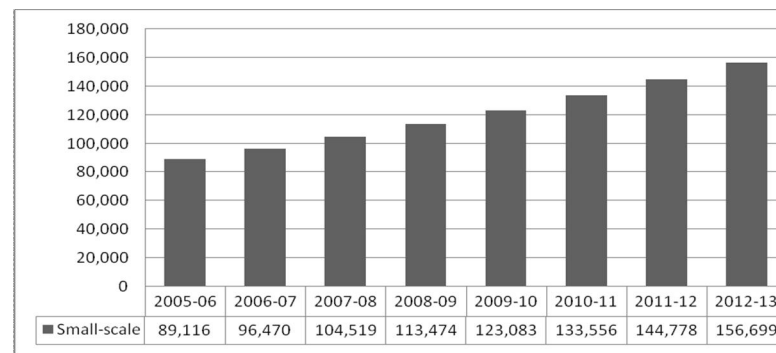
Source: Pakistan Economic Survey, 2013, Ministry of Finance, Government of Pakistan

Figure 3.4 shows the production of small scale industries for different fiscal years. The figure clearly indicates that the production of small and medium enterprises is slowly increasing, and the rate of increase is almost constant, at around a rate of 8 percent per annum. So, if the growth rates of SMEs are compared, the growth of SMEs in Pakistan is the most impressive. However, there are definitional differences among the countries, so these figures cannot be directly compared.

4. Methodology

Qualitative analysis of constraints faced by different business enterprises is quite common, so the main analysis of this study would include quantitative analysis. General statistical analysis would reveal the types of constraints the SMEs in the three countries face while econometric analysis would show how these constraints affect the sales of the SMEs, where sales represent the performance of the enterprises. The enterprise surveys data collected from over a thousand firms in each country would be used for the analysis.

4.1 Data

This study has made use of secondary data, collected by the World Bank under its Enterprise Surveys Program. Now, the World Bank has collected and compiled data from different countries in different years. The latest firm level survey the World Bank conducted in Bangladesh was in the year 2013. But for India and Pakistan, World Bank didn't conduct any firm level survey after 2010, and these surveys were interim surveys, which did not use the full questionnaire of the enterprise surveys program. These data, however, do highlight the constraints faced by the SMEs in India and Pakistan. So, 2010 data for India and Pakistan and 2013 data of Bangladesh have been used for this analysis. The Enterprise Surveys data includes data on all types of firms, so this analysis would use data specifically on SMEs. By using the statistical software STATA, all the analyses presented in this paper has only been done using data on SMEs. This means that the sample of enterprises used for the analysis in this paper includes only SMEs, and does not include large scale enterprises; hence, the sample used for the analysis of this paper is a sub-sample of the Enterprise Surveys Program database of the World Bank.

An Enterprise Survey is a firm-level survey of a representative sample of an economy's private sector. The surveys cover a broad range of business environment topics including access to finance, corruption, infrastructure, crime, competition, and performance measures. The World Bank has collected this data from face-to-face interviews with top managers and business owners in over 130,000 companies in 135 economies. The sizes of the samples from which the data was collected under the Enterprise Surveys Programs in India, Pakistan and Bangladesh are around fifteen hundred each, of which more than half are SMEs. This paper only uses data on the SMEs, and not the large enterprises. Hence, for analysis purposes, data on specifically SMEs have been selected from the vast array of data using the statistical software STATA. Therefore, all the results in this paper reflect solely the opinions of SME owners of Bangladesh, India and Pakistan.

The constraints considered in this study are the same as those considered in the enterprise surveys programs of the World Bank. These include lack of access to finance; access to land; business licensing and permits; corruption; crime, theft and disorder; customs and trade regulations; electricity; inadequately educated workforce; labor regulations; political instability; practices of competitors in the informal sector; tax administration; tax rates; and transportation.

4.2 Definition of SMEs

Since this paper is an analysis of Small and Medium Enterprises (SMEs), the definitional complexities need to be clarified. The definition of SMEs differs from country to country. The Industrial Policy of Bangladesh, 2010 defines small and medium enterprises as: "In manufacturing, small industry will be deemed to comprise enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 5 million and Tk. 100 million, or with between 25 and 99 workers," and "medium industry will be deemed to comprise enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 100 million and Tk. 300 million, or with between 100 and 250 workers." For services, however, "'small industry' will correspond to enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. half a million and Tk. 10 million, or with between 10 and 25 workers", while "'medium industry' will correspond to enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 10 million and Tk. 150 million, or with between 50 and 100 workers." According to the Pakistan SME Policy, 2007, enterprises which employ upto 250 workers or have a paid up capital of Rs. 25 million or lower are categorized as SMEs. The Government of India enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, and according to that act, A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed Rs. 5 crore; and a medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.

For comparison purposes, the World Bank employs its own definition of Small and Medium Enterprises. For the sake of generating Enterprise Surveys data, the World Bank defines Small and Medium Enterprises (SMEs) as enterprises which employ maximum 99 workers; enterprises employing 1 to 19 workers are defined as 'small enterprises' and enterprises employing 20 to 99 workers are defined as 'medium enterprises'. The World Bank does not base its definition on amount of investment, because currencies differ from country to country, and exchange rates change over time. Hence, it becomes difficult to define SMEs for the World Bank, especially since comparisons between countries have to be made through their Enterprise Surveys data.

Using the World Bank definition of SMEs is useful for comparison among countries, because use of country specific definitions may give misleading results. More precisely, Bangladesh, India and Pakistan all three countries have different definitions of SMEs. So, an SME in Bangladesh may not be regarded

as an SME in India or Pakistan, and since one of the purposes of this paper is to compare the opinions of SME owners of all the three countries, using country specific definitions would hamper comparability. So, the definition of SMEs used by the Enterprise Surveys Program of the World Bank has been used in this paper, so that the same kind of firms can be compared across countries.

4.3 General Statistical Analysis Methods

The general analysis of the data in this study includes tabulating and grouping the data according to the opinions of the respondents. The data on constraints of SMEs have been firstly separated from the rest. After that, each of the constraints is grouped according to the number of respondents who identified that particular constraint as its main barrier. Furthermore, the main constraints are analyzed further by viewing and grouping each of the responses according to categories, i.e. whether each of the constraints is viewed as very severe, major, moderate, minor or no obstacle. The results have been presented in tables and pie charts (whichever applicable), which further elaborate the importance of each of the constraints.

4.4 Econometric Models

Econometric methods are required to find out the effects of different constraints on the sales of the SMEs. The main equation to be estimated for each of the three countries is –

$$y_i = \beta_0 + \beta_1 c_{1i} + \beta_2 c_{2i} + \ldots + \beta_n c_{ni} + \gamma_1 L_i + u_i$$

Here, y_i denotes the total sales of firm i, c_{1i}, c_{2i}, ..., c_{ni} denote n number of constraints faced by firm i, L_i denotes the total labor used by the firm and u_i is the error term. The main hypothesis to be tested in this case is whether $\beta_i = 0$. Here, the constraints are actually dummy variables. For example, let us suppose that the respondents are asked to rank different constraints, as they were asked by the World Bank under their enterprise surveys program. Let us also suppose that constraint 1 is lack of access to finance. If among the list of constraints, the respondent ranks lack of access to finance as the most severe, then the value of $c_1 = 1$; otherwise, $c_1 = 0$.

4.5 Results

The data collected by World Bank through their enterprise surveys program has been firstly grouped according to different categories. From those groups, data on SMEs have been separated, which includes data on 1065 small and medium enterprises (according to the definition of World Bank). This data was used to identify what the constraints were which troubled the SMEs in the three countries. When the respondents of India, Pakistan and Bangladesh were asked to rank the constraints, one or two of the constraints were identified as the most severe by many of the respondents, as shown in tables 5.1, 5.2 and 5.3.

Table 4.1: Major Constraints in Bangladesh

Name of the Constraint	Percentage of Respondents
Access to finance	0.19
Access to land	0.09
Business licensing and permits	19.62
Corruption	3.1
Crime	0.47
Customs and trade regulations	4.41
Electricity	1.22
Inadequately educated workforce	1.31
Political instability	26.48
Practices of competitors	2.54
Tax administration	0.56
Tax rates	34.55
Transport	1.6
Access to finance	0.47
Access to land	2.16
Total	100

Table 4.1 shows that most of the respondents of Bangladesh ranked tax rates as the number one constraint they face, and political instability was ranked as the most severe constraint by the second largest number of respondents. This means that the SME owners, who would be identified as small business owners according to the Bangladeshi definition of SMEs, find tax rates to be their biggest hurdle. The importance of political stability also is reflected through their opinions.

Table 4.2: Major Constraints in India

Name of the Constraint	Percentage of Respondents
Access to Finance	13.23
Access to Land	7.38
Business Licensing and Permits	5.85
Corruption	4.31
Crime, Theft and Disorder	0.62
Customs and Trade Regulations	3.69
Electricity	28
Inadequately Educated Workforce	1.23
Labor Regulations	4.92
Political Instability	0.92
Practices of Competitors	10.15
Tax Administration	0.62
Tax Rates	5.85
Transport	6.77
Total	100.0

The respondents of India, however, seem to be divided in their opinion about which one of the constraints can be considered as their number one problem, as shown in Table 5.2. Like Bangladesh, most of the respondents (28%) identified electricity as their main problem and the second largest number of respondents (13.23%) identified access to finance as their major constraint. But unlike Bangladesh, other constraints, such as practice of competitors, access to land, transportation, tax rates etc. received more importance. Furthermore, compared to Bangladesh, much less percentage of entrepreneurs thinks that lack of electricity and access to finance are major problems in India.

Table 4.3: Major Constraints in Pakistan

Name of the Constraint	Percentage of Respondents
Access to finance	1.7
Access to land	2.0
Business licencing and permits	0.3
Corruption	2.0
Crime	4.3
Customs and trade regulations	1.0
Electricity	66.4
Inadequately educated workforce	0.7
Political instability	19.9
Practices of competitors	1.0
Tax rates	0.3
Transport	0.3
Total	100.0

Unlike India, the opinion of the Pakistani entrepreneurs regarding the most severe constraint for operating SMEs seems to be unanimous. Table 5.3 shows that almost 67% of the respondents think that lack of electricity is the major problem of operating SMEs in Pakistan. Among the rest, 20% identified political instability as the main constraint. Pakistan has been facing political unrest for a long time, and the industries there do face shortage of electricity a lot, and these opinions of the respondents reflect these facts.

4.6 Analysis of Specific Constraints

The World Bank, under its enterprise surveys program, also asked the opinion of the respondents of different countries about some specific constraints. The constraints which were considered are corruption, lack of electricity, lack of access to finance, transportation services and labor regulations.
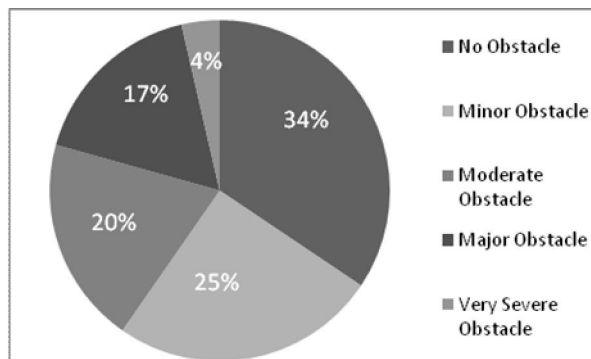
4.6.1 Corruption

Figure 4.1: Corruption as an obstacle in Bangladesh
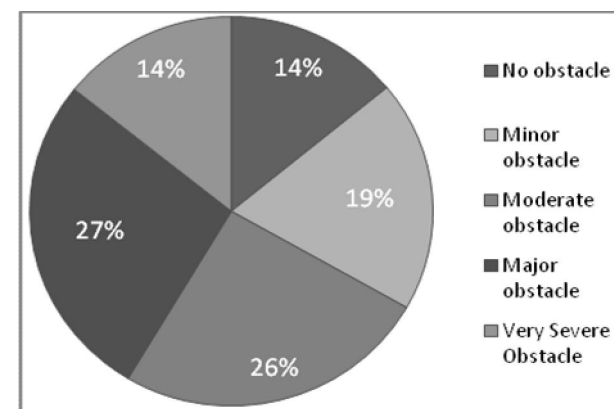
According to World Bank Enterprise Surveys data of 2013, 1065 SME owners of Bangladesh, who were the respondents of the survey, ranked corruption according to their preferences. The results are mixed, since 27 % reported corruption to be a major obstacle, 26 % reported it to be a moderate obstacle, 14 % reported to be a very severe obstacle and 19 % reported it to be a minor obstacle. It is a bit surprising result, since corruption is rampant in Bangladesh, but the SME sector does not face it as much as the large scale industries and firms.

The Indian SMEs do think that corruption is an important obstacle, but are divided in opinion about the importance of the obstacle. 17 %, 20 % and 25 % view corruption as a major, moderate and minor obstacle. 34 % do not consider it to be an obstacle and 4 % consider it to be a very severe obstacle.

Figure 4.2: Corruption as an Obstacle in India

The Pakistani SMEs surveyed were divided in their opinion about corruption as an obstacle. Almost equal percentages of respondents (16 % each) indicated corruption as a major obstacle, very severe obstacle and a moderate obstacle. 28 % think it is a minor obstacle and 24 % do not think it is an obstacle.

Figure 4.3: Corruption as an Obstacle in Pakistan
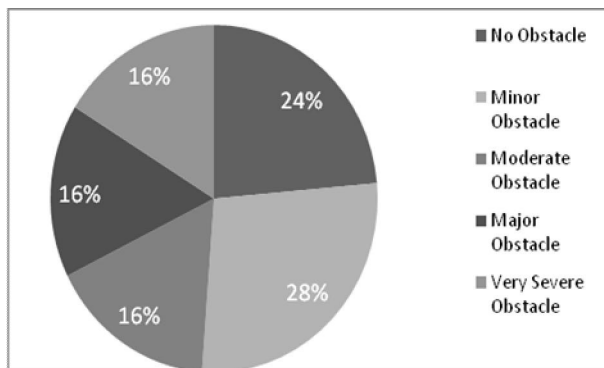
4.6.2 Electricity

Electricity is ranked as a major obstacle or a very severe obstacle by most of the respondent firms of the survey in Bangladesh. 31.95 % of the respondents indicated electricity, or rather, lack of electricity as a major obstacle, 18.79 % respondents ranked it as a very severe obstacle, 33.8 % ranked it as a moderate

obstacle, while the rest of the respondents ranked electricity as a minor obstacle or no obstacle. So, approximately 50 % of the total respondents thought that lack of electricity is either a very severe or major obstacle towards smooth functioning of their firms.

Figure 4.4: Electricity as an Obstacle in Bangladesh
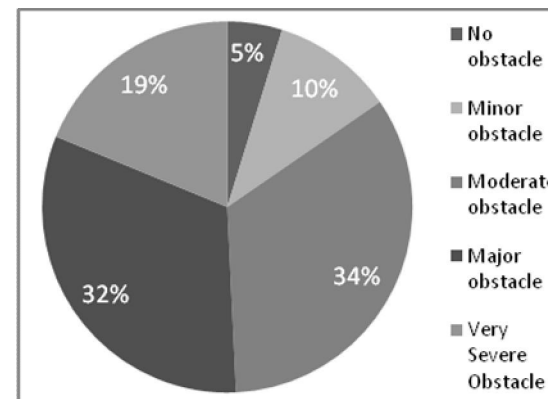
Among the respondents of Indian SMEs, around 16 % of them consider electricity to be a very severe obstacle, 36 % consider it as a major obstacle, 22 % consider it to be a moderate obstacle, 16 % consider it to be a minor obstacle and 10 % do not consider it as an obstacle. So, these SMEs consider electricity as an obstacle, but there is no unanimous opinion about the level of importance of electricity as a constraint.

Figure 4.5: Electricity as an Obstacle in India
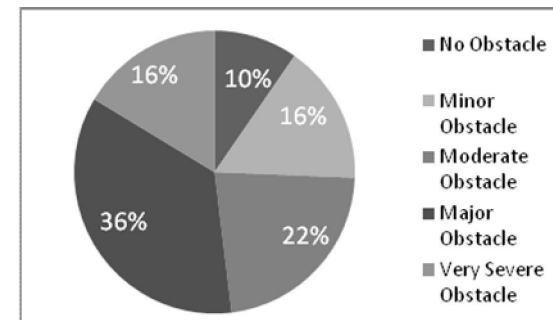
An overwhelming 71 % of the respondents of Pakistan identified electricity as a very severe obstacle towards business development. Moreover, another 13 % indicated it to be a major obstacle. The rest of the respondents indicated this to

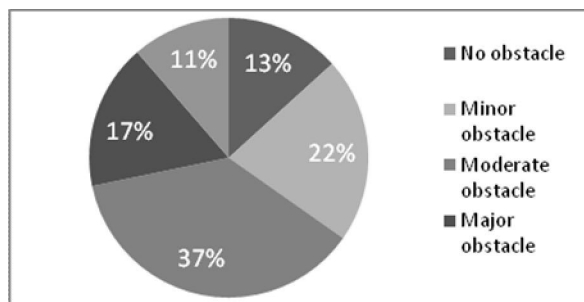be either a moderate obstacle, minor obstacle or no obstacle (6 %, 5 % and 5 % to be exact).

Figure 4.6: Electricity as an Obstacle in Pakistan
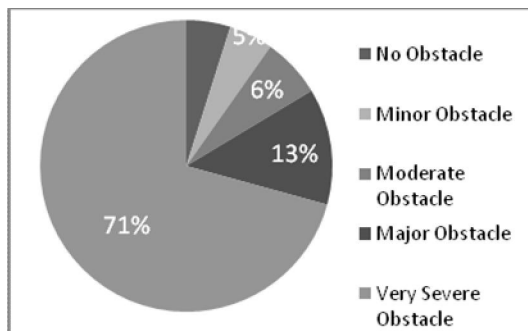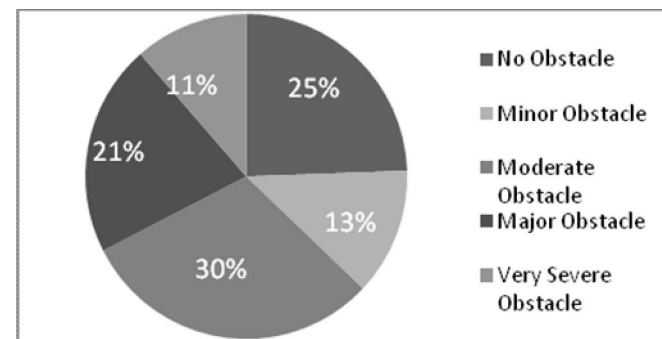

4.6.3 Access to Finance

The respondents in Bangladesh seem to be divided regarding their perception of the nature of access to finance as an obstacle. A little less than 60 %, 59 % to be exact, regard it as a minor obstacle or a moderate obstacle. Only 17 % identified it as a major obstacle.

Figure 4.7: Access to Finance as an Obstacle in Bangladesh

The Indian SMEs surveyed by the World Bank also seemed divided in their opinion about access to finance as an obstacle. 30 % of them viewed it as a moderate obstacle, 25 % viewed it as no obstacle, 21 % viewed it as a major obstacle, 13 % viewed it as a minor obstacle and 11 % of them think it is a very severe obstacle.

Figure 4.8: Access to Finance as an Obstacle in India

Among the Pakistani SMEs surveyed, a little less than half (46 %) did not consider access to finance to be an obstacle, while another 27 % think it is a minor obstacle. 14 %, 9 % and 4 % indicated it to be a moderate obstacle, major obstacle and a very severe obstacle respectively.

Figure 4.9: Access to Finance as an Obstacle in Pakistan
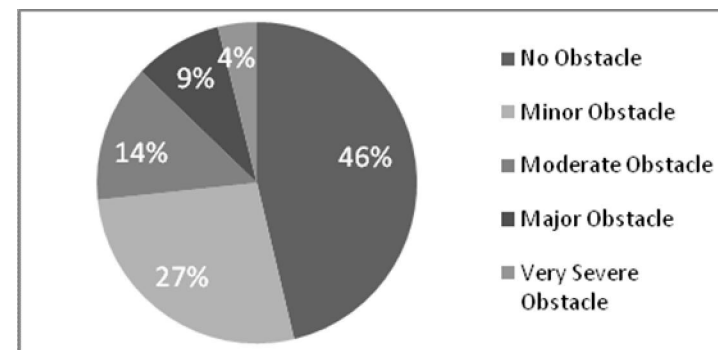
4.6.4 Transportation System:

The respondents did not consider transport to be a very important obstacle, since 29 % and 34 % of them considered it to be a minor obstacle and a moderate obstacle respectively, while 19 % respondents did not consider it to be an obstacle at all. Only 6 % considered it to be a major obstacle and only 4 % considered it to be a very severe obstacle.

Figure 4.10: Transportation System as an Obstacle in Bangladesh
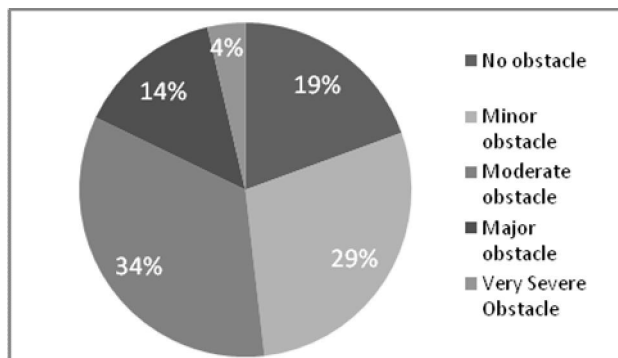

The respondents in India were mostly divided in their opinion about transportation system as an obstacle to enterprise growth. Almost the same percentages of people (27 %, 23 %, 23 % and 22 % to be exact) identified this as a minor, moderate, major obstacle and as no obstacle at all. Only 5 % indicated it to be a very severe obstacle.

Figure 4.11: Transportation System as an Obstacle in India
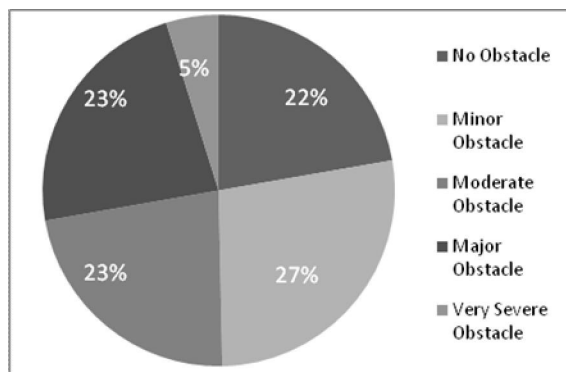
The respondents of Pakistan generally think that transportation system is not a very important obstacle for SMEs in Pakistan, since 45 % think it is no obstacle and 35 % think it is a minor obstacle. The rest of the 20 % are divided in their opinion about corruption.

Figure 4.12: Transportation System as an Obstacle in Pakistan
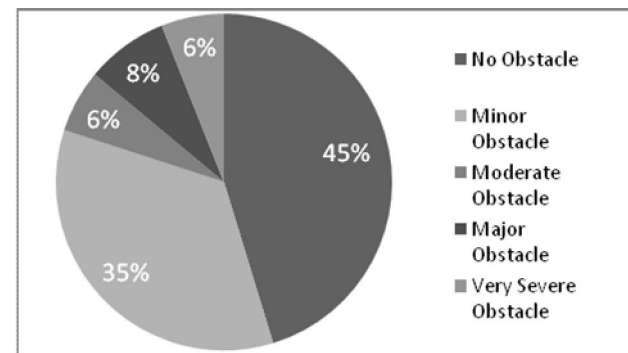
4.6.5 Labor Regulations

Among the Small and Medium sized firms of Bangladesh surveyed by the World Bank, a little less than half of them didn't consider labor regulations as a constraint and 29 % consider it to be a minor obstacle. So, around 80 % of the respondents did not consider labor regulations as an important obstacle towards operating business properly. Only 4 % of the respondents considered labor regulations to be either a very severe or a major obstacle, while the rest of the respondents (20 %) considered it to be a moderate obstacle.

**Figure 4.13: Labor Regulations as an Obstacle in Bangladesh**
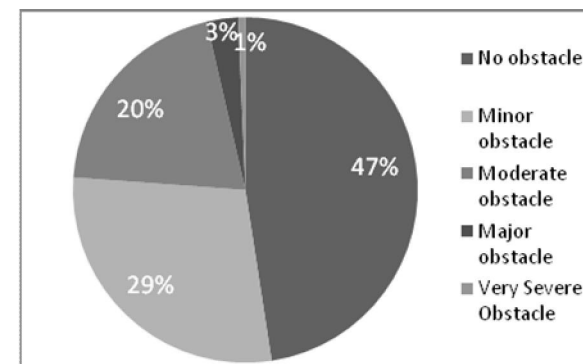
The Indian SMEs surveyed by World Bank were mostly divided in their opinion about transportation system as an obstacle to enterprise growth. Almost the same percentages of people (28 %, 23 %, 23 % and 24 % to be exact) identified this as a moderate, major, minor and no obstacle. Only 2 % indicated it to be a very severe obstacle.

Figure 4.14: Labor Regulations as an Obstacle in India
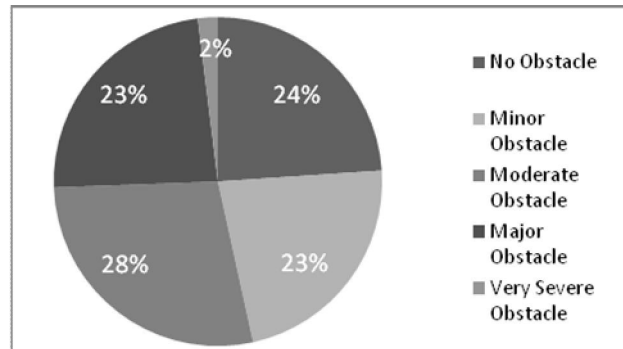
Around 56 % and 32 % respondents of Pakistan think that labor regulations represent no obstacle and minor obstacle respectively. So, they do not think this is an important obstacle, since only 1 %, 4 % and 7 % indicate it to be a very severe obstacle, major obstacle and a moderate obstacle.

Figure 4.15: Labor Regulations as an Obstacle in Pakistan
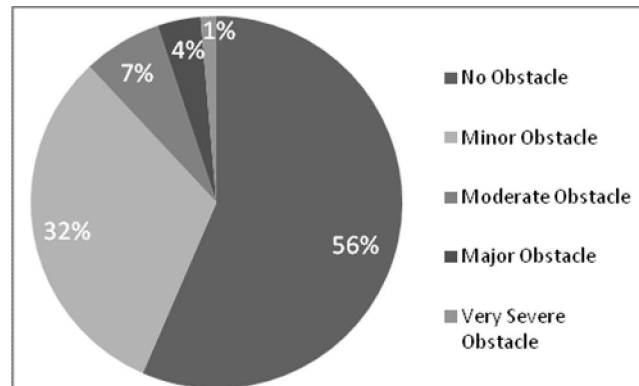
4.7 Results of Econometric Analysis

The regression equation (1) of the methodology section has been applied on data of SMEs of the three countries under consideration. The results, however, are mixed, but mostly reflect the results obtained from the general statistical analysis of the previous section.

Table 5.4 shows the results of estimating equation (1) using data of Bangladesh. The independent variables include dummy variables showing the constraints, area of operation (such as Dhaka, Chittagong etc.) and log values of the total number of workers employed. Since the SMEs are mainly labor intensive, labor

has been included from among the factors of production as one of the main independent variables. Since the constraints are dummy variables, the interpretation is mainly done from a relative perspective, i.e. relative to a base category. Moreover, all the categories cannot be used as dummy variables due to collinearity problems. Here, transport has been used as the base category for the constraint dummies. The area dummies have been included to control for any effects of the area of operation, and the values of those variables are 1 if the SME belongs to a particular area, 0 otherwise. The area dummies are used to control for access to market, since access to market mainly varies from area to area.

Nevertheless, in simple terms, electricity, access to land and access to finance seem to have significant impacts on the log of sales of the SMEs, as can be seen from the point of view of statistical significance. More precisely, these constraints differ significantly from the base category in terms of impact on sales, hence it can be concluded that their impact is quite significant. Bangladeshi SME owners, therefore, seem to have problems gaining access to finance and getting adequate electricity very frequently, since not only are these identified as the most severe problems, but they are also having significant impacts on sales.

Table 5.4: Regression results for Bangladesh

Independent Variables	Coefficient	Standard Error	t	P > |t|	[95% Confidence Interval	
Log of labor	1.075726	0.040118	26.81	0	0.997002	1.15445
Ownership	0.7098	0.135444	5.24	0	0.444018	0.975581
Tax Administration	0.126771	0.618181	0.21	0.838	-1.08628	1.339826
Practices of Competitors	-0.18616	0.386925	-0.48	0.631	-0.94542	0.573104
Political Instability	-0.54147	0.220895	-2.45	0.014	-0.97493	-0.10801
Labor Regulations	-0.67422	0.56931	-1.18	0.237	-1.79138	0.442936
Inadequately Educated Workforce	-0.34165	0.326452	-1.05	0.296	-0.98225	0.298944
Electricity	-0.71045	0.224859	-3.16	0.002	-1.15169	-0.26921
Customs and Trade Regulations	-0.0946	0.40527	-0.23	0.815	-0.88986	0.700661
Crime, Theft and Disorder	-0.49637	0.415762	-1.19	0.233	-1.31222	0.319476
Corruption	-0.47971	0.287952	-1.67	0.096	-1.04476	0.085338
Business Licensing and Permits	-0.82875	0.681549	-1.22	0.224	-2.16615	0.50865
Access to Land	-0.80692	0.311471	-2.59	0.01	-1.41811	-0.19572
Access to Finance	-0.62396	0.229756	-2.72	0.007	-1.07481	-0.17311
Dhaka	0.663233	0.146242	4.54	0	0.376262	0.950204
Chittagong	0.923335	0.163344	5.65	0	0.602805	1.243865
Khulna	0.879063	0.207956	4.23	0	0.470991	1.287135
Constant	12.7355	0.273714	46.53	0	12.19839	13.2726

Dependent Variable: Log of Sales

Number of Observations: 1036	R-squared: 0.5010
Prob. > F : 0.0000	Adjusted R-squared: 0.4927

Note: The number of observations, i.e. 1036 only refers to the number of Small and Medium Enterprises (SMEs) included in the sample, and the sample does not include any large scale firm

Table 5.5 shows the results of applying the same regression technique on data collected from the SMEs of India by the World Bank. The table reveals that access to land, customs and trade regulations and practices of competitors tend to be significant variables in determining the amount of sales of the SMEs. Here, the base category is transport services, and compared to this base category, the previously mentioned constraints only have statistically significant differences. This result is not in line with the result derived from the earlier general analysis on India, and also it does not have any similarity with the econometric findings of the data on Bangladesh.

Table 5.5: Regression results for India

Dependent Variable: Log of Sales

Independent Variables	Coefficient	Standard Error	t	P > |t|	[95% Confidence Interval	
Log of Labor	0.924812	0.101951	9.07	0.000	0.724152	1.125471
Access to Finance	0.373414	0.343115	1.09	0.277	-0.30191	1.048736
Access to Land	0.988316	0.405161	2.44	0.015	0.190876	1.785756
Business Licensing and Permits	0.630453	0.45419	1.39	0.166	-0.26349	1.524392
Corruption	0.538801	0.50428	1.07	0.286	-0.45372	1.531328
Crime	-0.16238	1.1097	-0.15	0.884	-2.3465	2.021739
Customs and Trade Regulations	1.666455	0.547118	3.05	0.003	0.589613	2.743296
Electricity	0.501881	0.300075	1.67	0.096	-0.08873	1.092491
Inadeqately Educated Workforce	1.039391	0.915124	1.14	0.257	-0.76176	2.840544
Labor Regulations	0.692418	0.443251	1.56	0.119	-0.17999	1.564826
Political Instability	0.691895	0.90482	0.76	0.445	-1.08898	2.472766
Practices of Competitors	1.023597	0.392496	2.61	0.01	0.251084	1.79611
Tax Administration	1.108141	1.124679	0.99	0.325	-1.10546	3.321742
Tax Rates	1.048664	0.442305	2.37	0.018	0.178117	1.919212
Gujarat	-0.0579	0.28031	-0.21	0.836	-0.60961	0.493807
Tamil Nadu	0.688136	0.280917	2.45	0.015	0.135232	1.241039
Delhi	1.961681	0.303629	6.46	0	1.364076	2.559287
Andhra Pradesh	0.812781	0.27516	2.95	0.003	0.271209	1.354352
Constant	12.41847	0.393788	31.54	0	11.64341	13.19352

Number of Observations: 308	R-squared: 0.4166
Prob. > F : 0.0000	Adjusted R-squared: 0.3803

Note: The number of observations, i.e. 308 only refers to the number of Small and Medium Enterprises (SMEs) included in the sample, and the sample does not include any large scale firm

Table 5.6 shows the regression results of applying econometric techniques on data of SMEs of Pakistan.

Table 5.6: Regression results for Pakistan

Independent Variables	Coefficient	Standard Error	t	P > |t|	[95% Confidence Interval	
**Dependent Variable: Log of Sales**						
Log of Labor	1.253171	0.195736	6.4	0.000	0.866262	1.640081
Islamabad/Rawalpindi	2.561849	0.530469	4.83	0.000	1.513275	3.610423
Karachi	-0.50732	0.572904	-0.89	0.377	-1.63977	0.62514
Political Instability	0.276843	1.799389	0.15	0.878	-3.27999	3.833681
Inadequately Educated Workforce	-1.57568	2.95222	-0.53	0.594	-7.41131	4.25995
Electricity	-1.12983	1.831052	-0.62	0.538	-4.74926	2.489595
Customs and Trade Regulations	-5.75066	2.219433	-2.59	0.011	-10.1378	-1.36352
Crime	0.385166	1.903996	0.2	0.84	-3.37845	4.14878
Corruption	0.224887	2.270957	0.1	0.921	-4.2641	4.71387
Business Licensing and Permits	-2.68254	3.096424	-0.87	0.388	-8.80322	3.438135
Access to Land	-1.21333	2.125833	-0.57	0.569	-5.41545	2.988786
Access to Finance	-0.51634	2.445723	-0.21	0.833	-5.35078	4.318102
Constant	13.7323	1.999005	6.87	0.000	9.780883	17.68372

Number of Observations: 156	R-squared: 0.4001
Prob. > F : 0.0000	Adjusted R-squared: 0.3497

Note: The number of observations, i.e. 1036 only refers to the number of Small and Medium Enterprises (SMEs) included in the sample, and the sample does not include any large scale firm.

In this case, only customs and trade regulations is found to be statistically significant using the same base category as in the previous cases, while the rest do not have significant enough impacts. This result is not expected, however, given the importance lack of electricity received in the general analysis of the constraints in Pakistan. Maybe there are other constraints which the Pakistani entrepreneurs failed to identify, but which hamper their sales very much.

5. Major Findings

The analysis of the data has proved that there are a number of constraints which are hampering the growth of SMEs in Bangladesh, Pakistan and India. However, some constraints are more severe than the rest, at least according to the respondents of the survey administered by the World Bank under its enterprise surveys program. Moreover, the severity of the constraints may vary from country to country.

One constraint which receives much attention especially in Bangladesh and Pakistan is the lack of electricity. Both in the general analysis and in the econometric analysis in some cases, lack of electricity seems to be a very severe obstacle which can hamper the sales of the products as well. Most of the respondents of India, Pakistan and Bangladesh have indicated lack of electricity to be the main barrier towards successful SME growth. This indicates the shortage of electricity supply in these parts of the world, indicating that there is a need for a much better supply and production of electricity for SME development. The access to better power supply also needs to be made available for the SMEs in the countries. Also, tax rates seem to be another obstacle for the SMEs of Bangladesh, as most of the SME owners surveyed identified it as the most severe problem. Many of the Bangladeshi SME owners identified political instability as another serious problem as well.

The next constraint which has received much attention throughout this analysis is access to finance. For SMEs especially, this seems to be a very big problem and is also seen to be hampering their sales in some cases. No doubt, lack of access to finance can pose very severe problems for any business, and SMEs in South Asia tend to have little or no access to formal sources of finance, be it capital market or money market. Banks have specialized SME loans, but these are not sufficient. The area of SME loans need to be further enhanced, as financing needs are one of the most important.

Corruption has been a big problem in South Asia, particularly in the countries under study. But corruption does not seem to have a very severe impact on SME growth since the respondents of the survey administered by the World Bank under its Enterprise Surveys Program have not identified corruption in general to be as severe a problem as electricity and access to finance. Practices of competitors have received particular interest from the respondents of India especially, where many of them have indicated it to be one of the barriers to business growth. There were also other constraints mentioned by the respondents of the survey, but their opinions about those constraints seem to be divided.

The general analysis also showed that compared to the Bangladeshi and Pakistani respondents, a smaller percentage of Indians identified electricity and access to finance as the most severe constraint for operating SMEs. This is indicative of the fact that in India, the financial institutions along with policy initiatives of the government have managed to make SME financing more available for entrepreneurs. Also, India has been able to provide better power supply to its SMEs than the other two countries under study.

Customs and trade regulations in both India and Pakistan are having negative and significant impacts on sales, as shown by the regression results. This means

that the countries need to follow pro SME policies and eliminate any kind of tariff or non-tariff barrier for promoting and developing the SME sector.

6. Policy Implications

Although the study may not be the most comprehensive study of all, it still has some strong implications for policy. One of those implications is that, the development of SMEs in the countries under study, especially in Bangladesh and Pakistan, depends largely on how the governments of those countries deal with the ever growing demand of electricity. If the countries cannot ensure proper electric supply to the SMEs, then this sector's growth will most certainly be hampered.

Another very clear policy implication is that the access to SME financing needs to be improved. There are many banks in India, Pakistan and Bangladesh which give SME loans, and many Microfinance Institutions (MFIs) also give loans under easy conditions for starting and operating SMEs. Their outreach needs to be expanded dramatically, and governments need to focus on better policy initiatives to help this thriving sector in availing better sources of financing.

Among the other constraints, trade barriers and customs regulations are having significant impacts on sales. So, these trade related policies need to be pro-SME policies, so that SMEs can grow enough to export in the foreign markets. Political instability and tax rates came out as the most severe problems in Bangladesh, so these problems need to be handled carefully.

7. Limitations of the Study

The main limitation of this study is that it is based on the surveys conducted by the World Bank, and so this study has only considered the measurable constraints which were considered by the World Bank in their questionnaires. The World Bank, however, included these constraints only because they are easily measurable and because, according to them, these are the basic problems any business could face in any part of the world. Still, the limitations of the study include not being able to quantify the effect of lack of technology, lack of access to market, lack of access to raw materials, etc. Only partial effects of these constraints were measured. For example, area dummies represent one dimension of access to markets, since access to markets varies according to area of operation. But lack of technology is mostly not measurable due to unavailability of data, and quantifying lack of raw materials is a difficult task as well.

Also, this study makes use of the definition of SMEs used by the World Bank in conducting the surveys under the Enterprise Surveys program of the World Bank. Country-specific definitions could not be used for the analysis presented in this study due to problems of comparability, as described in section 4.1.

The lack of adequate data on SMEs is another drawback of this study. The only comprehensive firm level data on the constraints faced by the SMEs was the one used in this study. The rest are either qualitative studies providing little or no data, policy notes and limited data on the number of different SMEs and their productions.

8. Conclusion

Bangladesh, India and Pakistan are three different countries situated in South Asia, with varying levels of economic development. But the SMEs of these three countries seem to have some common problems. One of them is lack of electricity, another being lack of access to finance. These constraints not only are identified as one of the main constraints hampering the growth of SMEs in the three countries under study, but also these constraints seem to have negative impact on the growth of the sales of the SMEs, as revealed by the econometric analysis. Now, these three South Asian countries have been plagued by power shortages for decades now. The governments of these countries have taken many steps to ensure proper power supply in many cases, but this problem is sustaining. Another problem – lack of access to finance – has also been a matter of concern for SME development. Banks and Microfinance Institutions have developed much in the recent decades in these countries, but that has not dramatically improved the situation, as many SME owners still believe access to finance as one of the major problems of SME development, especially in Bangladesh and Pakistan. Therefore, since these countries share some common problems which hamper SME growth, maybe it is time for a collective and concerted effort to eradicate these constraints and help boost the development of SMEs in South Asia.

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