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The Current State and Future Directions for Small and Medium Manufacturing Enterprises (SME) in the Manufacturing Sector in Bangladesh

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EXECUTIVE SUMMARY

International experience with small and medium enterprises (SMEs) suggests that the sector can be an important driver of employment, investment, exports and economic growth. Such enterprises are especially crucial in developing countries where growth of large scale enterprises might be constrained by technology, finance, skills, external competition and domestic institutions. A healthy SME sector can provide the bridge for transition from an agrarian economy to a modern manufacturing and service based economy.

The economic development of Taiwan is an important example of the potential of SMEs. The SMEs can also be seen as an important element of the growth of large scale enterprises through forward and backward linkages. Thus, co-production arrangements between large scale manufacturing and SMEs could be instrumental in spurring the expansion of large enterprises while also providing the major source of employment. The industrialization of Japan and Korea arguably provide the best examples of this potential. The transition of some formerly centrally planned developing economies, like Vietnam and China, and extremely regulated economies, such as India, towards a more market driven framework along with deregulation – with an emphasis on facilitating a vibrant private sector oriented economy – are other examples of how business deregulation and process simplification could reduce transaction cost and spur the growth of small businesses in many developing countries.

SMEs can also serve as a learning ground for acquisition of technology and skills by getting connected to the global manufacturing production vertical value chain. Developing countries like Bangladesh have a natural advantage in being endowed with an abundance of under-utilized low cost labor. With minimum training this factor endowment advantage could be converted to development by linking appropriately with the global manufacturing value chain. The success of China's industrialization is an important example of this role.

Despite this potential, not many developing countries including Bangladesh have been able to reap this benefit. There are many reasons for that. The issues range from defining and monitoring SMEs to providing the right policy environment. Countries define and identify SMEs differently and as such policy practices differ among countries. Some established guidelines define SMEs in terms of fixed investment, head-count (the number of employees), annual sales and total assets. The lack of proper classification of SMEs and the absence of consistent data hamper policymakers' efforts to provide an accurate picture of the role of SMEs and how these might be nurtured.

In Bangladesh, the varying definitions adopted over time, the lack of a proper baseline, the lack of updated data, and the lack of quality research to follow up on the performance of SMEs have resulted in confusing and outdated information on even such basic parameters as the number of enterprises, the types of SMEs, value added and growth, employment size and growth, capital

base, investment, product composition, technology and source of market. In the absence of such basic data, it is impossible to do a proper diagnostics of what ails this sector and to identify the policy and institutional reforms to be developed to strengthen this critical economic activity. Furthermore, without a proper baseline and follow up on performance (monitoring and evaluation or M&E) it is impossible to know where all the financial assistance provided by the government and donors through various schemes including those supported by the Bangladesh Bank is going and what the impact of these efforts are.

The objective of this concept paper is to develop a research agenda for the SMEs in Bangladesh with a view to helping the government develop a proper framework for policy and institutional support to dynamize the role of SMEs in development. The focus of the paper is on manufacturing sector SMEs, although there is significant overlap and some of the research is also relevant for non-manufacturing SMEs. Also, micro-enterprises are excluded. This is done to make the proposed research agenda manageable. It is likely though that many issues and challenges that constrain the small enterprises will be also relevant to the micro-enterprises. It is always possible to design similar research for micro-enterprises once this research focused on small and medium manufacturing enterprises is done properly.

The paper deals with issues relating to the proper definition of SMEs based on international practice, the international experience with SMEs drawing on selected good practice examples, the experience of SMEs in Bangladesh based on available information and review of selected studies, and the implications for the research agenda for SMEs in Bangladesh. The research agenda pays specific attention to the need for proper definition and baseline data, frequently updating the database, preferably on an annual cycle, the need for proper diagnostics, and the need for a thorough conduct of M&E.

A detailed review of cross-country experiences as well as case studies shows the potential of SMEs for development. Yet, in view of the definitional differences where a small enterprise in one country is a large enterprise in another owing to definitional variations, it is difficult to aggregate all experiences for use in Bangladesh. Nevertheless, there are areas of experience where the policies and principles transfer over to the Bangladesh situation. Seen from this broader perspective, several important lessons emerge. These include:

- The potential of SMEs in economic development is best demonstrated by the examples of Japan, Korea, Taiwan, Malaysia and China. SMEs have contributed admirably to employment, investment, value-added and exports in these countries. Importantly, they have played a major role in helping the emergence of a modern manufacturing sector in the concerned countries.
- The production sharing partnership agreements between large and small enterprises in Japan, Korea and Malaysia suggest a pattern of manufacturing development that merits serious attention of policy makers in developing countries including Bangladesh. This partnership has been particularly helpful in supporting the exports of SMEs.

- Regulatory environment constraints including trade policy biases can significantly affect the relative growth of SMEs. In particular, the anti-export bias of trade policy can hurt the growth of SMEs. Thus public policy must be geared towards minimizing such constraints as they can easily determine the prospects of SMEs.
- SMEs have been a fertile ground for learning and technology transfer especially in China and Malaysia through strategic production sharing agreements with international firms. This is a major finding that has important policy bearing for Bangladesh. Getting connected to the international vertical production chains can provide a major impetus to upgrading SMEs in Bangladesh.
- A range of targeted support programs could be helpful in developing SMEs. These include programs for financial support, technology transfer, skill development, industrial zones, and fiscal incentives.
- Institutions are very important to foster the growth of SMEs. These include dedicated government agencies and supportive legal framework. Japan's experience is particularly illustrative of how strong institutional support can guide the development of SMEs
- Monitoring and evaluation of performance of SMEs is essential. This is necessary in order to understand the constraints and gear public policy accordingly. It is also necessary to evaluate if the support programs are achieving their intended objectives. Again, Japan's experience in this regard is particularly instructive. Updated database on basic structure of SMEs and performance indicators is necessary to determine how SMEs are performing.
- Research on the SME policy agenda is necessary to inform public policy on its effectiveness and how it may change to adapt to the changing national and global economic development. Public-private partnership on this is important. The government often does not have the capacity to develop the research agenda, but it can tap the resources in the private research institutions through financial partnerships. This is a missing agenda for the entire manufacturing sector.

The review of international experience with SMEs suggests that these enterprises can play a major role in fostering development in labor intensive low income countries. However, this role is not automatic or accidental. This requires sound policy and institutional support. The experience with SMEs in Bangladesh shows that the country is far behind in harnessing this true potential. However, it is premature to jump to a policy framework conclusion without doing a proper diagnostics about the nature of the sector in Bangladesh and its major constraints. The policies and institutions will also need to be tailored to the specific requirements of the SMEs in Bangladesh, which requires a careful review and evaluation of the various policies and programs. In the absence of solid performance of SMEs, it would appear that Bangladesh may have been wasting a tremendous amount of effort and resources in the spurring this sector. A proper baseline data on the structure of SMEs and a proper M&E would have easily showed the low effectiveness of the underlying policies.

So, a proper research on the subject of SMEs is imperative to inform the formulation of sound policies and institutions for supporting SMEs in Bangladesh. Based on the review of the international experience and the limited knowledge in Bangladesh on the state of SMEs, the research agenda would constitute the following:

- Drawing on international experiences, adopt a proper definition of SMEs and stick to this definition for measuring inter-temporal M&E of performance.
- Develop a proper baseline data on the structure of SMEs. As a minimum, this baseline data must include such important characteristics as output, product mix, value added, capital stock, employment, product market (domestic versus exports, investment and technology.
- The baseline data must be updated on an annual cycle.
- Undertake a proper diagnostics of the key constraints based on the baseline data.
- Explore possible ways to link SMEs with domestic and international manufacturing value-added chain.
- Analyze the role of regulatory policies, trade policies; financial sector policies; technology; skills, infrastructure supply etc. for aiding the sustained growth of SMEs
- Explore options for attracting direct foreign investment in the SME sector
- Conduct research on proper institutions for supporting SMEs.
- Develop a solid M&E effort for evaluating the efficacies of the various policies and support programs for spurring SMEs

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a) Definition issue: Bangladesh has used various definitions of SMEs contemporaneously as

well as over time. Thus, there was a lack of uniformity in the definitions put forward by the Bangladesh Bureau of Statistics (BBS), those used in the industrial policies and by the Bangladesh Bank. At present, however, a uniform definition is adopted as per the Industrial Policy Order 2010, which classifies SME based on thresholds of asset size and employment size. Being more specific, in the manufacturing sector, medium enterprises are categorized as firms with assets worth Tk 100 to 300 million (minus land and factory building, and including replacement value) and/or labour force of 100 to 250 workers. Additionally, small enterprises are those with assets worth Tk 5 to 100 million and/ or with a labour force of 25 to 99 workers. Likewise, micro enterprises are those with assets worth Tk 500,000 to 5 million and/or 10 to 24 workers or less, and cottage enterprise are those with assets worth Tk 500,000 to 5 million and/or labour force of 10 to 24 workers or less. In the service sector, medium enterprises are firms which employ 50 to 100 and have assets worth Tk 10 to 150 million. Furthermore, small enterprises are categorized as those which employ 10 to 25 and have assets worth Taka 500,000 to 10 million, and micro enterprises are firms which employ 10 or less people and have assets worth Tk 500,000 or less.

Now, while identifying a uniform definition is a positive development, moving away from the BBS 2001 definition is likely to undermine the comparability of observations. This will make the evaluation of the SME sector across time troublesome, since existing data on SMEs in the 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries use employment thresholds in BBS 2001. Moving forward, it will be helpful to adopt a uniform definition that is also consistent across time, given a time series database of key performance indicators will also be helpful to institute a proper monitoring and evaluation (M&E) system to measure the impact and effectiveness of public policies and programs.

The main message that emerges from a review of definition of SMEs used internationally is that from a pragmatic point of view, using the employment threshold appears to be most useful. Such data are easily available, measurement is not much of a problem and monitoring and updating changes are easily done. Using supplementary data on assets or turn-over might be helpful provided such data can be easily obtained, properly measured and regularly updated. In the context of Bangladesh where data is scarce, the concept paper suggests to use the employment data as the benchmark. Also, the threshold used for defining SMEs will likely vary over the long term as a country grows and its manufacturing base matures. In this context, the threshold suggested by ILO appears reasonable. Thus, a microenterprise may be defined as a firm with less than 10 workers; a small enterprise is a firm with employment between 10 and 49 and a medium enterprise between 50 and 99. Large enterprises are those with workers 100 or above.

Over time as a consistent time series data base emerges, other characteristics such as assets or sales could be introduced as a part of the SME definition.

b) Database: While the evolution of definition of SMEs is not unique to Bangladesh, on

major problem is the previous lack of uniformity in definition contemporaneously. An even bigger problem is the lack of a systematic time series data on the growth and evolution of SMEs that makes research and evaluation of policy effectiveness nearly impossible. The main sources of information on SMEs are:

- The BBS
- The Bangladesh Small and Cottage Industries Corporation (BSCIC)
- The banking sector
- Special surveys done by researchers

Among these sources, the BBS is the most consistent and reliable data source. Even though small and cottage industries are an important source of livelihood and entrepreneurship, the data on such enterprises are quite patchy. The agency in charge of promoting small and cottage industries is the Bangladesh Small & Cottage Industries Corporation (BSCIC) which carries out nation-wide surveys of the sector at certain time intervals. However the last survey carried out by the BSCIC was in the late 1980s. The banking sector does not have a systematic database to do

any meaningful analysis of SMEs, except to indicate how much credit has been channeled to these enterprises. The definition used for loan classification is the one provided by the Bangladesh Bank and all SMEs are covered based on the loan size irrespective of the nature of business.

Traditionally the BBS does two types of surveys that contain data on SMEs: First it conducts a Census of Manufacturing Industries (CMI) on a ten-year cycle. The last Census was done in 2001. Second it periodically updates the Census by doing Survey of Manufacturing Industries (SMI) on a three-year cycle. The last SMI was done in 2006, which was used to update the 2001 CMI to 2006. The next full CMI is planned for 2012. While the CMI and SMIs are the best available database on SMEs, there are many problems:

First, the definition of SMEs has changed frequently. As a result, the data are not comparable over time. The only comparable time series is from 2001-2006.

Second, the database is quite outdated. The last update was done in 2006.

Third, the depth and quality of available data makes it difficult to do serious quantitative analysis of the role, evolution, constraints and prospects of SMEs.

As noted, there is no single database that provides a listing of business enterprises that is comprehensive, reliable, and has been recently compiled. The absence of such a listing therefore precludes developing a robust sampling methodology. A cost effective alternative is to utilize existing databases, despite their limitations, in developing a sampling methodology. The suggested methodology for updating the population and drawing the sampling frame for the full diagnostics study is described below. It is important to note that adopting a uniform definition of SME upfront is important for evaluating the SME sector across both space and time. As noted above, this paper advocates the use of employment as the basis for defining SMEs (less than 10 as micro; 10-49 as small; and 50-99 as medium). This also has the advantage that the 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries use the same definition.

c) Diagnostic research: Establishment of a comprehensive baseline database is a first step towards a comprehensive diagnostic study of the past performance, constraint, and solutions for moving forward. The two are inter-related. The contents of the baseline survey must be driven by the needs of the diagnostic study. The diagnostic study must be able to provide solid analysis of a range of questions including:

- What has been the past performance of the manufacturing sector SME sector in terms of key indicators such as contribution to GDP, employment, exports, investment, labor productivity and total factor productivity?
- How does this performance compare with performance in other developing countries, including performance in the dynamic economies of China, India, Vietnam, Malaysia, Thailand, Taiwan, Korea and Japan (at comparable stages of development)?

- What are the key constraints to the growth of the manufacturing SMEs in Bangladesh?
- How has the policy framework for SMEs evolved in Bangladesh?
- How adequate are the policies and what changes are needed to dynamize the manufacturing SMEs in Bangladesh?
- Drawing on the experience of successful countries, what kinds of institutional support will be required to boost the performance of SMEs?

The diagnostic study would draw on the comprehensive baseline survey, the international good practices and the relevant analysis of existing SME studies. This way, the diagnostics and solutions will be based on the best possible knowledge.

d) Monitoring and evaluation: A review of various government documents, especially the annual industrial policies suggest that successive governments have emphasized the importance of manufacturing and other SMEs for growth, employment and poverty reduction. The Sixth Plan's growth and employment targets hinges significantly on the ability to boost manufacturing SMEs. Yet, the limited evidence from the past suggests that the contribution of SMEs is much less dynamic relative to successful countries like China, Korea, Japan and Taiwan and certainly much below potential. A key reason for this is the absence of a results-based monitoring and evaluation framework. A range of policy instruments have been used to spur the growth of the SMEs. In particular, emphasis has been placed on the availability of financing at low cost on the presumption that financing is a key constraint to the expansion of SMEs. For example, the Bangladesh Bank manages three specialized windows for SME financing at discounted interest rates. Additionally, the Bangladesh Bank sets credit targets for SMEs through the commercial banking sector.

While the objective of supporting SMEs is laudable, there is very little analysis about the effectiveness of the various policies in supporting SMEs. A large volume of subsidized and un-subsidized financing has been targeted to SMEs. But there is no follow-up to learn about the success of these financing schemes. For example, there is no systematic effort to find out:

- Where has all this money gone? Who has been the ultimate beneficiary?
- What has been the impact of these financing in terms of contribution to GDP, employment, investment, and exports?
- How sustainable are these subsidized credit schemes?
- How can these financing schemes be made more effective in terms of results?

The lack of a proper monitoring and evaluation (M&E) framework is a serious obstacle to determining the efficacy of policy and financial support to SMEs. In the absence of a baseline data and follow-on data focused on outcomes, it is impossible to even know if the financial support is reaching the targeted beneficiaries and achieving the intended results. For example,

there is some anecdotal evidence that funds allocated to SME programs were diverted to stock markets during the frenzy upswing of the stock market in 2010.

In the absence of a results-based SME, giving financing in the name of SME is almost tantamount to dropping money from helicopter. A top policy priority is to institute a proper M&E framework that will review the effectiveness of all financial support programs to SMEs. In general, there is an urgent need to do proper reviews of existing policies, programs and institutions for SME expansion with a view to understanding their effectiveness and what could be done to make them more effective. Establishing a results-based M&E framework for SMEs is a major priority for future research.

Monitoring and evaluation systems can be classified into two groups: (i) traditional implementation-focused M&E systems and (ii) results-based M&E systems. The former tries to answer certain questions like whether the project mobilized required inputs or whether the project delivered intended outputs etc. The implementation approach focuses on monitoring and assessing whether a project, program, or policy has been executed successfully or not. However, this approach does not provide policymakers or stakeholders with a proper understanding of the success or failure of that project, program, or policy.

On the other hand, results-based M&E systems are designed to address the questions like, what are the goals of the organization, whether they are being achieved, in which way the achievement can be proven etc. The key elements of results monitoring are: (i) baseline data for describing the problem/situation before the intervention has taken place, (ii) appropriate indicators reflecting outcomes, (iii) data on outputs and the knowledge of the mechanisms through which the intervention worked. Monitoring and Evaluation are both essential to analyze the outcome of intervention being reviewed.

The results-based M&E seeks to measure and analyze the impact of an intervention both at the micro level (a project or policy) and at the macro level (public investment program or the national development plan). Although there is no hard and fast rule for the best practice results-based M&E, the following steps outline the common framework of a results-based M&E:

- Conducting a readiness assessment to understand why a result based M&E is required.
- Selecting the outcomes to monitor and evaluate for determining the success and failure of a program.
- Selecting key indicators to monitor outcomes.
- Keeping track of the factors which would directly or indirectly affect monitoring.
- Analyzing the current trends, possibilities and previewing the status quo with the baseline data on the indicators.
- Capturing the inter-linkage of goals, outcomes, targets and strategies based on quality and diversity of the related inputs.

- Carefully selecting a pragmatic evaluation procedure to correlate the planned and actual trends of performance.
- Analyzing the results of evaluation procedure and reporting findings to the stakeholders.
- Sustaining the M&E system within the organization while internalizing the tested methods of M&E into the existing structure of management.

Doing a proper M&E requires proper information. The nature of the information required depends upon the scope of the M&E. Broadly speaking there are two types of M&E that may be necessary for the SME sector. At the macro level an important policy question is how the SME sector is performing overall. This type of macro M&E is best done on an annual cycle using a properly updated time series data on SMEs in general. The baseline database that needs to be established should be updated on an annual cycle using proper sample surveys. This database should be adequate to provide this macro review. A different kind of M&E is needed to answer questions relating to the effectiveness of specific policies or programs. In this case the annual macro data on SMEs will not be adequate and specific questionnaire and sample surveys will be needed to answer those questions. These are akin to micro-level M&E.

The Current State and Future Directions for Small and Medium Manufacturing Enterprises (SME) in the Manufacturing Sector in Bangladesh

A. Introduction and Overview

International experience with small and medium enterprises (SMEs) suggests that the sector can be an important driver of employment, investment, exports and economic growth. Such enterprises are especially crucial in developing countries where growth of large scale enterprises might be constrained by technology, finance, skills, external competition and domestic institutions. A healthy SME sector can provide the bridge for transition from an agrarian economy to a modern manufacturing and service based economy.

The economic development of Taiwan is an important example of the potential of SMEs. The SMEs can also be seen as an important element of the growth of large scale enterprises through forward and backward linkages. Thus, co-production arrangements between large scale manufacturing and SMEs could be instrumental in spurring the expansion of large enterprises while also providing the major source of employment. The industrialization of Japan and Korea arguably provide the best examples of this potential. The transition of some formerly centrally planned developing economies, like Vietnam and China, and extremely regulated economies, such as India, towards a more market driven framework along with deregulation – with an emphasis on facilitating a vibrant private sector oriented economy – have provided additional momentum to the development of small businesses in many developing countries (Harvie and Lee, 2003).

SMEs can also serve as a learning ground for acquisition of technology and skills by getting connected to the global manufacturing production vertical value chain. Developing countries like Bangladesh have a natural advantage in being endowed with an abundance of under-utilized low cost labor. With minimum training this factor endowment advantage could be converted to development by linking appropriately with the global manufacturing value chain. The success of China's industrialization is an important example of this role.

In view of multiple dimensions of the SME linkage with development, many countries have geared their public policy to support SMEs with a wide range of objectives. A summary of the types of objectives sought to be achieved through SME policies is provided in Box1.

Box 1: Categories of SME Support Policies

Macro objectives	I. Creation of Employment II. Economic Development III. Export Growth
Social objectives	I. Income Redistribution II. Poverty Alleviation in Developing Countries
Correction of Market Failure/ Inefficiency [static efficiency objectives]	I. Presence of Externalities II. Market Access Barriers III. Asymmetric Information IV. Small Number of Competitors V. Information imperfection VI. Leveling the playing field
Dynamic Efficiency objective	I. Promotion of Innovation II. Adoption of technology

Source: Author Compilation

Despite this potential, not many developing countries including Bangladesh have been able to reap this benefit. There are many reasons for that. The issues range from defining and monitoring SMEs to providing the right policy environment. Countries define and identify SMEs differently and as such policy practices differ among countries. Some established guidelines define SMEs in terms of fixed investment, head-count (the number of employees), annual sales and total assets. The lack of proper classification of SMEs and the absence of consistent data hamper policymakers' efforts to provide an accurate picture of the role of SMEs and how these might be nurtured.

In Bangladesh, the varying definitions adopted over time, the lack of a proper baseline, the lack of updated data, and the lack of quality research to follow up on the performance of SMEs have resulted in confusing and outdated information on even such basic parameters as the number of enterprises, the types of SMEs, value added and growth, employment size and growth, capital base, investment, product composition, technology and source of market. In the absence of such basic data, it is impossible to do a proper diagnostics of what ails this sector and to identify the policy and institutional reforms to be developed to strengthen this critical economic activity. Furthermore, without a proper baseline and follow up on performance (monitoring and evaluation or M&E) it is impossible to know where all the financial assistance provided by the government and donors through various schemes including those supported by the Bangladesh Bank is going and what the impact of these efforts are.

The objective of this concept paper is to develop a research agenda for the SMEs in Bangladesh with a view to helping the government develop a proper framework for policy and institutional

support to dynamize the role of SMEs in development. The focus of the paper is on manufacturing sector SMEs, although there is significant overlap and some of the research is also relevant for non-manufacturing SMEs. Also, micro-enterprises are excluded. This is done to make the proposed research agenda manageable. It is likely though that many issues and challenges that constrain the small enterprises will be also relevant to the micro-enterprises. It is always possible to design similar research for micro-enterprises once this research focused on small and medium manufacturing enterprises is done properly.

The paper deals with issues relating to the proper definition of SMEs based on international practice, the international experience with SMEs drawing on selected good practice examples, the experience of SMEs in Bangladesh based on available information and review of selected studies, and the implications for the research agenda for SMEs in Bangladesh. The research agenda pays specific attention to the need for proper definition and baseline data, frequently updating the database, preferably on an annual cycle, the need for proper diagnostics, and the need for a thorough conduct of M&E.

B. Role of SMEs in the International Context

International Convention Regarding Definition of SMEs

Numerous international development agencies have defined SMEs in various ways. Often also micro-enterprises have been subsumed under the definition of SMEs, although these enterprises are identified as a separate category. The Organization for Economic Cooperation and Development (OECD, 2004) points out that the characteristics of SMEs across countries reflect the social and cultural aspects in addition to the economic patterns. Such differing characteristics echoes the various criterions of SMEs adopted by the different countries – some refer to the number of employees, others use invested capital while the rest use a combination of the number of employees, invested capital, sales and industry type.

Reinecke and White (2004) of The International Labor Organization (ILO) use the simplest and most readily measureable definition of micro and small enterprises based on size of employment. According to this definition:

- Microenterprises are those that employ less than 10 workers.
- Small enterprises employ between 10 to 49 workers.

The International Finance Corporation (IFC, 2008) combines employment size with data on assets/sales and categorizes SMEs including micro enterprises into:

- Microenterprises, employing less than 10 people and whose total assets/turnover is less than $100,000 per year;
- Small enterprises, employing 10 to 50 people and whose total assets and/or annual sales are between $100,000 and $3 million; and

- Medium Enterprises, employing between 50 and 300 people and whose total assets and/or annual sales are between $3 million and $15 million.

However the IFC further uses a "proxy" definition when dealing with financial institutions – the size of the loans made to the enterprises is used as the proxy measure. For instance, Small Enterprises are defined as having a loan size of $10,000 to $100,000 while Medium Enterprises are defined as having sizes ranging from $100,000 to $ 1 million in less developed nations and $2 million in developed ones. Microenterprises have not been classified in terms of loan sizes.

The European Commission (EC, 2009) takes into account three indicators – staff headcount, annual sales and total assets. The EC states that in addition to the number of staff employed as being the prime indicator, an SME is classified into the categories of sales and assets ceilings. The EC defines Small Enterprises as those enterprises employing less than 50 people with annual sales or total assets not exceeding €10 million, while Microenterprises are described as those employing less than 10 people and with annual sales or total assets not exceeding €2 million.

The United Nations Industrial Development Organization (UNIDO, 2005) considers both the qualitative and quantitative indicators to define SMEs. Since the definition itself is a significant issue for policy formulation and implementation, the qualitative indicators are important to assess the underlying structure of the SMEs. Table 1 below summarizes the qualitative indicators suggested by UNIDO that may be used to differentiate between SMEs and large companies.

Table 1: Application of Qualitative Indicators

Category	SMEs	Large Companies
Management	• Proprietor-entrepreneurship • Functions linked to personalities	• Manager-entrepreneurship • Division of labor by subject matters
Personnel	• Lack of university graduates • All-round knowledge	• Dominance of university graduates • Specialization
Organization	• Highly personalized contacts	• Highly formalized communication
Sales	• Competitive position not defined and uncertain	• Strong competitive position
Buyer's Relationships	• Unstable	• Based on long term contracts
Production	• Labor intensive	• Capital intensive, economies of scale
Research Development	• Following the market, intuitive approach	• Institutionalized
Finance	• Role of family funds, self financing	• Diversified ownership structure, access to anonymous capital market

Source: UNIDO (2005)

UNIDO however acknowledges that defining SMEs in employment terms is less complicated due to its simplicity and the relative abundance of data. Turnover and assets data can also be

measured and monitored but problems arise in consistently measuring and monitoring asset values over time.

The World Bank along with CGAP (2010) came out with a data set on SME financing volumes across the world in a survey called *Financial Access 2010.* The database stated that loan size was used as a proxy for measuring an SME.

To summarize, the various definitions used internationally to identify SMEs are outlined in the Table 2 below. The international definitions have not distinguished between the thresholds for manufacturing and non-manufacturing activities. However, a distinction is made by the UNIDO between developing and developed countries.

Table 2: Alternative Definitions of SMEs

Organization		**Assets/turnover**				**No. of employees**				**Loan size**		
		Micro	**Small**	**Medium**		**Micro**	**Small**	**Medium**		**Micro**	**Small**	**Medium**
ILO						<10	10 to 49					
IFC		<$100,000	$100,000 to $3 million	$3 million to $15 million		<10	10 to 50	50 to 300		N/A	$10000 to $100,000	$100,000 to $1 million in LDCs; $100,000 to $2 million in developed nations.
European Commission (EC)		Up to €2 million	Up to €10 million	N/A		<10	<50	N/A		N/A	N/A	N/A
	Developing	N/A	N/A	N/A		<5	5 to 19	20 to 99		N/A	N/A	N/A
UNIDO												
	Industrialized	N/A	N/A	N/A			<99	100 to 499		N/A	N/A	N/A

Source: Author compilation

The main message that emerges from this review of definition of SMEs is that from a pragmatic point of view, using the employment threshold appears to be most useful. Such data are easily available, measurement is not much of a problem and monitoring and updating changes are easily done. Using supplementary data on assets or turn-over might be helpful provided such data can be easily obtained, properly measured and regularly updated. In the context of Bangladesh where data is scarce, it might be useful to use the employment data as the benchmark. In this context, the threshold suggested by UNIDO for developing countries with some modification for microenterprises appears reasonable. Thus, the present analysis advocates that a microenterprise may be defined as a firm with less than 10 workers; a small enterprise is a

firm with employment between 10 and 49 and a medium enterprise between 50 and 99. Large enterprises are those with workers 100 or above.

Role of SMEs from International Experience: Cross-Country Experiences

Various studies have highlighted the impacts of SME in economic development based on country experiences[1]. The UNIDO study of 2005 revealed that SMEs are able to reduce the economic disparities between urban and rural areas. The study suggested that SMEs are important for economies in transition from an agriculture-led to an industrial economic system. The rationale is that such SMEs may provide opportunities for value-adding processing activities and in the process generate sustainable livelihood for many. UNCTAD (2001) highlights the role SMEs played in the development of the leading Asian economies. The report suggests that the growth-oriented medium-sized enterprises had a penchant to adopt modern technology and training and to serve very specialized niche markets. There had been a high incidence of inter-firm relationships leading to a fostering of mutual exchanges of information and knowledge between firms. OECD in a 1997 paper showed that SMEs contributed between 25 and 35 percent of the world manufactured exports. In terms of employment, within OECD countries, SMEs account for more than 90 percent of firms and 60-70 percent of employment (OECD, 2000). Likewise, as indicated from the available data for the Asia-Pacific Economic Cooperation (APEC) economies, SMEs employ a significant proportion of the labour force in both developed and developing economies (See Table 3). Additionally, they also constitute a significant proportion of business enterprises (see Table 4).

Table 3: Contribution of Micro, Small and Medium Sized Enterprises to Private Non-Agricultural Employment, Selected APEC Countries (%)

	Micro (<5 employees)	Small (5-19 employees)	Medium (20-99 employees)	All SMEs
Australia	25.9	20.9	19.2	66.0
Hong King, China	31.1	13.0	24.8	59.4
Japan	13.1	29.9	26.9	69.9
Korea	31.2	11.3	36.2	78.7
Mexico	36.2	13.9	15.2	65.2
New Zealand	23.0	18.0	19.0	60.0
Peru	62.5	16.6	8.8	87.9
Philippines	36.7	25.8	7.1	69.5
Singapore	7.1	16.8	19.2	43.1
USA	5.2	13.6	17.9	36.7

Source: Hall (2002)

[1] Cross-country evidence is also indicative that there is strong positive association between the importance of SMEs and GDP per capita growth (Beck, Demirguc-Kunt. Levine, 2005). Nonetheless, the authors do mention that this finding is reflective of a causal role, as the result s might suffer from reverse causation and omitted variable bias. Even so, the evidence does suggest that large SME sector is an important characteristic of fast growing economies.

Table 4: Number of Private Non-Agricultural SMEs as a percentage of Firms, Selected APEC Countries (%)

	Micro (<5 employees)	Small (5-19 employees)	Medium (20-99 employees)	All SMEs
Australia	69.9	24.3	4.9	99.0
Chile	82.1	15.0	2.1	99.1
Hong King, China	86.8	7.6	4.9	99.3
Japan	56.5	34.7	7.4	98.7
Korea	72.7	17.8	8.6	99.1
Mexico	91.7	6.3	1.6	99.6
New Zealand	84.2	7.1	8.0	99.4
Peru	96.5	3.1	0.3	99.9
Philippines	91.1	8.2	0.4	99.6
Singapore	67.4	24.3	6.1	97.8
Thailand	79.0	18.4	2.0	99.4
USA	60.5	28.9	8.9	98.3

Source: Hall (2002)

The United Nations Office of the Special Adviser on Africa (2009) report points out the SME linkages with multinational corporations (MNCs) and how it impacts the development of SMEs. The report asserts that when MNCs invest in a country, they might acquire inputs from a local supplier, in this case an SME. The SMEs may benefit from this linkage – a strong channel is created whereby skills, knowledge and technology are transferred. An example of a linkage program was cited by the report, where a mining TNC linkage was started in South Africa. A small business initiative was started by the company called Anglo American in 1989 and the company's procurement department identified suppliers who can take part in the supply chains. Subsequently a transfer of skills and strategic guidance were given to those supplying firms. The program has invested in 54 SMEs and supports over 2000 jobs and therefore, this venture illustrates the success that SMEs might experience with such linkages with other larger companies.

The World Business Council for Sustainable Development (WBCSD, 2007) report states that well-managed SMEs can contribute to social stability and generate tax revenues. Such SMEs also serve as an important source of local supply and service provision to larger corporations – the SMEs have extensive local knowledge of resources. Developing countries in particular represent an untapped market for large corporations seeking to develop a new customer base.

Ayyagari et al (2003) assess the SME sector's contribution to total employment and GDP across the different income groups in the manufacturing sector over the 1990s. The sector's contribution to total employment in the low income countries were estimated to be around 18% while the high income countries were estimated to be around 57%. The SME share of GDP was somewhat similar as well – 16% in low income and 51% in the high income economies. An important

finding was that SMEs tend to have greater impacts in economies with higher levels of education, lower inflation rates and higher levels of financial development.

The Annual Report (2005) of the UN Economic Commission for Africa (UNECA) suggested a higher share of SME contributions to GDP in African countries. The SMEs and informal sector constituted around 90% of the businesses and contributed to 50% of the GDP. According to an OECD (1997) report, SMEs account for 60 to 70 percent of jobs in most OECD countries, with large shares in Italy and Japan and a smaller share in the United States. Between 20 and 80 per cent of SMEs are estimated to be active exporters. Furthermore, the countries also account for a greater share of new jobs, especially in countries like the United States and Netherlands.

An ILO (2006) report highlights the positive contribution of small enterprises to poverty reduction. The poor who start small enterprises create jobs and generate income for themselves and for the people they hire. More significantly, the poor benefit when the enterprises produce basic goods like food and clothing at low cost, keeping the cost of living at acceptable standards. In many cases it has been found that small enterprises provide basic services like water, sanitation and education – such SMEs plug in the gap left by the public sector. Reinecke and White (2004) review the role of micro and small enterprises in 7 countries (Chile, Guinea, Pakistan, Peru, South Africa, the United Republic of Tanzania and Vietnam). In all countries the micro and small enterprises absorb most of the labor force outside agriculture. They conclude that regulatory reforms that would encourage these enterprises to be registered and become a part of the formal sector could substantially boost the role of these enterprises in creating high income jobs. Mazumdar (2001) finds that the changing size structure in favor of SMEs in Korea led to a reduction in the degree of inequality. A more equal distribution of wages began to take place from 1976, illustrating that inequality began to be alleviated in Korea.

Selected Country Experiences with SMEs

While the broad overview of international experiences above provides an indication of the potential role and contribution of SMEs in economic development, it will be instructive to review in some detail the individual country experiences where SMEs have played a substantial role in supporting industrialization. These case studies will also provide information on the types of policies and support provided by the government to facilitate the SMEs. The case studies belong to two broad categories. In the first category are included countries that have successfully use SME policies as an instrument of industrialization. These include the examples of Japan, Taiwan, Korea, Malaysia, Thailand and China. The second group of countries includes those where emphasis has been placed on SME development but with much less strategic focus and consistency. This includes India and Vietnam. The record of SME performance in these countries is also positive but less dynamic than in the first group.

1. SMEs in Japan

Under "The Small and Medium Enterprise Basic Law" amended in 1999, SMEs in Japan were defined under the benchmarks shown in Table 5. With respect to the manufacturing sector, manufacturing SMEs are thus defined as companies whose capital or total investment does not exceed ¥ 300 million or a company whose regular workforce does not exceed 300 hundred people. This is a fairly expansive definition of SME. Not surprisingly, the share of Japan's manufacturing SMEs in the total number of business establishments had reached 99.0 percent in 2009 (Table 6). Large business establishments (defined as establishments employing more than 300 workers) accounted for a meager 1% of total business establishments in 2009.

Table 5: Definition of SMEs in Japan

Industry	**Small and Medium Enterprises**		**Small enterprises benchmark only**
	Capital	**No. of regular employees**	**No. of regular employees**
Manufacturing, construction, transport and other industries	Up to ¥ 300 million	Up to 300	Up to 20
Wholesale	Up to ¥ 100 million	Up to 100	Up to 5
Services	Up to ¥ 50 million	Up to 100	Up to 5
Retail	Up to ¥ 50 million	Up to 50	Up to 5

Source: Japan Small Business Research Institute (2009)

A more internationally comparable figure concerns small enterprises, defined as enterprises with employees of less than 20. These enterprises still account for a whopping 74% of all manufacturing sector SMEs. In terms of employment, the manufacturing sector accounted for 17% of total employment, of which small enterprises accounted for 24%; the medium enterprises for 48% and the remaining 28% by large enterprises. It can be inferred that despite Japan's rapid industrialization over the course of the 20th century, SMEs are still a crucial component in the economic transformation.

The structure of Japan's SME sector has changed over time. According to Urata and Kawai (2001), the number of SMEs declined in manufacturing and distribution, but continued to increase in services, construction, real estate, transport and communications. This pattern has been attributed to the changes in production structure from manufacturing to other services in the economy. With respect to the size distribution of SMEs, the smallest size group (one to four employees) SMEs witnessed a decline in their number in the mid 1980s, while the larger SMEs (5-299 employees) continued to grow in numbers.

Table 6: Size Distribution of Business Establishments in Japan, 2009

Type of Activity	Small and medium enterprises		Small only		Large business		Total	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Mining and quarrying	2910	99.8	2625	90.1	5	0.2	2915	100.0
Construction	583374	100.0	550284	94.3	259	0.0	583363	100.0
Manufacturing	533130	99.3	452989	84.4	3562	0.7	536692	100.0
Electricity, gas and water	4103	97.7	2542	60.6	95	2.3	4198	100.0
Information & communication	75305	96.7	48320	62.0	2596	3.3	77901	100.0
Transport and postal services	146749	99.4	105357	71.4	868	0.6	147617	100.0
Trading	1533323	98.6	1041378	66.9	22384	1.4	1555707	100.0
Finance and Insurance	94160	99.6	75723	80.1	363	0.4	94523	100.0
Real estate	407542	99.9	386415	94.8	281	0.1	407823	100.0
Scientific research & technical services	238327	99.3	178551	74.4	1700	0.7	240027	100.0
Accommodation and food	770669	99.0	522754	67.2	7602	1.0	778271	100.0
Entertainment and recreation	508687	99.7	422538	82.8	1475	0.3	510162	100.0
Education	166367	98.9	119317	70.9	1870	1.1	168237	100.0
Health	336219	97.7	152255	44.2	7909	2.3	344128	100.0
Compound services	35807	99.0	18460	51.0	358	1.0	36165	100.0
Others n.e.i.	359711	98.0	253189	69.0	7417	2.0	367128	100.0
Total	5796383	99.0	4332697	74.0	58744	1.0	5855127	100.0

Source: Japan Small Business Research Institute (2011)

SMEs play an important role in exports. According to the Ministry of Economy, Trade and Industry (METI) survey of 2007, 26.7% of SMEs contribute to Japanese exports. Furthermore, SMEs in Japan have played an important role as subcontractors, whereby large firms rely on SMEs to supply parts and other components. These linkages are predominant in the manufacturing sector. The authors point out that the competitiveness of Japanese automobile, electronics and other machinery production can be credited to some extent to an efficient subcontracting system involving the SMEs. Efficiency for industries such as textiles, general machinery, electric machinery and automobiles has also increased. According to a survey done by the SME Agency in 1987, around 55.9 percent of SMEs were involved in subcontracting. Benefits of such subcontracting include the avoidance of coordination failures by adjusting the required production levels. The subcontractors themselves gain from obtaining technical and financial assistance from the larger, "parent" firms. Regressions done by Urata and Kawai (2001) to analyze the determinants of entry rates of firms reveal that subcontracting/linkages have a positive impact on entry. The results suggest that such linkages enable SMEs to specialize in the process in which they have a competitive advantage and also obtain financial, technical and other expertise from the parent firms.

In addition, SMEs have played an important role in a number of regional production networks or clusters, and these have been a major source of economic activity for various regions in Japan. The subcontracting arrangements are more successful in such regional clusters. Tamangan et al (2004) points out that subcontracting has led to the flourishing of SMEs and small rural

entrepreneurs in Japan. The division of responsibility and resources between the small and large businesses has contributed to Japan's economic success – larger businesses share the production process, technology and innovation with the SMEs. New firms looking to start a business can avoid a significant initial investment since subcontracting allows them to specialize in a specific process they have a competitive advantage in. As such a healthy "paternalistic" relationship between the big businesses and the small businesses are fostered. The production process has been divided into small and specialized tasks and the larger firms have been able to use the efficiency of each subcontractor by allowing them to choose the scale of production appropriate for the task. Labor intensive production processes of textiles, clothing and vertical production processes like machinery industries are the ones to extensively use linkages.

Overall the recognized benefits of subcontracting were: 1) It saves costs to keep searching and selecting new suppliers, 2) It is a useful way of enhancing quality and reducing costs of the "parent" firm, and 3) It provides an efficient risk-sharing system between large firms and SMEs (Tamangan et al, 2004) . Several factors also led to subcontracting playing a prominent role in Japan. One factor was that the presence of large assemblers that manufactured products through assembly-type processes that stimulated the entry and growth of other firms to supply parts and related products. For instance, the machinery cluster in Komatsu led to firms in the area to shift from silk production to producing construction machinery. The second factor was the prior existence of supporting industries where clusters emerged. Before World War 2, the presence of an aircraft industry nurtured the network of supporting industries. After the war ended, Fuji Heavy Industries benefitted from the preexisting network in securing labor for production.

The Government of Japan plays a major supportive role in boosting the SME sector. The Government actively pursues the support agenda, reviewing its support policies on a regular basis. A survey conducted by the Small and Medium Enterprise Agency (SMEA) in 1999 by the Japanese government revealed a number of key findings. The three most significant obstacles identified were the lack of financial resources, lack of human resources and difficulty in developing a distribution network. Around 70 percent of potential entrants of a small and medium size had an income of 5 million yen or less and personal savings is one of the most common sources of financing for the SMEs. 80 percent of the newly established SMEs listed personal savings as the primary source of finance, along with contributions from family members and friends – 30 percent of new SMEs relied on the latter as a source of loans or investments. Approximately 40 percent of the new SMEs obtain loans from financial institutions, but acquiring loans proved difficult and in some cases the amount of loans obtained were lower than the requested amount. This is primarily due to bank's risk aversion and a reliance on fixed assets for collaterals. In addition to this, financial constraints are also hindering the capacity of Japanese SMEs to innovate, which is undermining its long-term growth potential. Finally, new SMEs also struggle in attaining the right human capital portfolio. This is because in Japan there has traditionally been a strong bias amongst the work force towards larger and stable employers.

To overcome such constraints, Japanese government has provided numerous institutional and policy support to SMEs. Under the umbrella of SMEA established in 1948, a law was enacted in 1956 with the aim of improving the productivity of SMEs by using modern equipment. Municipal governments began to provide loan funds to modernize equipment in their areas, along with the strengthening of the SME organizations. A new law implemented in the period 1963-1972 aimed to push for a modernization plan for industries involving SMEs and other measures to upgrade the industrial structure and competitiveness. In the mid 70s to early 80s, further institutions were established that aimed to develop management resources and improving technical skills and manpower resource.

Recent policies have strived to focus on SMEs in terms of their strengths in mobility, flexibility and the enterprising spirit. The SME Basic Law aims to promote such self-sustaining firms by promoting innovation and new business start-ups by: providing a credit guarantee system for the issue of corporate bonds or private bonds; and providing subsidies for the development of new businesses and SME-related research. The Japanese government has some support schemes such as providing financial assistance in the form of loans and subsidies for startup firms."Policy loans" from public financial institutions are an important source of financing for SMEs. As of 1997, policy loans have accounted for approximately 25 percent of outstanding balance of loans made to SMEs. Although such "policy loans" have been given to entrants, a significant amount has been made to established firms.

The SME sector also benefits from regular research and analysis of constraints and challenges faced by the sector. The Japan Small Business Research Institute (JBRI) provides research support to SMEs on a wide range of policy and institutional issues. It prepares reports on the state of SMEs on an annual cycle. The JBRI works in close contact and collaboration with the Ministry of Economy, Trade and Industry (METI).

2. SMEs in South Korea

SMEs in Korea are defined according to the "Article 2 of Framework Act on SMEs" and "Article 3 of Enforcement Decree of the Act". The definition of manufacturing SMEs is shown in Table 7 below. As in the case of Japan, Korea's definition of SMEs is rather expansive.

Table 7: Definition of SMEs in Korea

	SMEs		**Small Business**	**Microenterprises**
	No. of workers	**Capital & Sales**	**No. of workers**	
Manufacturing	Less than 300	Capital worth $8m or less	Less than 50	Less than 10

Source: Small and Medium Business Administration (SMBA, 2009).

As of 1997, small and medium enterprises share of manufacturing establishments amounted to around 99.1%, similar to the Japanese share of SMEs (Nugent and Yhee, 2001). The authors mention that during Korea's pursuit of rapid economic growth in the early 60s and early 70s, SMEs were neglected. With the adoption of the Small and Medium Industry Basic Act of 1966, the government extended support on a selective basis. The Korean Credit Guarantee Fund (KCGF) was created in the late 60s to facilitate the supply of bank credit to SMEs. A trading corporation was set up to assist SMEs in export marketing along with subcontracting linkages with the larger enterprises in the mid 70s. In 1979 the Small and Medium Industry Promotion Corporation (SMIPC) was established to provide technical assistance and training programs to SMEs.

As in Japan, the partnership between large enterprises ('chaebols') and SMEs has been a defining characteristic of industrialization in Korea. According to Regnier (1993), during the 1970s subcontracting represented around 20% of the total output of small firms. During the 80s, the relevant authorities realized that by developing small and medium-sized parts industries, the value added of Korean exports could increase. Therefore, subcontracting activities started in earnest, especially in equipment and technology oriented industries. The total number of small manufacturing firms involved in subcontracting rose from 16% in 1980 to 38% in 1986. In 1988, subcontracting was estimated to represent over 60% of total small business output in car manufacturing, 40% and 38% in electronics and machinery respectively. Regnier (1993) further suggests that subcontracting in Korea has been mainly based on orders from the large industry and has witnessed a sort of division of labour among the small firms.

More recently, Nugent and Yhee (2001) find that around 65 percent of firms with five to nine workers are involved in subcontracting activities. The smallest firms are more likely to subcontract "in" than "out". Korean subcontracting appears to be predominant in woven textiles and has attempted to have a more multi-tiered subcontracting system that aims to be more transaction cost-efficient; and at each tier the "principal" needs to contract with only a few contractors. Many SMEs involved in subcontracting receive support from the large enterprises in areas such as the provision of raw materials, technology and product design. The provision of raw materials for light industries such as textiles and leather is of diminishing importance while support for technology is beginning to gain significance. Other forms of support mentioned by Korean SMEs in linkages

The 1980s saw a shift to a stronger SME support system and policies. Credit funds for a specific business purpose were set up, for instance, to help rural industries, assist small high tech startups and help older SMEs update their technology. A system was established whereby "promising SMEs" could be identified and established and commercial and rural banks were further required to allocate specified percentages of their loans to SMEs. In addition, various tax breaks were afforded to SMEs. The 90s and 80s witnessed the establishment of various technical research centers, institutes and standards centers. Emphasis was placed on establishing complementarities

between the SMEs and the larger enterprises known as *chaebols* through the promotion of subcontracting and other linkages.

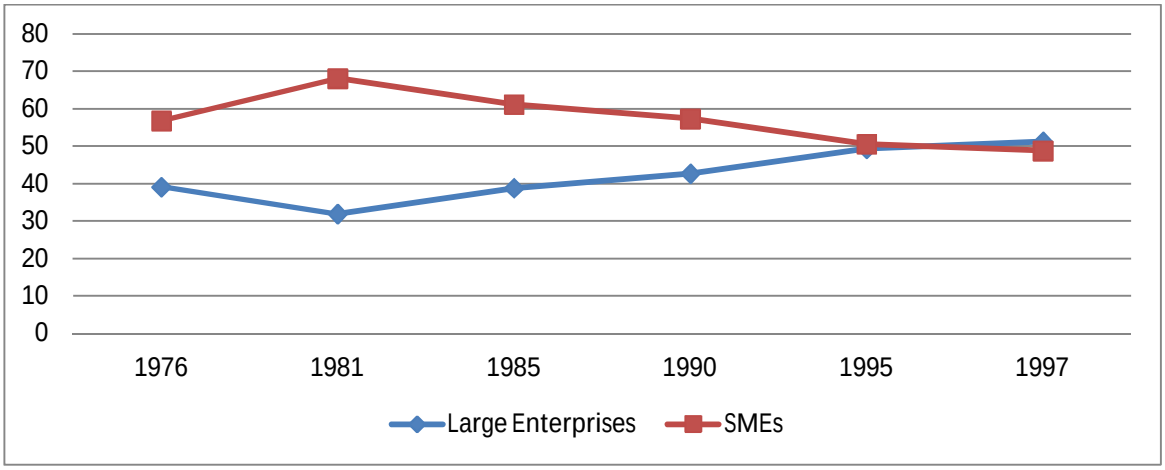
3. SMEs in Taiwan

Taiwan is perhaps the best example of fostering industrialization and development through SMEs. Household production was quite common in Taiwan in the 1960s and 1970s. The total number of enterprises in Taiwan had been estimated to be over one million, with 98% of them being SMEs as of 1997 (Chu, 1999). Chu (1999) states that Taiwan has a labour force of less than 10 million. This means that one out of ten is employed in an enterprise, big or small. Thus, the author suggests that business employment is widespread among the population and as such SMEs are quite common in Taiwan. The total number of SMEs has increased from 696,400 in 1983 to 1,020,000 in 1997 (Small Business Bureau, 1998).

According to the White Paper on SMEs in Taiwan (2006), Taiwan had revised its definition of SMEs in 2000. One system is based on the number of employed people while the second standard is based on annual sales or capitalization. SMEs are defined as those enterprises in the manufacturing, quarrying, construction and mining sector with a paid-in capital of less than NT$ 80 million or less than 200 regular employees. Further disaggregated, purely "small-scale enterprises" is defined as an enterprise with less than 5 regular employees (Small and Medium Enterprises Administration, 2010). Using a measure of SME as a firm with less than 100 employees, Chu (1999) notes that the SME share of manufacturing employment in Taiwan was 42.7% in 1966, declined somewhat over the next five years but then began to increase from 1971 and reached 58% in 1996. The share of firms with less than 10 employees has also increased from 1986 to 1996. The author concludes that the average size of the enterprises in terms of the number of employees has been declining in the past two decades.

The author also notes that in the manufacturing sector, the SMEs' share has not been as high when compared to other countries in the 60s and 70s. However, manufacturing SMEs has started to increase from the late 80s onwards. The Taiwanese SMEs have also been played an important part in the first stage of export-led growth. This to an extent is shown in Figure 1, which highlights that for almost two decades post 1975- SMEs played a dominant role in boosting Taiwan's export performance. In particular, during the early 1980s, export share of SMEs were more than 60%, and only in late 1990s large enterprises emerged as the prominent source of Taiwanese export.

Figure 1: Export Share of Taiwanese Enterprises



Source: White paper on SMEs in Taiwan 1998 MOEA

It has also been suggested that many of the labour-intensive works were done by the SMEs and home workers. Such SMEs have also been linked by an informal network and have also participated in subcontracting activities for large enterprises. Labour-intensive products like footwear were processed mostly by subcontracting SMEs. Therefore the final producer who assembles all the components and exports the final product does not necessarily have to be a large enterprise

The Taiwanese bicycle sector has been cited as an industry that has been dominated by SMEs and has been relatively successful (Chu, 1999). The sector began to grow under the import substitution policy of the 70s and in response to large export orders from the US around 1972; various SMEs were able to startup and emerge. As such a network of bicycle assemblers and parts producers were established due to the economies of agglomeration. The industry has been further assisted by government industry-promotion policies such as setting up and checking product and export standards and subsidizing R&D among other things. The bicycle industry is a good example of what a SME-dominated sector can achieve, when there are a right mix of policies and circumstances allowing a sector to flourish.

SMEs in Taiwan were able to develop quite rapidly due to some favorable policies and institutional factors. For instance, the rural infrastructure was well developed and therefore many rural communities had easy access to manufacturing employment and helped pave the way for SMEs to emerge. The SMEs were also helped by various export promotion measures of the government. The tariff rebate program, bonded factory warehouses and the exemption of various levies allowed exporters, especially smaller ones, to purchase equipment and other inputs at international prices. Furthermore, a system of export loan programs resulted in export financing being made available to SMEs. These SMEs usually have limited resources and therefore were helped to a great extent by these measures. The Taiwanese government also ensured that the informal market would provide financing to SMEs and in particular guaranteed the development of an active curb market. In addition, the government advocated this notion of “the living room

as the factory" to encourage home workers to contribute in export production (Chu, 1999). A host of production activities such as small-scale metal works, plastic products and other types of activities were carried out by such home workers. Furthermore the government was flexible in terms of zoning regulations and was accommodating towards profit-making, export-oriented activities.

4. SMEs in Malaysia

The definition of SMEs in Malaysia is laid out by the Small and Medium Industries Developing Corporation (SMIDEC)[2]. Two benchmarks are used, where manufacturing SMEs are defined as those with capitalization of less than 25 million Ringgit or employing less than 150 employees. The definition of Malaysian manufacturing SMEs is shown in Table 8.

Table 8: Definition of SMEs in Malaysia

	Micro-enterprise	**Small enterprise**	**Medium enterprise**
Manufacturing, Manufacturing-Related Services and Agro-based industries	Sales turnover of less than RM250,000 OR full time employees less than 5	Sales turnover between RM250,000 and less than RM10 million OR full time employees between 5 and 50	Sales turnover between RM10 million and RM25 million OR full time employees between 51 and 150

Source: SME Corp, Malaysia.

According to the statistics provided by the SMIDEC, SMEs accounted for 89.3 percent of all firms in the manufacturing sector in the year 2000 and contributed 29 percent of total manufacturing output, 26 percent of value added 32.5 percent of employment in 2003 (SMIDEC, 2004). Furthermore, the value added production from SMEs is projected to reach around 50 percent of total production in the manufacturing sector by 2020. Malaysia has faced a significant increase in total output due to an increase in local and export demand for electrical and electronic products and for machinery and equipment.

The majority of the small and medium enterprises in Malaysia are still concentrated in the traditional sectors of food and beverages, fabricated metal products, wood and wood products and basic metal. Value added per employee has grown at an annual rate of 6.4% for the period 1991 to 1996, with the major contributions coming from the subsectors of automotive, electrical and electronic products

In the late eighties and early nineties the small and medium industries did not have the production basis or the capacity to be a supporting industry for assembly or processing. Karikomi (1998) found that uncoordinated growth of processing/assembly enterprises resulted in weaknesses in the supply chain. There has been a dearth of supporting industries to provide parts and components for assembly and processing activities in industries, most notably in the

[2] The SMIDEC was converted to SME Corporation in October 2009

automobile and electrical and electronics industries. The government introduced a program known as the Vendor Development Program (VDP) to replicate the Japanese system of relationships between assembly firms and subcontractors. The plan was to create "anchor" companies designated by the government that would help nurture "vendor" companies, in this case, the SMEs that need special support to develop – the vendor companies would be given technical support and management assistance from the anchor companies. However the level of transactions remained low. The Japanese assembly firms in Malaysia for instance, continued to purchase a majority of the parts and components from Japanese subcontractors, not the Malaysian ones. Therefore according to Karikomi (1998) the linkages between foreign firms and local suppliers did not quite end up improving the supporting industry in Malaysia.

In another study, the positive growth in manufacturing SMEs since the early 1990s has been attributed to proactive steps taken by the enterprises combined with sensible government policies of incentive schemes, tax incentives, fiscal, monetary and administrative assistance to stimulate investment, R&D and human resource development (Saleh et al, 2006). Such small firms have also assumed a critical role in the industrialization program by reinforcing the backward industrial linkages over time.

In recent years, the government has developed industrial development programs to:

- Help develop local SMEs as manufacturers or suppliers of important components/ services to large-scale companies including multinationals.
- Help develop efficient and competitive SMEs producing high value added and quality products, components and services, both in the domestic and international market.

The government has further provided grants for the purposes of:

- Research and development
- Process Improvement
- Technology acquisition
- Quality certification
- Market development

In addition the government through the National Small and Medium Enterprise development council plays an important part in formulating policies to help the SMEs. The board consists of 18 key Ministries and agencies and is chaired by the Prime Minister – the council is the highest policymaking entity in charge of planning the future strategies for SME development.

5. SMEs in Thailand

SMEs in Thailand comprised around 40% of GDP in 2006 (Nagai, 2007). Employment by SMEs accounted for 76.7% of all employment in Thailand, except Bangkok in 2006. The export value of SMEs account for 29% among total exports (Nagai, 2007). The gradual expansion of

manufacturing in both urban and rural areas led to a development of the large urban industry since more and more SMEs were involved in subcontracting arrangements with bigger companies.

The Office of SMEs Promotion (OSMEP) in Thailand defines manufacturing and service sector SMEs jointly. The two benchmarks are once again in terms of the number of employees and capitalization. SMEs are thus defined as entities that have less than 200 employees or those that have assets greater than or equal to 200 million Baht (OSMEP, 2006). A detailed tabular representation of the manufacturing SME definitions is given in Table 9 below.

Table 9: Definition of SMEs in Thailand

Industry	Small enterprise	Medium enterprise
Manufacturing Industry	Enterprise which corresponds to any of the following; with employees of up to 50 or with assets of up to 50 million bahts.	Enterprise which corresponds to any of the following; with 51-200 employees or with assets of no less than 50 million bahts and up to 200 million bahts.

Source: OSMEP (2006).

The 1997 National Census revealed that the majority of the firms in Thailand are micro, small or medium. After 1997 the need to develop supporting industries for FDIs arose. Therefore around two-thirds of firms in the medium category and two-fifths of the firms in the small category are engaged in such supporting activities. The government has incorporated the SME basic law in the year 2000, as a part of an economic reconstruction policy after the economic crisis of 1997. Current SME policies are developed under this basic law and agencies such as the Office of SMEs Promotion of Thailand (OSMEP) aim to promote SME-friendly policies. The OSMEP specifies the sector and the size of SME and recommends the SME promotion policy and action plan based on them. The OSMEP further develops executive skills of the SMEs regarding manufacturing management, personnel management, finance and marketing and other methods applicable to SMEs. Overall, the policies for SME development in Thailand have been somewhat minimal over time. Bakiewicz (2005) points out that there were hardly any projects aiming to develop SMEs and neither were there any lobbies of the owners of small businesses like in South Korea and Taiwan. The Thai macroeconomic policies were geared towards large enterprises because of their obvious export potential.

6. SMEs in China

As of 2006, China had around 39.8 million SMEs, accounting for 50% of the country's asset value, 60% of the turnover and a somewhat remarkable 60% of its exports (Kanamori et al, 2006). They further account for 40% of the country's GDP. China's overall trade performance over the last decade has been helped by or has even stimulated the country's SMEs. Such small enterprises have played a significant role in China's emergence as an important industrial economy. The total number of small enterprises in industry had increased from 344,000 in 1978

to a remarkable 7.96 million in 1996 (Wang and Yao, 2001). Wang and Yao (2001) quoting figures from "China Industrial Statistical Yearbook", points out that in the period 1985 to 1995, the number of small enterprises in industry alone increased by 2.16 million, thereby accounting for a staggering 99.3% of all the newly established enterprises in that period.

The definition of Chinese SMEs is a bit complicated and varies with industry. The SME Promotion Law of China (2003) set the guidelines for classifying SMEs (Table 10). The criteria for the industrial sector requires that small enterprises employ a maximum of 300 workers, while medium enterprises employ up to 2000 workers. Overall the small and medium enterprises combined are to employ a maximum of 2000 workers and have an annual revenue not exceeding RMB 300 million, while the total assets should not be greater than RMB 400 million. Xiangfeng (2007) reveals that what is considered as an SME in China may be quite different when compared to SMEs in other countries – the guidelines allow for some leeway in size.

Table 10: Definition of SMEs in China

Size Category	Industries	Employment based	Total assets	Business revenue
Small	Industry	<300	<¥ 40 million	<¥ 30 million
	Construction	<600	<¥ 40 million	<¥ 30 million
	Wholesale	<100		<¥ 30 million
	Retail	<100		<¥ 10 million
	Transport	<500		<¥ 30 million
	Post	<400		<¥ 30 million
	Hotel & restaurant	<400		<¥ 30 million
Medium	Industry	300-2000	<¥ 40 million-400million	<¥ 30 million-300 million
	Construction	600-3000	<¥ 40 million-400million	<¥ 30 million-300 million
	Wholesale	100-200		<¥ 30 million-300 million
	Retail	100-500		<¥ 10 million-150million
	Transport	500-3000		<¥ 30 million-300 million
	Post	400-1000		<¥ 30 million-300 million
	Hotel & restaurant	400-800		<¥ 30 million-150 million

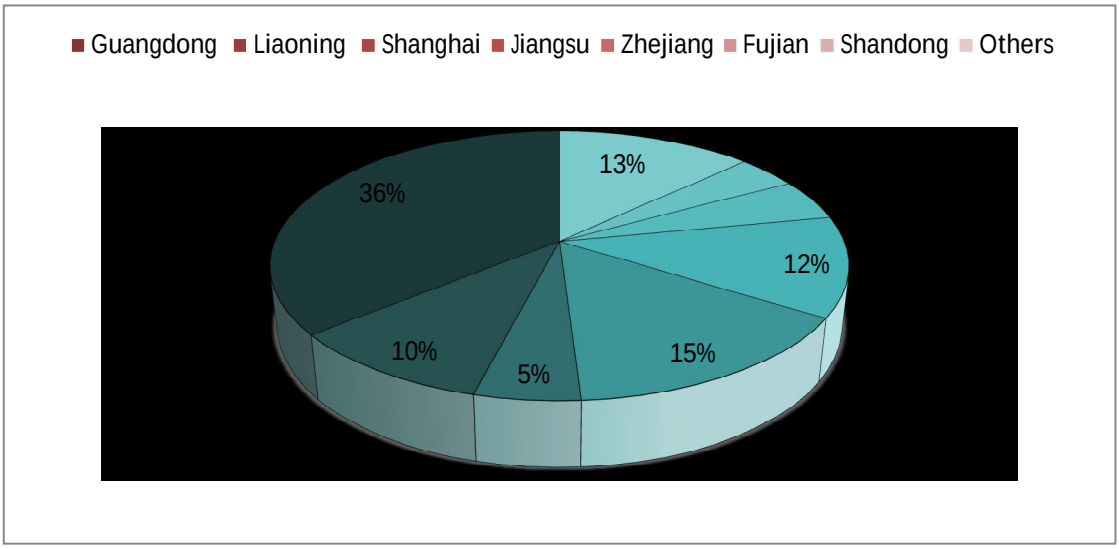
Source: SME Promotion Law of China, 2003.

The SME sector in China operated on the periphery of the Soviet style command economy prior to 1979. It was regarded as a supplement to the state and other sectors. The SME sector faced restrictions and therefore had to establish close links with the local bureaucracy and function with a degree of informality. Wang & Yao (2001) identify several factors that might have spurred the development of SMEs in China. Firstly reforms were carried out in both the rural and urban areas which led to the re-establishment of the family farming system leading to subsequent higher prices of products. The urban and industrial reforms have led to an influx of resources into the market leading to more initial capital in the market. Secondly, prior to the 80s a large market for consumer goods was ignored due to the rapid industry-oriented development policies

pursued under the centrally planned economies. The SMEs were able to fill in this gap and provide various consumer goods. The small firms in this period produced 80%-90% of the output in textiles, garment leather, furniture and plastic products. Thirdly, since such small firms grew on the fringes of the command economy, they were more adept at responding to market signals. Finally, given that China is a very labour-abundant country, this gave the SMEs perfect opportunity to expand their operations when China increased their trade with the rest of the world. The Chinese government has recently started to support the SMEs in various ways. The SME promotion law enacted in January 2003 paved the way for public support for the enterprises. This law stipulates the government protection of "lawful" SME investments along with their equity investors and investment earnings. Government administrative departments protect SME rights to fair competition and fair trade (Xiangfeng, 2007).

China has witnessed the development of SME clusters which maximizes regional accessibility in production and marketing through joint ventures, cooperation and alliances. A specialized division in the cluster can help the enterprises to supply the consumers with diverse products and also reduce business expenses by creating a commercial network and using greater regional access to the SMEs advantage. Most of the enterprises combining together in the SME cluster are manufacturing enterprises. Higher economies of scale result from this venture – provinces of Zhejiang and Guangdong are instances of areas whose growth has been fueled by such clustering. This, to an extent is reflected in concentration of SMEs by region (see figure 2).

Figure 2: Share of SMEs by region 2005



Source: China International Association of Small and Medium Enterprises (2006)

In these provinces, SME clusters are typically engaged in costume, textile, ceramics, hardware, household electric home appliances among other activities. These clusters facilitate information exchanges between the firms and are large employers of rural surplus labour. The local governments also facilitate an environment in which these clusters operate. For instance,

enterprise visits to other places and participation in international trade exhibits are arranged every year (Xiangfeng, 2007).

A World Bank (2010) report on industrial zones in China revealed that small industrial zones accommodating domestic SMEs have played a critical role in China's industrial development over the past twenty years. For instance, a company called the Weihai Zipper Company in the Zhejiang province exports $15 million worth of zippers to about 60 countries after starting out as a bit player. It now employs 3000 workers with an estimated output of 4 million zippers. The company is one of many firms in the zipper industrial cluster comprising of more than 500 companies. Weihai Zipper Company moved to the zone because the government offered abundant land, reliable supply of utilities like water and energy and as such provided more space for the company to expand their plant. These industrial zones not only provide SMEs with good basic infrastructure, they also provide technical training as well as decent housing accommodations for Chinese workers besides the enterprises. Therefore these zones have played a vital role in helping Chinese small enterprises to grow into mid-size and large enterprises and thus have avoided the problem of "Missing Middle" that many other countries face. The industrial zones are being financed by local governments along with the private sector. The local governments finance through bank loans which are then paid back with the tax revenues resulting from the increased economic activities of the cluster firms. This Chinese system of SME-oriented industrial zones labeled "Plug and Play" is one of the lesser known factors behind China's competitiveness in the light manufacturing industry.

7. SMEs in India

The relevance of the SME sector and its influence on the overall economic development of India through employment generation is well noted (World Bank, 2005).

According to the Micro, Small and Medium Enterprises Development Act 2006, enterprises engaged in manufacturing were defined as:

(I) A micro enterprise, where the investment in plant and machinery does not exceed twenty five lakh rupees ($50,000);

(II) A small enterprise, where the investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees ($1 million); or

(III) A medium enterprise, where the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees ($2 million).

Enterprises engaged in services were defined as:

(I) A micro enterprise, where the investment in equipment does not exceed ten lakh rupees ($20,000);

(II) A small enterprise, where the investment in equipment is more than ten lakh rupees but does not exceed two crore rupees ($40,000); or

(III) A medium enterprise, where the investment in equipment is more than two crore rupees but does not exceed five crore rupees ($1 million).

In India, the micro, small and medium enterprises (MSME) sector contributes significantly to the manufacturing output, employment and exports. According to the Annual report of 2010-11 published by the Ministry of Micro, Small and Medium enterprises, the MSME sector comprises 45 percent of the manufacturing output and 40 percent of the total exports. The sector has grown faster than the rest of the industrial sector and the numbers of the registered MSMEs are estimated to be around 1,563,974. The proportion of micro, small and medium enterprises are 94.94%, 4.89% and 0.17% respectively. Moreover, as shown in Table 11, the rate of growth in export and employment attributed to SME sector in India since it embraced economic reform in 1991 has been solid. It is clear that the export and employment growth from the SME sector has been substantive. This is indicative of the growing relevance of SMEs in ensuring India's development trajectory.

Table 11: Employment and Export Growth of Small Scale Industries

Year	Total SSI units (millions)	Employment (millions)	Total Exports ($ billions)	SSI Export ($ billions)	Percentage share (total exports)
1991-1992	7.063	16.599	9.047	2.051	31.5
1992-1993	7.351	17.484	11.024	3.652	33.1
1993-1994	7.649	18.264	14.280	5.197	36.4
1994-1995	7.960	19.140	16.976	5.969	35.1
1995-1996	8.284	19.793	21.838	7.489	34.2
1996-1997	8.621	20.586	24.398	8.059	33.4
1997-1998	8.971	21.316	25.931	9.126	35.2
1998-1999	9.336	22.055	29.076	10.057	34.6
1999-2000	9.715	22.910	32.764	11.129	34.0
2000-2001	10.11	23.909	41.583	14.332	34.5
2001-2002	10.52	24.909	42.658	14.629	34.3
2002-2003	10.95	26.013	51.908	17.662	34.0

Source: Office of Development Commissioner (SSI) 2002-2004

The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 seeks to facilitate the development of these enterprises and also enhance their competitiveness in the process. It provides the first-ever legal framework for recognizing the concept of "enterprises", which comprises both manufacturing and service entities. To facilitate this increasingly contributory role of India's SMEs in the economy the government has introduced various schemes to facilitate the SMEs by providing: adequate credit from financial institutions or banks; support for

technology up-gradation and modernization; integrated infrastructural facilities; access to modern management practices; entrepreneurship development and skill development through appropriate training; support for product development and packaging; and assistance for greater access to domestic and export markets. Furthermore, a national credit linked subsidy scheme known as the Prime Minister's Employment Generation Programme (PMEGP) introduced in August 2008, assists entrepreneurs to set up micro enterprises and facilitate buyer-seller interaction of the PMEGP products. This scheme further provides loans up to Rs.10 lakhs to set up service enterprises and up to Rs.25 lakhs to set up manufacturing enterprises. The Ministry is also implementing another program that will facilitate a greater technology upgradation of the MSMEs by providing a 15% capital subsidy on finance. As such, the MSMEs will avail this 15% financial assistance if they are able to utilize improved technology in its production process. The government has also ensured that specialized lenders have sufficient resources to extend loans to small borrowers – the central bank of India has provided $1.45 billion to the Small Industries Development Bank of India to help small businesses cope with the global downturn. Guarantee schemes have also been expanded to reduce the costs to borrowers. Under the Credit Guarantee Scheme, the guarantee covers half of the loan amount and 85% of the micro loans up to $10,000.

8. SMEs in Vietnam

The definition SMEs in Vietnam evolved to some extent across time. Prior to 2001, there was no authority specifically responsible for the activities of non-state small, medium, enterprises (Hemlin, Ramamurthy and Ronnas, 1998). Additionally, a heterogeneous set of definition was used, out of which the following can be noted:

- Vietnam Industrial and Commercial Bank defined SMEs as enterprises with a labour force of less than 500 persons, a maximum registered capital of 10 billion dong, a working capital of no more than eight billion dong and a monthly revenue of less than 20 billion dong.
- The Minister of Labour, Invalids and Social Affairs and of Finance considers SMEs to be enterprises with less than 101 workers, an annual revenue of no more than 10 billion dong and a registered capital of no more than 1 billion dong.

- The fund for SME Development in Vietnam – EU programme has set a lower as well as upper limit and assists SMEs with 10-500 workers and a registered capital of 600 to 3600 million dong.

- A UNIDO- project on small and medium sized enterprises in Vietnam makes a distinction between small and medium size enterprises. The former are those with no more than 30 workers and a registered capital of no more than one billion dong. The later is allowed to have a labour force between 31 and 200 workers and a registered capital below 4 billion dong.

- The fund for the rural development of the State Bank categorizes SMEs as those with a total capital of no more than 2 million USD and a labour force of less than 500.

In 2001, an official definition was adopted which categorized SMEs as an enterprise with fewer than 300 workers or a registered capital of less than 10 billion VND. This definition, however, was subsequently changed in 2009. The new definition is more disaggregate in nature as it separates SMEs into micro, small and medium enterprises with different limit for the number of employees and capital (See Table 12).

Table 12: New Definition of SMEs in Vietnam

	Micro-Enterprise	Small Enterprise		Medium Enterprise	
	No. of Employees (N)	Total Capital (C)	No. of Employees (N)	Total Capital (C)	No. of Employees (N)
Agriculture	<10	<20 Billion VND	10<N<200	20<C<100 Billion VND	200<N<300
Forestry					
Fishery					
Industry	<10	<20 Billion VND	10<N<200	20<C<100 Billion VND	200<N<300
Construction					
Services	<10	<10 Billion VND	10<N<50	10<C<50 Billion VND	50<N<100

Source: Government's Decree No. 56/2009/ND-CP

In the mid 1980s, Vietnam embarked on an economic reform program (often known as *Doi Moi*) which marked the beginning of a gradual move towards a market oriented economy from a centrally planned economy. This economic transformation meant that the private sector became more vibrant, and sustained economic growth and rapid poverty reduction emerged as a key characteristic of the reform era. The economic reform was also associated with a growth in agricultural output per employed and industrial output per employed (Table 13). That is, before 1980, there was stagnation in both heavy and light industry. Nonetheless, the performances of the noted indicators also reveal that post-1980, they witnessed positive growth and SMEs had a significant role in shaping such outcomes. This is because the reform initiative allowed the

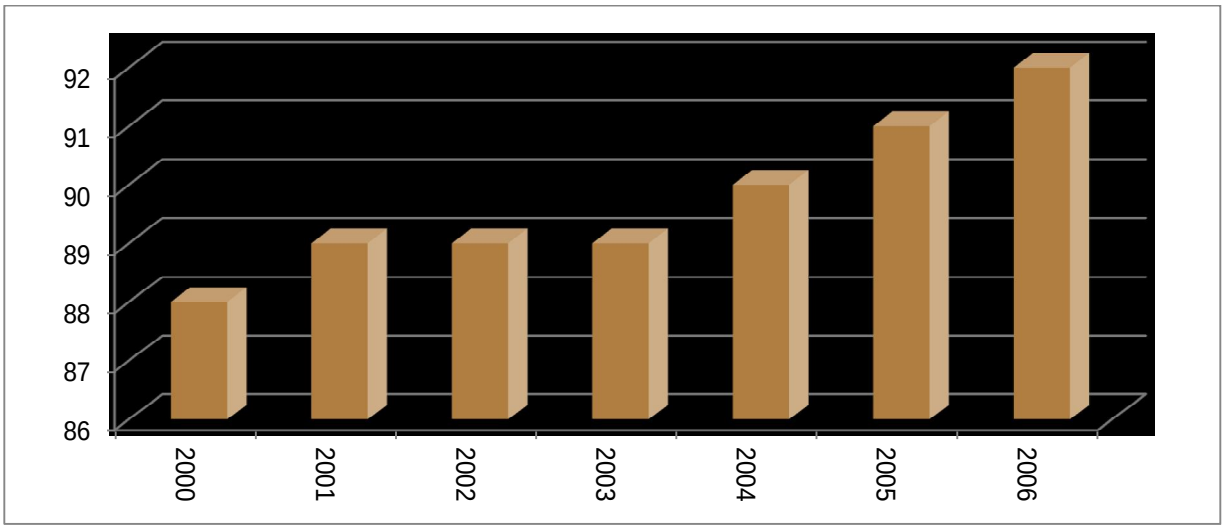
Table 13: Impact of Reform (average annual percentage change)

Indicator	Pre-reform 1976-79	First Reform 1980-85	Second Reform 1985-90
Agricultural Output per person employed	(-)10.7	0.8	0.8
Industrial Output per person employed	3.2	2.8	8.8
Heavy Industry	(-)4.9	(-)3.8	11.7
Light Industry	(-)0.5	11.3	7.5

Source: Dang T. Tran (1994)

SMEs to benefit from legal rights[3] due to which the sector witnessed considerable growth. Being precise, in 2008, the manufacturing sector accounted for 21 percent of the total GDP. Likewise, as shown in Figure 3, the share of manufacturing SMEs accounted for 88 percent in 2000 and it gradually increased to 91 percent of all manufacturing firms in operation in 2006.

Figure 3: Manufacturing SMEs' share in Total Manufacturing Firms



Source: Le and Harvie, (2010).

Given the relative influence of SMEs in the Vietnamese economy, the government has introduced numerous policies that aim to facilitate the growth of SMEs by minimizing constraints[4] faced by them. To mention a few, the government of Vietnam launched "Export Support Fund", "Development Assistance Fund" and "Fund for SMEs Credit Guarantee" between 1999 and 2001 to facilitate SMEs access to finance. Table 14 provides some of the provisions of the mentioned policies. These policies have improved the availability of credit to the SMEs, although financing remains a challenge.

[3] In particular, the "Enterprise Law" which became effective in 2000 facilitated the registration of new enterprises. The law combined the earlier Company Law and Private Enterprise Law into one law that provided the legal framework for all types of domestic private enterprises. Furthermore, the "Enterprise Law provided an imperative innovation with a principle often noted as "register first, then check' by the business community (World Bank, 2005).

[4] These constraints include: access to finance, constraints in land, shortage of information, deficiency in human capital, unfair trade barriers.

Table 14: Specific Policies and Objectives.

Export Support Fund, 1999	Development Assistance Fund, 2000	Fund for SMEs Credit Guarantee, 2001
Covers interest cost on banks' loans related to losses when the world market prices for agricultural products drop Support for a number of export goods that suffer from high risk or low competitiveness. Awarding for works done in expansion export market, introducing products for export	Provision of long and medium- term investment lending at preferential rate Provision of post-investment interest subsidy Provision of credit guarantee On-lending funds of ODA sources Short-term export promotion credit to producers of agricultural, aquatic, ceramic, fine arts woodwork, textile,	Provision by provincial People Committees, Up to 80% of the gap (Loan - Collateral) Conditions: a. Having feasible project, b. Collateral at ≥ 30% loan c. No bad debt

Constraints facing SMEs across the Globe

As noted earlier, SMEs play an instrumental role in shaping economic outcomes in various countries. This also means that constraints faced by them are often unique, and can vary across both time and space. Even so, it is still possible to classify the constraints experienced by SMEs across the globe into three broad categorize:

I. Country Specific
II. Industry Specific
III. Firm Specific

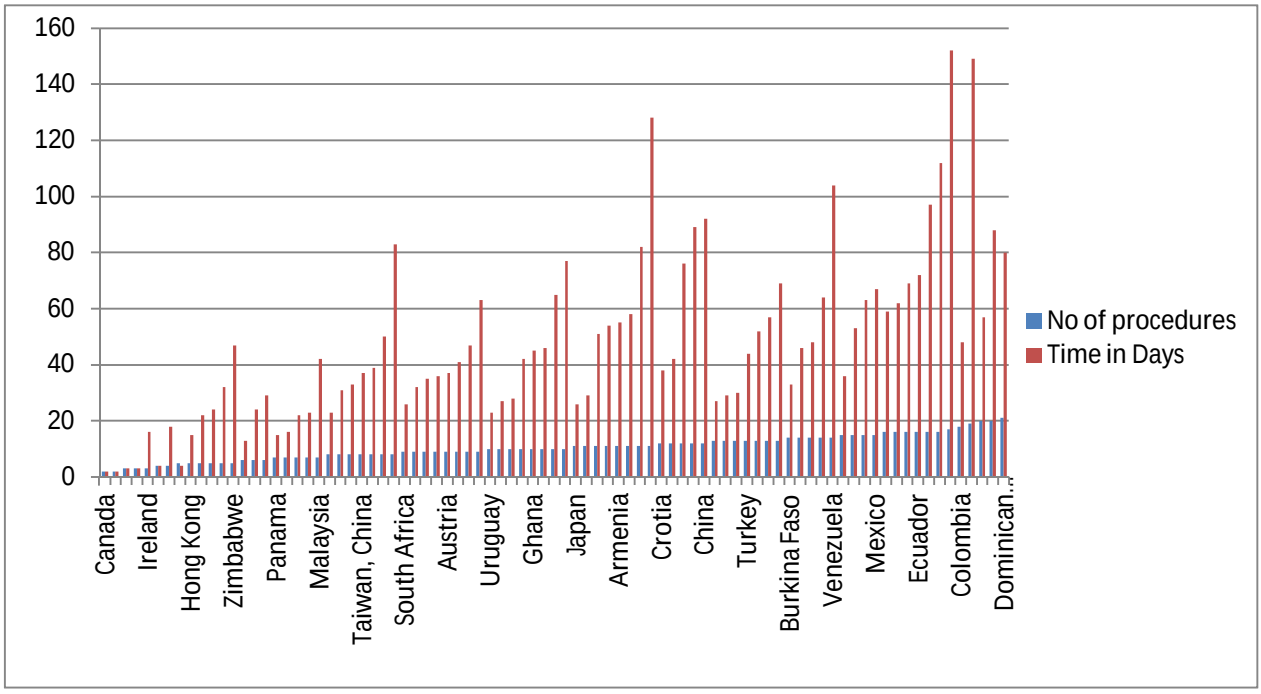
Country Specific Constraints

Country specific constraints experienced by SMEs constitute the investment climate that a firm faces while operating within country. These constraints generally include regulatory, economic, and social-cultural factors that determine entry decisions, operational efficiency, and structure of ownership in firms across various countries. Being precise, Dvankov et al (2002) documents the entry regulations of a "standardized" firm[5] in 85 countries in 1999 to understand why "red tape" exists, and whether it bears any fruitful outcome for the overall economy. This is done by

[5] The study defines standardized firms which has the following characteristics: it performs general industrial or commercial activities, it operates in the largest city (by population), it is exempt from industry specific requirements (including environmental ones), it does not participate in foreign trade and does not trade in goods that are subject to excise taxes (e.g. liquor, tobacco, gas), it is a domestically owned limited liability company, its capital is subscribed in cash (not in-kind contributions) and is higher of (i) 10 times GDP per capita in 1999 or (ii) the minimum capital requirement for the particular type business entity, it rents land and business premises, it has 5 to 50 employees one month after commencement of operations all of whom are nationals, it has turn-over of up to 10 times its start-up capital, and does not qualify for investment incentives.

calculating all procedures that an entrepreneur needs to carry out to begin legally operating a firm involved in industrial or commercial activity. The study specifically records all procedures that are officially required for an entrepreneur in order to obtain all necessary permits and to notify and file all requisite authorities. Additionally, it also calculates the official costs and time necessary for the completion of each procedure under normal circumstances. Now, figure-4 reveals that there is a considerable variation in "entry regulation" faced by entrepreneurs across countries (for more details, see appendix 1). For example, an entrepreneur in Canada can finish the process for starting up a company in two days by paying US$ 280 in fees and completing only two procedures. In contrast, to meet official requirements for starting to operate a business in Mozambique, an entrepreneur must encounter 19 procedures taking at least 149 business days and pay US$ 256 in fees. To do the same in Italy, an entrepreneur needs to follow 16 different procedures, pay US$ 3946 in fees, and wait at least 62 business days to acquire the necessary permit. Thus, the presence of significant red tape shaping "entry regulation" for firms can be of considerable discomfort for SMEs operating in "high entry regulation" country. In fact, accounting group Grant Thornton in 2002 surveyed 6000 SMEs across 19 countries to find that regulations/ red tape provide substantial obstacles for business expansion among SMEs. This conclusion is also reflected in the global survey carried out by consulting group Arthur Anderson in 2001 which pointed out that SMEs suffer due to rigid government regulations (Soni, 2005).

Figure 4: Variation in the "Regulation of Entry"



Source: Dvankov et al (2002)

On the role of other country specific factors, financial development within respective countries are likely to play an important role in the growth of the SME sector. In particular, Beck et al (2008) used newly gathered data from 91 banks in 45 countries to suggest that there are

significant differences in lending terms and practices between banks operating in developed and developing countries. More precisely, while banks in developed countries sees competition among SMEs as a major obstacle, banks in developing countries highlight macroeconomic conditions (especially macroeconomic instability) as a primary obstacle to financing SMEs. Likewise, it is also noted that total share of loans to large enterprises are significantly larger in comparison to total share of loans to SMEs in developing countries. This can underscore the "financial access" bias that SMEs can face in developing countries.

Country specific constraints can also include other types of infrastructure constraints – such as energy infrastructure, physical infrastructure, IT infrastructure and etc – that can affect the operational efficiency of a SME in a given country. For example, even though India has over 670000 route kilometers of optical fiber laid in support of building IT infrastructure, India continues to rank low in network readiness below countries such as South Africa and Chile This, in turn, hurts SMEs in India to adopt technology and improve their competitive edge in an increasingly open economy (Weaver et al, 2006; Covin and Slevin, 2006)

Industry Specific Constraints

Industry specific factors mostly focus on business or industry issues that are attributable to the policy environment affecting mainly the SME sector (Todd and Javalgi, 2007). For instance, trade protectionism heterogeneously affects SMEs involved with import substituting industries (ISIs) in comparison to SMEs involved with export focused industries. In India, due to the dominance of import substitution policies, SMEs focused on domestic market faced very little competition between 1947 and 1991. This ensured their growth in the mentioned time span (Shridhar, 2006). Nonetheless, post 1991 when the policymakers in India embraced trade liberalization, SME operating within import substituting industries faced greater competition. (Sheth, 2004). This to an extent is supported by the survey which reveals that while SMEs in Textile industry and Bicycle industry blames liberalization for increased competition, increased quality consciousness, and dumping of cheaper goods, while SMEs operating in food and leather industry believes liberalization have opened up new opportunities. (Gautam and Singh, 2012)

Other forms of industry specific constraints can include the level financial dependence a SME experiences while operating within the specific contours of an industry. Being precise, for industry specific reasons (i.e technology, cash harvest period gestation period and etc) some firms rely more on external finance than others. This in principle determines their relative growth rate in comparison to firm in an industry that relies less on external finance. On this, Rajan and Zingales (1998) indentifies that industrial sectors that are relatively more in need of external finance develop disproportionately faster in countries with developed financial market. Now, this highlights two issues. First, industry specific requirements (in this high external finance dependence VS. low external finance dependence) can matter in determining how SMEs/Large enterprises in a specific industry perform. Second, the empirical analysis is suggestive that both

industry specific factors and country specific factors can interact to determine how businesses perform.

Industry specific constraints also include other forms of barriers – such as barriers to entry, barriers to export and etc. For example, United States International Trade Commission (2010) identifies multiple issues that SMEs within various industries face while attempting to export their products (a short list is provided in Box 2).

Box 2: Key Export Barriers for Selected Industries in U.S

Apples	• The major factors restricting export of apples by U.S SMEs are access to capital and financing restrictions, small volumes, inadequate product varieties, and limited sales staffs and resources dedicated to exporting. Sanitary and phytosanitary (SPS) measures are the primary barriers to certain foreign market for producers. However, SPS protocols have a greater impact on smaller producers, who cannot spread the costs of implementing those protocols over a large volume of output.
Wines	• Major domestic factors that constraints U.S exports of SMEs are a lack of resources dedicated to exporting; relatively small scale production; and a primary focus of SMEs in the U.S market. • Foreign barriers include high tariffs and trade agreements between competitor nations, compliance issues, including SPS measures and labeling regulations; limited knowledge of U.S wine in foreign markets; longer contract terms; and a higher level of support provided by competitor nations to their wine sectors.
High-tech Industries	• Chemical and Nanotechnology are particularly affected by U.S export controls, U.S state and federal environment and health regulation (particularly for new products such as nano-materials), and transportation costs. REACH (the new EU chemical regulatory system); EU directives and labeling requirements, and EU member state request for additional product information are considered major trade barriers for chemical and nanotechnology SMEs.
Textiles and Apparels	• The most significant challenge for textile and apparels SME exporters are identifying potential foreign customers, understanding foreign and customs regulation, and receiving payment from foreign customers.
Medical Devices	• The principle foreign and domestic barriers for SMEs seeking to export medical devices included complex regulatory procedures, lack of access to capital, and inadequate reimbursement from foreign health insurers.

Firm Specific Constraints

Firm specific factors constitute ownership structure, research and development capacity, training, and capital accessibility. SMEs, due to their limitation in size and scope, often have access to limited financial resources and a lack of necessary human capital (Buckley, 1989). In India, for example, SMEs face problems in obtaining the required financial capital for becoming competitive and generating growth (Gupta et al, 2005). Moreover, accessing loans is a challenge since banks perceive SMEs as risky due to their poor repayment records and low market credibility. Firm specific constraints also include culture and the structure of the organization. This is evident in terms of entrepreneurial orientation and global mindset that is availed by

SMEs. In particular, according to Gupta and Govindarajan (2002), a global mindset is one in which organizations and their employees observe and make sense of their surroundings by processing information through their respective cognitive filters. With regards to SMEs, a corporate culture is particularly imperative since perception of owners, managers or etc have a very crucial influence on strategies when dealing with asymmetric information or uncertainty in business environment (Weaver et al, 2002).

SMEs performance can also be significantly shaped by the nature of their ownership structure.[6] More precisely, "Agency Theory" argues that business efficiency is achieved through establishing efficient contracts between the two subjects: (1) the principle, who commissions the work and (2) the agents who undertakes the work (Eisenhardt, 1989). Such contracts are important because of the characteristics of the interaction between the principal and the agent, which occurs in a situation of limited rationality and knowledge asymmetry. Now the basic propositions of the agency theory (as later developed by Jensen and Meckling (1976) and Fama and Jensen (1983)) are suggestive that family businesses entertains less conflict of interest, lower opportunistic behavior by agents, leading to higher levels of efficiency (Arornoff and Ward, 1995; Gaily and Dollinger, 1992). Nonetheless, the empirical evidence on this prediction remains mixed, as Chu (2009) acknowledges that family ownership is prevalent and substantial in Taiwan, representing half of the public SMEs and accounting for more than 11 percent of their outstanding equity. The author also found that the influence of family ownership on SME performance is positive and significant, and that family ownership is an effective organizational structure for SMEs in Taiwan. In contrast, Madueno et al (2011) fails to find significant impact of family ownership on efficiency measures for SMEs in South of Spain.

Lessons of International Experience

A detailed review of cross-country experiences as well as case studies shows the potential of SMEs for development. Yet, in view of the definitional differences where a small enterprise in one country is a large enterprise in another owing to definitional variations, it is difficult to aggregate all experiences for use in Bangladesh. Nevertheless, there are areas of experience where the policies and principles transfer over to the Bangladesh situation. Seen from this broader perspective, several important lessons emerge. These include:

- The potential of SMEs in economic development is best demonstrated by the examples of Japan, Korea, Taiwan, Malaysia and China. SMEs have contributed admirably to employment, investment, value-added and exports in these countries. Importantly, they have played a major role in helping the emergence of a modern manufacturing sector in the concerned countries.

[6] Lee (2004) compared financial and operational performance between family and non-family firms (the analysis was not restricted to SMEs) and identified that family ownership and management have a positive influence, enhancing cost efficiency and returns on investment.

- The production sharing partnership agreements between large and small enterprises in Japan, Korea and Malaysia suggest a pattern of manufacturing development that merits serious attention of policy makers in developing countries including Bangladesh. This partnership has been particularly helpful in supporting the exports of SMEs.
- Regulatory environment constraints including red tapes that amount to 'barriers to entry' for SMEs. In addition, the anti-export bias of trade policy can hurt the growth of SMEs. Thus public policy must be geared towards minimizing such constraints as they can easily determine the prospects of SMEs.
- SMEs have been a fertile ground for learning and technology transfer especially in China and Malaysia through strategic production sharing agreements with international firms. This is a major finding that has important policy bearing for Bangladesh. Getting connected to the international vertical production chains can provide a major impetus to upgrading SMEs in Bangladesh.
- A range of targeted support programs could be helpful in developing SMEs. These include programs for financial support, technology transfer, skill development, industrial zones, and fiscal incentives.
- Institutions are very important to foster the growth of SMEs. These include dedicated government agencies and supportive legal framework. Japan's experience is particularly illustrative of how strong institutional support can guide the development of SMEs
- Monitoring and evaluation of performance of SMEs is essential. This is necessary in order to understand the constraints and gear public policy accordingly. It is also necessary to evaluate if the support programs are achieving their intended objectives. Again, Japan's experience in this regard is particularly instructive. Updated database on basic structure of SMEs and performance indicators is necessary to determine how SMEs are performing.
- Research on the SME policy agenda is necessary to inform public policy on its effectiveness and how it may change to adapt to the changing national and global economic development. Public-private partnership on this is important. The government often does not have the capacity to develop the research agenda, but it can tap the resources in the private research institutions through financial partnerships. This is a missing agenda for the entire manufacturing sector.

Critical Role of Sub-contracting Arrangements for SME Development in Bangladesh

One key lesson of international experience that may be of special relevance to Bangladesh is the critical role of sub-contacting arrangements between manufacturing SMEs and Large Enterprises or Transnational Corporations. This provides an interesting strategy for SMEs to explore new markets and develop an efficient skill base that allows them to emerge as an important player in the global value chain. This phenomenon is mostly visible if one examines the development of the SME sector in Japan. More specifically, in the case of Japan it is noted that subcontracting

arrangements have facilitated the rise of SMEs as a vibrant sector. In fact, empirical work undertaken by Urata and Kawai (2001) to examine the determinants of entry rates of firms reveal that subcontracting/linkages had a positive effect on entry decisions of SMEs. This pattern is also witnessed in South Korea, where partnership between large enterprises ('chaebols') and SMEs has been a defining characteristic of industrialization. Furthermore, sixty five percent of SMEs with five to nine workers are identified to have involvement in subcontracting (Nugent and Yhee, 2001). In Malaysia, evidence is also indicative that SMEs account for more than 90 percent of the total number of establishments in 2003 (SMIDEC, 2004). In addition, the growth in manufacturing SMEs since the early 1990s has been a resultant effect of steps taken by the enterprises combined with government policies (Saleh et al, 2006). These SMEs have also undertaken crucial role in the industrialization program by reinforcing the backward industrial linkages over time. To offer more insights on how sub-contracting arrangements can help SME, a meteoric rise of a Malaysian SME is discussed in Box-3.

Box-3: ENGTEK Malaysia: From SME to a Global Supplier

Eng Technology Holdings Bhd. (ENGTEK), which initiated as a Malaysian SME in 1974, is at present a global supplier for the computer hard disk drive and the semiconductor industries. The firm has grown out of its humble beginnings to a high-precision manufacturer that supplies competitive, quality value-added products and services to several large TNCs in the electronics industry. The company grew up in a policy environment favorable to enterprise development. Under Malaysia's Vendor Development Programme, TNCs were encouraged to assist local suppliers to become competitive at the global level. Thanks to this programme, ENGTEK has engaged in closely knit partnerships with TNCs. For example, Intel provided financial as well as technical assistance needed for the company to produce semi-automated wire bonders in 1981. With partners such as Advanced Micro Devices, Bosch, Fujitsu, Hewlett Packard, Maxtor, Readrite and Seagate, ENGTEK has been engaged in designing products, employing its specific experience in product development and gaining a competitive edge vis-à-vis potential competitors. As a first-tier supplier, ENGTEK was able to link up to the global production systems of its TNC clients, moving up the value chain over time. In more recent years, the company has diversified its portfolio of partners and products to reduce risks. It widened its range of products, for example from precision tools to the manufacturing of disk-drive components. It developed its own technology for original equipment manufacturing and achieved original design manufacturing capabilities. This initiative further reduced its dependency on any particular foreign affiliate. It has also invested abroad to improve its competitiveness.

Source: UNCTAD (2001), and www.engtek.com .

On the whole, this discussion brings to attention some important questions that policymakers and SMEs in Bangladesh must address. To mention a few:

I. What exact set of government policies will encourage greater engagement between manufacturing SMEs and domestic Large Enterprises and Transnational Corporations through subcontracting arrangements in Bangladesh?

II. What strategies can manufacturing SMEs adopt to develop sub-contracting relationships with Large Enterprises and Transnational Corporations in Bangladesh?

Now, while answering these questions in details is not within the scope of this paper, we can make some key observations with caution. To start with, if SMEs have to emerge as an attractive agents for subcontracting arrangements, then it is important for them to determine *how* and *where* to position themselves so as to best reap the benefits of opportunities available to them within their respective economic periphery. For this, they need sufficient competitive capabilities, which is dependent on their capacity to continuously upgrade their skills. The specific areas where SMEs need to devote resources are:

- **Process upgrading:** The aim here is to increase the efficiency of internal processes. It includes both processes within individual links in the chain (e.g. increased inventory turnover, lower scrap) and between the links in the chain (e.g. more frequent, smaller and on-time deliveries). Empirical evidence points out a variety of relevant learning processes among suppliers in Global Value Chain (UNCTAD, 2001).

- **Product upgrading:** This includes the ability to produce components or retail new or more competitive products developed by lead firms.

- **Functional upgrading:** This seeks to enhance the value added by changing the mix of activities conducted within the firm (e.g. taking responsibility for outsourcing accounting, logistics and quality functions) or moving the locus of activities to different links in the value chain (e.g. from manufacturing to design).

- **Chain upgrading:** This involves creating opportunities for suppliers that have developed competencies and skills to move to a new value chain.

On the possible role of government, some existing research has noted that an enabling business environment is an important condition for promoting SMEs to integrate into the global market (OECD, 2007). A favorable business environment depends on stable macroeconomic policies and efficiently-designed complementary policies in areas such as competition, international trade and investment, finance, labour and education, including human resources capacity-building. Governments can also facilitate business linkages by enhancing the investment climate and by targeting Transnational Corporations which are known to establish linkages with local firms. At the same time the government has to promote enterprise development services that allows their SMEs to be more “partnership” ready

C. Evolution of SMEs in Bangladesh

Since its independence, Bangladeshi economy has witnessed substantial change. Over the years, the economic progress of Bangladesh is the resultant effect of structural change in the economy leading towards considerable growth of the manufacturing and service sectors, various reforms of domestic economic policies, changes in international policies, and in this process the

emergence of a group of entrepreneurs. Thus, in terms of composition of GDP, the structural transformation of Bangladesh economy seems like a gradual transition from agriculture to manufacturing and services and others. Manufacturing and services and others activities grew much more rapidly than agricultural output. As a result the GDP share of manufacturing and services and others grew noticeably while the share of agriculture fell (Table 15).

Table 15: Structural Change in Output and Employment 1974-2010

	Share in valued added		Share in employment		Average growth in value added, 1974-2010	Average growth in employment, 1974-2010	Employment elasticity, 1974-2010
	1974	2010	1974	2010			
Agriculture	49.8	20.3	77	48	2.7	1.5	0.56
Manufacturing	12.1	17.9	6	12	5.4	4.6	0.85
Services and others[7]	38.1	61.8	17	40	5.0	5.0	1.00

Source: Bangladesh Bureau of Statistics

Furthermore, from Table 15, it can be observed that there has been a decline in share of employment in the agricultural sector and a considerable rise of employment in the services and others sector and a modest increase in the employment share of manufacturing. Nevertheless, despite this important structural transformation, the manufacturing sector employs only 12% of the labor force.

Definition of SMEs

The definition of SMEs has undergone frequent changes. The functioning of enterprises which we now categorize as SMEs first came under observation in the Survey of Manufacturing Industries (SMI) in 1973-74, even though SMEs as a conceptual entity did not exists in Bangladesh. This survey was initiated under the Industrial Statistics Act 1942 which covers all units that employ more than 10 or more workers, and these units may or may not use electricity. Furthermore, all manufacturing establishment including handloom were within the scope of this survey.

Before 1999, medium enterprises were "lumped" with large enterprises and as a result, the industrial sector was divided into the categories of large, small and cottage**.** The Industrial Policy of 1991 defined small industry as activities whose total investment, excluding the price of land was limited to Tk. 30 million while the cottage industry was limited to Tk. 500,000 – no categorization was made in terms of employment size. The 1999 Industrial Policy re-defined the size categories in terms of capital and employment size. The Large industry was defined to include the industrial enterprises having 100 or more workers with fixed capital of over Tk. 300

[7] Includes construction, water, electricity and mining.

million; Medium was defined to employ 50 to 99 workers and/or fixed capital investment between Tk. 100 – 300 million; Small was defined to have employees numbering less than 50 workers and with a fixed capital investment of less than Tk. 100 million; and finally cottage industry covered the household-based units operating with family labour.

The Bangladesh Bureau of Statistics, which collects data on Census of Manufacturing Industries (CMI), initially used the following definition: "Large-scale establishments" were classified as establishments which have more than 50 workers; "Medium-scale establishments" were establishments which have 9 to 49 workers; and "Small-scale establishments" were establishments which had less than 10 workers.

In 2001 BBS changed the definition as follows:

- Micro enterprises employing between 1 and 9 workers;
- small enterprises employing between 10 and 49 workers;
- medium enterprises employing between 50 and 99 workers; and
- Firms with 100 or more workers are large enterprises.

BBS now uses this definition to update the CMIs based on periodic surveys.

In the Industrial Policy of 2005 the Government outlined a new definition of the SMEs in Bangladesh. The Industrial Policy distinguished between manufacturing and non-manufacturing enterprises, where the thresholds for the sizes of the enterprises were defined in terms of the value of fixed assets and employment size respectively. The earlier definitions used capital as the sole indicator for measuring SMEs.

The National Industrial Policy Order 2010 adopted yet another definition of SMEs based on thresholds of asset size and employment size. Being more specific, in the manufacturing sector, medium enterprises are categorized as firms with assets worth Tk 100 to 300 million (minus land and factory building, and including replacement value) and/or labour force of 100 to 250 workers. Additionally, small enterprises are those with assets worth Tk 5 to 100 million and/ or with a labour force of 25 to 99 workers. Likewise, micro enterprises are those with assets worth Tk 500,000 to 5 million and/or 10 to 24 workers or less, and cottage enterprise are those with assets worth Tk 500,000 to 5 million and/or labour force of 10 to 24 workers or less. In the service sector, medium enterprises are firms which employ 50 to 100 and have assets worth Tk 10 to 150 million. Furthermore, small enterprises are categorized as those which employ 10 to 25 and have assets worth Taka 500,000 to 10 million, and micro enterprises are firms which employ 10 or less people and have assets worth Tk 500,000 or less. The Bangladesh Bank in June 2011 also adopted this new definition of SME as per the National Industrial Policy Order 2010

Table 16 shows the various definitions of SMEs followed in Bangladesh. As indicated by the table, there was a lack of uniformity in the definitions put forward by the BBS and those used in the industrial policies and by the Bangladesh Bank. This issue, however, has been somewhat

Table 16: Various Definitions of SMEs in Bangladesh

Source		Asset Turnover			No of Employees		
		Micro	Small	Medium	Micro	Small	Medium
BBS Survey of Manufacturing Industries(Before 2001)		No Threshold	No Threshold	No Threshold	No Threshold	Less than 10	10 to 49
BBS Survey of Manufacturing Industries(after 2001)		No Threshold	No Threshold	No Threshold	1 to 9	10 to 49	50 to 99
BBs economic Census 2001 &2003		No Threshold	No Threshold	No Threshold	1 to 9	10 to 49	50 to 99
Industrial Policy (no distinction between manufacturing and non manufacturing)		No Threshold	Less than Tk.100 million	Between Tk 100 million &Tk 300 million	No Threshold	Less than 50	50 to 99
Industrial Policy 2005	Manufacturing	No Threshold	Total fixed Assets excluding land and buildings of up to Tk 15 million	Total fixed assets excluding land and bldgs between Tk 15 million &Tk 100 million	No Threshold	No Threshold	No Threshold
	Non Manufacturing	No Threshold	No Threshold	No Threshold	No Threshold	Less than 25 workers	Between 25 &100 workers
National Industrial Policy Order 2010	Manufacturing	Tk 500000 to Tk 5 million	Tk 5 million to Tk 100 million	Tk 100 million to Tk 300 million	10 to 24	25 to 99	100 to 250
	Service	Less than Tk 500000	Tk 500000 to Tk 10 million	Tk 10 million to Tk 150 million	Less than 10	10 to 25	50 to 100
	Trading	Less than Tk 500000	Tk 500000 to Tk 10 million	Tk 10 million to Tk 150 million	Less than 10	10 to 25	50 to 100

Source: Author compilation

minimized, given that the new definition as advocated by the recent Industrial Policy Order 2010 is an attempt to bring forward a common definition that can used by all relevant authorities.

This, nonetheless, keeps some issues unaddressed. First, the definition advocated by the National Industrial Policy 2010 is not in line with "employment groups" used in the 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries. Consequently, if the present BBS 2001 definition is altered, then the existing data on SMEs will become redundant. This will jeopardize any possibility of conducting future comparative evaluation of SMEs across time. As a result, it will be helpful to adopt a uniform definition in order to establish a proper data base and evaluate performance. This definition must also be consistent with the definition presently employed to

collect data, since a time series database of key performance indicators will also be helpful to institute a proper monitoring and evaluation (M&E) system to measure the impact and effectiveness of public policies and programs.

Second, the existing definition as described in National Industrial Policy Order 2010 is unlikely to be 'user friendly' due to the constraints in our capacity to collect reliable data. Thus, the employment thresholds used in 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries appears to be the appropriate choice – due to its simplicity - while deciding to set a definition for SMEs in Bangladesh.

As noted earlier, this study advocates the adoption of SME definition based on employment. The following definition is suggested:

- Micro enterprises are those with employment numbers of 1-9.
- Small enterprises are those that employ 10-49 workers.
- Medium enterprises are those that employ 50-99 workers.

Over time as a consistent time series data base emerges, other characteristics such as assets or sales could be introduced as a part of the SME definition.

Database on SMEs

While the evolution of definition of SMEs is not unique to Bangladesh, one major problem was the lack of uniformity in definition contemporaneously. An even bigger problem is the lack of a systematic time series data on the growth and evolution of SMEs that makes research and evaluation of policy effectiveness nearly impossible. The main sources of information on SMEs are:

- The BBS
- The Bangladesh Small and Cottage Industries Corporation (BSCIC)
- The banking sector
- Special surveys done by researchers

Among these sources, the BBS is the most consistent and reliable data source. Even though small and cottage industries are an important source of livelihood and entrepreneurship, the data on such enterprises are quite patchy. The agency in charge of promoting small and cottage industries is the Bangladesh Small & Cottage Industries Corporation (BSCIC) which carries out nation-wide surveys of the sector at certain time intervals. However the last survey carried out by the BSCIC was in the late 1980s. The banking sector does not have a systematic database to do any meaningful analysis of SMEs, except to indicate how much credit has been channeled to these enterprises. The definition used for loan classification is the one provided by the

Bangladesh Bank and all SMEs are covered based on the loan size irrespective of the nature of business.

Traditionally the BBS does two types of surveys that contain data on SMEs: First it conducts a Census of Manufacturing Industries (CMI) on a ten-year cycle. The last Census was done in 2001. Second it periodically updates the Census by doing Survey of Manufacturing Industries (SMI) on a three-year cycle. The last SMI was done in 2006, which was used to update the 2001 CMI to 2006. The next full CMI is planned for 2012. While the CMI and SMIs are the best available database on SMEs, there are many problems:

First, the definition of SMEs has changed frequently. As a result, the data are not comparable over time. The only comparable time series is from 2001-2006.

Second, the database is quite outdated. The last update was done in 2006.

Third, the depth and quality of available data makes it difficult to do serious quantitative analysis of the role, evolution, constraints and prospects of SMEs.

Existing Knowledge Base of SMEs

Reflecting the previous lack of a uniform definition and the lack of a uniform database on the structure and profile of SMEs, different estimates have been made regarding the number of SMEs in Bangladesh. This problem is true of both manufacturing and non-manufacturing SMEs. An indication of the confused knowledge of the SME sector is provided by the various estimates of the number of SMEs.

The BSCIC estimates suggest that there are around 93,660 small industries and 636,577 cottage industries, as of June 2011 (Bangladesh Small and Cottage Industries Corporation, Ministry of Industries).[8] The number of workers employed in these small and cottage industries are estimated to be around 3.34 million. The South Asia Enterprise Development Facility (SEDF/World Bank, 2003), quoting preliminary Planning Commission estimates, states that the number of "medium enterprises" to be around 20,000 while that of the small and cottage industries range between 100,000 to 150,000. In another survey conducted by the International Consultancy Group (ICG) of the UK with the Micro Industries Development Assistance and Services (MIDAS) in 2003, they conclude that there were approximately 6 million SMEs (manufacturing plus non-manufacturing) employing a total of 31 million people, equivalent to 40 percent of the population aged 15 years and above. In the Asian Development Bank (ADB) 2009 report on the proposed Medium-Sized Enterprise Development Project, it was stated that there are nearly 1.5 million SMEs (manufacturing plus non-manufacturing) in Bangladesh, 60% to 65% of which are located outside Dhaka and Chittagong. The figure suggests that the majority of the SMEs are located outside the major metropolitan cities. The IFC database on micro, small and medium enterprises puts the number of SMEs at 177,000, as of 2007. The BBS data suggests that as of 2006 there were some 34,710 manufacturing enterprises in Bangladesh of which 77% were small

[8] See: http://www.bscic.gov.bd

(less than 50 workers); 8 % were medium (between 50 and 99 workers) and 15% were large (100 or more workers).

It is easy to see why it is so difficult to say anything meaningful about the growth, structure, performance, constraints and potential for manufacturing SMEs or even SMEs overall when we do not even have an updated knowledge of the number of SMEs in the country. Gleaning through the maze of the fragmented data it would appear proper to rely on the BBS CMIs/SMIs as the most reasonable source of data on SMEs.

The Structure of Manufacturing SMEs

The latest available information on the structure of SMEs is from the BBS data on CMI obtained from the 2001-03 Census. As noted, the definition of size of enterprises is based on the number of workers employed. The structure of manufacturing enterprises in Bangladesh in 2001/03 is indicated in Table 17. The manufacturing enterprises reported here is all inclusive; especially it includes all micro-enterprises (employing less than 10 workers) in the manufacturing sector. This is an important point to note because in the 2006 SMI used for updating the 2001-03 CMI, micro-enterprises are excluded.

Table 17: Size and Composition of Manufacturing Enterprises in Bangladesh 2001/03

	Micro<10	**Small 10-49**	**Medium 50-99**	**SME 10-99**	**Large 100+**	**Total 10+**	**Total**
No. of establishment (Thousand)	440	26	2	28	4	32	472
As % of all	93.2	5.5	0.5	6	0.8	6.8	100
As % of 10 +		81	7.2	88.2	11.8	100	
Rural – Urban Distribution (%) of units							
Urban	26.4	51.7	57	52.1	79.5	55.4	28.4
Rural	73.6	48.3	43	47.9	20.5	44.6	71.6
All	100	100	100	100	100	100	100
Size of employment (thousand)	1506	488	156	644	1580	2224	3730
As % of all	40.4	13.1	4.2	17.3	42.3	59.6	100
As % of 10+		22	7	29	71	100	
Rural – Urban Distribution(%) of employment							
Urban	31.6	51.4	57.1	52.8	86.5	76.7	58.5
Rural	68.4	48.6	42.9	47.2	13.5	23.3	41.5
All	100	100	100	100	100	100	100

Source: Economic Census 2001 & 2003, National Report, Bangladesh Bureau of Statistics

A number of interesting results emerge:

- The bulk of total manufacturing enterprises (over 93%) are micro-enterprises employing less than 10 workers. A mere 5% are small, 0.5% are medium and 0.8% are large.
- Of the total manufacturing sector employment of 3.7 million workers in 2003, 40.4% were employed in micro-enterprises; 13.1% in small enterprises; 7 % in medium enterprises; and 29% in large enterprises. This is a rather surprising result in the sense

that large enterprises accounting for less than 1% of total manufacturing enterprises still employ 29% of the manufacturing labor.

- In terms of spatial distribution of firms, some 68.4% of micro-enterprises are in the rural areas while 79.5% of large and 52.2% of SMEs are in urban areas.
- The urban concentration of total manufacturing employment is even larger; some 76.7% of manufacturing workforce is in the urban areas.

Descriptive analysis of the comparative growth of establishment and employment between 1986 and 2001/03 (Table 18 and Table 19) reveal that total number of establishment and employment between the mentioned time span grew by more than 50%. Given this, there is considerable variation in growth of establishment and employment between the noted categories – small, medium and large. This also remains true when we view them in terms of their location in rural/urban economy.

- First, the growth in the number of establishment was higher across small and large enterprises in comparison to medium enterprises. This also holds for the comparative growth of employment across these categories. This, to an extent, is indicative that medium enterprises were marginalized by the performance of its counterpart(s).
- Second, it is witnessed that growth of large enterprises and medium enterprises are substantially high in urban areas in comparison to rural areas. In fact, growth of employment in large enterprises in rural areas has been negative. On the other hand, growth of employment and establishment in small enterprises are to some degree balanced across rural/urban economy. This high lights that urban economy have benefited from the increasing presence of both medium and large establishments.
- On the geographical distributional aspects of SMEs, it can be observed from Table 20 that the concentration of SMEs in both number of establishments (46.3) and employment (46.5) is highest in the Division of Dhaka. This is followed by Rajshahi (25-26%), Chittagong (12-13%), Khulna (8.3-8.7%), Barisal (3.9-4%), and Sylhet (2.7-2.9).
- The superiority of Dhaka as a location choice for SMEs is understandable since it entertains better infrastructure and other facilities. Interestingly, however, Rajshahi is more preferred than Chittagong as a choice of the SME location. This is possibly an outcome of the different financial incentives allocated for the growth of export-oriented SMEs especially in the Northern regions of Bangladesh (Ahmed, 2008). On the other hand, as a location choice for large enterprises Chittagong ranks second after Dhaka. This is probably due to the fact that Chittagong benefits from the port and prestige of being the second most commercially crucial city in the country.

Table-18: Changes in the Number of Establishments between 1986 and 2001

	1986			2001/03			Growth		
	Total	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
Small	46909	25361	21548	72935	39127	33808	55%	54%	57%
Medium	2409	1520	889	3266	2193	1073	36%	44%	20%
Large	2299	1648	651	3689	2930	759	60%	78%	17%
Total	51617	28529	23088	79890	44250	35640	55%	55%	54%

Source: BBS, Census 2001/03, National Report

Table-19: Changes in the Number of Permanent employment between 1986 and 2001

	1986			2001/03			Growth		
	Total	**Urban**	**Rural**	**Total**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
Small	778761	430956	347805	1304935	725378	579557	68%	68%	67%
Medium	163900	103147	60753	221123	150350	70773	35%	46%	16%
Large	949114	698387	250727	1314428	1082979	231449	38%	55%	(-) 8%
Total	1891775	1232490	659285	2840486	1958707	881779	50%	59%	34%

Source: BBS, Census 2001/03, National Report

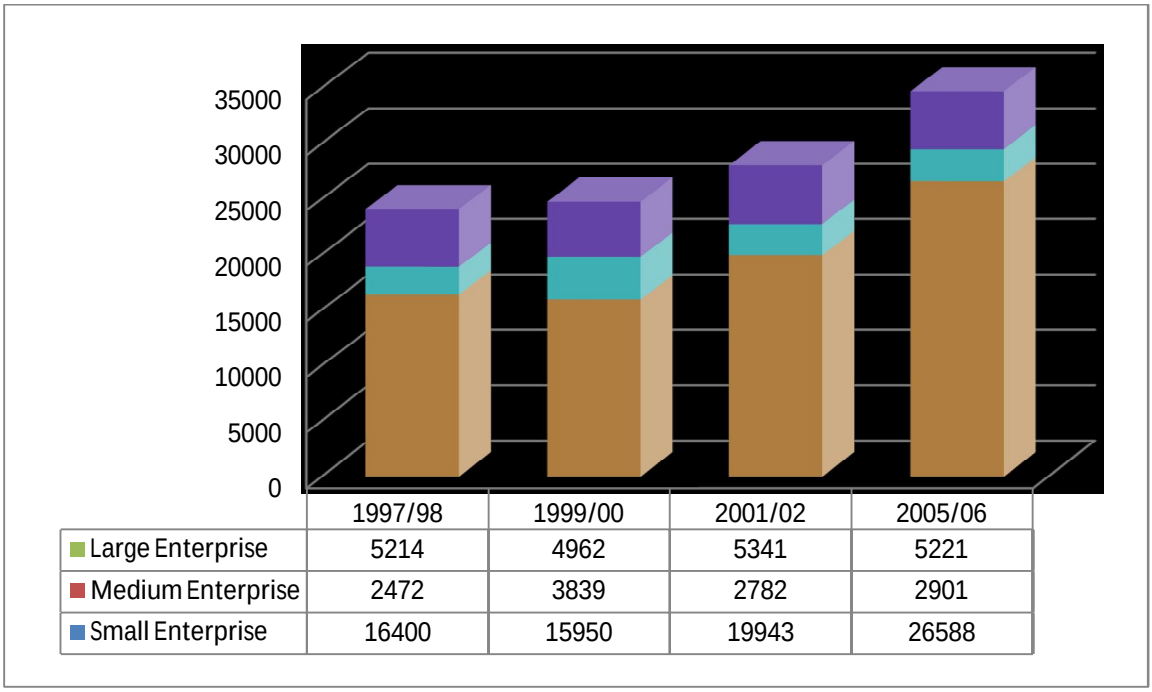
Table-20: Location of Industries by Division, 2001 & 03

Division	**%Total**						**TOTAL**	
	Micro (1-9)		**SMEs (10-99)**		**Large (100+)**			
	Number	**Empl**	**Number**	**Empl**	**Number**	**Empl**	**Number**	**Empl**
Barisal	5.6	5.1	4	3.9	1.9	1.2	5.5	4.6
Chittagong	18	18.6	12.5	13.3	16.2	17.6	18.1	17.9
Dhaka	31.2	32.3	46.3	46.5	62.2	64.9	32.2	38.3
Khulna	15.1	12.9	8.3	8.7	7.7	6.9	14.7	11.7
Rajshahi	25.1	25.7	26.1	25	9.8	6.9	24.4	22.8
Sylhet	5.1	5.5	2.7	2.7	2.3	2.5	5	4.7
Bangladesh	100	100	100	100	100	100	100	100
Number	36,20,461	82,72,858	81,573	13,17,088	6,118	16,80,476	37,08,152	11,27,0422

Source: Economic Census (2001/03), BBS

Some further insights on the growth of manufacturing SMEs can be obtained from the latest available survey of manufacturing industries. This last update was done in 2006 and the report published in 2008. The SMI focused only on small, medium and large enterprises and did not include micro-enterprises. The updated population of small, medium and large manufacturing enterprises and associated comparable time series data are summarized in Figure 5.

Figure 5: Trends of Establishment across SMEs and Large Enterprises



	1997/98	1999/00	2001/02	2005/06
Large Enterprise	5214	4962	5341	5221
Medium Enterprise	2472	3839	2782	2901
Small Enterprise	16400	15950	19943	26588

Source: Survey of Manufacturing Industries 2005/06, BBS.

The main results are:

- Over the 8 years of 1997/98-2005/06, small manufacturing enterprises registered the fastest rate of growth in terms of number of enterprises, growing by 62%.
- Medium enterprises grew by only 17%, while large enterprises remained virtually stagnant.
- Although the numbers by themselves provide very limited information, the sheer magnitude of growth would seem to suggest the small manufacturing ventures have been a source of substantial entrepreneurial interest in Bangladesh.

Value-added, Employment and Exports

The evolution of the manufacturing sector in Bangladesh is indicated in Table 21. In the 1970s and the 1980s the performance of the manufacturing sector was lack luster, growing below the average growth of the economy. Following the initial debacle, the manufacturing sector growth performance improved during the 1990s. The faster pace of expansion of manufacturing relative to total GDP since FY91 caused its share to increase gradually, rising from its low level 12 percent in FY91 to 17.2 percent in FY10. In the 1970s and 1980s, manufacturing sector performance was constrained by the dominance of poor performing nationalized enterprises inward looking trade policies and inadequate private investment due to poor incentives. The policy regime for manufacturing improved significantly in the 1990s, based on investment

Table 21: The Structure of Bangladesh Manufacturing Sector, FY75-FY10

	FY81	FY91	FY01	FY10
Size				
Total (% of GDP)	11.2	12.9	15.6	17.9
Of which				
- Large and Medium Scale	9.5	9.0	10.5	12.7
- Small Scale	4.0	3.7	4.2	5.2
Growth Rate (% annual average over the decade ending)				
Total	1.3	5.0	6.9	5.7
- Large and Medium Scale	1.5	4.9	7.0	5.5
- Small Scale	1.0	5.1	5.8	6.6
Employment				
Share of total employment	8.7	10.1	9.9	11.8
Exports				
Percent of GDP	4.1	6.8	10.6	17.4
Percent of Total Exports	65.5	78.9	92.1	90.9
RMG (% of Total Exports)	0.1	38.9	56.1	77.3

Source: Bangladesh Bureau of Statistics

deregulation, trade liberalization, better exchange rate management and improved financial sector performance. The emergence of the private sector led, export-oriented ready-made garments (RMG) sector as a dominant economic activity considerably altered the structure of the manufacturing sector. Along with a growing share of GDP, the manufacturing sector quickly dominated the export market and contributed to an expanding GDP share of exports. Together with remittances, the RMG sector has emerged as an economic power house in Bangladesh.

Despite this improved performance, overall the manufacturing sector does not show the dynamism that is witnessed in the East Asian economies. The average growth rate us still in the single digit and the employment share of manufacturing has increased modestly to 12 percent. Manufactured exports are heavily concentrated in RMG and a few other commodities. To achieve the Sixth Plan's targets of increasing the manufacturing sector's GDP share to 25 percent and employment share to 16 percent by FY15, its growth rate needs to be boosted to double digit levels. Both large and small enterprises need to contribute to this growth. The role of small enterprises is particularly important to provide the employment base. The promotion of small enterprises in rural areas needs to be a major strategic element for creating higher income and employment in the rural economy, which is critical for sustained poverty reduction.

Data and research are scanty about the relative contributions of SMEs to GDP, employment and exports relative to large and medium enterprises. The only systematic data compiled and reported by the BBS concern contribution to value-added (Table 22). In the absence of detailed data on enterprises, the methodology for compiling contribution to GDP is a bit suspect.

Nevertheless, this is the best available evidence. It suggests that the GDP contribution of manufacturing small enterprises has well been uninspiring. Between 1975 and 1981, the manufacturing small enterprises grew by a meager 1% rate per year, but then picked up some steam growing by over 5% between1981-2001. Small enterprises value-added gathered further momentum since 2001, expanding by a healthy 7.9% during 2001-2010. Owing to this, the value-added share of small manufacturing grew from 4% in 1981 to 5.2% in 2010.

BBS does not provide time series data on the employment contribution of manufacturing SMEs. Based on the Economic Census of 2001 & 2003, we saw from Table 16 that of the total manufacturing sector employment of 3.7 million workers in 2003, 40.4% were employed in micro-enterprises; 13.1% in small enterprises; 7 % in medium enterprises; and 29% in large enterprises.

Regarding contribution to exports, the plastic industry has been cited as a sector which has not only succeeded in substituting imports, but has also achieved the penetration of the export market in products such as drums and bulk containers among others. Similar export successes have been witnessed in the metal based engineering product industries – exports of engineering products have increased nearly 27% over the last 10 years, with most of the production carried out by the SMEs (Rahman, SME Foundation, 2010). Furthermore, the light engineering sector is dominated by SMEs and has grown 30 percent annually on average. The sector exported around $310 million in 2006-07 and there are around 40,000 such units in Bangladesh. As such, the improved export performance of the manufacturing SME sector leads further credence to the fact that the manufacturing SMEs have an integral role to play.

While official data sources have provided limited information on the state of SMEs, a number of studies have used survey and other instruments to come up with deeper knowledge of SMEs. One such study is that done by the Asian Development Bank (ADB). The most recent study of SMEs by the ADB (ADB 2009) [9] outlines the following subsectors where SMEs play an important role.

1. RMG sector – As of 2009 the RMG sector was the largest foreign exchange earner, accounting for about 79% of the total export earnings and 12% of GDP. The number of RMG businesses amount to 4000, generating around 2.5 million jobs and as such this sector is clearly an important source of employment.

[9] In the ADB Study SMEs are defined as those enterprises employing up to 150 staff. Small enterprises can employ up to 50 people and medium-sized enterprises can employ 51–150 people. A lower limit for small enterprises is not defined by Bangladesh Bank circular but can be assumed to be five staff based on numerous SME statistical surveys conducted by development partners and the Government. In terms of the total value of assets, the definition classifies (i) small enterprises as those with fixed asset value (excluding land and buildings) of Tk0.05 million–Tk15 million; and (ii) medium-sized enterprises as those with fixed asset value (excluding land and buildings) of Tk15 million–Tk200 million.

2. Jute sector – Although Jute exports have declined to less than 5% of the total export earnings of Bangladesh, it is still an important sector of the national economy. The sector earns around $300 million annually and is one of the major cash crops in the country employing quite a significant number of people.

3. Agribusiness sector – About 48% of the total labor force is directly or indirectly engaged in the agricultural sector and as of FY 2007-2008, export earnings from agricultural products were 7% of total export earnings. This sector comprises of various activities, namely the production of crops, livestock, fisheries and forestry; transformation of agricultural commodities into products; provision of inputs for the production of planting materials, agrochemicals, equipment and pharmaceuticals; and finally the marketing and distribution of agricultural commodities and products.

4. Plastic products sector – There are estimated to be around 3000 plastic businesses and over half of these have less than 24 employees. Bangladesh has exhibited an increase in plastic exports in recent years and has contributed to foreign exchange revenues of several billion takas. As pointed out by the ADB, it has the potential to become one of the country's top 10 export items. More than 200,000 skilled and unskilled workers are employed in this sector which manufactures items like toys, toothbrushes, ballpoint pens, shoes, pharmaceutical packages, bottles, pipes and plastic wrapping. The plastics industry has played an important role as a backward linkage for industries like garments, medicine and food processing. Therefore it is imperative that the sector be given further impetus, considering the fact that it employs quite a large number of workers and is also a becoming a significant contributor to foreign exchange. It has the potential to be one of the key subsectors for manufacturing SMEs.

5. Light engineering sector – This sector consists of about 7000 firms employing 800,000 people and generates about $1.6 billion or about 2% of annual GDP. Light engineering sector manufactures a variety of parts, tools and light machinery that supply the national industries of agriculture, food processing, chemical, transport and construction among others. This sector has been rightly identified in the context of promoting SME development and developing coherent policies to promote it; and along with the plastics sector this sector should be the focus of increased public effort.

Constraints faced by SMEs in Bangladesh

The international experience is suggestive that in order to facilitate the growth of SMEs through sound policies, we need a solid understanding of the constraints facing SMEs. In this regard, several studies have been undertaken in identifying the constraints that are hindering the performance of SMEs in Bangladesh. A major problem of these studies is the absence of the

required up-to-date database. As such much of the research conducted on the various constraints facing the SMEs and the policies required to stimulate their activities are often generic in nature. An additional problem is that some of the studies do not define properly the nature of SMEs being reviewed. However, a few studies that are based on special purpose surveys add to the knowledge base about the constraints faced by SMEs in Bangladesh.

Bakht (1998) reviewed the growth potentials of eight sub-sectors of the manufacturing SMEs in Bangladesh. The study relied on sample surveys conducted between 1993 and 1998, secondary data and limited field visits. The secondary data mostly constitutes BSCIC Survey of Small and Cottage Industries (1994) and Census of Manufacturing Industries report for the year 1991-92. The sectors that were examined are, bakery, specialized handloom, dyeing and printing, footwear, plastic products, steel furniture, electrical goods and engineering workshop. The author notes that the 'state of technology' and the 'level of dynamism of the market' faced by the sub-sector are the ultimate constraints/facilitators of their performance. On the whole, the study provides a descriptive examination of mentioned sub-sectors, even though the issues pointed out are quite broad in nature. Thus, the practical relevance of the work for policy formulation is limited.

Hossain (1998) examined selected studies on SMEs published between 1988 and 1998 and concluded that the fiscal and the regulatory policies are not particularly tailored to provide support to SMEs. In addition, the paper argues that banks' pre-occupation with collateral based lending have hindered SME access to finance. The paper also provides a ranking of constraints noted in the various studies that were reviewed. These are: electricity, credit and working capital shortage, poor law and order, legal barriers, excess competition, technical assistance, marketing, and raw material price. Over all, the study provides a useful summary on constraints observed by research under review.

Meagher (1998) also summarized key findings and assessment of issues concerning SMEs[10]. The study, however, undertook interviews and relied both on primary and secondary data. Moreover, unlike focusing on a broad range of generic constraints faced by SMEs, the study benefits by focusing purely on the causes of financial constrains. These are:

I. Formal credit comes at very difficult terms for SMEs, since the use of security in credit agreement is highly inefficient, and non-real estate (movable and tangible) security is largely ineffective.
II. Systems for security registrations and credit information are complex, time-consuming and incomplete.
III. Enforcement of credit and security conditions poses severe problems of delay, expense and uncertainty.

[10] By SMEs, the study focused on both manufacturing and non-manufacturing SMEs.

IV. Financial market distortions undermine efficient pricing and allocation of credit, constraining its availability to SMEs.

The paper provides some useful suggestions to facilitate SMEs access to financial market. They are:

a. New legislation to expand and simplify the use of non-real estate security. The reform law could attempt to: 1) expand the universe of legally effective collateral to include items not currently useable in Bangladesh (such as accounts receivable, chattel paper, inventory (non-possessory), consigned goods, fixtures, equipment, and vehicles, proceeds of sales, and future interests to savings; 2) simplify the system of secured finance by creating a clear, unified concept of security interest that applies uniform legal formalities, registration requirements, and enforcement methods to all forms non-real estate collateral.

b. More comprehensive and efficient system for security registration and credit information. The reforms in this area could: 1) bring all security interests into a system of registration; 2) simplify the system by bringing registration into either a unified registry of limited set of registries with well defined roles, and 3) expand the availability of reliability of credit information.

c. Effective mechanisms for enforcing credit and security agreements. The option here include: 1) comprehensive reform of civil procedure, enforcement of money judgments, and repossession of property; 2) tightening procedure in Money Loan Court system; 3) strengthening arbitration capacity; and 4) strengthening bilateral enforcement through legal provision for self-help enforcement.

d. Complementary reforms. The goal of expanding access to credit for SMEs requires broader action to reduce financial distortions, and to facilitate incentive for efficient credit allocation.

A joint paper was undertaken by Dhaka Chamber of Commerce and Industry (DCCI) and The Center for International Private Enterprise (CIPE) in 2000. The objective of the analysis was to understand SME policies in South Asian countries and isolate good practices for replication in Bangladesh. In doing so, the paper acknowledges that the definition of SMEs varies widely and a scarcity of authentic statistical data hinders policymaking capacity. The research outlined various policy recommendations based on the experience of other countries. Recommendations included: (i) the formation of an SME Development Authority under an SME Act. Targeted motivation and publicity campaigns could also be initiated; and (ii) regarding quality control and international certification, suggestion that regionally available quality control laboratories could be more feasible for the SMEs to access and, as such, this could be the first step towards international certification. The DCCI-CIPE paper also reveals that for any loan amount greater

than taka one lakh, the banks require real estate security and/or guarantee from a credible person involved with the project – this creates an extra burden for the SMEs. The guarantee amount takes up **one-third** of the project cost and puts the SMEs in positions of serious credit limitations when they are about the start the operation.

A study by Sarder (2001) provides an assessment of operational conditions of cottage, small and medium enterprises in Bangladesh. Based on a sample of 19 entrepreneurs the paper identifies the following (as perceived by the respondents) difficulties faced by them:

- Lack of modern technology
- Lack of adequate investment
- Inadequate supply of power
- High rate of interest on bank loans
- Insufficient availability of raw materials
- Lack of clarity in government policies
- Lack of skilled technicians and workers

A few research papers contain the pertinent aspects of the state of the SMEs. The World Bank and BEI survey of 2003 gathered firm-level data to conduct a survey of the manufacturing enterprises in late 2002. The sample was decided on the basis of firms' activity, the level of employment and the location, and the indicators chosen were value added, export potential and recent growth trends. Six industries were included in the survey and total firms numbered to 1001, comprising of both Dhaka and Chittagong. The survey revealed that the most frequent barrier cited by the firms was the inadequacy of electricity supply, followed by corruption, governance and finance.

Daniels (2003) study is also one of the better discourses on SMEs in Bangladesh. The survey was conducted on a nationwide basis and consisted of 10,096 manufacturing and non-manufacturing enterprises in 2003. The questions captured the current problems as perceived by the proprietors. The constraints identified were financial, natural disasters, inconsistent supply of electricity and abject road conditions. Additionally, the proprietors cited financial constraints as the most frequent barrier to effective operations. Within the group that reported financial constraints as a problem, 75% of the respondents stated that lack of operating funds was their main concern, 14% indicated the lack of investment funds and 8% reported that customers were not repaying credit. Overall one-third of the micro, small and medium enterprises cited floods and natural disasters, electricity, road conditions and access to finance as serious problems.

The Investment Climate Survey (ICS) 2003 of the World Bank reported the impact of industrial and enterprise regulations on firms' performance. It is one of the few reports that attempt to assess the impact of regulations on firm performance in the economy. One of the metrics included how much delay is caused by complying with the various regulations such as the fire rules, environmental rules, the possession of a valid trade license, etc. The aim was to find out

how much such compliance costs in days' of output lost. The report concluded that the regulatory environment did not have a substantial impact on business performance. A surprising finding was that "unofficial" payments constituted a small part of the cost of doing business in Bangladesh. It took significantly more time to obtain pre-requisite licenses and other papers. The report also did not specify the distinction between manufacturing and non-manufacturing activities.

The BEI study of 2004 undertakes a comparative analysis of the state of SMEs (both manufacturing and non-manufacturing) in Bangladesh and few other countries. While doing so, the study noted that non-availability of comprehensive statistical information about these industries at the national level makes any sound quantitative assessment of their importance to the national economy difficult. Nonetheless, it reviewed secondary data to isolate the role of SME in the national economy of Bangladesh and pinpoint some demand side and supply side factors that can help the development of the SME market. In addition, the paper discusses some constraints to SMEs growth potential within the context of Bangladesh. These included low levels of technology, inadequate supply of power and lack of skilled workers, etc. The study concludes by recommending appropriate policy strategies to develop infrastructure without highlighting specific policies to improve infrastructure.

The Alam and Ullah (2006) paper deals with the state of SMEs in Bangladesh and similar to the other research contain a similar assessment of the current status using secondary data. In its analysis, the paper highlights how the definitions of SMEs have changed over time and it continues to vary across instrumental institutions (such as BBS and Bangladesh Bank). The paper then uses data from BBS to provide an overall stock taking of the role of the SME sector in the Bangladeshi economy. In doing so, the paper separately scrutinizes the performance of manufacturing SMEs, especially by relying on the statistics from the Economic Census 2001 & 2003. The paper then moves on to discuss in details some key issues hindering SMEs' access to finance, which the authors acknowledges as a key detriment to SMEs growth. Over here, the analysis discusses some key initiatives undertaken by subsequent governments and concludes with some broad and specific recommendations. Taken as a whole, the paper provides a useful assessment of the SMEs' situation in Bangladesh, and benefits by embodying some specific recommendations for SME sector.

The paper by Islam et al (2006) offers a brief study of the financial issues faced SMEs in Bangladesh. The paper, however, did not distinguish between manufacturing and non-manufacturing SMEs. It reviews various secondary sources to summarize the SME financing experience and the contribution of different commercial and specialized banks in developing this sector. Moreover, it identifies that while some commercial banks have innovated some financial products for facilitating SMEs access o finance, others have 'repackaged' some of their existing products as 'SME product'. Additionally, commercial banks are found reluctant to extend credit to the SME sector. The primary reasons underlying this are the high risk and monitoring cost associated with lending to such ventures. The study concludes by highlighting the need to

encourage lending on the basis of 'soft' information. This soft information may include payment and receipt history of a SME enterprise, reliability of the SME's owner based on direct contact over time, and etc. It also notes, without being too specific, that for SMEs to flourish - banking norms and practices must change.

Moazzem (2008) contributes to this line of inquiry by providing a study based on evidence from both primary and secondary data. The primary data, however, only includes some findings from case studies on seven SME firms. The study also did not separate between manufacturing and non-manufacturing SMEs, which makes the analysis very broad in scope. The paper initiates by examining the composition and trends in the SME sector in Bangladesh with the help of BBS Census of Enterprise 2001/2003. The paper then briefly summarizes some policies and institutions that policymakers have established for SMEs. In terms of constraints, the study mentions a long list of factors: financial access, poor legal and regulatory framework, poor infrastructure, lack of skilled worker, political unrest, absence of favorable social and cultural environment, poor quality and standard, inefficient marketing practices, lack of entrepreneurship and management skills, and specific challenges faced by women entrepreneurs. A paper by Abdullah and Quader (2008) focus on the major constraints faced by SMEs in Bangladesh. In doing so, the study surveyed 60 firms from five key subsectors: light engineering, agro based, fish processing, food & allied products, chemical and pharmaceuticals. Based on these survey data, the authors use varimax normalization method to rank the constraints according to their level of severity. These constraints which are identified as impediment to SME growth and development are: high lending rate, government regulatory constraints, small domestic market size, collateral requirement for financing, and lack of technically skilled workers.

Mahmood (2009) provides a specific overview of the role of small enterprises in the manufacturing sector in Bangladesh. To this end, the paper reviews trends of three key variables, (a) manufacturing share of GDP in Bangladesh between 1985/86-2007/08, (b) small manufacturing enterprises' share of GDP in Bangladesh between 1985/86-2007/08, (c) manufacturing out share by firm size 1985/86-2007/08. It observes that small enterprises manufacturing share of output fluctuated (and declined to an extent) during periods of increased trade liberalization. However, since 2001 when the level of protection increased due to the introduction of para tariffs, small manufacturing enterprises benefited from increased protection provided to the manufacturing sector. Thus, the analysis identifies increased 'openness' as an impediment to small manufacturing sectors' development.

The study conducted by Ahmed and Chowdhury (2009) also state the same constraints of low technology, inadequate power and low level of skills. Ahmed and Chowdhury put forward policy suggestions without being specific in some cases. For instance they recommend the government to take adequate measures to ensure a consistent supply of raw materials for SMEs without elaborating how. The study was just another appraisal of the situation of SMEs in Bangladesh at that point in time. The methodology was simply stated as "desk research" using data collected from various agencies.

The ADB report of 2009 reveals the major constraints facing the SMEs in Bangladesh in greater detail, among which the key ones are mentioned:

1. Limited access to finance: The overall supply-demand gap for SME credit was estimated to be around Tk. 165 billion in 2008, indicating that firms in the sector face a severe dearth of funds. Around 75% of nonmetropolitan firms reported a need for financing but only 6% of such enterprises had actual access to finance.

2. Limited credit information: Credit information in Bangladesh is deemed to be unreliable and inadequate. A credit information bureau operated by Bangladesh Bank contains information on current loan for all borrowers of financial institutions. However as pointed out, the system does not contain information on small businesses and as such, the credit worthiness of borrowers cannot be assessed – the arrangement discriminates against borrowers with poor credit and does not allow small businesses to build up reputation-based credit.

The ADB report makes a crucial suggestion that the SME financing is "skewed" largely in favor of the metropolitan areas of Dhaka and Chittagong and has resulted in a large demand-supply gap in other areas. Besides, according to the ADB (2009), the allocation of public sector investments, trade and taxation policies have not been conducive for SME development. The specific promotional policies and support measures such as extension services, financial and physical support from the various public agencies and development partners have not been effective. The private sector efforts of MIDAS, Bank for Small Industries and Commerce (BASIC) and NGOs have not been adequate in promoting SMEs. The BSCIC as the public sector agency responsible for supporting SME promotion has been beset with operational inefficiencies resulting from various structural and administrative bottlenecks. Furthermore, despite the central bank issuing directives to both public and private commercial banks regarding working capital loans and loan disbursements to SMEs, the actual delivery of institutional credit has been rather minimal.

The SME Foundation study in 2010 is the latest study covering the six emerging manufacturing sectors of Bangladesh. The study comprised of interviews of 846 manufacturing firms in the six sectors (agro-processing, designer goods, electrical, leather, plastics and light engineering), using a very comprehensive questionnaire. The study aimed to provide the salient features of the micro, small, medium and large enterprises of Bangladesh. As such, the report provides a detailed overview of the emerging sub-sectors of the economy and is one of the few studies to reveal the detailed state of the manufacturing firms in the six sectors. The methodology included baseline features that could be used for policy making such as i) enterprise size in terms of employment, ii) the number and productive capacity of core and auxiliary machines, iii) factor productivity and capacity utilization in production, iv) debt-equity ratio and the incidence of institutional credit and non-institutional credit.

Using the three datasets of the Investment-Climate Survey 2003, the Census of Manufacturing Industries (CMI) 2001-2002 and the Business Registry 2006, the report created the employment per enterprise variable. The SME Foundation report reveals a couple of key findings. Overall the study suggests that medium-large firms have an advantage in labour productivity over the micro-small firm's category. The report does a good job on a sectoral basis in trying to assess the drivers of productivity in the micro, small and medium enterprises. For instance, the report reveals that the firms in the electrical and electronics sub-sectors are found to have micro firms that are significantly less efficient than firms of other sizes. In terms of access to finance, the light engineering sector has been revealed to be the most "under banked" sector with 18% of the firms in the particular sector having access to bank credit, while the plastics sector has the greatest access to bank credit at 43%. Survey results further reveal that 26% of the micro and small firms reported a "privileged" access to an exposure of bank loans, while medium and large firms reported a greater access of 40%. In the category of pure micro establishments, only around 10% of the micro firms report any sort of access to bank loans, even though according to the study, micro enterprises account for half of all manufacturing enterprises. As such the report suggests that such micro firms are squeezed out in the credit market. Regarding the policy recommendations, the report made a reference to the pro-poor importance of SMEs. Furthermore the joint cluster of micro-small firms in manufacturing has been stressed to be the core focus of SME policies, and proactive and well-targeted interventions against the backdrop of informational asymmetry are urged to be adopted. To that end, the report recommended the SME Foundation create a sub-committee to take a lead in shaping policy research.

Summary of Major Constraints Faced by SMEs

Based on a review of the various studies, the Sixth Plan summarized the main constraints to the growth of SMEs. These constraints are broadly similar to those identified above and are also prioritized for government actions. They, therefore, serve as a useful summary of the available knowledge on the main constraints in the SME sector.

Inability to market products: The present and future growth prospect of any product depends to a large extent upon marketing activity. This requires having a well-planned marketing strategy including advertisement campaign as well as resources for implementing that strategy. Unfortunately, most SME entrepreneurs are heavily constrained in this respect as they cannot make adequate investments in marketing and also lack necessary marketing skills.

Inability to maintain product quality: A major constraint to the sustainability of SME growth in Bangladesh is the inability to maintain the quality of SME products. At present Bangladesh produces mostly common consumer goods which are labor-intensive and require relatively simple technology. But due to poor quality these products cannot stand competition from imported products. The challenge for Bangladesh today is not in competing with high-tech products of developed countries but to make its SME sector survive competition from its rivals.

Lack of investment and working capital: It goes without saying that access to finance particularly working capital finance and investment finance to enable them to expand their business is a prime constraint facing the SMEs. Banks in general do not consider SME financing as profitable activity. SMEs are also regarded as high risk borrowers because of their low capitalization, insufficient assets and high mortality rates, and consequently banks are not keen to offer them credit at comparable interest rates. SMEs in the export sector also face problems of access to working capital.

Lack of skilled technicians and workers: Lack of skilled manpower is a perennial problem in Bangladesh. This problem is particularly acute for small and medium scale export oriented enterprises. Bangladesh has made large inroads in the world's apparel market through commendable performance of RMG sector. However, the value addition of the products is low. Despite high demand, Bangladesh cannot make much entry into high value fashion wear exports due to dearth of trained workers. Supply capacity is thus constrained by non-availability of skilled workers.

Poor management skills of entrepreneurs: In the modern day economy, managerial skills for undertaking planning, marketing, and cash-flow management are vital for survival of an industry, small or large. SME entrepreneurs in Bangladesh are very much lacking in managerial skills and are not used to strategic planning. It is natural that they are unable to survive market failures. The concept of managerial training for SME entrepreneurs is yet to take root in Bangladesh.

Lack of information: In a competitive world, market information regarding demand and supply situation for a product at a particular period, changing consumer tastes, etc. are crucial elements for the success of an SME. In Bangladesh, although some financial institutions and few trade bodies like Dhaka Chamber of Commerce (DCCI) have introduced help desk and knowledge centers with internet facilities, such services are too few to provide service to the SME entrepreneurs on the whole. Lack of market information is a serious constraint to SME development.

Non-tariff barriers (NTB) and changes in world trade regimes: Liberalization of industrial and trade regimes in the wake of globalization are likely to have significant effects on Bangladesh's SMEs. Over the past decade there has been a significant change in the world trade regime with new regulations coming into effect.WTO agreements such as Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement) to trade in agriculture products raises the barrier for SME exports to developed markets. WTO agreements not only cover the traditional goods sector, but also new sectors like services. Lack of knowledge about the current status and essential components of WTO Agreements hampers trade and business. The need for product standardization and compliance with health and hygiene requirements is an unavoidable part of

international trade in farm and non-farm products catered by SMEs. Long-run economic prosperity will critically hinge upon turning the challenges of globalization into opportunities.

Enabling environment for trade and business: Although trade and business activities are carried out by the private sector independent of government control, existence of enabling environment like supportive regulatory framework, congenial tax regime, developed transport and communications infrastructure is vital for SME development. Bangladesh has made some progress in this direction but it still falls short of present day needs.

Other constraints of a general nature are inefficient infrastructure support especially power, widespread tariff anomalies, low productivity of labor, low level of technology, lack of research and development and low level of education of SME entrepreneurs.

Additional insights on what constraints the SMEs can be obtained from the results of enterprise survey conducted in 2003 by the international Consultancy Group (ICG) of the UK and Micro Industries Development Assistance and Services (MIDAS). A summary of the major obstacles identified by the survey is presented in the table below (Table 22).

Table 22: Policy Suggestions by Survey Respondents (percentage of firms in an industry)

Suggestions	Leather & Footwear	Electrical& electronics	Light engineering	Designer goods	Plastic	Agro & food processing
The VAT rate to be decreased		27.4				37.8
Import duties on inputs to fall	24.46	11.3	19.01	15.5	33.1	23.6
Power outage to be reduced	20.1	10.5	52.82	9.7	53.8	22
Interest rate to be decreased	12.51			20.4	16.9	20.4
Bank loan to be easily available	11.2	18.5	30.28	7.8	10.8	15.8
Decrease direct taxes			5.63		11.5	9.4
Increase production						7.8
Greater transparency in rules		6.2	4.23	12.6	16.2	7.8
Political Stability				3.9		6.2
Greater emphasis on training	0.71				10.0	6.2
Refrigerated space on cargo plane						3.2
Increasing buyers/ orders				8.7		
Arrangement of international fair				2.9		
Separate clusters	3.9	11.3	16.20		10.0	
Easy shipment	1.26				13.1	
Land for job worker	5.71					
Bigger protection from imports	10.5					
Upgrade technology	5.9	3				
Common facility center			5.63			
Others	3.75	25				

Source: SMEF survey of six sectors, 2006/07

The most important policy recommendations as suggested by the survey respondents are

i) Reduction of import duties on inputs.

ii) More symmetrical VAT administration

iii) Reduction of power outage

Government Policies for SMEs

All successive governments have recognized the importance of SMEs in general and manufacturing SME in particular as a critical source of economic growth, investment, exports and employment. Yet, a systematic approach to understanding the key constraints and tailoring policy responses to addressing specifically those constraints has been missing. Against the backdrop of this knowledge gap, the most systematic approach to policy making came from the Sixth Plan that summarized the knowledge of constraints based on a review of existing studies and sought to address these constraints through various policies and institutional support. However, the implementation of these policies and reforms has not been very encouraging.

SME Objectives, Strategies and Policies in the Sixth Plan

In order to achieve double digit growth, the Sixth Plan envisaged that the contribution of small and micro enterprises to GDP should also be increased to double digit. This is sought to be achieved through 3 major ways:

i. By increasing the number of micro and small enterprises through proper monetary and non monetary incentives so that people with entrepreneurial capabilities are more willing to start small businesses.
ii. By scaling up the size of the existing micro and small enterprises.
iii. By enhancing the productivity of the existing micro and small enterprises.

The broad objectives of the SME strategy and policy framework will be to:

1. Accept SMEs as an indispensable player in growth acceleration and poverty reduction, worthy of its great potential and commitment in the requisite overall policy formulation and execution.
2. Identify the key constraints to SME and address them specifically through appropriate policy and institutional changes.
3. Re-orient the existing fiscal and regulatory framework and government support institutions towards facilitating the achievement of the goals of SME Policy;
4. Nurture and partner SME focused civil-society institution(s) having credible management teams in terms of the delivery of needed services, leadership, initiation, counseling, mentoring and tutoring, etc.
5. Create innovative arrangements so that deserving and small enterprises with desired entrepreneurial track record and/or promise can be offered financial incentives for development.

6. Help implement dispute settlement procedures that proactively shield small enterprises especially from high legal costs and insidious harassments.
7. Take measures to create avenues of mobilizing debt without collaterals to match (either using debt-guarantee schemes or mapping intellectual-property capital into pseudo-venture capital) in order to assist small enterprises to have better access to finance.
8. Systematically accord precedence to small enterprises in the allocation of budgetary funds and, within the limitations of government's resources.
9. Harness information & communications technologies, Internet Protocol (IP)-based infrastructure, and electronic-governance in an effort to make regulatory and other support services accessible to SMEs through the internet.

Credit Policies

Availability of credit is the most important factor for SME development. The Bangladesh Bank has already developed a comprehensive credit policy for SMEs. These loans will be disbursed to the small, medium and women entrepreneurs. In future, the banks and the financial institutions will have to set sector, zone and branch-wise credit disbursement targets and such reports will have to be sent to the corresponding branch offices of the Bangladesh Bank. The details of the credit disbursement targets set by the banks and the financial institutions for 2010 are shown in Table 23.

Table 23: SME Loan Disbursement Target set by Bangladesh Bank

Sl. No.	Types of Bank & Financial Institutions	Target (Crore Taka)
1	Nationalized Commercial Banks	3897
2	Specialized Banks	600
3	Private Commercial Banks	17478
4	Foreign Banks	707
5	Non-Bank Financial Institutions	1313
	Total	23995

Source: Bangladesh Bank SME Credit Policy, 2010

This important policy initiative will be made more effective by focusing attention on a number of issues. These are:

Targeting: Targeting is the most important part of the credit policy for SME development. Bangladesh Bank has adopted area and cluster approaches to target small and micro enterprises. In line with these approaches, targeting will be strengthened through:

i. A census of small and micro enterprises containing detail information of inputs, outputs, technology and management.

ii. Issuing of identification card (SME ID) for small enterprises with registration number.
iii. Creating a database of SME ID and update it periodically (e.g., in every two years)
iv. Detail Upazila level map of small and micro enterprises to identify cluster[11]

Development of new and customized products: 'One size fits all' credit policy will not work for small and micro enterprises. One major criticism of microcredit disbursed by microfinance institutions is that it fails to tailor their products according to demand. Terms and conditions for credit (repayment period, interest rate, grace period, installment, insurance, etc.) taken for cow-fattening should be different from a credit taken for retail business. Therefore, attention will be given to developing loan products that relate better to specific type of credit needed.

Interest rates: In order to encourage people with entrepreneurial skill to start new business and also the existing entrepreneur to scale up the production, subsidy on bank interest rate can be considered actively through both private and public banks. However, this may result in rechanneling or misuse of credit to non SME sectors. Therefore, monitoring the use of credit both at bank and borrower levels is also a critical part of the implementation of credit policy. Possible options include:

i. 10-15 percent interest rate subsidy based on the priority sectors upon identification through SME ID.
ii. Since clusters create externalities, greater subsidy (e.g., 15 percent) can be offered to small and micro enterprises which belong to a cluster.
iii. Greater subsidy for backward regions, disaster prone areas (e.g., Monga prone area, coastal area, etc.).

Capacity building of banking sectors: Credit for SMEs differ from other conventional credit banks are use to lend. Banks are required to build and expand capacity to develop new products, to identify the potential borrowers, to disburse and collect loan in time, and to monitor the use of credit. Some banks have already created SME cell. Specific actions to strengthen capacity include:

i. Bangladesh Institute of Bank Management and Bangladesh Bank Training Academy in collaboration with SME Foundation can offer courses on SME credit to the bankers
ii. Bangladesh Bank can persuade and also prepare regulations to ensure that all banks have a specialized cell for SMEs.

Credit through PKSF

NGO sector of Bangladesh has a long history in disbursing credit for small and micro enterprises. PKSF (Palli Karma Sahayak Foundation) is the wholesale credit seller who lends credit to its partner NGO-MFIs. In 2009, PKSF disbursed micro enterprise loan worth of Taka

[11] This initiative is already completed by the SME Foundation.

1.95 billion to 0.14 million borrowers. PKSF will continue to be an important source of credit to SMEs

Tax Policy and Other Fiscal Incentives

A large part of small and micro enterprises belong to the informal economy of Bangladesh. These enterprises do not have any legal identity and therefore do not pay any tax even if their income is taxable. Cost of being legal (registration fees, tax, harassment, etc) can be much higher than being in the shadow economy. Therefore, in order to target the small and micro enterprises effectively, to bring them in the formal sector, adequate incentives should be offered so that smaller enterprises are encouraged to have a legal identity. Consequently, SFYP recommends that

i. A definition based on annual turnover, not only on the number of employees, is required to classify the enterprises for tax purposes. One can define as many as ten groups based on annual turnover so that tax rates can increase linearly and smoothly with size without abrupt jump.
ii. Based on the distribution of enterprises in terms of annual turnover, the lowest group (e.g., micro enterprises) should be completely exempted from VAT. The difference of tax rates between two adjacent size-groups should not exceed 1 percent. The fiscal cost of exemption and lower tax rates is likely to be outweighed by the benefit of larger number and greater size of the enterprises.
iii. Greater tax incentives for export oriented small and micro enterprises are recommended. For example, handicraft has higher export orientation than other SMEs. So, based on export share of total production, tax subsidy can be offered.
iv. 2-5 years of tax holiday can be considered for larger SMEs, especially manufacturing, which take time to take off and make profit.
v. Generally the legal form of small industries is the sole proprietorship and these enterprises are subject to wealth tax on their business capital. Exemption of wealth tax for smaller manufacturing can be considered.

Skills Development

Skill development of the entrepreneur and the workers of the small and micro enterprises is a precondition for the development of this sector. Following steps will be taken in the Sixth Plan to strengthen availability of skills for SMEs:

i. Education policy and national skill development policy would reflect the demand for skilled labor in SMEs and how this demand can be met with current stock of training and educational institutes.

ii. SME Foundation with the help of The National Council for Skill Development and Training (NCSDT), Bangladesh Technical Education Board (BTEB) and Directorate of Technical Education (DTE) will offer specialized vocational training/courses at the Upazila level based on the local demand.
iii. Upon identifying the clusters of enterprises, SME Foundation will collaborate with local vocational training institutes and NGOs to offer on job training to the workers.

Gender Policy for SMEs

Women can play a major role in the expansion of the SME sector, especially in rural areas. The Entrepreneurship skills of women are already well established from the experience of the micro-credit revolution. The Sixth Plan will build on this positive experience by encouraging women entrepreneurs through preferential access to credit and training programs.

Institutions for SME Support

A number of institutions have been set up in Bangladesh to promote SMEs. The two most important ones are the BSCIC and the SME Foundation.

Bangladesh Small & Cottage Industries Corporation (BSCIC): BSCIC is a state controlled policy coordinator, service developer and a distributor of facilities in the SME sector. A primary responsibility of the Corporation is to mobilize policy support that facilitated the development of the SME sector. However, it is widely acknowledged that performance of the BSCIC is much less impressive than desired (Ahmed, 2009; Moazzem, 2008). Being precise, it is noted that 30% of the allotted plots has been used for actual industry building, and there has been a substantial waste of public money in idle investments in BSCIC.

SME Foundation: The SME Foundation was founded in FY2007 by the Government as a non-profit organization to work as the apex platform for guiding SME development activities, financing, awareness raising, evaluation and advocacy services. In particular, the organization is driven by core twelve objectives:

- Implementing the SME Policy Strategy adopted by the Government of Bangladesh
- Recommending SME friendly policies to different government ministries and agencies.
- Provide business support to the SME Entrepreneurs
- Provide information and proper guidance for establishing new SMEs
- Conducting sectoral study to ensure availability of latest information, identify challenges and recommend preventing measures
- Operating credit wholesaling programs for the SMEs through different banking and non-banking financial institutions.

- Conducting training programs to create skilled labour for different SME sub-sector based on their demands.
- Technology development, adopting new technology, conducting reverse engineering and supporting SMEs to get quality certifications
- Supporting SMEs in marketing their products and promotion of services.
- Bringing women entrepreneurs into mainstream of development and helping them to achieve economic self dependency.
- Assisting SMEs in creating institutional bondage with foreign companies for capacity building, technology transfer and improving productivity.
- Training up and motivating SMEs in using ICT tools for more productivity and improving quality.

The government has also facilitated the emergence of some quasi governmental and private institutions, which focuses on the SME sector. To name a few, bodies such NASCIB, BAISC, Bank, MIDAS, CARITAS, WEAB AND BWCCI are some actors that have emerge to focus on the development of the SMEs.[12]

D. The Research and Policy Agenda for SME Development in Bangladesh

The review of international experience with SMEs suggests that these enterprises can play a major role in fostering development in labor intensive low income countries. However, this role is not automatic or accidental. This requires sound policy and institutional support. The experience with SMEs in Bangladesh shows that the country is far behind in harnessing this true potential. However, it is premature to jump to a policy framework conclusion without doing a proper diagnostics about the nature of the sector in Bangladesh and its major constraints. The policies and institutions will also need to be tailored to the specific requirements of the SMEs in Bangladesh, which requires a careful review and evaluation of the various policies and programs. In the absence of solid performance of SMEs, it would appear that Bangladesh may have been wasting a tremendous amount of effort and resources in the spurring this sector. A proper baseline data on the structure of SMEs and a proper M&E would have easily showed the low effectiveness of the underlying policies.

So, a proper research on the subject of SMEs is imperative to inform the formulation of sound policies and institutions for supporting SMEs in Bangladesh. Based on the review of the international experience and the limited knowledge in Bangladesh on the state of SMEs, the research agenda would constitute the following:

- Drawing on international experiences, adopt a proper definition of SMEs and stick to this definition for measuring inter-temporal M&E of performance.

[12] Bangladesh Bank has also introduced a SME & Special Programme Department for aiding the growth of the sector. Ministry of Industries is also supporting the SME sector through BITAC.

- Develop a proper baseline data on the structure of SMEs. As a minimum, this baseline data must include such important characteristics as output, product mix, value added, capital stock, employment, product market (domestic versus exports, investment and technology.
- The baseline data must be updated on an annual cycle.
- Undertake a proper diagnostics of the key constraints based on the baseline data.
- Explore possible ways to link SMEs with domestic and international manufacturing value-added chain.
- Analyze the role of regulatory policies, trade policies; financial sector policies; technology; skills, infrastructure supply etc. for aiding the sustained growth of SMEs
- Explore options for attracting direct foreign investment in the SME sector
- Conduct research on proper institutions for supporting SMEs.
- Develop a solid M&E effort for evaluating the efficacies of the various policies and support programs for spurring SMEs.

Some of these research agenda are developed in greater detail below

E. An Approach to Conducting Baseline Survey of Manufacturing Sector SME

As noted, there is no single database that provides a listing of business enterprises that is comprehensive, reliable, and has been recently compiled. The absence of such a listing therefore precludes developing a robust sampling methodology. A cost effective alternative is to utilize existing databases, despite their limitations, in developing a sampling methodology. The suggested methodology for updating the population and drawing the sampling frame for the full diagnostics study is described below. It is important to note that adopting a uniform definition of SME upfront is important to determine a proper baseline. As noted above, this paper advocates the use of employment as the basis for defining SMEs (10-49 as small and 50-99 as medium). . This also has the advantage that the 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries use the same definition.

(a) Updating the SME population: According to the Survey of Manufacturing Industries 2006 there are around 34710 manufacturing establishments, employing 10 or more workers. The listing provides name, address, employment size, and type of business. Although the data is a bit dated, the listing is comprehensive to include firms that are small and do not belong to the formal sector (e.g. not paying tax, not registered). Table 24 presents the distribution of firms by employment size for 10 or more worker establishments.

Table 24: Distribution of Small and Medium Manufacturing Enterprises Economic Census 2006

Variable	10 – 49 workers	50-99 workers	100 and more workers	Total
No. of firms	26,588	2,901	5221	34,710
% share	76.6%	8.4%	15%	100%

Source: Survey of Manufacturing Industries 2006

The Bangladesh Bureau of Statistics (BBS) conducts periodic detailed survey of manufacturing establishments. Presently known as the Bangladesh Survey of Manufacturing Industries (SMI), the last survey was done in 2005-2006. Under the 2005-2006 survey, the survey instrument was sent to 11,302 manufacturing establishments, of which 6,174 responded. The 2003 Economic Census was updated to 2006 using the 2005-2006 Survey. Access to 2005-2006 raw data would allow a closer look at firm characteristics including capital-labor intensity, exports, employment and other key economic and financial variables. Access to the database however would not contribute to improving or adding new firms to the existing Economic Census database.

The Value added Tax (VAT) listing is increasingly becoming larger as more sectors are included in its coverage. The National Board of Revenue (NBR) can be requested to provide their most recent VAT listing of firms, based on their type of business. Location, annual turnover information is also included for each firm. The VAT listing arguably can complement the Economic Census listing by adding firms that have emerged since 2006 and are enrolled with the VAT cell of the government. More specifically, the VAT listing identifies the year a firm has been established. Those firms that have registered in 2006 and latter are likely to be new entrants. The VAT listing can be matched with the Economic Census listing and a revised database can be collated.

Access to listing of firms from the databases of The Registrar of Joint Stock Company can also be used to enrich the listing. Names and addresses of manufacturing enterprises from various Chambers and Associations can also be used. The electric and gas utility companies (e.g. DESA, REB) have listing of their clients that are involved with manufacturing. Access to their listing can also be most opportunistic.

(b) Sampling survey frame (2013): Following the updating of the population of SMEs derived from the Economic Census listing based on the VAT listing along with use of additional information from the databases of the Registrar of Joint Stock Company, Chambers of Commerce and electric and gas utility companies, a sample of firms may be drawn from this updated population to conduct a well designed of Small and Medium Enterprises (SME). Employment information is available with the Economic Census but not with the VAT listing. However type of business is known. Based on ISIC 4-digit classification a stratified random sampling can be pursued where weights are based on the distribution of firms from the derived universe.

As an illustration let us assume that 4,000 business establishments will be surveyed. Approximately 20% additional firms will be selected from the derived database. Some of the firms selected from the Economic Census may not be available (e.g. moved or exited) or have become larger (more than 100 workers presently) or smaller (less than 10 workers), or refuses to participate in the survey. Similarly firms from the VAT listing too may not be available (e.g. moved or exited), or have employees less than 10 workers or more than 100 workers, or refuses to participate in the survey. Replacement firms will be visited, and the process shall continue until the targeted 4,000 overall sample and the planned distribution for the subsectors (4-digit classification) are covered.

(c) Selection of locations: Most manufacturing enterprises are located in urban or peri-urban areas. Many of the formal sector businesses may have their head offices in an urban location while their manufacturing plant may be in a rural location. Under budgetary considerations, rural enterprises with their office also located in the rural area will not be included under the proposed sampling frame.

The sample locations will be based on the following 4 stratas:

(i) Statistical Metropolitan Areas (SMA) = Dhaka + Chittagong = 2
(ii) Divisional Headquarters (DH) other than SMAs = 7 - 2 = 5
(iii) Randomly selected (50%) of old district towns other than SMA and DH = 19 – 2 – 5 = 12/2 = 6

Hence the total number of cities and towns to covered = 2 + 5 + 6 = 13

Aside from all firms located within the city/town municipality areas, those located within 2 kilometer surrounding the municipalities will be considered.

Based on the geographical boundaries defined, a listing of firms will be collated from the various databases discussed in the preceding section (e.g. Economic Census, VAT Listing, other supplementary data). The listing generated will subsequently be treated as a relevant universe from which firms will be selected. The concentration of manufacturing enterprises will vary by city/town. Hence, weights will be apportioned for coverage by location based on the level of concentration. Table 25 is an illustrative example of how the sample distribution will be made per location assuming a target sample of 2,500 interviews is to be administered. As evident, a higher number of firms will be covered in Dhaka city than in Chittagong as there are higher numbers of manufacturing establishments in the former location.

Table 25: Selection of Firms in Each Town/City

Location	Estimated SME	Weight	Sample Coverage
Dhaka City	20,000	0.40	800
Chittagong City	10,000	0.20	400
Barisal	2,000	0.08	160
Khulna	2,000	0.08	160
Rajshahi	4,000	0.16	320
Rangpur	2,000	0.08	160
6 district towns	10,000	0.20	400
Total	50,000	1.00	2,500

(d) Selection of Firms: Armed with the combined list of business establishments, a subset of firms will be identified based on two criteria: (i) involved in manufacturing; (ii) is an SME as defined by the Industrial Policy. For covering the targeted number per location, a higher number will have to be sampled, as physical visitations may reveal their unavailability (moved or gone out of business) or because of the limitations in the listings used.

(e) Design of Questionnaire: The questionnaire underlying the sample survey will be guided by the needs of the diagnostic analysis. At a minimum it will collect core diagnostic data including value-added, capital stock, investment, composition of output and input, employment, markets, sources of finance, major constraints, firm views on the policy environment, and types of support required. The detailed questionnaire would emerge from the needs of the economic and policy analysis to be conducted. For example, typical policy questions relate to determinants of output growth, productivity, employment, and export performance. Analytical models could be developed for each of these policy questions, which in turn could guide the design of the questionnaire.

F. Development of Diagnostic Analysis and Policy Framework

Establishment of a comprehensive baseline database is a first step towards a comprehensive diagnostic study of the past performance, constraint, and solutions for moving forward. The two are inter-related. The contents of the baseline survey must be driven by the needs of the diagnostic study. The diagnostic study must be able to provide solid analysis of a range of questions including:

- What has been the past performance of the manufacturing sector SME sector in terms of key indicators such as contribution to GDP, employment, exports, investment, labor productivity and total factor productivity?

- How does this performance compare with performance in other developing countries, including performance in the dynamic economies of China, India, Vietnam, Malaysia, Thailand, Taiwan, Korea and Japan (at comparable stages of development)?
- What are the key constraints to the growth of the manufacturing SMEs in Bangladesh?
- How has the policy framework for SMEs evolved in Bangladesh?
- How adequate are the policies and what changes are needed to dynamize the manufacturing SMEs in Bangladesh?
- Drawing on the experience of successful countries, what kinds of institutional support will be required to boost the performance of SMEs?

The diagnostic study would draw on the comprehensive baseline survey, the international good practices and the relevant analysis of existing SME studies. This way, the diagnostics and solutions will be based on the best possible knowledge.

G. Results-Based M&E Framework for SMEs

A review of various government documents, especially the annual industrial policies suggest that successive governments have emphasized the importance of manufacturing and other SMEs for growth, employment and poverty reduction. The Sixth Plan's growth and employment targets hinges significantly on the ability to boost manufacturing SMEs. Yet, the limited evidence from the past suggests that the contribution of SMEs is much less dynamic relative to successful countries like China, Korea, Japan and Taiwan and certainly much below potential. A key reason for this is the absence of a results-based monitoring and evaluation framework. A range of policy instruments have been used to spur the growth of the SMEs. In particular, emphasis has been placed on the availability of financing at low cost on the presumption that financing is a key constraint to the expansion of SMEs. For example, the Bangladesh Bank manages three specialized windows for SME financing at discounted interest rates. Additionally, the Bangladesh Bank sets credit targets for SMEs through the commercial banking sector.

While the objective of supporting SMEs is laudable, there is very little analysis about the effectiveness of the various policies in supporting SMEs. A large volume of subsidized and un-subsidized financing has been targeted to SMEs. But there is no follow-up to learn about the success of these financing schemes. For example, there is no systematic effort to find out:

- Where has all this money gone? Who has been the ultimate beneficiary?
- What has been the impact of these financing in terms of contribution to GDP, employment, investment, and exports?
- How sustainable are these subsidized credit schemes?
- How can these financing schemes be made more effective in terms of results?

The lack of a proper monitoring and evaluation (M&E) framework is a serious obstacle to determining the efficacy of policy and financial support to SMEs. In the absence of a baseline data and follow-on data focused on outcomes, it is impossible to even know if the financial support is reaching the targeted beneficiaries and achieving the intended results. For example, there is some anecdotal evidence that funds allocated to SME programs were diverted to stock markets during the frenzy upswing of the stock market in 2010.

In the absence of a results-based SME, giving financing in the name of SME is almost tantamount to dropping money from helicopter. A top policy priority is to institute a proper M&E framework that will review the effectiveness of all financial support programs to SMEs. In general, there is an urgent need to do proper reviews of existing policies, programs and institutions for SME expansion with a view to understanding their effectiveness and what could be done to make them more effective. Establishing a results-based M&E framework for SMEs is a major priority for future research.

H. Towards a Results Based Framework

Monitoring and evaluation systems can be classified into two groups: (i) traditional implementation-focused M&E systems and (ii) results-based M&E systems. The former tries to answer certain questions like whether the project mobilized required inputs or whether the project delivered intended outputs etc. The implementation approach focuses on monitoring and assessing whether a project, program, or policy has been executed successfully or not. However, this approach does not provide policymakers or stakeholders with a proper understanding of the success or failure of that project, program, or policy.

On the other hand, results-based M&E systems are designed to address the questions like, what are the goals of the organization, whether they are being achieved, in which way the achievement can be proven etc. The key elements of results monitoring are: (i) baseline data for describing the problem/situation before the intervention has taken place, (ii) appropriate indicators reflecting outcomes, (iii) data on outputs and the knowledge of the ways they contribute towards achievement of outcomes. Monitoring and Evaluation are both essential to analyze the outcome of intervention being reviewed.

Table 26 shows the complementary roles of Monitoring and Evaluation in a results based environment. They are basically two legs of any effective results framework.

Table 26: Complementary Roles of Monitoring & Evaluation

Monitoring	Evaluation
Focuses on primary objectives pertaining to the program	Analyzes the root causes of success or failure of the predicted and actual outcomes
Channels associated activities and resources to objectives	Stresses the causality of objectives and results
Sets appropriate performance indicators and targets	Mechanizes the process of implementation
Systematically collects data on the indicators to reflect on the desired outcomes	Provides experimental explorations with unintended results
Communicates the management and stakeholders associated with the problem	Provides with lessons, insights, feedbacks and recommendations; along with potentialities and improvement of the program

Source: Khandker, S. R., Koolwal, G. B. and Samad, H. A. (2010).

Procedural Steps towards a Results-based M&E System

The results-based M&E seeks to measure and analyze the impact of an intervention both at the micro level (a project or policy) and at the macro level (public investment program or the national development plan). Although there is no hard and fast rule for the best practice results-based M&E, the following steps outline the common framework of a results-based M&E:

- Conducting a readiness assessment to understand why a result based M&E is required.
- Selecting the outcomes to monitor and evaluate for determining the success and failure of a program.
- Selecting key indicators to monitor outcomes.
- Keeping track of the factors which would directly or indirectly affect monitoring.
- Analyzing the current trends, possibilities and previewing the status quo with the baseline data on the indicators.
- Capturing the inter-linkage of goals, outcomes, targets and strategies based on quality and diversity of the related inputs.
- Carefully selecting a pragmatic evaluation procedure to correlate the planned and actual trends of performance.
- Analyzing the results of evaluation procedure and reporting findings to the stakeholders.
- Sustaining the M&E system within the organization while internalizing the tested methods of M&E into the existing structure of management.

Doing a proper M&E requires proper information. The nature of the information required depends upon the scope of the M&E. Broadly speaking there are two types of M&E that may be necessary for the SME sector. At the macro level an important policy question is how the SME sector is performing overall. This type of macro M&E is best done on an annual cycle using a properly updated time series data on SMEs in general. The baseline database that needs to be established should be updated on an annual cycle using proper sample surveys. This database

should be adequate to provide this macro review. A different kind of M&E is needed to answer questions relating to the effectiveness of specific policies or programs. In this case the annual macro data on SMEs will not be adequate and specific questionnaire and sample surveys will be needed to answer those questions. These are akin to micro-level M&E.

I. Way Forward

This research and policy paper provides a framework for understanding the existing state of the manufacturing SMEs in Bangladesh, which will provide insights in developing policies aiming to facilitate the long-run growth prospects of manufacturing SMEs. In light of the international experience with SMEs, it is clear that SMEs can play a transformational role in the development of nations if a proper policy-package is identified for their support. The Government of Bangladesh, in past, has also undertaken numerous initiatives to the boost the performance of the overall SME sector. Nonetheless, existing data on SME is suggestive that the country is far behind in harnessing this true potential. This makes it pragmatic to do a proper diagnostics about the nature of the sector in Bangladesh and its major constraints. This is because, while international experience is suggestive of the true potential, actual policies and institutions will need to be tailored to the requirements of the SMEs in Bangladesh. Moreover, this requires a careful review and evaluation of the various ongoing policies and programs to understand their effectiveness and to determine what changes are needed to make them more useful. To this end, this report advocates the construction of a well-designed baseline data-set on the structure of SMEs, so that the true performance of the SME sector on an annual cycle could be measured and importantly a proper M&E could be devised for the existing policies on SMEs. In this context, the Government of Bangladesh should re-evaluate the exiting definition it proposes for the SMEs under the National Industrial Policy Order 2010, which will make existing data on SMEs from 2001-03 Economic Census and the 2006 Survey of Manufacturing Industries redundant. Instead, the study suggests the adoption of a definition based entirely on employment that is consistent with ILO practice as well as definition of SME used by the Bangladesh Bureau of Statistics since 2001. The baseline data must also be updated on an annual cycle to measure the overall growth of the sector in terms of clearly identifiable measures of performance. Special purpose sample surveys can be done using the baseline data as a reference point to measure the effectiveness of specific policies and programs. The paper also advocates partnership with research organizations in order to undertake policy-based research on SMEs.

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Appendix- 1

The box reports the total number of procedures, time and the direct cost associated with meeting government requirements, and direct cost plus the monetized value of the entrepreneur time as well as the GDP per capita dollars in 1999. Countries are sorted in ascending order on the basis of - the total no of procedures

Country	No of procedures	Time	Cost
Canada	2	2	0.0145
Australia	2	2	0.0225
New Zealand	3	3	0.0053
Denmark	3	3	0.1
Ireland	3	16	0.1157
United States	4	4	0.0049
Norway	4	18	0.0472
United Kingdom	5	4	0.0143
Hong Kong	5	15	0.0333
Mongolia	5	22	0.0331
Finland	5	24	0.0116
Israel	5	32	0.2132
Zimbabwe	5	47	0.1289
Sweden	6	13	0.0256
Jamaica	6	24	0.1879
Zambia	6	29	0.6049
Panama	7	15	0.3074
Switzerland	7	16	0.1724
Singapore	7	22	0.1191
Latvia	7	23	0.4234
Malaysia	7	42	0.2645
Sri Lanka	8	23	0.1972
Netherlands	8	31	0.1841
Belgium	8	33	0.0998
Taiwan, China	8	37	0.066
Hungary	8	39	0.8587
Pakistan	8	50	0.3496
Peru	8	83	0.1986
South Africa	9	26	0.0844
Kyrgyz Republic	9	32	0.2532
Thailand	9	35	0.0639
Nigeria	9	36	2.57
Austria	9	37	0.2728
Tunisia	9	41	0.1722

Country	No of procedures	Time	Cost
Slovenia	9	47	0.2103
Lebanon	9	63	1.5672
Uruguay	10	23	0.4949
Bulgaria	10	27	0.1441
Chile	10	28	0.1308
Germany	10	42	0.1569
Ghana	10	45	0.2175
Lithonia	10	46	0.0546
Czech Republic	10	65	0.0822
India	10	77	0.5776
Japan	11	26	0.1161
Uganda	11	29	0.304
Egypt	11	51	0.9659
Kenya	11	54	0.507
Armenia	11	55	0.1267
Poland	11	58	0.2546
Spain	11	82	0.173
Indonesia	11	128	0.5379
Croatia	12	38	0.4503
Kazakhstan	12	42	0.4747
Portugal	12	76	0.1844
Slovak Republic	12	89	0.1452
China	12	92	0.1417
Korea,Rep	13	27	0.1627
Tanzania	13	29	3.352
Ukraine	13	30	0.2569
Turkey	13	44	0.1932
Malawi	13	52	0.1886
Morocco	13	57	0.2126
Georgia	13	69	0.6048
Burkina Faso	14	33	3.1883
Philippines	14	46	0.1897
Argentina	14	48	0.1019
Jordan	14	64	0.5369
Venezuela	14	104	0.106
Greece	15	36	0.586
France	15	53	0.143
Brazil	15	63	0.2014
Mexico	15	67	0.5664
Mali	16	59	

Country	No of procedures	Time	Cost
Italy	16	62	0.4482
Senegal	16	69	1.2331
Ecuador	16	72	0.6223
Romania	16	97	0.15331
Vietnam	16	112	1.3377
Madagascar	17	152	0.4263
Colombia	18	48	0.148
Mozambique	19	149	1.1146
Russian Federation	20	57	0.1979
Bolivia	20	88	2.6558
Dominican Republic	21	80	4.6309
Sample Average	**10.48**	**47.4**	**0.4708**

Source: Djankov et al (2002).