ENHANCING SME COMPETITIVENESS & EXPORTS IN THE 21ST CENTURY

A Proposed General Policy Framework for SME Development

In Egypt

Presented to

The Ministry of Foreign Trade
&
Micro, Small & Medium Policy Development Project (SMEPOL)

By

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January, 2004

Acknowledgements

This work would not have been possible if not for the support and guidance of H.E. the Minister of Foreign Trade. The work is also indebted to the senior management and staff of the Ministry of Foreign Trade and SMEPol for the significant support provided throughout the stages of this assignment. Thanks are also due for all the experts and stakeholders that participated in various stages in the development of this document.

This document is a result of work undertaken by Entrust: Development & Management Consultants under contract number: SMEPOL / 100168, financed by the Micro, Small & Medium Enterprises Policy Development Project (SMEPol). The following Entrust team members participated in the work:

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Preface

This document is a product of a lengthy and informed consultative process that involved representatives of the small and medium enterprise (SME) sector in several governorates, local and international experts, representatives of SME development organizations and agencies, as well as delegates from the pertinent legislative and executive bodies. In choosing to adopt this process, the aim of the Ministry of Foreign Trade (MOFT) was to develop a new policy orientation for SME development and its accompanying set of guidelines and activities that enjoy the following characteristics:

- Well-informed and based on an accurate understanding of the dynamics of recent global and local economic developments and their implications regarding the role and potential of SMEs.
- Consistent with the Government of Egypt's (GOE) vision and orientation towards enhancing the competitiveness of the Egyptian private sector in order to actively participate and increase its share in the global world economy.
- Based on a solid understanding of the latest developments in the field of SME development, as well as international and local experiences and best practices.
- Founded on the results of latest scientific research and data.
- Reflective of the actual constraints, needs and suggested solutions of the SME sector.
- Enjoys the consensus of governmental and non-governmental stakeholders that would participate in the implementation of these guidelines and activities in various capacities.

In order to realize the above, the development of this document went through the following stages:

1. *Desktop Research*

A research was conducted of the latest economic trends and developments and their effect on SMEs on both the global and national levels. This phase also reviewed latest quantitative and qualitative research and the lessons learned from local international experiences in SME development and best practices.

2. *Participatory Research*

Based on the results of the first phase, focus group sessions were conducted with SMEs in various governorates in order to obtain first-hand qualitative knowledge of the sector, identify constraints hindering their competitiveness as well as obtain their input on possible solutions.

3. *Consultation with Experts*

A series of consultative meetings and exchanges were undertaken with experts in the fields, selected government and non-government representatives, donor organizations and programs, as well as leading economists, all of whom their input was solicited in reviewing and refining several drafts.

4. Participatory Development of the Action Plan

The findings and draft recommendations were widely distributed to more than 180 representatives and delegates of almost 50 organizations and entities active in the field of SME development in Egypt including among others SME development organizations and programs, line ministries, SME representative organizations, NGOs, banks and financial institutions. Consultations were undertaken over two workshops, during which expert groups, with the help of professional facilitators, reviewed and refined the recommendations and developed concrete action plans for each policy area. In addition to this organized group efforts, inputs of individual organizations and experts was also solicited through various mechanisms (one-on-one meetings and written comments and suggestions).

5. Refinement & Finalization

The final consultative round came with the appointment of a smaller working group of delegates of the most relevant fifteen official organizations in order to review, refine and streamline the action plans developed by the expert working groups. The working group held two full-day meetings during which the action plan was carefully scrutinized and refined.

Based on the above, the proposed policy framework embodies an inclusive, well-informed, planned and executed participatory process that established and nurtured effective communication between various stakeholders active in the field. It is hoped that such an effort will become sustainable and will continue to enjoy the support of various governmental and non-governmental entities during the implementation stages.

This document is divided into six chapters. Chapter I outlines the purpose of the document, the proposed theme and vision, and briefly addresses the global and local economic developments, their implications with regards to the changing nature of competitiveness in general and the nature of SME competitiveness in particular. Chapter II, sets the parameters of the proposed policy framework for enhancing the competitiveness of Egyptian SMEs. It outlines the orientation and the policy approach proposed for adoption and the implications of their adoption, together with the proposed vision, with regards to targeting priorities. Moreover, it identifies the critical factors and requirements for the success of the proposed approach, the policy and programmatic areas to be addressed and briefly examines the general implementation guidelines to be observed. Egypt and new trends in the global economy are addressed in Chapter III which analyzes these trends and where the Egyptian economy stands vis-à-vis these developments. In so doing it performs the essential task of placing the issues and problems of SME development within the broader contexts of the Egyptian economy and its position regarding global economic developments.

The challenges and opportunities faced by SMEs in the global economy are the subject of Chapter IV which pays particular attention to SMEs in developing countries before proceeding to examine SMEs in Egypt in Chapter V. Egyptian SMEs are examined first in terms of the general structural conditions, and then in terms of the effects of these conditions, before analyzing the constraints hindering SME competitiveness in Egypt based on the results of latest data and research findings, as well as the input of SME representatives. Chapter VI presents the recommended policy/programmatic areas for intervention. These are direct export promotion measures, business development services, financial services, clusters, networking and inter-firm linkages, the legal and regulatory environment, and innovation-enhancing measures. This chapter is followed by an exposition of the implementation

guidelines which are presented on two levels; the policy level and the institutional level. The document also includes a tentative policy analysis matrix (Annex II), guidelines for the effective delivery of business development services to SMEs (Annex III), and an action plan for the implementation of the recommendations proposed.

Finally, it should be noted that this document, and the process through which it evolved, were the product of concerted efforts that involved a large team from MOFT, SMEPol, as well as outside team of researchers, facilitators and consultants that were fielded by *Entrust: Development & Management Consultants*; the contractor commissioned by the Ministry and SMEPol to develop the above process and the policy framework.

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I. Background & Introduction

A. Purpose

For years Egyptian SMEs were targeted for assistance and service delivery by many stakeholders. Those include government and non-government organizations, donors and assistance projects, and local and international development organizations. At a minimum there are some 160 such entities that deal with SMEs in various capacities. While there has been impressive successful initiatives undertaken by several actors in the field of SME development, these efforts have largely been scattered, uncoordinated – if not conflicting - and isolated. This served to minimize the benefits that accrued to the Egyptian economy and its SME universe, allowed for market distortions, created a schism between these efforts on the one hand and the general economic policy orientation of the government and contributed to the SMEs' a loss of faith in similar development initiatives. One of the main factors contributing to this situation is the absence of a coherent vision and a general policy framework for SME development in Egypt that is officially adopted by the government and endorsed by the various actors. The purpose of this document is to develop a general policy framework that would come to constitute the broad parameters within which policies and initiatives are implemented. In doing the above, and in light of its broad purpose, it should be stressed before hand that the document attempts neither to address *all issues* associated with SME development, nor to offer detailed solutions to all the constraints facing *all segments* of the SME universe.

Purpose

The purpose of this document is to develop a *general* policy framework that would constitute the *broad* parameters within which SME development policies and initiatives are to be implemented.

Box 1: Purpose

In 1998, the Ministry of Economy issued "A Draft National Policy on Small and Medium Enterprise Development in Egypt". The document constituted the first attempt to develop a national policy framework for SME development in Egypt. Despite the fact that the proposed policy framework was not explicitly formally adopted by the GOE, it managed to:

- Place the issue of SME development on the policy-making agenda.
- Influence the thinking and initiatives undertaken by various governmental and non-governmental actors[1].
- Inculcate a stronger awareness of and orientation towards sustainability of SME development efforts.
- Initiate dialogues among policy makers, practitioners and opinion leaders on the issue of SME development.

[1] Examples include inter alia the increased commercialization and involvement of commercial banks in microfinance, several efforts undertaken towards streamlining the legal and regulatory environment, allocating portions of government procurement to SMEs, developing a single official definition for SMEs...etc

However, the fast pace of global economic developments, together with the shift in the government's orientation towards improving the trade balance and enhancing Egypt's competitiveness combined to create a need for a new approach for SME development in Egypt. The purpose of the proposed policy framework is to establish an overarching frame of reference to guide all services, programs, incentives and policy initiatives addressing SMEs, and situate them within the larger context of the GOE's economic policy orientation towards enhancing competitiveness and export promotion. Accordingly, the proposed policy framework is:

- consistent with the GOE's overall economic policy orientation, and
- responds to the challenges and opportunities created by global economic developments

This document is divided into six sections. Section I addresses the purpose of the document, identifies the theme and vision proposed by the Ministry, and places them against global and local developments, as well as their repercussions on the nature of competitiveness and SME competitiveness in the global economy. In Section II, the parameters of the proposed policy framework are outlined. Following an explanation of the orientation and approach adopted and the repercussions regarding the identification of the target group, this section identifies some factors that are critical for the successful implementation of the recommendations made. The recommendations are then briefly outlined together with some key implementation guidelines. Section III is devoted to addressing where Egypt stands vis-à-vis global economic changes. In so doing it tackles the internationalization of production, the exponential growth in trade, the knowledge economy, foreign direct investment and the changing nature of competitiveness. Section IV focuses on the challenges and opportunities created by globalization for SMEs in both the developed and the developing world. The fifth section addresses the situation of SMEs in Egypt. Following an analysis of some pertinent structural conditions, this section uses the results of recent field investigations and quantitative and qualitative research to highlight some pertinent constraints to SME development. Section VI, proceeds to outline some tentative recommendations aiming to enhance the competitiveness of Egyptian SMEs, based on international best practices. These recommendations are laid out in Annex II in a policy matrix against their institutional and policy prerequisites. Finally, section VI delineates some of the policy and institutional guidelines that have to be followed in order to ensure successful implementation.

B. Theme & Vision

The Egyptian economy and the Egyptian SMEs are not operating in a vacuum, and just like the GOE's policies and efforts start from global economic realities, SME development efforts should be placed in the larger context of economic developments on both the local and international levels. Choosing competitiveness as the focus and theme of the proposed policy framework, MOFT endorses the vision of a competitive SME sector that can withstand competition locally and internationally. With the realization of this aim, the SME sector would free itself from the narrow confines of the local market and be able to continue to deliver its socio-economic and developmental benefits in the years to come given the progressively intensifying global competition. In addition, the

Vision

The development of a competitive SME sector that can compete in local and global markets, and is hence able to continue to deliver its socio-economic and developmental benefits in the years to come, as well as play a significant role in improving the country's balance of trade.

Box 2: Proposed Vision

sector would play a significant role in improving the country's balance of trade. It is through the looking lens of the above theme and vision that the analysis and proposals in this document are made. The choice of the theme & proposed vision is largely a product of the local and global contexts, as seen below.

C. The Global & Local Contexts

The evolution of a ***single global market*** is increasingly becoming a reality. The local market-international market dichotomy is increasingly becoming irrelevant and blurred and in a few years it will become obsolete. The context within which Egyptian SMEs and the efforts aiming to develop them is rapidly and radically changing. Rapid technological change particularly in the information and communication technology field (ICT), together with falling transportation costs, led the *Economist* as early as 1995 to announce "The Death of Distance".[2] With the world literally becoming a "global village", firms were able to capitalize on the competitive advantages of different countries and regions around the globe through a variety of arrangements ranging from direct investment to flexible networking. The ***world became a nexus of production and supply chains*** characterized by increased specialization and efficiency. International production undertaken by Transnational Corporations (TNCs) now amounts to more than global trade in goods and services. TNCs are 'globalizing' their operations, rationally integrating production, sales and other functions across national boundaries, and spreading the new organizational methods that are gaining dominance in the advanced world. Policy ***liberalization opened up national markets*** for the free flow of Foreign Direct Investment (FDI) and other non-equity arrangements. The world witnessed a ***growth in trade to unprecedented levels***; faster than world production, and came to account for a steadily increasing part of income to many industries and countries. Meanwhile, the ***speed of technological progress*** and improvements in communications allowed technologies to mature faster and to be transmitted more quickly across countries.[3] This is the context within which SMEs have to exist and within which SME development efforts and policies have to operate.

Concomitant with the above developments, the SME development field has lately witnessed a marked shift towards the issue of competitiveness that was spurred to a great extent by the advent of globalization. A growing body of literature came to address competitiveness as a new focus for SME development efforts and policies. Furthermore, in June 2000, Governments of several developed and developing countries, including that of Egypt, attended OECD's Conference for Ministers Responsible for SMEs and Industry Ministers. The conference had the telling theme of "Enhancing the Competitiveness of SMEs in the Global Economy: Strategies &Policies". The conference culminated in the famous Bologna Charter on SME Policies; adopted by some forty-seven countries, including Egypt.

Locally, it has been repeatedly stressed by both experts and government officials that export promotion and improvement of the country's trade balance is Egypt's greatest challenge. The main burden in rising up to this challenge falls on the shoulders of Egypt's private sector. With a size structure that is markedly skewed towards smallness, unless SMEs increase their competitiveness, they will not be able to survive the progressive de-protection of the economy and the increasing competition in both local and international markets. This will clearly have devastating effects on the future of the Egyptian economy as a whole.

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[2] Bologna Workshop 1, p. 5
[3] Lall, 1995, p. 3

By now it is well established that the lack of effective demand on SME products and services is the main constraint facing the sector. The 2000/2001 Egypt Human Development Report estimates that real wages have declined over the period 1987-1996 by an average of more than 25% (see Figure 1, blow)[4]. According to the World Bank, "Real hourly wages over the 1988/98 period declined in almost every sector of the economy by an average of 3.6 percent and 1.3 percent per annum for males and females respectively. Wages of better paid workers decreased, which resulted in compression of the overall wage structure over the decade."[5]

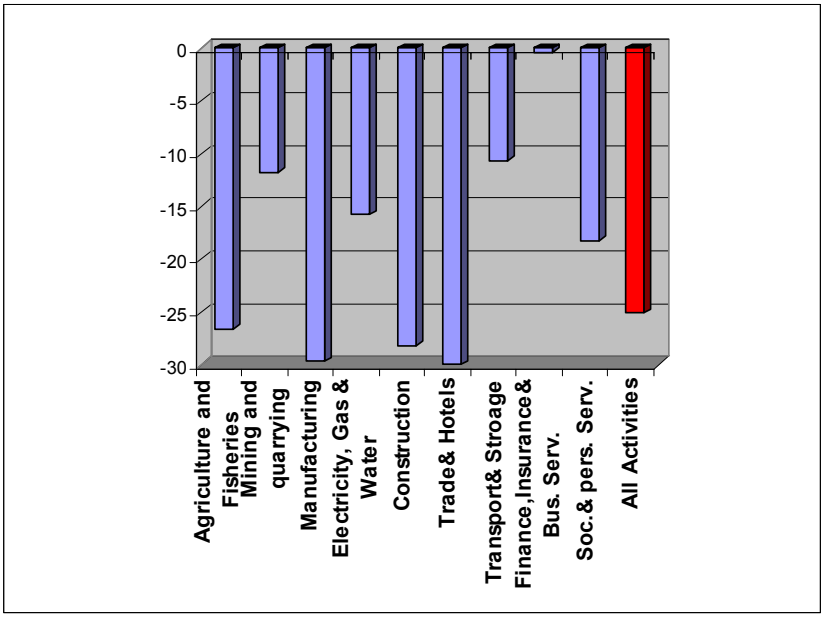

Figure 1: Decline in Real Wages (%) 1987-1996

(Source: based on Egypt Human Development Report 2000/2001)

This has resulted in a progressively declining effective demand that while negatively affecting enterprises of all sizes, had more adverse effects on the market for goods produced by SMEs. Recent field work has shown that intense competition from imports, coupled with a shrinking market (that was already relatively narrow to start with), has lead many SMEs to adopt austerity measures (reducing labor and/or wages, scaling down the size of their operations and expenditures, significantly reducing their profit margins…etc.). This, in turn, means that the various economic, social, developmental and political contributions and benefits it brings to the country (in terms of, inter alia, its contribution to GDP, employment, and the incomes it channels to the disadvantaged sectors of society), will be threatened. Not only will the country be unable to enhance the SME sector's contribution to the above, but it will also be unable to sustain the current situation. In addition, given the relatively small size of the Egyptian local market, enterprises in many sectors were unable to grow to their optimal size that would allow them to be more competitive through benefiting from scale economies.

[4] Egypt Human Development Report, 2000/2001, p. 98
[5] Radwan, 2002, p.10 - 11

Faced with a narrow and progressively shrinking market that is increasingly being subjected to intense outside competition, there is an urgent need for SMEs, and the private sector in general, to develop their operations to international standards. With the world increasingly becoming a global market, those who are unable to develop their competitiveness by international standards will be unable to survive in the future. Based on the above, for Egyptian SMEs competitiveness and export orientation are not a luxury, but probably the only way to survive and avoid serious social and economic repercussions. Nevertheless, the above context does not only pose challenges to Egyptian SMEs, but it also creates opportunities for the realization of their potential. Examples of several developing countries clearly show that those who develop their competitiveness are able to reap the benefits of operating in a global marketplace. SMEs in many countries like Korea, Hong Kong, and India have made sizeable contributions to the economies of their countries in various sectors, and have substantially contributed to their countries' exports.

D. The Changing Nature of Competitiveness

One of the main features of the new global knowledge economy is the exponentially increasing concentration of value added away from production (especially labor-intensive production) links, to the advantage of the technology and knowledge-intensive links or stages in the value chain. Accordingly, when it comes to positioning an enterprise or an entire economy in the global economy, economic returns are associated with moving up the ladder through R&D and innovation, technological development, continuous product improvement, a high and multi-skill base of human resources with the requisite technical and technological capacities, among other factors. These came to constitute the ***high road for competitiveness, associated with increase in value***. Traditional modes of competitiveness based on factors like unskilled labor, natural resources and simple technologies on the other hand are rapidly and increasingly losing significance. These factors (where comparative advantage can easily be lost) came to constitute ***the low road***, which manifests itself in ***price competition, ultimately leading to a ruinous race to the bottom***. Other key variables include the presence of an overall system and a financial system that are conducive to enterprise growth and competitiveness, through availing – among other things – the required factors and resources efficiently and effectively.

One of the main pillars of the high road to competitiveness is a vibrant modern educational and science and technology (S&T) infrastructure that is adequately catering to the rapidly evolving human resource and R&D needs of business. Without such a foundation, the innovative capacities of the country's enterprises, and the capability of its human resource base to absorb, adapt and develop new technologies, will not be developed, in which case the long-term competitiveness of the Egyptian economy and Egyptian SMEs will be unattainable. On the other hand, once such pillars or tenets are available, programs and measures targeting SMEs can be easily initiated and maintained. Building competitiveness along the above lines, it should be highlighted, is not an easy short-term task. Rather, given the nature and pace of scientific, technological and economic changes, it should be viewed as a continuous process. In addition, building such a foundation involves sizeable investments and costs. However, as the latest Arab Human Development Report maintains, the cost of ignorance is much higher.

E. SME Competitiveness in the Global Knowledge Economy

Worldwide SMEs are facing increasing competitive pressures that are compounded by the unequal access to cutting edge technologies and scientific resources. The reality is that only a

minority of the global SMEs universe is able to exploit the opportunities created by globalization. These 'modern SMEs' are the ones which have growth and export potential, constituting a small portion of the 'medium', and, to an even lesser extent, the 'small' size categories. Among European SMEs for example, modern technology innovators and adaptors constitute no more than an optimistic 20% of Europe's SMEs; a percentage that's bound to be lower amongst developing countries. The experience of Asia and South-East Asia shows that the majority of small enterprises perform poorly on world markets. Only the growth-oriented medium sized enterprises that have a propensity to apply technology and training and serve specialized niche markets have managed to prosper and even have had a sizeable contribution to their countries' exports (e.g. 43% of Korea's exports). Micro enterprises are highly unlikely to enjoy a privileged position in the global economy, as they continue to cater for the survival needs of their owners, using simple outdated technologies and running poorly managed operations.

Most developing countries, including Egypt, lack a robust and dynamic medium enterprise sector similar to the one that emerged in East Asia, hence suffering from what came to be known as "the missing middle" syndrome. The lack of such a vibrant sector results in weak linkages between the large and the SME sector, and hence in unduly high import content of products, lack of efficiency, due to the weakness of local competition, and above all, high susceptibility to economic downturns that threatens to adversely affect national employment levels and production capacities. Moreover, recent research has shown how countries with a solid base of small and medium enterprises and active linkages with large enterprises have managed to achieve high export growth rates. Conversely, countries that have not been able to develop such a strong base with active linkage relations have generally suffered from low export growth rates[6]. In short, the absence of a competitive SME sector results in weak competitiveness of the economy in general.

[6] El-Gamal, El-Megharbel & Inanoglu, 2002, p. 6-7. The authors show that export growth rate, while positively correlated with SME contribution to manufacturing, is paradoxically negatively correlated with the direct share of SMEs in total exports.

II. Parameters of a Policy Framework for Enhancing the Competitiveness of Egyptian SMEs

A. Orientation

The proposed orientation flows from the nature of competitiveness in the global knowledge economy. Accordingly, emphasis is laid more on adopting the high road to competitiveness, than on the low road. This has two main corollaries when it comes to the focus of the proposed policy framework:

1. Moving up to (or successful positioning in) higher value added links in value chains Egypt is currently participating in (mainly labor intensive, low technology and resource based products).
2. Moving to higher value added chains all together (i.e., medium and high and information and communication technologies).

The above orientation, together with the proposed vision (see Box 2, above), have repercussion with regards to the approach adopted and the allocation and targeting of services and policies, especially in light of the analyses and discussions presented in this document. To realize this vision, more aggressive strategies and policies that are tightly integrated with the economic policy orientation of the GOE and that are more focused on enhancing the competitiveness of the SME sector are needed.

B. Policy Approach

Unlike most SME development policies and programs implemented so far, future ones should clearly distinguish between promoting competitiveness and poverty alleviation, or income generation. In promoting competitiveness the focus should be primarily economic in the long term, without necessarily neglecting social factors. Poverty alleviation and income generation strategies have so far been predominantly focused on social considerations, followed by considerations of economic and financial soundness that have not, with notable exceptions (and not without difficulties and opposition), been strictly followed. Those approaches, it is worth stressing, while incongruent to one another, are not mutually exclusive. While the emphasis will primarily be on economic soundness and efficiency, social considerations will also be considered.

C. Targeting

Addressing the entire universe of micro, small and medium enterprises in Egypt within the vision and theme set forth in this document is unrealistic. Development efforts have to set realistic targets and be carefully managed, monitored and synchronized. Given the sizeable investments and the complexity of efforts involved in managing and implementing the proposed policy framework, careful targeting is a necessity. Resources – scarce by definition - have to be wisely invested in an economically sound manner to generate the maximum possible returns.

In line with the findings delineated in the document (see also Box 3), only small and medium enterprises are proposed to be targeted. This is a product of two main factors: First, a structural weakness of the Egyptian private sector size structure is the "missing middle". There is an urgent need to develop the small and medium enterprise sector, though again, not to the neglect of the micro-enterprise sector. While competitiveness enhancing interventions are better off targeting those with higher potential, the rest should be adequately serviced and allowed to grow and develop. In fact it is expected that some microenterprises will be able to play a direct role in enhancing Egypt's competitiveness, though –most likely – in the long-term. However within the context of the mandate of MOFT and the vision and theme of this document, emphasis will be laid on the small and medium enterprise sector. Second, and as further discussions in this document will reveal, microenterprises are highly unlikely to evolve into the competitive cadre of SMEs that enjoys and contributes to competitiveness along the new lines of technological sophistication, high skill and educational levels..etc.

"Macroeconomic policy makers must target SMEs carefully.....[A]rtisan sector production of quilts, rugs, leather products, etc., which is highlighted as a success story in Bangaldeshi microfinance, [is] not necessarily the type that contributes to GDP and overall export growth. The type of SMEs that contribute significantly to the growth of economic activity and exports seem to be those enterprises that function through subcontracting with the main industrial sectors of developing countries. The policy implications ... draw attention away from the traditional microfinancing methods and target enterprises and towards the more dynamic types of SMEs that could nurture the Arab world's emerging entrepreneurial class".

Box 3: Targeting SMEs

El-Gammal et al., Beyond Credit: A Taxonomy of SMEs and Financing Methods for Arab Countries, ECES, Cairo, 2001, p. 7

D. Critical Factors / Requirements

As mentioned above, competitiveness in the new global knowledge economy is associated with moving up the ladder through R&D and innovation, technological development, continuous product improvement, a high and multi-skill base of human resources with the requisite technical and technological capacities, among other factors. In order to develop a competitive SME sector, four main cornerstones must be adhered to:

1. **The Development of Egypt's "Missing Middle" Stratum of Small and Medium Enterprises.**

As established above the missing middle syndrome characteristic of many developing countries including Egypt is a main impediment to competitiveness of the economy. It unduly increases the import content of production, leads to the predominance of vertical integration in the economy (hence resulting in slow-responding firms) and threatens to result in significant employment and capacity losses in case of economic downswings.

2. **Vitalizing the Science and Education Infrastructure and Enhancing its Economic Role.**

With the rising knowledge and skill content of production and the resultant shifting focus of competitiveness, the science and education infrastructure became the most important economic factor in today's world. Without having a highly educated and skilled workforce, a strong R&D and innovation foundation, continuous learning, strong linkages between science and education on the one hand and business (especially SMEs) on the other, Egypt's competitiveness will continue to erode in the long term. The crucial role of the educational system in specific should even go far beyond this direct or strict economic function. Rather it should play a highly instrumental role in the development of the very value system of society, towards one that promotes and rewards entrepreneurship, innovation and critical thinking.

3. **Tight Integration of Policies for SME Development, Industrialization, Science and Technology, and Education.**

The development of such synergies will have to overcome obstacles related to overlapping mandates, institutional rigidities, and lack of coordination among others. However, without developing effective synergies between the above policies, as well as the institutions and actors managing their implementation, development efforts will remain sporadic, disjointed and disintegrated, with minimal impact –if at all – on the competitiveness of the sector.

4. **Maintaining a Healthy and Stable Macro Economic Environment.**

Current research and literature on SME development suggest that SMEs suffer disproportionately from volatile macro environments. There is an urgent need to create an overall environment supportive of entrepreneurship, as well as firm establishment and growth. The government will have to expedite its efforts in removing market distortions and correcting market failures in the economy in general, as well as ensuring the existence of a level-playing field for all actors, especially SMEs.

While the above factors can be considered prerequisites for the successful implementation of the range of policies and programs envisioned, implementation of programs and/or interventions can proceed in tandem with long-term efforts in the above four areas.

E. Policy/Programmatic Areas:

Based on the analysis presented, MOFT proposes seven policy/intervention areas that have a strong focus on competitiveness:

1. Promotion of Direct Exports[7].
2. Business Development Services.
3. Financial Services.
4. Innovation & Technology.
5. Organic Clusters.
6. Networking & Inter-firm Linkages with Foreign & Large Firms.
7. Regulatory Changes.

[7] MOFT is currently preparing an SME export development strategy. Accordingly, this document only sketches - in a cursory fashion - some general measures that could be taken into consideration when finalizing the strategy.

An elaborate discussion of these recommendations and the best practices upon which they were conceived can be found in section V, below. In addition, in each of these policy areas, MOFT has tentatively proposed a set of measures or initiatives, identified institutional and policy requirements, complementary measures, as well as long-term initiatives. These can be found in Annex II: Policy Matrix. Furthermore, a more elaborate Action Plan that delineates some concrete measures to be undertaken in each policy area, as well as tentatively identifies the pertinent stakeholders for each measure, can be found in Annex IV.

F. Implementation Guidelines

Table 1, below outlines some of the guidelines that have to be taken in consideration while formulating and/or implementing policies for SME development. A more elaborate discussion can be found in section VI, below.

Implementation Guidelines	
Policy Guidelines	**Institutional Guidelines**
• **Promoting a realistic understanding of the economic potential of SMEs.** • **Avoiding politicization of the issues and programs of SME development.** • **Maintaining a tight integration with the overall economic orientation towards increased competitiveness.** • **Rationalization of subsidies.** • **Using best practices and results of scientific research in the design and implementation of interventions.**	• **Revising and streamlining mandates of stakeholders.** • **Increased effective coordination and communication between stakeholders, specially line ministries and local administration.** • **Increased effective representation and participation of SMEs.** • **Increased stability, predictability and transparency of the institutional setup.**

Table 1: Implementation Guidelines ***(Adapted from El-Meehy, 2002)***

III. Egypt & New Trends in the Global Economy

In describing today's economy two main terms have been recurrently utilized; *globalization* and the *knowledge economy*. The world has been increasingly witnessing the globalization of economic affairs driven *inter alia* by the information and communication technology revolution, as well as national and international deregulation. In parallel it has been witnessing a related exponential rise in the knowledge intensity of economic activities, driven by the ICT revolution and the increasing pace of technological progress.

Globalization manifests itself in several interrelated dimensions; most notably:

- Internationalization of production.
- Erosion of borders between national markets and the growing share of international trade in world output.
- Knowledge intensity.
- The extraordinary rise of capital mobility, including foreign direct investment (FDI).
- Increased competition.

A. The Internationalization of Production

The expansion of international production was driven by the following long-term factors:

- **Policy liberalization** and the erosion of national boundaries, allowing all kinds of FDI and non-equity arrangements.
- **Rapid technological change**, and the fall in transportation and communication costs made it economical to integrate distant operations and transport products and components across the globe in search for efficiency.
- **Increasing competition** compelled firms to explore new ways to increase their efficiency, including using new markets and shifting certain production activities to reduce costs. [8]

1. Trends

Modern international systems of production require new systems of production management involving more efficient networking of firms and suppliers, better systems of quality management, and a highly and multi-skilled workforce.

Box 4: Some Requirements of Modern International Systems of Production

Under the global economy the value chain is fractured among several countries. Production itself is no longer necessarily part of the core activities that have to be performed within the lead firm. Under increasing competition, it is increasingly being outsourced to outside facilities and firms located in more than one country. This allows firms to utilize comparative advantages on a global scale including among others, preferential access to certain markets, cheap labor...etc, allowing them to focus on their core competences in the knowledge-intensive stages of the value/supply chain, where most of the value is found[9].

[8] World Investment Report, 2002, p.4

This entailed a shift in management techniques towards systems of quality management, standardization and just-in-time production…etc. Concomitantly, the demand on labor is shifting towards a highly and multi-skilled labor force.

For example, in international production networks producing standardized goods on a large scale, the lead firms (TNCs) seeks locations based on high labor productivity, low wages and infrastructure costs (comparative advantages that can be easily lost). While generally keeping the know-how and technology to itself, the lead firm engages in a network of sub contractual relationships to capitalize on these comparative advantages[10]. These methods require new systems of managing the value chains involving more efficient networking of firms and suppliers, better systems of quality management, and a multi-skilled workforce.[11] These systems vary across industries and sectors, based on the nature of the industry's value chain (e.g., its divisibility). For example, the clothing industry exhibits a reliance on outsourcing. Box 5 provides an example of how the outsourcing system is managed.

"Say we get an order from a European retailer to produce 10,000 garments. It is not a simple matter of our Korean office sourcing Korean products or our Indonesian office sourcing Indonesian products. For this customer we might decide to buy yarn from a Korean producer, but have it woven and dyed in Taiwan. So we pick up the yarn and ship it to Taiwan. The Japanese have the best zippers and buttons, but they manufacture them in China. Okay, so we go to YKK, a big Japanese zipper manufacturer, and order their best zippers from China. Then we determine that because of quotas and labor conditions the best place to make the garments is in Thailand. So we ship everything there. And because the customer wants quick delivery we may divide the value chain to suit the customer's needs. Five weeks after we have received the order the garments arrive on shelves in Europe, all looking as if they were made in the same factory"

Victor Fung, Head of a Hong Kong regional sourcing agent for large Western retailers.

Box 5: An Example of Outsourcing in the Clothing Industry

An important development pertaining to internationalization of production has been the ***growing importance of standardization***. In order to ensure the integrity and marketability of the final product, independently produced components have to prove compliance (through certification) with a variety of standards pertaining to management, production, labor, environment…etc.). Hence, the last decade has witnessed a proliferation of the use of these standards.

2. Division of Labor

High value activities are usually retained by the TNCs or assigned to industrially more advanced locations (e.g., the Asian Tigers), leaving the less industrialized locations assigned to simpler labor-intensive activities like packaging and assembly. As more and more countries have developed their capabilities in industrial activities, barriers to entry in

[9] Services firms appear to be considerably less transnationalized than manufacturing ones (in the U.S. by a factor of three). A relatively small number of TNCs relocate their services (mainly R&D, sales and marketing, and procurement centers) in lower cost sites in the developing world (chiefly, Asia) (see WIR, 2002, p.157).

[10] Such arrangements are naturally more typical of activities where the labor-intensive segments of the value chain are separable from capital / skill/ technology – intensive segments.

[11] Lall, 1995, p. 1

production have fallen and the competitive pressures have heightened[12], leading to the deterioration of terms of trade in manufactures of developing countries (see the section on Trade, below). Conversely, it is increasingly the case that the primary economic returns in the chain of production are to be found in areas outside of production, such as design, branding and marketing.[13]

B. Trade

1. Trends

With the increased internationalization of production and value chains, trade gained significant importance *within* the value chain itself, rather than at its end. International production has exponentially intensified trade and raised the direct import content of exports relative to value added. Goods travel across several locations before reaching the final consumer, and the total value of trade recorded in such products exceeds their value added by a considerable margin. Just like history witnessed the decline of the terms of trade for primary products against manufactured ones, starting the mid 70s there has been a steady decline in the terms of trade for developing countries manufactured exports.[14] As mentioned above, the entry of countries with an abundance of cheap labor has led to the deterioration of the terms of trade for developing countries' manufactured exports. As shown below, primary products and resource based manufactures have steadily lost shares in international trade over the past several decades, while non-resource and knowledge-based manufactures have been driving export growth, with changing levels of technological intensity.[15]

Exports grow faster the more advanced the level of technology and the less the reliance on natural resources. High technology products are the most dynamic for both developed and developing countries. Figure 4 shows that the share of resource-based manufacturing has been steadily declining for more than 20 years. Furthermore, a similar decline in the share of low-technology manufactures has been taking place over the last decade. Medium technology manufactures' share has been almost stagnant since the mid-eighties and has actually started to witness a decline starting the mid nineties. On the other hand, the winners are obviously the high technology manufactures and the information and communication technologies, both of which have been continuously on the rise since the mid-seventies. High-technology exports are now the largest foreign-exchange earners for the developing world, as the following table illustrates:

Category of Exports	Exports (2000) ($ billion)	Percentage of Total Value
High technology manufactures	450	25%
Primary exports	386	22%
Low-Technology manufactures	405	23%
Medium-Technology manufactures	310	17%
Resource-based manufactures	235	13%
Total	*1786*	*100%*

Table 2: Value of Developing Countries' Exports by Category

[12] This has become particularly apparent since China, with its abundant supply of labor, has entered the world market in the mid-1980s.
[13] UNIDO, 2001, p. 28
[14] UNIDO, 2001, p. 24
[15] World Investment Report, 2002, p.143

This pattern of the correlation of trade dynamism with technological intensity is also marked for developing countries. However, only a few East Asian countries have managed to effectively participate in the process[16]. Asian developing countries accounted for 78% of total manufactured exports and 89% of high technology exports of developing countries' exports. In 1996, 92% of the developing countries' manufactured exports were accounted for by 12 economies, 9 in Asia and 3 in Latin America[17]. Other than that, developing countries' manufactured exports are predominantly concentrated in resource and low-skilled manufactures, which, as established above, face deteriorating terms of trade.

2. Egypt

Egypt's exports are not structurally different from those of most developing countries. The figures below compare the performance of these product categories in Egypt's exports starting the mid-eighties with global trends.

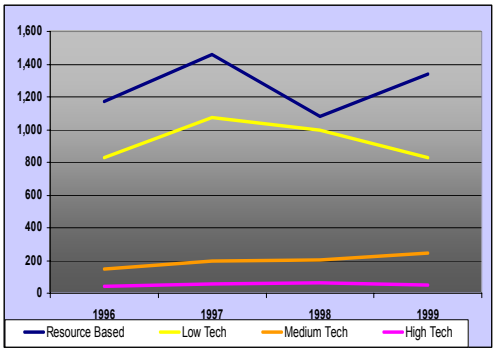

Figure 2: Technological Composition of Egypt's Exports (1996-1999) (Source: based on data from the ICT website)

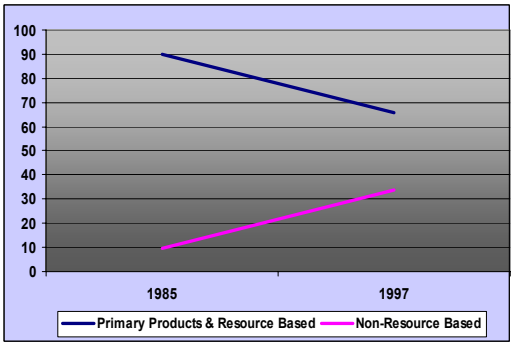

Figure 3: Percentage Share of Resource-based & Non-Resource-Based Products in Egypt's Exports (Source: ERF, 2002)

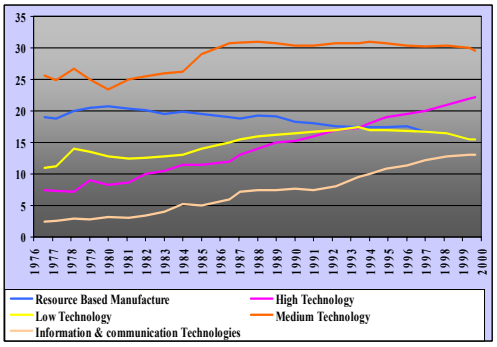

Figure 4: Percentage Shares of Manufactured Products in World Exports by Technology Groupings (1976-2000) (Source: WIR, 2002)

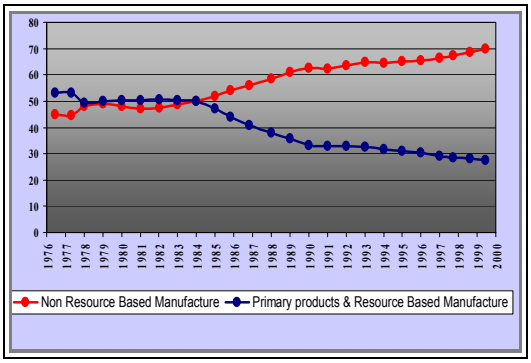

Figure 5: Percentage Shares of Resource-based & Non-Resource-based Products in World Trade (1976-2000) – (Source World Investment Report, 2002)

[16] Lall, 2000, p.5
[17] Lall, 2000, p.23

Comparing the performance of Egypt's exports to global trends reveals a sharp decline in the share of primary commodities in the configuration of Egyptian exports to the advantage of other product categories. However, the year 2000 data suggests that primary products still account for more than 60% of Egypt's merchandise exports, a percentage that is significantly higher than middle income countries (37%) and some neighboring countries (e.g., 23% in the case of Tunisia) [18]. Moreover, contrary to international trends where resource-based, low-technology and medium technology manufactures are progressively losing their share to high technology & ICT manufactures, in Egypt, the share of low technology and resource based manufactures is higher than high and medium technology products. Currently, Egypt is lagging behind comparable countries, with its high-tech exports constituting 0.2% (1999 estimate) of its manufactured exports, compared to 2.2% for the MENA region and 19.7% for middle income countries (Figure 7). Furthermore, unlike its comparators, this share has been progressively declining over the six year period 1995 – 1999 (Figure 6) [19]

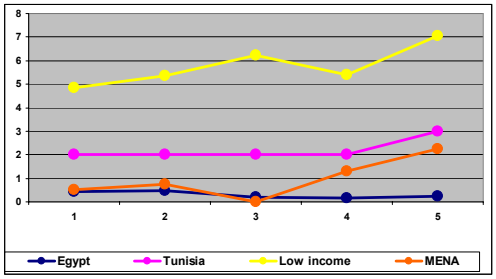

Figure 6: High-Technology Exports as % of Manufactured Exports (1995-1999)

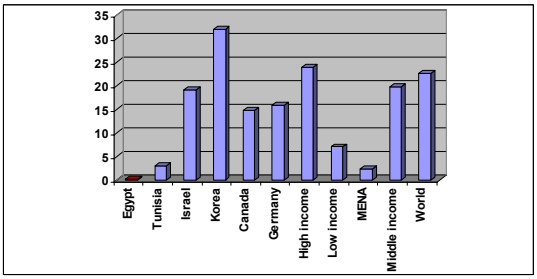

Figure 7: High Technology Exports as % of Manufactured Exports (1999)

C. The Knowledge Economy

1. Trends

Whereas in the old economy land, labor and capital were the only three generic factors of production, in the new economy, the critical assets are know-how, creativity, intelligence and information. Intelligence embedded in software and technology across a wide range of products has become more important than capital, materials, or labor.[20] A study of 192 countries conclude that human and social capital explains no less than 64% of growth performance, while physical capital explains a meager 16%, with the remainder being explained by natural capital[21].

Production has been witnessing exponential knowledge intensification (see below). The knowledge intensity of world manufactured exports remained largely unchanged from 1970-1977, but has since increased steadily and persistently. As early as in 1996 it was estimated that more than 50% of the GDP in OECD economies is knowledge-based.[22] Industry now funds almost 60% of OECD R&D activities and carries out about 67% of total research.

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[18] World Development Indicators Database, 2002.
[19] World Development Indicators Database, 2002.
[20] UNIDO, 2000, p. 9-10.
[21] Arab Human Development Report, p. 7
[22] OECD, 1996, p.9

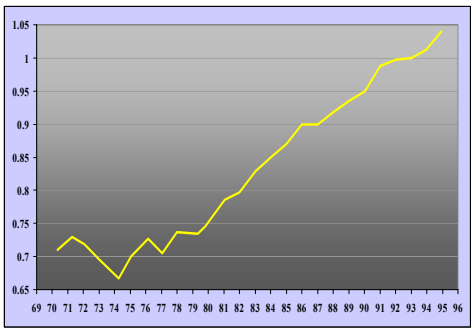

Figure 8: Knowledge Intensity of World Manufactured Exports (1970-95)

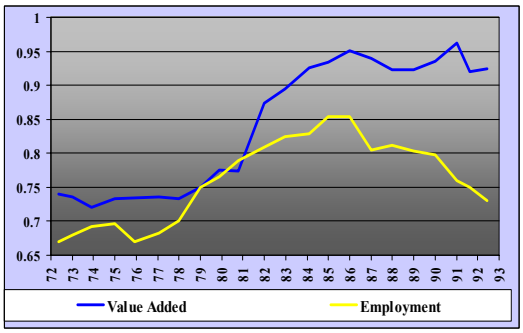

Figure 9: World Value Added & Employment (Source: Houghton & Sheehan, 2000)

Knowledge enhances the efficiency of utilization of other factors of production. For example, as Figure 9 shows, while manufactured value added has been rising, employment has taken a downward slump. However, this slump masks a marked shift in the composition of employment to the favor of high-skilled knowledge workers. For example, the US labor market has witnessed a process of creative destruction, whereby it lost some 44 million jobs in the process of adjusting its economy, but created 73 million jobs since 1980. It is estimated that 60% of its current labor force are knowledge workers. Although the manufacturing sector is losing jobs in OECD, employment is growing in high technology, science-based sectors ranging from computers to pharmaceuticals.

2. Egypt: The Knowledge Gap

Unfortunately, Egypt, like most developing countries, suffers from a significant knowledge gap. While the World Investment Report considers the illiterate sector of the population as unfit to participate in manufacturing activities, the current adult illiteracy rate in Egypt stands at 45.4%, surpassing that of Sub-Saharan Africa. Adult illiteracy in East Asia and the Pacific region is 14.7% and 12.2% in Latin America and the Caribbean. Unemployment decreases with educational attainment in advanced economies. In OECD countries for example, average unemployment for people with lower-secondary education is 10.5%, falling to 3.8% for those with university education[23]. According to some experts, there is evidence that the reverse is true in the case of Egypt with 1% of the illiterates suffering from unemployment, compared to 32% of those with intermediate education and 19% of university graduates[24]. These figures raise serious concerns with regards to the quality and relevance of the education offered to the market needs.

The paper on Education discussed in the last National Democratic Party Conference acknowledges the low proficiency levels in languages (including the Arabic language), mathematics and science[25]. The distribution pattern of tertiary education students reveals another qualitative dimension of the knowledge gap.

[23] OECD, 1996, p.10
[24] Fergany, 1996, p. 5
[25] NDP General Secretariat, 2002 p. 5

Country	Education	Humanities	Law & Social Sciences	Natural Sciences, Engineering & Agriculture	Medical Sciences
Egypt	17	18	40	15	8
Syria	2	21	35	29	11
Tunisia	3	25	39	24	9
Hong Kong	7	8	25	36	4
Korea	7	18	29	39	6

Table 3: Percentage Distribution of Tertiary Education Students in Selected Countries by Field of Study (source: Arab Human Development Report, 2002)

Table 3 reveals a concentration of students away from applied sciences and engineering disciplines; a pattern opposite to that prevailing in the East Asian tigers of Korea and Hong Kong who have over twice the proportion of students enlisted in natural sciences, engineering and agriculture disciplines. Again, this raises serious concerns regarding the kind of knowledge prevailing in society.

3. Egypt: The Digital Divide

Another aspect of the knowledge gap is what came to be labeled the digital divide. Table 4 below compares Egypt to several other countries and regions in terms of some key aspects of that divide pertaining to the exposure to and use of computer and ICT technology. One indicator that is not shown below is the number of websites per 10,000 people. In the case of Egypt that ratio is 1, compared to 2 in the case of the Arab World, 4 in South East Asia and the Pacific, and 30 in Latin America and the Caribbean.

Country / Region	PCs per 1,000 people (2000)	PCs installed in education (Total 2000)	Internet Secure servers (2001)	Information & communications technology expenditures	
				% of GDP (2000)	$ Per capita (2000)
Egypt, Arab Rep.	22.1	41,443	11	2.4	36
Hong Kong, China	350.6	127,491	538	8.8	2,085
Czech Republic	122.0	96,539	273	9.3	453
Singapore	483.1	120,000	525	9.7	2,104
South Africa	61.8	317,298	521	8.6	256
United Kingdom	337.8	1,613,403	6,467	9.1	2,187
United States	585.2	13,426,248	78,126	8.1	2,926
Middle income	33.1		5,294		
Lower middle income	21.1		1,050		
East Asia & Pacific	21.7		940		
Latin America & Carib.	43.6		2,185		
Middle East & N. Africa	31.2		67		

Table 4: The Digital Divide (Source: World Development Report, 2002)

The above table demonstrates how Egypt lags behind in virtually all indicators. Personal Computers are available to slightly more than 2% of the population. Taken together with the fact that in the year 2000, internet users were only 450,000[26] (i.e. 0.75% of the population), it seems there is a need to further disseminate computer and internet knowledge and usage. It is worth noting however that the government has already started conscious efforts towards improving Egypt's performance along the above indicators. The provision of free internet access, together with the various programs aiming to disseminate PC ownership and computer usage, among other measures, are hoped to have a significant contribution towards narrowing the digital divide.

4. R&D

As far as R&D is concerned, while R&D is exponentially gaining importance in the global economy, Egypt exhibits a relatively low level of R&D expenditure, especially among private firms. Egypt spends only the equivalent of 0.2% of its GDP (in some sources 0.6% of government expenditure) on R&D compared to 0.3% in the case of Tunisia, 0.6% in the case of China and 2.35% in the case of Israel. An estimated 70% of Egypt's R&D expenditure covers salaries and administrative expenses, with the remaining portion allocated mainly to pure rather than applied research.[27] Moreover, it is estimated that 95% of Egypt's expenditure on R&D comes from the government, leaving only 5% of the already meager expenditure to come from the private sector[28].

D. Foreign Direct Investment

1. Trends

Traditional location patterns, serving protected markets, accessing natural resources, or even low-cost unskilled labor have increasingly lost their significance as factors of comparative advantage. Foreign production affiliates on the other hand are increasingly being attracted to skills, advanced infrastructure, state-of-the art logistics, supply networks and support institutions.

Box 6: New FDI Patterns

The global economy has witnessed a rapid growth of FDI. In the year 2000, FDI reached $1.3 trillion. It recorded a growth rate of 18%; higher than growth rates of world production, capital formation and trade. The global patterns of FDI largely reflect the developments discussed above. First, this growth was largely skewed towards knowledge-intensive locations and industries, with over $1 trillion in FDI locating in developed countries, compared to $240 billion in developing countries; largely in labor intensive segments of the value chains, with the possible exception of a few Asian economies[29]. Developing Asia's share amounted to $143 billion, of which China had $41 billion. The pull factors are a large supply of highly trained scientists, engineers and technicians, as well as proximity to universities and other research facilities. In fact, mapping foreign affiliates engaged in R&D and universities show that the two tend to cluster together.[30]

[26] World Development Indicators Database, April 2002
[27] Mubarek, 2002, p.20
[28] Djeflat 2002, p. 26
[29] World Investment Report, 2001, p. xiii
[30] World Investment Report, 2001, p. 82

2. Egypt

Over the last five years, Egypt's performance in attracting FDI has improved. In the year 2000 the inflow of FDI was about $1.2 billion, boosting total stock up to $19 billion, the highest in the region after Saudi Arabia. However, as a proportion of the GDP, FDI is still only equivalent to 6%, falling behind the average of all developing countries, and even that of Africa. The World Investment Report describes Egypt is an "underperformer with unrealized potential for attracting FDI.

E. Competitiveness

1. New Trends

The above developments brought about significant changes with regards to what constitutes competitiveness whether on the level of the country, the enterprise or the individual. The sweeping globalization means that the key issue is not whether to participate in global markets or not, but how to do so in a way that provides for sustainable income growth. In Porter's typology of factors depicted in Figure 10 below, basic and generalized factors do not lead to sustained competitiveness. Comparative advantages in these factors can quickly be eroded (especially with technical and technological progress) vis-à-vis advanced and specialized ones[31].

Basic Factors Those are factors inherited by a country and do not need to be developed through policies. They include: Natural Resources – Location – Climate – Unskilled & Semi-skilled Workers	***Advanced Factors*** These are factors that must be built over time. These include: Digital data communications infrastructure – Highly Educated Workforce – University Research in Sophisticated Disciplines
Generalized Factors Can be used in a wide range of industries. These include: The Highway Systems – A Supply of Debt Capital – Pool of Well-Educated Employees with University Degrees.	***Specialized Factors*** Specific to certain industries. Examples include: Ports specialized in handling bulk chemicals – Highly Specialized Scientific Institutes – Cadre of Highly Skilled and Highly Specialized Personnel

Figure 10: Porter's Typology of Factors (Adapted from Altenburg, 2000)

[31] Altenberg, 2000, p. 47-48

Two paths to competitiveness can be discerned from the developments explained above. The first constitutes the low road or price competitiveness; whereby participants are engaged in intense price competition and hence a ruinous "race to the bottom". This path would involve the production of labor-intensive and resource based manufactures, or relying on cheap labor, and cheap infrastructure to attract FDI. Technological advances lead to a sharp decline in demand for unskilled labor and many natural resources. As firms and countries continued to specialize in highly competitive markets with low entry barriers, they were increasingly subjected to the erosion of their returns due to falling terms of trade. This is a threat which has long confronted producers of primary commodities and agricultural products, but it is increasingly also to be found in the export of manufactures (see Figure 11, below).

The production of labor intensive products and resource-based manufacturing, where entry barriers are low and competitiveness is largely determined by price, results in intense price competition and hence a ruinous "race to the bottom".

Box 7: The Low Road

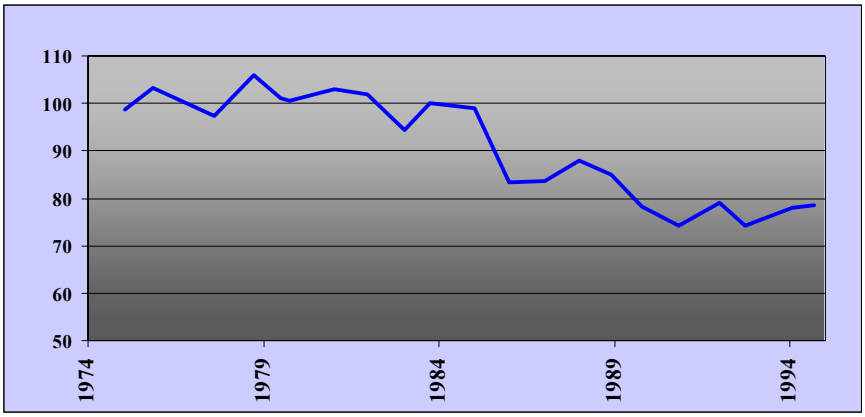

Figure 11: The Race to the Bottom: Price of LDC Manufactured Exports Relative to Industrially Advanced Countries Manufactured Exports of Machinery, Transport Equipment and Services 1975 – 1995 ***(Source: UNIDO, 2001, p. 24)***

On the other hand, the high road is where participants in the global economy position themselves in, or upgrade themselves to, high- value links of the value chain. It involves competition in innovation, R&D, technological upgrading and continuous product improvement, as well as the development of the requisite skill base and technological capacity.[32] Traditional modes of competitiveness based on cost and price factors, while still in existence, are being increasingly replaced by quality, flexibility, design, reliability and networking. However, very few developing countries have so far been able to build competitiveness in

New Factors of Competitiveness

Fundamentally, competitiveness consists in upgrading one's position in the value chain through:

- **R&D and Innovation**
- **Technological Development**
- **Continuous Product Improvement**
- **High Skill Base**
- **Technical Capacity**
- **Systemic Factors**
- **Financial Systems**

Box 8: The New Factors of Competitiveness

[32] UNIDO, 2001, p. 27

that manner. Unlike the East Asian tigers, most developing countries are under tremendous pressure to undertake rapid liberalization at a time when they have low levels of industrialization and competitiveness to be able to benefit from such a move, and they exhibit a high level of reliance on revenues from import duties and tariffs. [33]

Finally, two additional factors are considered to be critical to competitiveness. First, the existence of a macro environment supportive of enterprise development along the above lines (systemic factors). The other is the extent to which the financial system of a given country/location effectively supports enterprise operation, and growth, again, along the lines identified above.[34]

2. Enterprise Competitiveness

Likewise, the same pattern applies to competitiveness on the enterprise level. The most privileged SMEs are those who are able to achieve technological leadership in their field and are hence able to negotiate higher prices for their products. Cost competition on the other hand forces SMEs to continuously reduce profits, wages, and labor standards to remain competitive. Good manufacturing practices and adherence to specifications and quality standards are gaining importance, which in turn presupposes a multi-skilled and highly motivated workforce along the entire value chain. This implies increasing barriers to entry for most SMEs worldwide (and definitely more so in the case of developing and less developed countries), while improving opportunities for technological upgrading within a select group of SMEs.[35]

3. Egypt's Competitiveness

Traditionally, Egypt's competitive advantage was seen to be a product of its location, coupled with low labor costs, mainly basic factors that can be quickly lost (see Figure 10, above). The advances in communication technologies and the decline in transportation costs have served to offset locational advantages to a great extent. In addition, the relatively weak infrastructure of ports and freight services, coupled with uncompetitive prices are also contributing to the erosion of the country's advantage in this regard. So far, as shown above, Egypt has been increasingly competing in labor intensive manufactured industries, based on the abundance of cheap labor. However, there are many other developing countries with lower labor rates. For example, from the perspective of the European investor, wage rates in Romania are roughly half the Egyptian level. Ukraine, Moldova and many other countries have even lower wage rates.

In addition, the low labor productivity, if taken against the cost factor, leaves the economy little comparative advantage in this regard. Egypt's labor productivity is estimated to be less than 1/6th of that Korea and Argentina. Benchmarking exercises show that Egyptian productivity levels in terms of output per employee can be 8 to 10 times lower than EU levels in some industries. According to the IMP project document, in aggregate output per employee in Egypt's manufacturing sector is less than $16,000. Many EU countries achieve 6-7 times this level. Moreover, as per UNIDO statistics, over the period 1985-1999, the Egyptian worker recorded a negative average annual growth rate in value added per employee in 17 out of a total of 29 manufacturing activities. His Argentine counterpart recorded a

[33] UNCTAD, 2001, p. 12
[34] Fanelli & Medhora, 2002, p.11
[35] Altenburg, 2000, 10-11

negative growth rate in only two such activities.[36] Comparing the Egyptian worker's cost per unit of value added (Figure 12, below), with that of other countries, reveals that the Egyptian worker is actually significantly more expensive than even workers in advanced countries (e.g., Germany or Canada).

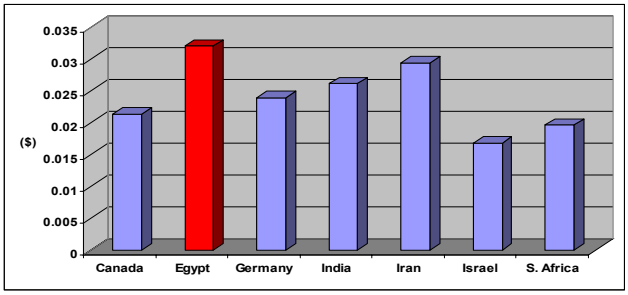

Figure 12: Labor Cost per Unit of Value Added (1995-1999)[37]

In addition, the Egyptian workforce skill and educational level is –as explained above – quantitatively and qualitatively lacking. The EU's assessment of the Egyptian labor force concludes that despite the fact Egypt produces a large number of graduates and has an extensive vocational training system, graduates tend to be of low caliber and with skills that bear little relevance to the needs of the market. Given the increased technology and knowledge intensification of production, and the declining importance of low-skilled labor, Egypt's labor force – in its current state - is unlikely to be a source of competitiveness. It is important to note that the low skill level of Egyptian workers negatively affects the efficiency of utilization of other factors. For example, it is estimated by some sources that – due to lower skill levels - the productivity of imported capital in Egypt is lower than the case in its country of origin by about 50%[38].

Moreover, even if the Egyptian workforce is as productive as its competitors, as mentioned above, the resulting competition will ultimately take the form of a race to the bottom. The effects of this race are already evident, and the labor cost-based competitive strategy is reaching its limits. In 1996, as per the Family Budget Survey, about 42% of workers in manufacturing were below the poverty line. This percentage reached more than 70% in 1998 according to some estimates[39]. Workers in the manufacturing sector were the hardest hit by the decline in real wages (see above) where their wages declined by almost 30% compared to the average 25%. According to a recent World Bank paper, the adoption of this competitiveness strategy in fact nurtures low-skill (and low-wage) jobs[40].

In its report, the People's Assembly Industry & Energy Committee argues that "Comparative advantage is no longer found in raw materials, labor, closed domestic economies…but the ability of these industries to compete in international, regional and local markets and to create a competitive advantage for industry to enable it to withstand international competition in the long run"[41]. The traditional industrial sectors like textiles, garment production and food processing, where some cost-based comparative advantages were attempted to be sought, are quickly being "completely transformed as a result of research in new materials, computer

[36] UNIDO, Country Industrial Statistics (www.unido.org)

[37] Source: Calculated from World Development Indicators Database, 2002.

[38] Djiflat 2002, p. 17

[39] Djiflat 2002, p. 44

[40] Djiflat 2002, p. 16

[41] Mubarek, 2002, p. 29

automated machines and digital systems of control. The prospects of maintaining comparative advantages are rather slim: automation together with the development of new systems of weaving and spinning equipment has created much more demanding technological conditions"[42]. Failing to adopt such new technologies is bound to negatively affect sectors that were thought to be enjoying a competitive potential. For example, the Building Materials Chamber in the Federation of Egyptian Industries estimates that the failure to adopt modern technologies in extracting and manufacturing marble and granite leads to a phenomenal rise in waste estimated at 75%, implying a waste of natural resources, low production levels, narrower profit margins, and probably significantly higher-than-average costs[43].

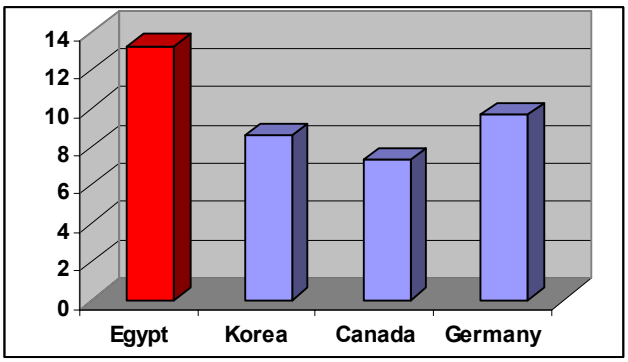

Figure 13: Lending Interest Rates (%), 2000[44]

Egypt's financial system is another factor of competitiveness that needs to be addressed if SMEs and the private sector in general are to be competitive. For example, as the above chart demonstrates, the interest rate charged by Egyptian banks, is roughly twice that in Canada. This in effect means that the cost of accessing capital (an important factor for almost any business) is inordinately high in Egypt. This, compounded with the underdevelopment and/or inaccessibility of other financial instruments and tools (specifically for use by SMEs), places a significant burden on Egyptian firms seeking to compete in the new economy, especially in the case of SMEs who are usually charged even higher rates.

On the enterprise level, Table 5, below, summarizes how Egyptian industry fares with regards to some key aspects:

[42] Djiflat 2002, 15

[43] From a memorandum presented by the Chamber to the Minister of International Cooperation, quoted in El Alam El-Yoam, vol. 3679, March 3rd, 2003, p.5.

[44] World Development Indicators Database, 2002.

Factor	Diagnosis
Market Information	▪ Poor information on the domestic market. ▪ Poorly developed business linkages & subcontracting. ▪ Partnership purchasing is virtually unknown. ▪ Limited knowledge of export markets
Sales & Marketing	▪ Marketing profession is still in its infancy. ▪ Few marketing research and consultancy firms with limited expertise.
Product Design	▪ Virtual absence of a culture of continuously updating and adapting products to shifting tastes.
Innovations	▪ Absence of innovation to improve product specifications, performance or efficiency and quality. ▪ Only 0.5-0.6% of GDP is spent on R&D ▪ Most of the R&D is spent by the state and directed to universities rather than industries. ▪ Virtual absence of university-business linkages.
Technology	▪ Most of the technologies are outdated causing low productivity and quality and offsetting any cost advantages.
Capacity Utilization	▪ Notable degree of excess capacity leading to higher unit costs. ▪ Available data suggest that 65-70% of SMEs in non-metropolitan Egypt suffer from excess capacity.
Organization	▪ Poor factory layouts resulting in disrupted workflow, waste of time and reduced productivity of workers.
Specialization	▪ A notable tendency to establish self-sufficient plants, often resulting in vertical integration, signifying the absence of the concept of lean manufacturing
Manufacturing Methods	▪ The concept of just-in-time manufacture and the flexible manufacture methods which attend it are yet to be applied. ▪ Pace of manufacturing in factories is slow.
Quality Assurance	▪ Poor quality assurance systems and poor supervision, with poor quality output produced despite inspection. ▪ While ISO 9000 are increasingly being adopted they are seen as a marketing tool rather than a genuine improvement tool for management.
Human Resources Development	▪ Poor linkages between training institutions and industries. ▪ Lack of awareness of training provided and its benefits. ▪ Multi-skilling is uncommon, restricting the flexibility of the plant. ▪ Day release, evening classes, or formal in-company training is rare, with most training provided on-the-job.
Business Planning & Management	▪ The need for business planning, especially to manage expansion and growth. ▪ The widespread duality of financial accounts (for tax evasion purposes), resulted in poor management information systems. ▪ Financial controls focus on cash conservation rather than profit maximization.
After Sales Service	▪ Virtual absence of after sales service.

Table 5: Key Performance Aspects of Egyptian Industry[45]

[45] Based on the IMP Project Document, reports of the People's Assembly and the Shura Council, and recent field work.

IV. Globalization & SMEs: Challenges & Opportunities

A. Global Developments & SMEs

Global economic developments affected SMEs in a variety of ways. On the one hand for some of them, it offered opportunities for expansion and growth. On the other hand, those whose competitiveness lags behind will suffer from exposure to a fierce and intense competition all over the world. Globalization also has a differential impact on SMEs in developed countries and those in developing ones.

1. Opportunities

While even in developed countries many SMEs did suffer from the deterioration of their competitiveness, others have found ways to actually enhance their position in the global market.[46] These included the following strategies:

a. The Innovative Strategy

The most important source of knowledge and innovation in today's world economy is R&D. Investing in new knowledge is a risky activity that most SMEs, even in developed countries, cannot justify. There are however other source of knowledge that some SMEs, especially those in developed countries, can capitalize on. These include a high degree of human capital development and a skilled labor force, together with the strong presence of scientists and engineers.

b. The Information Technology Strategy

The application and adoption of modern IT technology can effectively serve to reduce costs. Both the Internet and the microprocessor can help mitigate economies of scale and sizeable investments in areas like product design, marketing, communication..etc.

c. The Niche Strategy

In the rush to larger markets, many smaller market segments are left underserved. These constitute windows of opportunity for SMEs who possess an adequate level of technology, together with the requisite flexibility and agility to serve relatively narrow, but geographically diverse, markets. This was the strategy adopted by the German SMEs (*mittlestand*) who focused on a narrow market niche where they had a competitive edge and focused all their resources on maintaining leadership in that market. Production and operations are usually characterized by a high level of customization and interaction with the clients in order to maintain market leadership.

d. Flexible Specialization

[46] Bologna Workshop 1, p. 4

The use of general purpose equipment enhances the firm's ability to respond to changing specifications and customer demands.

e. Networking

Here the firm networks with other large or small firms through a variety of formal and informal links (e.g., subcontracting).

f. Clustering

In a clustering strategy, firms take advantage of linkages with geographically close enterprises. This allows them to reap the benefits of economies of scale (through for example, joint production, marketing ...etc.), and benefit from knowledge spillovers.

g. The Foreign Direct Investment Strategy

According to the OECD, the transnational economic activities of SMEs have been rising over time. SMEs in several countries (e.g., Italy, the Netherlands and Japan) have actively increased the value of their FDI in both relative and absolute terms[47].

2. Challenges

However, in practice these firms are often not well placed to exploit these potential opportunities, because of the difficulties they face in developing the marketing, distribution and after-care servicing for their new, lower cost products and services. In addition the vast majority of SMEs seem to be at a disadvantage with regards to R&D. A study of European SMEs classifies them according to their technological capacities into technology developers (1-3% of SMEs), leading technology users (10-15%), and technology followers (80-85%)[48].

Overall, most SMEs, whether in developed or developing countries, are facing more intense competition and pressures. The forces of internationalization and globalization are pressuring firms of all sizes, including SMEs, to improve their competitive position. Pressures to defend profit margins, cut costs, innovate and adopt the most efficient technologies are becoming increasingly important. Such competitive pressures are not only impacting on individual SMEs but also on existing clusters and SME networks. For example, in the northern Italian regions where hitherto the specific form of partnership was local, there is growing evidence of pressure to increase competitiveness through developing cross-border partnerships which can take advantage of lower production costs outside Italy[49].

Modern SMEs typically stand a better chance of surviving the competition. However, the size of this category of SMEs, even in advanced countries, is relatively small (less than 20% of European SMEs can be considered modern, by European standards). Even those SMEs face very difficult circumstances in many countries, due to the changing nature of competition from one based on price, to one based on quality, flexibility, design, reliability and networking. This change is not just in advanced manufactured products but also in the traditional mundane manufactured goods (e.g., textiles, footwear and food products).

[47] Bologna Workshop 1, p.10, p.18
[48] Bologna Workshop 1, p. 8
[49] Bologna 4, p.8-12

The East and South-East Asian experience shows that "the majority of small enterprises perform poorly on the world market. Those most likely to survive are the ones with export potential, and which, in addition, grow from small into efficient medium-sized firms." Their experience "clearly shows that it is mainly the growth-oriented medium-sized enterprises among the SMEs that have a high propensity to apply technology and training and serve specialized niche markets.[50]" While modern SMEs are more likely to survive the competition than the more traditional ones, the proportion of modern SMEs differs considerably between countries. Most modern SMEs are found in developed countries and the new industrialized countries that have vibrant export sectors and a large base of educated and technical man power. Modern SMEs in these countries are active players with a sizeable contribution to the economic growth of their countries. In fact the share of SMEs in economic activities has risen in most OECD economies. For example SMEs provide for the following shares of exports[51]:

Country	***SMEs' Share in Exports (%)***
China	50
Hong Kong	>70
Korea	43
Taiwan	56
Egypt	4

Table 6: SMEs' Shares of Exports in Some Countries

B. SMEs in Developing Countries

In the majority of developing countries however, most SMEs remain in traditional activities with low productivity, poor quality, serving small localized markets, and with little technological dynamism, if any. While no comparable data exist for Egypt, it estimated that their share in manufactured exports doesn't exceed 0.5%. In many countries there is also a large underclass of formal and informal microenterprises that ekes out a bare survival. While some of these small and micro enterprises may prove to economically viable over the long term, the majority is facing extinction with import liberalization, changing technology and the growing demand for higher quality modern products.[52]

A robust and dynamic sector similar to the one that evolved in East Asian countries is absent in many developing countries, whose enterprise size structure exhibit what came to be known as "the missing middle" syndrome. On the one hand there exist a few large modern capital intensive, resource based, import dependent and assembly oriented enterprises. At the other extreme there is a vast sea of small and micro enterprises (a large portion of which is informal) that use very simple and traditional technologies and serve a limited local market[53].

C. General Constraints Facing SMEs in Developing Countries

SMEs in general tend to face three sets of competitive challenges; size-related constraints, market distortions and policy biases. These however tend to be more acute in developing countries.

[50] UNCTAD, 2001, p. 2-3
[51] Lall, 2000, p. 2-4
[52] Lall, 2000, p. 4
[53] UNCTAD, 2001, p. 2

1. Size-related Challenges

Where scale economies are inherent in any of the stages in the value chain, small size imposes costs on SMEs. Small size also penalizes the enterprise in high-risk activities, where technology is exceptionally fast-moving and based on sizeable R&D investments, or where investments have to aim at the global market from the start.[54] Finally, the certification of adherence to product and process standards has proven to be prohibitively expensive for smaller firms, thus making their integration in value chains more problematic.

2. Market Distortions / Failures

The segmentation of factor markets, characteristic of many developing countries, places SMEs at a disadvantage with regards to access to input, credit, labor, and information and technology markets. The economic reason for such market failures is that providers of these factors may find it easier and more economic to deal with a few large firms rather than with a dispersed multitude of SMEs, for example, with regards to availability of information on the enterprise, ease of monitoring, and the cost of contract enforcement in relation to the size of the transaction.

While access to financial services and markets is a well-known example of the above tendency, similar tendencies are available in virtually all other factor markets. For example in the current context of the knowledge economy an important challenge is for the SME to find, evaluate, purchase and master new foreign technologies, which can be a costly and lengthy task. In the case of developing countries the above problem is compounded by the ill positioning of SMEs to deal with technical and technological change.

Empirical research has shown that SMEs lack even the awareness of how technically and technologically weak they are. Many of them are unaware of competing technologies in other countries, the nature of the new skills and techniques needed to keep up, and they lack the entrepreneurial knowledge and education to seek the technology or assistance needed. While even SMEs in advanced economies find it difficult to keep abreast of international technological and market trends, these problems are more widespread among SMEs in developing countries, [55].

3. Policy Biases

It is well known how many public policies, even some of those intending to favor SMEs, tend to place small enterprises at a disadvantage. These may include import and export policies, taxes and their administration, as well as several other aspects of the legal and regulatory framework that disproportionately increase the transaction cost for SMEs, thus hampering their growth and/or providing strong incentives for them to stay small and/or informal. For example, poorly calculated and planned tax incentives can lead to the proliferation of units below the taxable size. Moreover, policies that reserve certain industrial products for SMEs (e.g., like India's case with textiles) has led to the stifling of competition and retardation of technological upgrading in certain sectors.[56]

[54] Lall, 2000, p.4-6.
[55] Lall, 2000, p.7-8.
[56] Lall, 2000, p. 8.

V. SMEs in Egypt

A. General Structural Conditions

1. The Missing Middle

Egypt is one of the countries characterized by the missing middle syndrome. As Figure 14, below shows, Egyptian manufacturing enterprises employing 10 – 499 employees have a significantly low share of employment. Seventy-five percent of employment generated by enterprises with either less than 10 workers (95.4% of establishments) or more than 500 (0.1% of establishments), with only 25% contributed by the small (4.4% percent of establishments accounting for 15% of employment) and middle range (0.3% of establishments employing 10%). This should be contrasted with the other countries shown in the figure where the average (even for the MENA region) is above 50%.

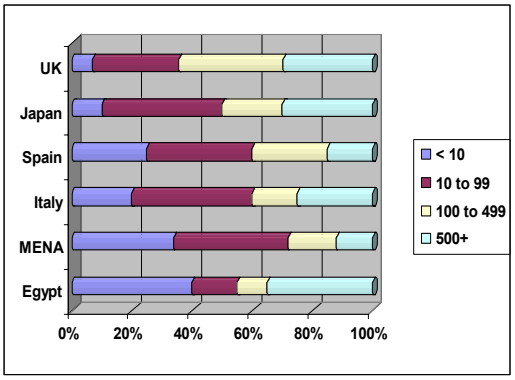

Figure 14: Egypt's Missing Middle: The Share of Manufacturing Enterprise Size Categories in Total Manufacturing Employment

(Source: IMP Project Document)

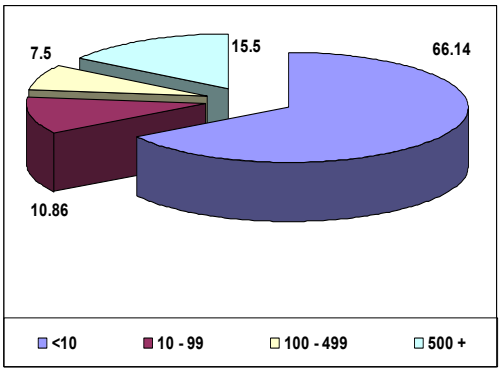

Figure 15: The Share of Enterprise Size Categories in Total Employment (%)

(Source: CAPMAS, 1996)

Figure 15, above reveals a similar pattern, whereby more than 80% of private sector employment is concentrated in enterprises with less than 10 workers or those with more than 500 workers.

2. Skewed Size Structure

In addition, another structural feature is that the size structure of enterprises in Egypt is markedly skewed towards micro enterprises. According to CAPMAS 1996 data, 92.6% of private sector in non-agricultural activities are enterprises employing 1-4 workers, 6.12% are

enterprises employing 5-14 workers, 0.9% are enterprises employing 15-49 workers and 0.38% are those that employ more than 50 workers[57]. One-person establishments constitute slightly more than 50% of all enterprises (and 17% of total employment), followed two-person establishments accounting for 26% of all private enterprises and 17.6% of all employment[58].

3. Predominance of Low Capitalization Levels

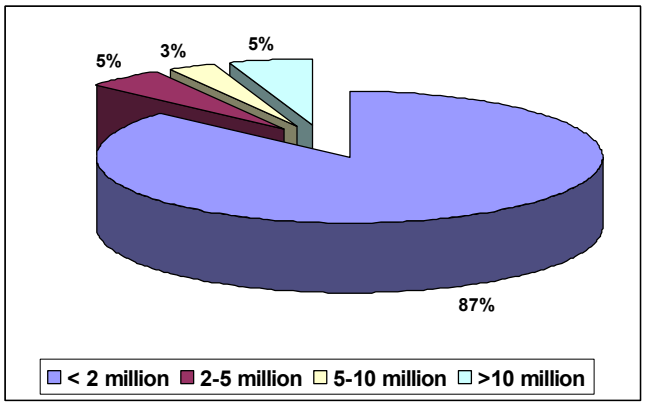

Figure 16: Capitalization Pattern of the Manufacturing Sector[59]

This skewed pattern towards smallness is also reflected in the capitalization patterns of the industrial sector in Egypt. As Figure shows 87% of the total investments made are below L.E. 2 million in value. This points to the predominance of low capitalization levels (and hence low technologies) in Egyptian industry.

4. Sectoral Concentration

Another structural trait of the manufacturing sector is its concentration in few sectors. More than eighty percent of manufacturing enterprises are concentrated in five sectors. These in descending order are:

- Furniture
- Garments.
- Food and beverages
- Metal products (except machines)
- Wood & cork products[60]

As described by a report issued by the People's Assembly Industry and Energy Committee, these are light labor intensive industries, largely with low content levels of technology, skill and knowledge. They are also characterized by weak quality control systems, non-adherence to standards, and poor packaging. Most important of all the report acknowledged fundamental issues like the lack of innovation, adequate R&D and design services, the

[57] MOFT, 1998, p. 41
[58] CAPMAS, 1996
[59] Mubarek, 2002 p.16
[60] CAPMAS, 1996

absence of any coordination between the scientific, research and educational institutions on the one hand and industry on the other, a fatal weakness in a global knowledge economy.

B. Effects

The absence of a strong SME sector is a major structural constraint when it comes to industrial competitiveness for several reasons. First, without a strong SME supplier base, large manufacturing becomes inflexible and slow to respond to market trends. Given the weakness of small and medium enterprises, large enterprises are structurally forced to one or both of the following options:

- Integrate operations in their plants, thus preventing themselves from focusing their financial, technical and human resources their core competences.
- Have an unduly high import content (currently standing at an estimate of 40%[61]).

The *missing middle syndrome* has the following consequences:

1. **Lack of linkages between SMEs and large enterprises.**
2. **Lack of flexibility and competitiveness of large enterprises.**
3. **Underdevelopment of core competences of large enterprises.**
4. **High import content of production.**
5. **High susceptibility of the economy to economic downturns threatening to result in major job losses and loss of productive capacity.**

Box 9: Effects of the Missing Middle Syndrome

One of the characteristics of the Egyptian manufacturing sector is low level of linkages existing between enterprises. Figure 16, below shows that only 2% of private industrial production is done in cooperation with other firms.

In addition, the absence of a strong SME sector reduces the competitive pressure on larger enterprises, allowing them to remain inefficient. This, in conjunction with decades of protectionism and import substitution policies resulted in promoting this inefficiency and lack of competitiveness.

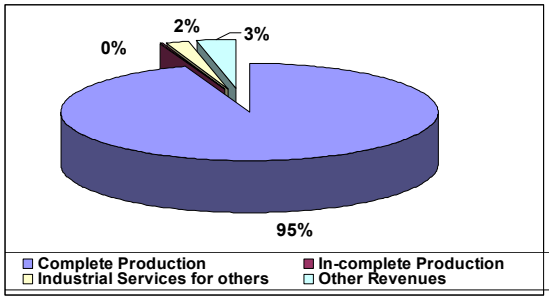

Figure 16: Structure of Industrial Production (1998)[62]

Given this situation it is not surprising that manufactured export levels (and total export earnings) are relatively low. According to a recent report of the Industry and energy Committee of the People's Assembly, Egyptian industry exports only 6% of its production. The share of SMEs in manufactured exports does not exceed 0.5%. This should be compared to India, where 50% of its exports are from SMEs, not to mention the indirect contribution of SMEs in several developing countries. More fundamentally, cyclical

[61] Mubarek, p.26-27
[62] CAPMAS, Industrial Census, 1998

economic downturns can result in major losses in employment and national capacity, due to their relative concentration in a few large enterprises.

C. Constraints Hindering SME Competitiveness in Egypt [63]

SMEs in Egypt, as is the case with many countries, generally use simple traditional technologies, cater for their local vicinity, and mainly produce low quality goods through inefficient and poorly managed simple operations. The vast majority of these enterprises suffer from constraints that threaten their survival, let alone their growth. This section sheds light on some key constraints hindering SME competitiveness in Egypt.

1. Innovation & Technology

a. Technology:

There is an apparent lag in technological upgrading of machinery as well as production processes. The latest technology in the vast majority of cases investigated dated back to the 1970s or earlier. This seems to be in line with the general condition of current general technological capacity of the Egyptian industry[64]. A common practice among the firms was attempts to produce machines –locally- similar to the original ones. SMEs expressed several reasons:

- Fear of over-taxation.
- Lack of perceived need.
- Lack of Awareness.
- Low market absorptive capacity
- Unavailability of maintenance services.
- Lack of finance.
- Scarcity of qualified labor.

It is important to note that the above pattern did not vary with the age of the enterprise. This is consistent with findings of similar research conducted in the MENA region, where "most of the newly born enterprises prefer to resort to obsolete technologies rather than 'risk it' by adopting the latest ones"[65]. There was also an extremely low level of utilization of computers in general. With the exception of two cases from the IT sector, no entrepreneurs met by MOFT used computers in their businesses[66].

b. R&D

With minor exceptions if at all, none of the enterprises examined had any R&D activities or investments of any scale. Except for a single case in Mansoura city, none of the firms had

[63] This section relies on recent field investigations conducted by MOFT, as well as relevant results of recent field work conducted by other entities. The Ministry's field investigation aimed to identify the competitive potential of Egyptian SMEs through examining issues of technology, R&D, linkages with other firms, and export performance, among others.

[64] Djeflat, 2002, p. 15

[65] Djeflat, 2002, p. 24

[66] It should be stressed that the investigated enterprises were all clients of donor-funded SME programs, which entails a relatively higher level of sophistication on their part, relative to the rest of the SME universe.

any contacts or relationship with any university or research institution working within their area of production. The practice of consultation and mutually beneficial relationship between firms and relevant academic institutions is almost non-existent.

2. Business Development Services

Even among clients of SME development programs, SMEs expressed a general need for better quality services that reflected their needs. Marketing consultancy for both domestic and international markets was the main and most common priority when listing the service needed. All entrepreneurs believed that they do know the kind of business service needed by their enterprise and would not need any diagnostic services.

3. Financial Constraints

a. Low Capitalization Levels

SMEs generally utilize a minimum of capital. A 1999 study showed the average enterprise had a capital of around L.E. 60,000. A larger more recent study of non-metropolitan Egyptian small and micro establishments further revealed the average total capital (initial capital plus additional capital investments) to be L.E. 45,000 in urban non-metropolitan areas, with rural establishments having one-third of that amount.[67]

b. Lack of Access to Finance

Lack of various forms of financial services is traditionally one of the most important constraints facing SMEs. With regards to short-term credit (the most basic form of financial services, used to cover the working capital needs of the enterprise), the finance gap in Egypt is estimated to be in the neighborhood of 90%. The same applies to start-up capital where only 9% of urban and 7% of rural small and micro establishments managed to obtain a bank loan for their initial capital[68]. However, in the context of competitiveness, other sources of finance like long-term and medium term credit, venture capital and leasing, gain particular importance. These stems from the fact that such forms of finance allow the entrepreneur to upgrade his/her equipment and expand the enterprise operations. Nearly all entrepreneurs lack awareness of non-credit financial services and mechanisms that can assist them in expanding their businesses. Apart from the fact that venture capital is virtually absent from Egypt, even when explained to them, entrepreneurs expressed no desire in giving up equity in their business. The vast majority of SME owners in Egypt are also the managers of their enterprises. A recent study has also revealed that almost all entrepreneurs reject the idea of involving a partner in their businesses. Partnership, where existent, is usually a formality made between immediate family relatives to lower the tax bracket the entrepreneur is located in[69].

[67] Gavian, El-Meehy & Bulbul, (B) 2002, p.45
[68] Gavian, El-Meehy & Bulbul, (B) 2002, p.46-47
[69] El-Meehy, (C) 2002, p. 7

4. Demand Constraints

a. Recession & Demand Constraints

Recession was a major source of complaints during discussions with entrepreneurs from various sectors in Greater Cairo. Enterprise level impacts of recession reported by entrepreneurs included significantly declining sales revenues, and profit margins that resulted in a corresponding decrease in the enterprise workforce (one entrepreneur, a garments manufacturer, reported a 70% decline in both sales and number of workers). Other measures reported were decreasing workers wages. A restaurant owner reported a decrease of 60% of its workforce, coupled with lowering the workers wages to compensate for the declining sales. Some factories reported producing and selling on cost in order to keep the equipment running[70]. These developments raise serious concerns with regards to the continued ability of the sector to provide jobs of reasonable quality.

b. Export Performance

SMEs are generally underperforming when it comes to exporting. The vast majority of SMEs did not even attempt to export. There was a consensus on what constituted the main obstacles hindering exporting. Those were:

- *Inaccessibility of export channels*. All of the firms expressed the need for specialized export agency or house that would be responsible for deciding where, how and when to market their products abroad.
- *Lack of Awareness*. Participants in focus group discussions also agreed that they are not aware of the specification and/or modifications needed in the product to be marketed internationally.
- *High Input Prices*. SMEs in some sectors (such as garments and textiles) explained that they cannot export or compete internationally because the relatively higher prices of their production inputs render them uncompetitive vis-à-vis their competitors in India or Bangladesh.
- *Scarcity and difficulty of finance*. A number of firms had opportunities to export but could not produce on a larger scale, due to lack of finance.

c. Linkages

None of the firms had any linkages with larger enterprises. The idea of business development through larger firms was not feasible for all of them due to one or more of the following reasons:

- *Inaccessibility* either due to being too far away form Cairo and surrounding industrial cities, which was the reason expressed by firms in Upper Egypt. Another reason was the lack of information on how to reach those larger firms.
- *Deteriorating market conditions* to the extent that even larger firms are barely producing to cover themselves, with no extra demand to distribute to smaller firms.
- *Vertical Integration:* there is a conception that larger firms are vertically integrated with no need for input from SMEs.

[70] El-Meehy, (C) 2002, p. 5

d. Underemployment & Excess Capacity

Recession is related to the problem of excess capacity or underemployment. A recent survey of SMEs in non-metropolitan Egypt revealed that between 64-70% are underemployed. The highest incidence of underemployment was among manufacturing enterprises (70%), followed by trade (66%) and services (51%). Underemployment was also more pronounced in rural locations than urban ones.

5. Compliance Problems

As far as the legal and regulatory framework is concerned, there is evidence suggesting that the administration of many aspects of the legal and regulatory framework appears to be location sensitive. Due to the way some pertinent government departments are structured (along geographic lines), there is a room for locational variations in performance of their functions.

a. Licensing & Establishment

SMEs suffer from inordinately high and largely extralegal establishment costs. Figure 17, below depicts the percentage of extralegal payments to total payments in the establishment and licensing stage across some 30 activities for which case studies were conducted. In all the cases investigated extralegal payments ranged between 15% to almost 90% of total payments made. Only in 6 activities was the volume of extralegal payments lower than 50% of total payments. Extralegal payments are predominantly paid at the local level in exchange for issuing licenses[71].

This particular issue is both sector and location sensitive. Zoning regulations prohibit the establishment of certain business activities in certain locations. The repercussions of not issuing the license were also found to vary by location and size, whereby very small enterprises or those located in areas that are difficult to reach and detect by government inspectors seem to face less compliance problems than the more visible ones. The inability to obtain a license did not seem to prevent entrepreneurs from operating their businesses. A variety of tactics ranging from bribery to temporary closure of shops were reportedly adopted.

[71] Makary, 2002.

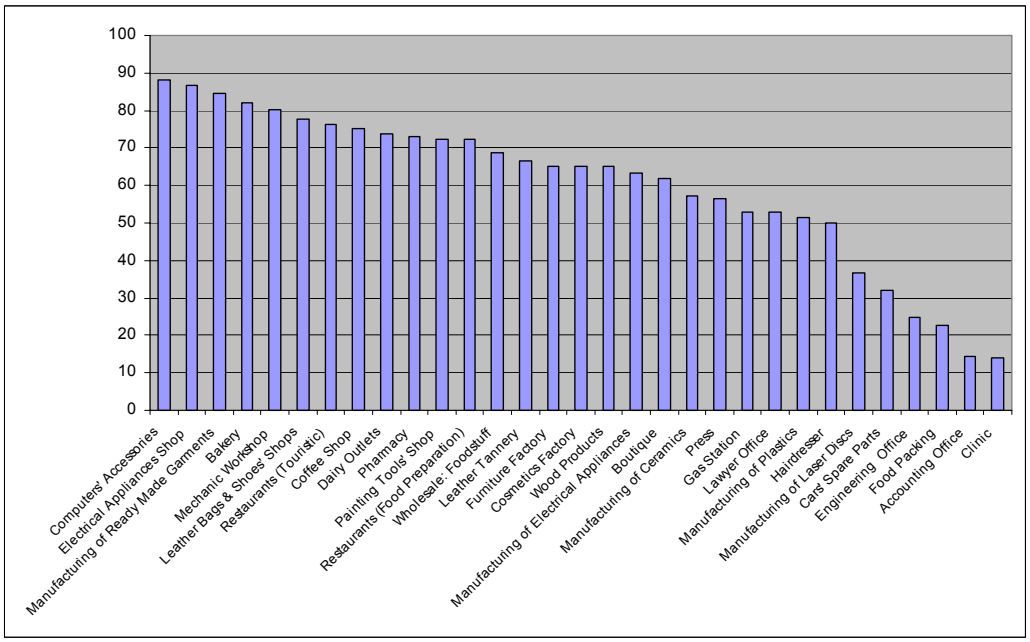

Figure 178: Percentage Share of Extralegal Payments in Total Payments for Licensing & Establishment (Case Studies)

Moreover, the costs incurred in establishing at enterprise are not limited to extralegal payments. Rather it also involves a waste of a considerable amount of time between different government departments. The average entrepreneur would spend 222 days before obtaining his license and establishment permits. The duration can go up to almost 567 days in some activities.[72]

b. Taxes & Tax Administration

Almost all entrepreneurs agreed that the tax authority usually arbitrarily estimates taxes, regardless of whether or not they keep regular books, thus resulting in overestimated taxes. Making an appeal before a committee in order to lower taxes is the rule rather than the exception. Keeping updated records and financial statements had no bearing on the amount of taxes initially estimated by the inspector. Most entrepreneurs agreed that tax inspectors, in order to avoid being accused of bribery, provide an estimate that is dramatically higher than the entrepreneur actually deserves to pay. There was no real need as such, as far as they are concerned, to keep accurate books and records of their transactions, since it implies additional time and financial costs. Upon appealing however, the enterprise's records are examined and a more just settlement is reached. The sales tax is another major source of complaints, since it has repercussion on the pricing of their inputs, as well as their products.

c. Supplies Inspection

Several participants, especially those working in trade and food processing, complained from Ministry of Trade & Supplies inspectors. Several reported unjust and arbitrary practices by

[72] Makkary, 2002.

the inspectors who on more than one occasion would ask the entrepreneur to "choose a fine to pay", simply because they have to collect fines. The usual practice is for entrepreneurs to choose the fine for not posting a price list (even when a price list is actually posted), because of its being the lowest fine. Another source of complaint is the multiplicity of departments with overlapping mandates within the Ministry of Supplies.

d. Social Insurance

Social insurance regulations and inspectors were another source of complaints, especially among manufacturers. First, as the next table shows, the level of compliance with the social insurance requirement of registering all workers in the enterprise seems to be remarkably low.

Activity	Total Number of Workers	Number of Insured Workers
Glass & Mirrors	13	6
Embroidery & Garments	25	5
Mechanic	8	2
Socks	> 4	2
Leather	> 4	2

Table 7: Insured & Uninsured Wokers in Some SMEs

The reason for this low level of compliance is not only the entrepreneur's desire to minimize expenses. Rather, it seems that workers do not value the insurance service as much as they value retaining their portion of social insurance. As far as the inspection process is concerned, several entrepreneurs complained from the unjust practice of counting all those who happen to be at the enterprise at the time of inspection as workers and requesting to see evidence of their social insurance registration.

e. Others

These include municipalities, environmental authorities[73], and local authorities on the district level, electricity and health inspectors, in addition to police officers.

The above grouping and ordering of constraints do not reflect an order of priority on the part of SME owners. Rather, these groupings were conceived in relations to the theme of the current document. It is a well known fact however, that demand constraints usually ranks on top of the constraints identified by entrepreneurs. This is confirmed by findings of recent fieldwork in Egypt where demand constraints were identified as the top constraint facing both rural and urban establishments. In addition it was also reported as the principal constraint facing informal home based enterprises in both rural and urban locations[74]. Recession or demand constraints point to the increasing narrowness of the local market. The vast majority of SME owners however are usually unable to link demand constraints to other ones like R&D and technology, as they fail to see the link between innovation, research or technology on the one hand and acquiring or expanding their market share on the other.

[73] This seems to be a significant source of complaints, since the fine is L.E. 1001, in addition to possible imprisonment.
[74] El-Meehy, Gavian & Bulbul, (B) 2002, p.51

VI. Recommendations

In developing the recommendations for enhancing SME competitiveness, adherence to the following principles is observed:

- Development of Clear Objectives & Approach that is Based on a Realistic Understanding of M/SMEs and their Potential
- Consistency with the Overall Policy Framework
- Rationalization of the Use & Allocation of Resources
- Reliance on International & Local Best Practices[75]

The vision proposed in this document is that of a competitive SME sector that is capable of playing an active role in the global economy, and hence continuing to deliver the socio-economic and developmental benefits it generates in the years to come and contributing to improving Egypt's trade balance. Based on the above analysis, the realization of this vision is more associated with a strategic orientation towards high value links and value chains than it is associated with adherence to traditional production patterns and competition in low-skill and low value added links and chains. It is this strategic orientation that underlies the recommendations presented in this section.

This document primarily focuses on measures supporting SME competitiveness. Aspects pertaining to the development of the scientific and educational infrastructure will be touched upon insofar as they relate to the focus of this document. Pertinent interventions can be largely grouped under the following headings:

- Promotion of Direct Exports.
- Business Development Services.
- Financial Services.
- Innovation & Technology.
- Organic Clusters.
- Networking & Inter-firm Linkages with Foreign & Large Firms.
- Regulatory Changes.

This section introduces these interventions based on best practices and lessons learned from local and international experiences. Further elaboration can be found in Annex II, and an action plan with concrete measures is presented in Annex IV.

A. Promotion of Direct Exports[76]*:*

While all of the above fields are competitiveness-enhancing, and hence are in essence export promotion measures, this section seeks to throw light in a cursory fashion on some measures that could be considered. One important implication of the preceding discussions is related to the sectors selected for targeting. While Egypt currently focuses on labor-intensive sectors

[75] El-Meehy, (A), 2002, p14.
[76] The Ministry is currently developing an export development strategy for SMEs in Egypt. This section only makes propositions in an exemplary and cursory fashion.

for export promotion, efforts should also be undertaken to promote the "winning sectors" that have been enjoying increased dynamism (e.g., medium and high technology manufacture and information and communication technologies). In addition, Egypt should attempt to:

1. Move within the existing labor intensive sectors to links in the value chains where value is concentrated (e.g., through developing its textile design capabilities, rather than mainly focusing on textiles production, within the textiles value chain).
2. Address market failures and distortions affecting current actors in the value chain.

One measure that have not been amply discussed and that is worth exploring is that of Export Consortia. "Grouping for export" as it is sometimes called refers to a form of collective exporting that could be achieved through one of three mechanisms[77]:

1. The export of products by several firms through one large company that has the resources to form an export organization;
2. The use of an intermediary or a merchant to group a number of exporters; or
3. Export consortium which is the formation of an export organization owned by a number of exporters.

The consortium solves a number of problems and has several advantages, including[78]:

- Combining the knowledge and expertise required by exporters
- Mitigates costs and risks of entering new markets
- Provide continuous monitoring and in turn information about international market.
- The group because more visible in the marketplace and more attractive to potential distributors.

Although grouping for export could be problematic due to the domestic competition between the exporters; unwillingness to share information; or discrepancies because different capabilities of member firms, export consortia remain one of the promising vehicles for SMEs to export.

Another mechanism is the establishment of a one stop shop for import/export operations. While MOFT has taken significant strides in streamlining import and export regulations, these processes are often too cumbersome, opaque and costly for SMEs on the local level.

B. Business Development Services

With few exceptions, developing countries' experience with BDS so far has been mostly limited to publicly supported programs in the fields of training, marketing and some technology-related areas. Such services, often provided by state agencies and supply driven have been criticized for being badly planned and managed, their bureaucratic nature, inability to recruit and maintain competent staff, insufficient geographical coverage, lack of coherence and coordination, and an overemphasis on business star-ups and too little focus on the growth trajectory of the enterprise. In addition, their programs fail to address the requirements of globalization, intensification of competition and knowledge-intensive economy.[79]

[77] Muzamani, 1995. P261-62.
[78] Muzamani,. 1995 p 270.
[79] UNCTAD, 2001, p. 8

With minor exceptions, including CIDA's pilot Small and Medium Businesses Support Project (SMBSP) in Daqahliya, the record of BDS provision in Egypt showed significant room for improvement. In general, most of the BDS services suffered from several setbacks, most notably:

- Low cost-recovery rates.
- Assistance provided was too general and had little benefit to entrepreneurs.
- Most of the services were undertaken by government institutions that needed to enhance their efficiency, outreach and quality of services.
- Lack of qualified staff.
- Predominance of charity social orientation.
- Lack of follow up measures.
- Lack of coordination among service providers.
- Prevalence of supply driven approaches.
- Lack of cost-effectiveness.
- Lack of adequate performance indicators.

Nevertheless, some GOE service providers managed – despite their governmental nature - to attain reasonable levels of performance. One such example is MOFT's International Trade Point, which MOFT is currently planning to further develop along the lines of increased efficiency and cost-effectiveness. In addition, unlike microfinance, where a body of knowledge and best practices has developed over the years, only recently have a number of core principles of good practice emerged in the case of BDS. Some of these are outlined in Box 10, outlining the parameters that should be followed in implementing BDS programs in Egypt. A more elaborate discussion of these principles is found in Annex III.

1. **Demand-driven and adapted to users needs.**
2. **Subsidiarity.**
3. **Focused.**
4. **Market-oriented and businesslike.**
5. **Sustainability & Cost-recovery.**
6. **Cross-subsidization of services and clients**
7. **Monitoring & performance measurement**
8. **Cumulativeness**
9. **Capability Focus**
10. **Context & Complementarity**
11. **Coordination**
12. **Outreach**

Box 10: Basic Principles of Effective Delivery of BDS Services

(Compiled from Lall, 2000, UNCTAD, 2000 & Donor Committee for Small Enterprise Development, 1998)

Proposed Measures

While traditional BDS services tended to focus on training, counseling, and industrial extension, with the advent of globalization, several core non-financial services that represent key strategic elements for increasing firm-level competitiveness gained increased importance. Such services should come to constitute the focus of non-financial assistance efforts. These services include:

a. Computer software and information processing services.
b. Research & Development and technical services (see below).
c. Marketing services.
d. Human resource development.
e. Business services.
f. Information dissemination on markets, standards and technologies.
g. Technological extension services.
h. Standardization and certification.

In addition, in order to focus on competitiveness, some countries developed a ***benchmarking service***. In the UK, one of the services provided through the Business Links is encouraging greater use of performance benchmarking of firms along national, regional or sectoral lines. A central database of information on over 60 indicators of financial, operational and managerial performance has been designed and populated. The comparison is used as one of the bases upon which consulting services are offered to firms to assist them in improving their performance. The exercise is also of great use to policy makers in comparing national economic performance with competitors.[80]

Ideally, SMEs should have access to these services through single entry points at the local level that, while possibly offering a bundle of core services, can provide referral services to providers of other services. The Industrial Modernization Program, funded by the EU, is planning to establish twenty such entry points or centers throughout Egypt. These can serve as the backbone or bases upon which coordination among other efforts can be vitalized. Annex III provides some general guidelines on the successful implementation of BDS services.

C. Financial Services

As mentioned above, the financial system of countries is an important factor of competitiveness insofar as it can facilitate or impede the operation and growth of the private sector. Financial constraints continue to be one of the major impediments for SME development. Egypt has taken significant steps in the development of its microfinance services, especially following the entry of commercial banks in microfinance. While microfinance and working capital loans do fill an important dimension of the finance gap, their impact on the small enterprise sector in terms of enhancing its competitiveness and allowing it to move to high value activities is at best minimal. Their impact on the growth trajectory of these firms has similarly been minimal[81]. Growth-oriented SMEs who attempt to move up the competitive ladder need to upgrade their machinery and equipment and access new, more sophisticated (and often, more expensive) ones that require sizeable capital investments. These investments can be made through a variety of financial mechanisms including:

1. Medium & Long-term loans.

Access to medium and long-term credit is a major constraint facing enterprises that wish to grow. This is due to the high risk associated with their insufficient assets and low capitalization levels, poor accounting records and lack of other financial records, in addition to the relatively high costs of processing small loans.[82] Egypt's experience in the provision of such loans have suffered from several setbacks. These include:

- A focus on start-ups in saturated low entry barrier markets.
- Lack of adequate project appraisal capacities and systems and poor screening of applicants.
- Weak monitoring.

[80] Lall, 2000, p. 10
[81] This section does not deal with microfinance, on the grounds that it has been adequately covered in the previous Draft National Policy, issued by the Ministry of Economy in 1998. Complementary mechanisms have also been tackled by the Ministry in its March, 2001 document entitled "Policy Priorities for the Development of SMEs in Egypt".
[82] UNCTAD, 2001, p. 8

- High default & failure rates.

Measures should be undertaken to establish proper screening and appraisal methodologies, in addition to effective monitoring techniques. Credit scoring systems can be used to reduce the costs associated with client screening and appraisal, shorten the duration of loan processing and determine the risk levels and the ensuing loan pricing. Furthermore, wider use of professionally managed credit guarantee funds can assist in the provision of these loans, through addressing lack of collateral. Guarantee funds however should be carefully utilized, and should ideally be gradually phased out as the creditworthiness of clients is progressively established, and the associated risks diminished.

Ultimately however, the financial system has to be made more efficient, retail oriented, and offer a variety of financial products that are adequate to the needs of various client segments. The cost of funds and the cost of inefficiency that together translate into higher interest rates would have to be reduced in order for the private sector in general and SMEs in particular to be able to access funds at competitive rates that are comparable to their competitors in other countries. On the other hand, while subsidies may be called for in certain cases, they should be minimized and mainly targeted at the institutional level to develop the capacities of financial institutions rather than provide subsidized loans to clients. The latter should be kept to a bare minimum.

2. Venture capital

Venture capital as a tool can provide both flexible, long-term equity capital with management assistance to emerging and growing companies, particularly innovative ones. The assumption is that such companies receiving equity finance (with more than average risk) will yield more than average financial returns (e.g., in relation to what might be obtained through depositing the money in a fixed interest account). Venture capitalism involves the provision of equity capital for the start up and development of enterprises. The capital is usually raised from investors in the form of a fund which is used to make private equity investments in businesses (usually 20% - 40% is the optimal level of equity participation). Such a service is usually provided through venture capital companies, banks and business angels[83].

There are currently a small number of venture capital firms in Egypt. However, seeking quick turnaround of their funds, they look for investments that could be floated in the stock exchange within a two-to-three year period. These terms while possibly suitable for growing enterprises do not meet the needs of new start-ups like they do in developed, and several developing countries. In addition, innovative companies which need a long growth period before they become marketable are hence an unattractive target for the venture capital industry in Egypt. Finally Egyptian SME owners, like their counterparts in many countries, are reluctant to give up equity in returns for investment.

As noted above, developed countries and several emerging markets, in their efforts to enhance the competitiveness of their SMEs, have encouraged venture capital schemes and cooperation between venture capital on the one hand and R&D institutions on the other.

[83]Business angels are another breed of venture capitalists that emerged in the US & Europe. These are retired rich investors who seek investment opportunities in emerging businesses that they can benefit in return with equity and managerial or technical experience. Several countries (e.g. the UK) have established networks of business angels that SMEs can tap for equity finance.

Proposed Measures

b. Enable venture capital companies to access long-term funds.
c. An active stock market that provides for the exit of the venture capitalist once the enterprises invested in are ready.
d. Tax incentives for both venture capitalists and enterprises receiving equity finance.
e. Enhancing the awareness of small and medium entrepreneurs of the benefits of venture capital for their competitiveness and growth.
f. Introduce professionally managed venture capital schemes funded by government, donors and or development finance institutions.
g. Establish links with Business Angel Networks in other countries (e.g., UK) to attract them to invest in Egypt.
h. Provide incentives to entrepreneurs and investors to reinvest their profits.
i. Develop a database on candidates for venture capital investments.

3. Stock Markets

Just as SMEs are likely to graduate from informal financing mechanisms to bank financing, 'growth-oriented SMEs' may soon outgrow venture and business angel financing. In addition, external providers of the equity funds will want to liquidate their investments for re-investment in the next batch of growth SMEs. At this stage it is common for the former SMEs to become full fledged public companies by abandoning their private status. This can be done through stock exchange floatation or initial public offerings (IPOs). Essentially shares are issued to the general public and the private capital providers (initial entrepreneurs, venture capital funds and angels) can redeem their investments. It is important to realise that private equity funding will be more plentiful in countries with well developed capital markets that can provide the investors with an 'exit route' in the medium term.

Some impediments however constrain the developmental role of stock markets. The high costs of complying with stock exchange registration requirements may discourage the issuance of shares by SMEs. For this reason, many developed countries (e. g. France, Germany and the UK) have introduced special stock markets designed to attract IPOs by 'growth SMEs', who later hope to graduate to the main stock exchange. Generally these exchanges have a lighter regulatory regime (with reduced reporting requirements.. etc.) that is less costly to comply with. It is these specially designed stock markets that increasingly commonly provide the necessary exit route (through IPOs) for private investors[84].

4. Leasing

Leasing was proven to be an innovative means for SMEs to access mid-term capital. It is a contract agreement whereby the SME is allowed to use an asset in return for periodic payment to the lessor, who retains ownership of the asset. Because the leasing company retains ownership of the asset, lease payments are an operating cost rather than a financing charge. At the end of the lease period (usually 3-5 years), the entrepreneur may acquire property of the asset in returns for a certain payment. In another variant of leasing (hire-purchase) the lessee provides a higher down-payment (usually around 30% of the purchase price) and ownership is automatically transferred upon payment of the last installment. Leasing allows the SME to benefit from the technological transfer, in addition to mid-term financing. Moreover, leasing offers the following advantages:

[84] Mullineux & Murinde, 2001, p. 16

- Lower costs for acquiring financial and historical data on SMEs.
- SMEs face less stringent collateral requirements.
- Leases are usually arranged more quickly than conventional loans.
- Defaults have generally been minimal (2-7%).
- Allows the business to be more flexible in cases like the obsolescence of certain types of equipment.
- Allows the SME to free a larger part of the resources for working capital finance.

In this sense, leasing offers an attractive alternative in economies suffering from lack of capital, like that of Egypt. On the other hand however, leasing serves only a certain portion of SMEs, excluding those using traditional equipment or sophisticated ones. The reason is that it is preferable to lease equipment that is of a general nature that can be easily sold if the entrepreneur defaults on his/her monthly payment. Those SMEs are likely to be the niche-finding ones with flexible specialization and hence general multi-purpose equipment. In addition, the asset cannot be used by the entrepreneur as collateral, against which he can obtain a loan.

Egypt has a developed a leasing law and has a number of leasing companies operating. However, leasing is still far from popular among SMEs, and there is a need to expand its provision on a larger scale.

Proposed Measures

a. Providing tax incentives to leasing companies targeting SMEs.
b. Providing tax incentives to SMEs leasing equipment.
c. Enhancing the awareness of Egyptian SMEs of the benefits of leasing.
d. Enhance the outreach of existing leasing companies through cooperation with SME development programs and intermediary organizations that can facilitate screening of enterprises.
e. SME Development organizations, programs and intermediaries can similarly market the services of leasing companies to their clients.

D. Innovation-Enhancing Measures

In order to meet the challenges of competitiveness and assist SMEs move along the paths identified above, various countries in both developed and developing countries provide several forms of assistance to SMEs. These had the objective of enhancing their competitiveness, thus enabling them to position themselves in (or upgrade their position to) high-value activities. A great emphasis is now placed on promoting investments in innovation. The shift in policy focus to knowledge-based SMEs is noticeable across the OECD. [85]

1. R&D Financing

Generally speaking, SMEs under-invest in R&D because they cannot fully capture the rents of their efforts. Governments intervened to correct for this market failure and provide a

[85] Bologna Workshop 1, p. 19

greater financial incentive for private investments in R&D. Private support mechanisms while necessary have largely proven to be insufficient, and while some assistance can be self financing, a large component may need to be subsidized. Even in countries with highly market oriented economies and highly developed financial services there are technological information market failures that required the intervention of governments[86].

One such intervention is through increasing the amount of capital available for access to, or investment in, innovation. These programs usually fund early stage research (sometimes till prototype development), a stage which is generally ignored by private venture capital[87]. Their benefits include the launch of new companies; better survival and growth rates for recipient firms compared to other start-ups; a shift in many recipient research careers from academia to entrepreneurship, thus increasing the knowledge capacity of the private sector; and demonstration effects which encourage entrepreneurship.

For example, the Small Business Innovation Research (SBIR) program in the United States, through congressional mandate allocates about 4% of the research budget of major institutions to funding innovative small firms[88]. Similarly, the UK's LINK scheme is the principal mechanism through which support is provided to collaboration between business and the research base. It has programs in electronics, communications & IT, food and agriculture, bioscience & medicine, materials and chemicals, energy and engineering, whereby up to 50% finance is offered to research projects in these sectors to enhance their competitiveness. The SMART Scheme provides grants to SMEs for pre-competitive feasibility studies in innovative technology and for development up to the prototype stage of new products and processes. In feasibility studies successful proposals (submitted by firms with less than 50 employees) receive 75% of the eligible project costs up to a maximum of 45,000 sterling pounds. Development projects receive, when awarded, 30% of development costs up to 200,000 Euros, with a very small number of exceptional projects receiving up to 600,000 Euros. [89] The Asian Tigers followed a similar path whereby the government heavily invested in SME-targeted R&D. In Taiwan, the government encouraged SMEs to contract research to universities and dedicated 50% of the National Science Council's research grants (about $200 million per annum) in matching funds to industry for such contracts[90]. In Korea, although the government relied on the large private *chaebols*, it has also invested heavily in R&D targeting SMEs.

Proposed Measures

1. Increasing the amount of funding available for R&D through a variety of financial tools (soft loans, grants, cost sharing arrangements..etc.)
2. Allocation of portions of the research budgets of research institutions to SMEs in selected activities with a potential competitive advantage.
3. Requiring research institutions to cover portions of their costs through joint research with the private sector.
4. Providing significant tax incentives for R&D undertaken by the private sector, especially SMEs.
5. Obtain donor technical and financial assistance in developing R&D programs based on best practices.

[86] Lall, 2000, p. 17-18
[87] A more elaborate discussion of venture capital can be found in the section on financial services, below.
[88] Bologna Workshop 1, p. 19-20
[89] Lall, 2000, p. 11-12
[90] Lall, 2000, p. 13

6. Initiate a public awareness campaign targeting SMEs on the importance of R&D for their competitiveness, as well as the available avenues.
7. Developing sound and balanced criteria for the prioritization of activities eligible for funding based on their current and potential competitiveness.
8. Initiate a major institutional development program targeting research institutions and universities to establish viable governance structures with private sector representation, streamline their operations, establish adequate R&D capacities, and strengthen their linkages with private business, especially SMEs.
9. To enhance their efficiency and competitiveness, research and educational organizations should bid for government projects rather than having them allocated to predetermined institutions.
10. Forge active links between local and international research and academic institutions through which advanced knowledge can be made available to business.
11. Encourage joint cooperation between business and academia in areas like joint research and internship programs in both the graduate and post graduate stages.

2. Technological Acquisition & Capacity Building

Technological acquisition takes place through various forms ranging from direct purchasing, equity finance, franchising to licensing and strategic alliances. Technical and commercial support structures such as R&D centers, technology transfer centers, quality control facilities..etc. can play a key role in disseminating information, identifying adequate technologies, and ensure the effective and beneficial transfer of this technology to, and its adaptation by, SMEs can take place. For example, the Singapore Institute of Standards and Industrial research (SISIR) disseminated technology to SMEs and facilitated exporting through providing information on foreign technical requirements and how to meet them. The Technology Development Center helped local firms identify their technological needs and purchase them.[91]

However, a major factor to consider, apart from its accessibility and price, is the presence of an adequate absorptive capacity to select, acquire, master, adapt and assimilate new technologies. The presence of this capacity is a direct function of the degree of scientific and educational development within an economy. Some measures however can be undertaken in order to facilitate the development of technological capacity.

Proposed Measures:

a. Technological Extension Services

These serve include a wide variety of services ranging from provision of information on new technologies to assisting the enterprise in identifying its technological needs and purchasing it.

b. Closer collaboration between R&D and the Venture Capital industry.

Public R&D grants and loans are complementary to private seed capital. An increasing number of venture capital funds require that start-ups apply for public grants first in order to develop a technology or prototype, and only later resort to private capital sources for business development needs. Moreover, while venture capitalists are more specialized in assessing business potential than technological viability, public agencies employ a large numbers of

[91] Lall, 2000, p. 16

engineers (or have a network of technical experts) who are trained to perform technological due diligence. An exchange of information between the two types of organization (business plans vs. audit reports) is mutually beneficial. Furthermore this collaboration simplifies the administrative burden of the technology developer by allowing for the exchange of audit reports, business plan evaluations, firm cross-references, and experience. Various universities have even created their own venture capital operations to facilitate the commercial exploitation of research.[92] Another related measure is the development of technological rating instruments and organizations to overcome the information gap between entrepreneurs and financing bodies. [93]

c. Support for business plan development and for non-technical activities.

Since R&D grants are project based and often oriented towards the development of new technologies, SMEs often encounter difficulties putting together successful proposals. The latest generations of new technology-based firms were found to be especially in need of business support –such as business plan development, venture coaching --rather than simply public financing. Support for such non-technical aspects of the innovation process are increasingly being provided as is the case with SENTER in the Netherlands and Enterprise Ireland.

d. Pure Equity Financing.

Financial institutions, as well as government bodies, have difficulty assessing the risk-profit trade offs of innovative ventures. Uncertainties about the technical feasibility, the time period of development, the total financing needed, and the probability of commercialization and possible market size, make financial institutions hesitate before funding venture projects. Accordingly, some countries go one step further in their strategy adjustment towards technology development by offering seed capital and taking equity stakes in new companies (e.g., Enterprise Ireland). This way, equity finance mechanisms complement classic public R&D grants and business development grants. Recently, it was announced that the Social Fund for Development is planning to start focusing on partnering with SMEs. Such a measure however requires adequate financial systems and capacities, in addition to technical capacities across a wide range of activities. In addition, it presupposes the existence of adequate exit mechanisms.

e. Other Financial & Fiscal Incentives

In order to upgrade the technological capabilities of SMEs, grants or tax concessions can be offered to cover the costs of technology acquisition, licensing and consultancy.

[92] Bologna, 2, p. 20
[93] Technological rating is a holistic method for evaluating the technological feasibility, commercial risk, and managerial capacity of an SME and its proposed innovative project. Technological rating organizations can be public or private bodies, and serve a bridging role between the financial sector and potential innovators.

3. Reforming the Current Educational & Training System[94]

While the issues of educational reform are too complex to tackle in this document, as shown above, educational reform is of extremely vital importance for the development of more competitive entrepreneurs, workers, and hence, enterprises. The move towards higher value links and chains requires a focus on a different set of skills than those currently prevailing in the Egyptian economy. In addition, it presumes a significantly better match between the labor supply and the market demand. Finally, the value system (which is supposedly nurtured by the educational and training system) should promote entrepreneurship, continuous learning and innovation. In fact, competitiveness along the lines presented in this document, cannot be realized without sizeable investments of resources and efforts in educational reform that aims to quantitatively and qualitatively narrow the knowledge gap between Egypt and the rest of the world.

Proposed Measures

1. Establishing market-sensitive systems for curriculum development and revision, that synchronized curriculum development efforts with:
    a. Market needs.
    b. Needs of sectors of strategic priority.
    c. International standards.
2. A more rational investment of resources, especially in secondary and tertiary education that stresses:
    a. The quality of education.
    b. Technical education.
    c. Responsiveness to market needs
3. Revising elementary school curricula to stress:
    a. Entrepreneurship and entrepreneurial skills.
    b. Innovation and critical thinking

E. Organic Clusters

Historically, economic activities have always had a tendency to cluster geographically. Clusters have increasingly become a global phenomenon that can be found in developed and developing countries alike. Networks and geographical clusters of firms are a particularly important feature of the knowledge economy. Firms find it increasingly necessary to work with other firms and institutions in technology-based alliances, because of the rising cost, increasing complexity and widening scope of technology. Many firms are becoming multi-technology corporations locating around centers of excellence in different countries. Despite improved capability for global communication, firms increasingly co-locate because it is the only effective way to share understanding (tacit knowledge). [95] Examples range from Bangalore in India and Silicon Valley in the U.S. for software and computer industries to London and Frankfurt for banking and finance, Paris for fashion and Hollywood for the film industry. Firms are attracted to locations where other firms are present to take advantage of external economies; markets, knowledge spillovers, factors of production, specialized skills

[94] This section, the measures proposed, as well as other parts of this document tackle the issue of education in a cursory fashion. Educational reform remains one of the most important issues on the agenda of the GOE, development agencies, and experts in the field.
[95] Houghton & Sheehan, 2000, p. 13

and suppliers, institutions and innovative capabilities. Above all, access to innovative activities as well as knowledge centers like universities and research institutions have increasingly become powerful catalysts for the development of clusters.

A cluster is an agglomeration of firms in a related line of business. A cluster can contain a small or large number of enterprises, as well as small and large firms in different proportions. Some clusters, such as many of Italy's industrial districts, are comprised principally of SMEs. Others are comprised of a mixture of small and large firms. Increasingly, the need to adjust to global competition, and the examples of prosperous regions whose economies are built on localized groups of firms, have caused local, regional and national governments to turn to policies based on enterprise clusters.[96]

Technically speaking, clustering is a spatial concept that does not necessarily imply networking and collaboration between firms.[97] There are several types of clusters ranging from informal clusters to Export Processing Zones (EPZs), incubators, industrial estates, and science parks. It should be noted at the outset that not all clusters are successful or competitive. Nor do all clusters witness high levels of cooperation and networking among firms. Conceptually clusters can be either vertical (where firms are specialized in different stages of the value chain) or horizontal (where firms specialize in the same stage or link in the value chain). In general, it is easier to achieve cooperation and hence collective efficiency among the former kind, where there is little room for competition, as opposed to firms producing the same product. However, through pooling resources and cooperating to respond to large orders, a horizontal cluster can enjoy high levels of competitiveness and success. Furthermore, not all competitive clusters remain so. Clusters can, and often do, lose their competitiveness to other emerging and more dynamic clusters.

1. **Improving the business environment.**
2. **Information dissemination**
3. **Provide basic infrastructure**
4. **Foster business networking and inter-firm collaboration.**
5. **Business services (market research, materials testing, consulting...etc.)**
6. **Community development**

Box 11: Common Elements of Successful Cluster Strategies

While international experience with clusters had produced mixed results, they point to a fundamental finding: governments are better off not attempting to create clusters from scratch. Rather, they should be allowed to evolve organically, and afterwards be supported by the government. While artificial clusters may show high levels of entrepreneurial activity and high-tech start-ups (as in the case of some industrial estates, incubators and science parks), they have been generally criticized of being artificial, expensive and of no significant contribution to the local economy. Rather, evidence shows that even in the most 'dynamic' of such clusters, more global linkages are created than local ones.

Based on the above, guidelines on policy towards clusters are based on the view of government as supporting existing and emerging clusters rather than trying to create new ones. A tenet of the guidelines outlined here is that a clusters policy should essentially aim at encouraging networking and collaborative behavior among firms as well as better targeted public programs and investments (see Box 11, above). At the same time, these public programs and investments should not go beyond the traditional public remit of rectifying

[96] Bologna, 2, p. 3
[97] UNCTAD, 2000, p. 83.

market failures and providing public goods. In essence a policy on clusters should aim to provide services that all firms merit access to, whether they are clustered or not, but in a more targeted fashion. The particularity of working with clusters is that, owing to the physical proximity of firms and institutions, there can be more opportunities (at relatively low cost) for promoting inter-firm collaboration than would otherwise be the case.

Egypt has invested large sums in establishing industrial estates and free zones. It is estimated that Egypt has more than 102 industrial estates in various stages of development and following various government departments (including local government, ministry of housing and ministry of industry). Most of these however lack the provision of common facilities, which include inter alia measurement and control equipment, product testing laboratories and the use of equipment on pay per use basis. In addition, it is not uncommon to find estates lacking adequate infrastructure (or it can only be provided at a high cost, e.g. telephone lines) like electricity or gas. In particular the policy of promoting industrialization in Upper Egypt has not been accompanied by the development of transportation facilities, banking and support infrastructure.

Egypt also has several organic clusters that the government can help boost. These include among several others, Sha'a El Te'aban district in Cairo, specializing in marble manufacturing, Salamon El Omash and Meet Ghamr in Daqahliya, specializing in tricot and aluminum utensils respectively, and Damietta, famous for its furniture manufacturing activities. These clusters have recently started to attract the attention of policy makers. MOFT is actively providing assistance through its departments and affiliated organizations to Damietta and Sha'a El Te'aban clusters.

Ideally, these services should include the full range of BDS services, support mechanisms and institutions, including, though not limited to:

a. Universities and research institutions
b. Counseling and training services
c. Information, legal and accounting services.
d. Design, quality and prototyping facilities.
e. Business linkages.
f. Residential, recreational and community centers
g. Export services and international outreach
h. Financial services (grants, loans, equity..etc.).
i. Testing facilities, measurement and control equipment.

However, since the delivery of these services might involve massive investments, the choice of the cluster to support is of utmost importance, especially that – as explained above – not all clusters are successful or continue to be successful indefinitely.

F. Networking & Inter-firm Linkages with Large and Foreign Enterprises

Networking is most often used to describe a wide range of arms-length interactions between firms across a value chain, without necessarily having formal or equity relationships, or geographical proximity.

The findings of a large number of studies over the past 30 years are unanimous that the presence of foreign firms has helped raise the standards and productivity of many domestic

suppliers. Several experts hold that in developing countries characterized by the missing middle syndrome a strong integration of SMEs into the modern supplier relations with these foreign firms can make an important contribution towards improvement of the enterprise structure.[98]

Nevertheless, not all supplier relations are equally beneficial for SME development. Where there exist a multitude of suppliers as opposed to a small number of customers – which is often the case – the former would run the risk of being engaged in a ruinous competition (price competition) either to avoid being replaced by, or actually replace, their competitors. Cost competition forces suppliers to continuously reduce profits, wages, and labor standards to remain competitive. The most privileged suppliers are those who are able to achieve technological leadership in their field and are hence able to negotiate higher prices for their products. Functional flexibility enables suppliers to respond to fluctuations in demand by ways of functional rather than numerical flexibility (e.g., hiring and firing labor). Preconditions for this approach include multi-skilled workforce, programmable multi-purpose machines, and a flexible shop-floor organization. These enable the supplier to respond to unstable demand[99].

Since very few SMEs in the developing world are capable of developing innovative technologies, the degree of specialization between TNCs and suppliers sometimes lead to the formation of transnationalized enterprise clusters with leading suppliers from the developed countries following their TNC clients to production sites in developing countries.[100]

A network, it should be noted, does not require geographical proximity of its members for it to be successful. International experiences with successful networking and interfirm linkages suggest the importance of the following factors:

1. Adequate legal framework governing business transactions, particularly with regards to property rights and their enforcement, contract law and commercial law.
2. Efficient matching institutions and mechanisms that disseminate information, bring firms together and help build mutual trust between them.
3. Establishing knowledge centers can attract foreign firms to enter into alliances with local firms and universities.
4. Promotion of joint R&D programs together with firms and academic establishments can create knowledge spillovers in the rest of the economy, rendering it more attractive for foreign investors.
5. Encouraging subcontracting through public procurement, which can be more economically sound than set aside methods, which requires sizeable investments in data gathering, updating, in addition to monitoring transactions.
6. Investing in upgrading the quality of the country's human resources through the education and training system would render the country more attractive to foreign and local investors.
7. Development of local technological capabilities.
8. Providing programs aiming to develop the capacity of the weaker partner, through training, financial support ..etc.
9. Provision of matching-grants for proposals involving interfirm activities in R&D, training,…etc.

[98] Altenburg, 2000, p. 9
[99] Altenburg, 2000, p. 10-11
[100] Altenburg, 2000, p. 35

10. Supporting standardization and certification programs in order to equip small businesses to be reliable partners.

Linkage inducing policies should:

1. Focus on voluntary measures to support the local suppliers' base rather than imposing domestic-content requirements.
2. Be based on a medium to long term vision regarding the envisioned intra-firm division of labor, with a clear definition of the target groups
3. Based on an understanding of the type of supplier relations conducive to sustainable competitiveness
4. Involve existing large corporations and firms in designing supplier development programs to ensure their ownership
5. Coherence and coordination, preferably through a single agency responsible for supplier development working hand in hand with specialized agencies.

On the average –with few notable exceptions in East Asia - the results of mandatory reservation of local content has been poor.[101] Less direct forms of support have proven more successful. For example, the Singapore government encouraged MNCs to subcontract to smaller firms and in return for the MNCs commitment to provide TA and training to their subcontractors, the latter were provided a package of assistance including cost-sharing grants, loans for the purchase of equipment, consultancy services and training. [102] Regardless of the incentives proposed, incentives make sense only if the potential customer have interest in local suppliers, if the competitiveness of potential suppliers in terms of price, quality and terms of delivery does not lag too far behind alternative sources or vertical integration within the client's plant, if such supplier relationships do not develop without these incentives, otherwise they constitute a deadweight effect.[103]

Some of the measures include:

a. One stop shop for information on TNCs and suppliers
b. Subcontracting exchange schemes
c. Matching services
d. Economic incentives for suppliers (in Korea they are offered guarantee schemes, soft credit for product improvement, depreciation possibilities for investing in laboratories and control equipment, exemption from stamp duties).
e. FDI efforts targeting medium sized businesses from advanced economies (while the Egyptian – and maybe even the entire MENA – market maybe considered small by large multinationals, it can offer attractive niche opportunities for some medium sized enterprises from the developed countries, who might also be more ready to form mutually beneficial linkages with local SMEs).

[101] Altenburg, 2000, p. 47
[102] Lall, 2000, p. 16
[103] Altenburg, 2000, p. 54

G. Creating a Favorable Legal & Regulatory Environment

In the recently published Arab Competitiveness Report, Egypt ranked 75th out of seventy-five countries on the 'Red Tape Index'. The authors of the report created this index "by averaging perceptions of the overall burden of administrative regulations together with an assessment of the amount of time that senior executives typically spend with government officials"[104]. It is well-known that red tape impacts more negatively on SMEs, since they lack the human and material resources to deal with bureaucratic procedures. As we have established above, the legal and regulatory framework continues to be a main hurdle facing Egyptian SMEs in establishment operation and growth. The government has repeatedly declared its commitment to easing these constraints through the establishment of one-stop-shops for licensing and registration. It is worth noting that CIDA has implemented a highly successful pilot one stop shop initiative in the city of Mansoora in Daqahliya under its SMBSP. So far, and despite the accumulation of experiences in this particular regard, no adequate use was made to utilize the lessons learned on a larger scale. Another effort that is currently underway is being implemented by the ILD in cooperation with The Egyptian Center for Economic Studies.

Proposed Measures

a. Improved coordination between different efforts undertaken by government agencies, donor programs ..etc.
b. Adequately utilizing the experience gained by CIDA's SMBP in Mansoora, since it was the only applied effort undertaken to create and operate a one stop shop. Caution should be exercised however in extrapolating from a pilot activity to a national initiative.
c. In the medium to long-term, streamline current laws, regulations and procedures.
d. Issuing and enacting the copyrights law in order to encourage innovation.

[104] Arab Competitiveness Report, 2003 p. 19, 23.

VII. Implementation Guidelines

The implementation of the above has some prerequisites, especially with regards to the institutional setup for M/SME policy making. These include:

A. General Policy Guidelines

1. Promoting a realistic understanding of the economic potential of M/SMEs.

It is necessary for all stakeholders to share a realistic understanding of M/SMEs and their potential. Misguided political pressures can have devastating results on M/SME policy making and implementation. The separation of myth from reality with regards to various pertinent issues including the role of SMEs in employment generation, as well as their role with regards to the youth and the new graduates,...etc. is a prerequisite for sound policy formulation and policy making. Well-planned and executed public awareness campaigns can play a positive role in this regards.

2. Avoiding politicization of the issues and programs of M/SME development.

It is important to minimize political interference and pressures on the development and implementation of these programs. Programs should be focused on the attainment of developmental results, rather than immediate political returns. Political interference usually compromises professionalism and efficiency, and increases the likelihood that resources will be misallocated and misused. Given the relatively meager resource base that Egypt – like many other developing countries – has, the available resources should be carefully and efficiently "invested".

3. Maintaining a tight integration between SME policies and programs and the overall economic orientation towards increased competitiveness.

With the lack of such integration, there is a risk of ending up with a disjointed policy framework that does little, if any to serve the sector, let alone serve the economy as a whole. Across the board, economic development strategies should be revised to provide for the integration of SMEs and the various services and policies needed for their development.

4. Rationalization of subsidies.

While the proposed measures entail sizeable investments and subsidization of many programs and initiatives, it should be borne in mind that subsidies if improperly targeted can have severe distortionary effects. Where recommended in this document subsidies were aimed at rectifying market failures. All subsidized interventions should be carefully considered in order to maximize their benefits and minimize their setbacks. Unnecessary subsidies should be phased out or discontinued, and reallocated towards the development of market capacities to address specific failures in servicing M/SMEs. Necessary direct subsidies should be tied to the achievement of results.

5. Using best practices and results of scientific research in design and implementation.

The government should make better use of the accumulated international and local knowledge, rather than reinvent the wheel, or recommit the same mistakes. In addition, this will assist in developing realistic targets and expectations.

B. Institutional Guidelines

1. Revising and streamlining mandates of stakeholders.

Official mandates should be carefully considered and streamlined to provide for the attainment of developmental results, as well as realistically reflect existing capacities. Overlaps and conflicts between mandates should be reversed to allow for a better division of labor among stakeholders.

2. Increased effective coordination and communication.

Commensurate with the above recommendation and due to the multiplicity of stakeholders there is a dire need for effective coordination and communication among the various parties. The mandates and composition of the existing coordinating committees and councils have to be realistically reconsidered and streamlined. These committees have to enjoy the capacity and mandate to coordinate policies, monitor their performance, and, where necessary make amendments. It might be desirable as such to have a technical secretariat that is able to provide the required support for this coordinating mechanism(s).

One option that has been repeatedly proposed is the designation of a central entity for M/SME policy making that would act as a nodal point for policy development. This option while consistent with the centralized nature of the Egyptian government is neither necessary nor sufficient for effective policy making and successful implementation. "Government structures are heavily influenced by local history, by the manner in which small businesses are organized, and by the specific roles seen for SMEs in the economy...It seems more important to have good communications between government bodies, at the state and local levels, responsible for SME interests, and a means to bring SME concerns to the highest levels of policy debate. A ministry or bureau for SMEs, while it might help to focus attention on SME matters, does not, by itself, ensure sound, well-coordinated SME policy."[105] Several countries have had successful experiences in supporting SMEs and in effectively delivering a range of services, without having a centralized agency responsible for SME policy making or policy implementation. Further, it still requires a high level of effective coordination among the various stakeholders. [106]

3. Increased effective representation and participation of SMEs.

The issue of representation is related to the level of democratic development in the country in general. However, within these parameters efforts can be undertaken to increase M/SME participation in decision-making. One such example is MoFT's endeavors to include small business owners in the commodity councils, which, while not founded on a representative

[105] Gray & Gamser, 1994. p. 19

[106] For a more elaborate discussion of this particular point, see El-Meehy, (B) 2002.

process, provides for some level of participation. SMEs should be encouraged to form their own representative organizations. In addition, existing private sector organizations should allow more room and a larger share for the 99.7% that have so far been consistently marginalized. The inclusion of these representative bodies in economic policy formulation processes in general, and those pertaining to M/SMEs in particular should also be observed by the policy maker. Meanwhile, in the short-term, MoFT's example could be followed by other government entities in other spheres.

4. Increased stability, predictability and transparency of the institutional setup.

Finally, once the institutional setup has been streamlined, vitalized and made to allow for effective representation and incorporation of SMEs and their concerns, this machinery should be allowed time to function without interruption, hence forming and consolidating "a system". This would in turn give it more credibility in the eyes of the public and the various stakeholders[107].

5. Increased coordination between line ministries and the local administration

SME services are best delivered on the local level. Given the lack of coordination between local administrative structures and the central line ministries, the effectiveness of most services can be easily compromised. Line ministries with local presence should be encouraged to delegate more authority to their local offices. Where delegation of authorities to the local level is difficult, efforts should be undertaken to facilitate communication and cooperation between the line ministries on the one hand and the local government structures on the other.

[107] El-Meehy, (B) 2002. p. 22-23

Annex I: Product Categories According to Technological Intensity

Primary products: minerals, agricultural & forest products exported in unprocessed state.

Resource-based manufactures: processed foods and tobacco, simple wood products, refined petroleum products, dyes, leather (not leather products), precious stones and organic chemicals. They can be simple of capital and skill intensive as in petroleum.

Low-technology manufactures: textiles, garments, footwear, other leather products, toys, simple metal and plastic products, furniture and glassware. They have stable, well-diffused technologies, largely embodied in capital products, with low R&D and skill requirements and low economies of scale. Labor costs tend to be a major element of costs and barriers to entry are generally low.

Medium-technology manufactures: These are heavy industries like automobiles, industrial chemicals, machinery, and standard electric and electronic products. They have relatively complex, but not fast changing technologies, with moderate levels of R&D but advanced engineering and design skills and large scale production. Barriers to entry tend to be high due to capital requirements and strong learning effects in operation, design and products differentiation.

High-technology manufactures: These are complex electrical and electronic products, aerospace products, precision instruments, fine chemicals and pharmaceuticals. Most call for advanced manufacturing capabilities, large R&D investments, advanced technology infrastructure and close interaction between firms, universities and research institutions. However many activities, especially electronics have final assembly stages with simple technologies, where low labor costs are an important competitive factor.

Annex II: Tentative Policy Analysis Matrix

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
Promotion of Direct Exports	Increasing SME's contribution to exports.	↳ Targeting "winning sectors". ↳ Streamlining import/export requirements. ↳ facilitate the establishment of export consortia	↳ Establish import/export one-stop shops. ↳ Facilitate networking among SMEs.	↳ Promote linkages.		↳ Focus on high technology and ICT activities.
Business Development Services	Expand the provision of BDS services	More focus on the following services: ↳ Computer software and information processing services. ↳ Research & Development and technical services (see above). ↳ Marketing services ↳ Human resource development. ↳ Business services. ↳ Information dissemination on markets, standards and technologies. ↳ Standardization and certification ↳ Technology extension services	↳ Establish single entry points in all governorates, with varying numbers and scales of services. ↳ Strict adherence to best practices, especially a stronger orientation towards sustainability. ↳ Government minimizing its direct provision of services. ↳ Utilize private sector providers. ↳ Discontinue subsidized programs.	↳ Enhanced cooperation among providers of different services and BDS projects and organizations. ↳ Vitalize and enhance smooth interaction & cooperation between line ministries and local administration.	↳ Enhancing the awareness of Egyptian SMEs of the benefits of the different kinds of business development services and ways of accessing them. ↳ Develop a cadre of capable Egyptian consultants and experts in various BDS fields.	↳ Increased provision of BDS services along market lines.

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
Financial Services	Medium & Long-Term Loans	SME lending programs focusing on long and medium term loans	↳ Increasing the efficiency of financial institutions through institutional development programs and training. ↳ Proper screening and appraisal methods ↳ Effective monitoring techniques ↳ Wider but careful use of professionally managed credit guarantee funds ↳ Utilization of modern techniques like credit scoring systems. ↳ Focus on potentially competitive SMEs.	↳ Lower interest rates for SME loans through increasing competition within the financial sector and lowering the cost of funds. ↳ Encourage formalization of real estate holdings. ↳ Increased competition of the banking sector ↳ Rationalize subsidized lending ↳ Encouraging non-banking financial institutions to increase competition.		↳ Developing a more competitive & efficient financial sector with lower cost of funds ↳ Further restrict subsidized lending
	Venture capital	Expand the provision of venture capital services	↳ Introduce professionally & private sector managed venture capital schemes funded by government, donors and or development finance institutions. ↳ Establish links with Business Angel Networks in other countries (e.g., UK) to attract them to invest in Egypt. ↳ Develop a database on candidates for venture capital investments.	↳ Tax incentives for both venture capitalists and enterprises receiving equity finance. ↳ Provide incentives to entrepreneurs and investors to reinvest their profits	↳ Enhancing the awareness of small and medium entrepreneurs of the benefits of venture capital for their competitiveness and growth.	↳ An active stock market.

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
	Stock Markets	Introduce special stock markets	Special SME-friendly stock markets adequate for growth oriented SMEs.	Special (lighter) regulatory regimes	↳ Enhancing the awareness of small and medium entrepreneurs of the benefits of special stock markets for their competitiveness & growth. ↳ Technical assistance based on experiences of France, US, Germany or UK.	
Innovation & Technology	Increase Business-S&T cooperation and R&D Funding	Targeted subsidies & programs (soft loans, grants, cost-sharing) for R&D promotion.	↳ Allocation of portions of budgets of research institutions for SMEs. ↳ Develop targeting criteria. ↳ Active links between local & international research bodies. ↳ Encouraging joint business/academia cooperation in both undergraduate and graduate studies (e.g., internship, joint research…etc.).	↳ Tax incentives for businesses (especially SMEs) undertaking R&D. ↳ Requiring research institutions to recover portions of their costs. ↳ Requiring research and educational organizations to bid for government projects. ↳ Tax incentives for businesses participating in internship programs and other forms of joint collaboration with academia.	↳ Public Awareness Campaign ↳ Donor technical & financial assistance based on best practices.	↳ Major institutional development program for universities and research institutions

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
	Technological acquisition and capacity building	↳ Technological extension services	↳ Effective BDS providers providing technology-related services.	↳ Tax incentives for costs of technology upgrading/acquisition, licensing & consultancy.		
		↳ Specialized Equity Financing	↳ Establish university venture capital companies. ↳ Establish campus companies	↳ Encourage universities to commercially benefit from research.		↳ Cooperation between R&D and the Venture Capital industry
		↳ Assisting innovative SMEs in developing business plans and feasibility studies (see BDS)	↳ Effective BDS providers	↳ BDS incentives (see below)		

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
Organic Clusters	Supporting Existing Organic Clusters	↳ Assess existing clusters to identify those with success potential. Focus services on: ↳ Counseling and training services ↳ Information, legal and accounting services. ↳ Design, quality and prototyping facilities ↳ Export services and international outreach ↳ Financial services (grants, loans, equity..etc.). ↳ Testing facilities, measurement and control equipment. ↳ Technological extension ↳ Information dissemination ↳ Business services (market research, materials testing, consulting...etc.)	↳ Close cooperation with local or nearby academic and research facilities. ↳ Effective BDS providers. ↳ Effective local partnerships involving local businesses (especially SMEs), local administration, research institutes, NGOs..etc. ↳ Effective collaboration with central government.	↳ Supporting organically existing structures rather than attempting to create new ones. ↳ Improving the business environment. ↳ Provide basic infrastructure ↳ Foster business networking and inter-firm collaboration (see the section on linkages, below). ↳ Promoting participatory community development & governance		↳ Establish local universities and/or research institutions in or near clusters. ↳ Develop residential, recreational and community centers to attract investors.

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
Networking & Inter-firm Linkages with Large & Foreign Enterprises	Promote inter-firm cooperation and linkages between large, small and foreign firms	↳ One stop shop for information on TNCs and suppliers ↳ Subcontracting exchange schemes ↳ Matching services ↳ Providing programs aiming to develop the capacity of the weaker partner, through training, financial support ..etc. ↳ Provision of matching-grants for proposals involving interfirm activities in R&D, training,…etc. ↳ Supporting standardization and certification programs in order to equip small businesses to be reliable partners.	↳ Efficient matching institutions and mechanisms that disseminate information, bring firms together and help build mutual trust between them. ↳ Involve existing large corporations firms in designing supplier development programs to ensure their ownership ↳ A single agency responsible for supplier development working hand in hand with specialized agencies.	↳ Focus on voluntary measures to support the local suppliers base rather than imposing domestic-content requirements. ↳ Be based on a medium to long term vision regarding the envisioned intra-firm division of labor, with a clear definition of the target groups ↳ Based on an understanding of the type of supplier relations conducive to sustainable competitiveness ↳ An adequate legal framework governing business transactions, particularly with regards to property rights and their enforcement, contract law and commercial law. ↳ Economic incentives for suppliers ↳ Encouraging subcontracting through public procurement. ↳ Policies aiming to attract FDI with high economic returns and allowing for adequate positioning of local suppliers.		↳ Investing in upgrading the quality of the country's human resources through the education and training system would render the country more attractive to foreign and local investors. ↳ Development of local technological capabilities (see above). ↳ Developing a competitive educational and S&T infrastructure.

POLICY AREA	MEASURES	PROGRAMMATIC	INSTITUTIONAL REQUIREMENTS	POLICY REQUIREMENTS	COMPLEMENTARY MEASURES	LONG TERM MEASURES
Regulatory Changes	Streamline the existing framework for firm establishment and operation.	↳ Lower regulatory burdens associated with firm establishment, operation and growth.	↳ Establish effective one-stop shops for licensing and registration on the local level	↳ Improved coordination between different efforts undertaken by government agencies, donor programs..etc. ↳ Adequately utilizing the experience gained by CIDA's SMBP in Mansoora, since it was the only applied effort undertaken to create and operate a one stop shop. ↳ Adequately utilizing the results of other efforts currently being undertaken (e.g., ECES & ILD).	↳	↳ Streamline laws & regulations governing firm establishment, operation and growth.

Annex III: Basic Principles of Effective Delivery of BDS Services

1. Demand-driven and adapted to users needs.

The demand and need for the services should be carefully assessed. Services and service delivery methodologies should be planned in a participatory manner. Sub-sectoral approaches were found to be more relevant to business needs than generic approaches. Supply-driven interventions should be avoided to the maximum extent possible.

2. Subsidiarity.

This principle pertains to the identification of who can do what best. Experience has shown that governments should not engage in direct service delivery, but should assign delivery to private and non-governmental actors, particularly those on the local level. Rather governments should focus on creating a positive environment for SMEs and SME development efforts to flourish. In addition, along the same lines, in designing & implementing BDS programs, a separation between the role of provider and facilitator should be enacted.

3. Focused.

BDS can be extremely cost effective when delivered to clusters of small business operating in close geographic proximity, and can provide unique opportunities for fostering or strengthening links between SMEs themselves. Similarly subsectoral delivery has proved to be more effective than services with a wide target.

4. Market-oriented and businesslike.

Private sector actors should take the lead in the actual delivery of the service. The use of vouchers (as is the case with training in Paraguay), can foster competition among private providers, thus providing for better quality services. BDS services should be regarded as products, for which SMEs are the clients, rather than the beneficiaries of assistance.

5. Cost-recovery & Sustainability.

So far, and despite some breakthroughs in the commercialization of BDS services, international experiences with such services (whether in developed or developing countries) has yielded mixed results at best when it comes to cost recovery and sustainability. While full cost recovery and sustainability of all the services maybe unlikely, BDS programs should always seek to attain full cost recovery in order to ensure the relevance of the services provided, their continuous delivery and expansion. Interventions should offer a realistic alternative to donor support. In this regard, progressive cost-sharing could be encouraged as a means towards cost-recovery.

6. Cross-subsidization of Services and Clients

Not all services will be easily cost recoverable. Some services (e.g., marketing, technology, accounting and legal services) have clearly proven their potential profitability

over others (e.g., training, or information), where the need is sometimes not so strongly perceived. Likewise, micro and smaller enterprises are less likely to be able to cover a significant portion of the cost than medium ones. Cross-subsidization of services and clients in these cases can allow for the continuous provision of services that while not necessarily the most viable financially; do have some significant developmental impact.

7. Monitoring & performance measurement

Indicators should be in place to monitor and evaluate a program's outreach (number and distribution of clients), impact (on enterprise, market, sector…etc.), efficiency (cost and rate at which program inputs yield their intended results/outputs), cost-effectiveness (achievement of objectives at economic costs), and sustainability.

8. Cumulativeness.

Competitiveness is not a one-off improvement but a process requiring continuous improvements. This has to be taken up by both the firm and the service provider.

9. Capability focus.

While the lack of hardware continues to be a major constraint that has to be addressed, SMEs need to acquire enhanced knowledge and skills about how to choose, use and improve technology.

10. Context & Complementarity

Projects have to be tailored to the general level of technological and economic development. For example, earlier efforts in many low-income countries attempted to promote subcontracting schemes prematurely.

11. Coordination & Integration

Effective coordination mechanisms should be in place to tie the various governmental and non-governmental actors thus serving to avoid duplication of effort, and benefiting from lessons learned from other activities. In addition, integration of services at special entry points facilitates access to services by the entrepreneurs. In the UK, there are 200 Business Links that provide a single entry point for entrepreneurs to access an integrated package of services, some of which might not be provided in-house, but are rather outsourced from other actors.

12. Outreach

Since SMEs cannot identify and define their needs clearly enough to seek the best remedies, and given that they tend to avoid going to support institutions where lots of formalities are involved in getting the assistance, what is needed is a service that can reach out, help define their problems and devise a package of measures to deal with these problems that has the best chances of success[108]. In England, nearly two-thirds of the clients of the Business Links (200 links) have been proactively contacted through such mechanisms.

[108] Lall, 2000, p. 18

Annex IV: Proposed Action Plan

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
FIRST: PROMOTION OF DIRECT EXPORTS					
I. Supporting irregular air and sea freight and transportation lines to external markets, especially African and COMISSA markets.	MOFT	MOT		■	
II. Fiscal Incentives					
A. Tax incentives to promote R&D efforts of exporting companies (up to 5% of their exports value, possibly more for SMEs)	MOF	MOFT	■		
B. Abolition of customs and taxes on Capital equipment imported by SMEs	MOF	MOFT	■		
C. Creating a mechanism to realize equality with large enterprises with regards to incentives offered by law no.8, while verifying the imports of capital equipment.					
III. Information Dissemination					
A. Publishing and widely disseminating trade agreements locally and internationally	MOFT, CROs - information department	MOFA, MIC	■		
B. Establishing an institution that gathers and disseminates export-related information in general and possibly offering specialized information services for a fee. *N.B: The ITP sector in MOFT is currently being restructured along these lines.*	MOFT (ITP)	Arab Industrialization Agency, SFD, IDSC, CAPMAS	■	■	
IV. Manpower Training					
A. Training SME managers in various fields, including foreign languages	Training Centers in pertinent ministries, MOI, FEI	SFD	■		
B. Vocational Training for SME Employees in Potentially Competitive Sectors & Activities					■
C. Training SMEs in export management	MOFT, FTTC	FEI, Business Associations	■		
V. International Exhibitions & Promotion Efforts					

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
A. Supporting chambers to promote SME participation in Specialized exhibitions according to sector-specific plans	MOFT, Chambers & Federations	EDB, Donors, Export Guarantee Company	■		
B. Contributing to the costs of electronic catalogues prepared and developed for SMEs (whether collective or individual)	MOFT	SFD, Federations, Chambers	■		
C. Encouraging Foreign Importers to support Egyptian Industries and exports	MOFT, EGC	Federations, Chambers	■		
VI. Product Development Support					
A. Disseminating information on product specifications and requirements in specific markets	MOFT (CR & ITP)	SFD, MOI, FEI, Business Associations	■		
B. Supporting testing & quality and standards inspection facilities and laboratories	MOI, SFD	MOFT		■	
C. Supporting product design through supporting companies specializing in designing products for Egyptian companies, especially in promising sectors.	MOI, Exports Development Center	SFD	■		
D. Development of Traditional Handicrafts and developing its products for exports	MISA	MOFT, SFD, MOC, MLA	■		
E. Encouraging invention and inventors through marketing ideas to Egyptian exporters (see below)	MSR	MOFT	■		
VII. Institutional Aspects					
A. Establishing Exports OSS	MOFT	MOF, others	■		
B. Establishing & Attracting Trading Companies/ Houses Targeting SMEs, especially those SMEs with export potential	MOFT	FEI, SFD	■		
VIII. Access to Finance					
A. Supporting Export Guarantee Companies to Facilitate Export Finance through Banks	Exports Guarantee Company	MOFT	■		

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
B. Allocating 25% of the Export Support Fund for SMEs	Export Support Fund	MOFT, SFD, FEI			
SECOND: BUSINESS DEVELOPMENT SERVICES					
I. Expanding & Improving Current BDS & Adding New Ones					
A. Establishing a coordinating body for BDS provision that facilitates, supervises & monitors BDS provision as well as participates in policy making	MOFT, MOI, Other GOE entities	Donors, Private Sector, Chambers, Federations			
B. Identifying and categorizing BDS Providers	Coordinating Body	MOFT			
C. Issuing a directory of information on BDS Providers	Coordinating Body	MOFT			
D. Assessing the needs of clients and designing services accordingly	Coordinating Body, providers	MOFT, Donors			
E. Establishing and developing Technical support centers	Donors, MOI, Private Sector	SFD			
II. Stimulating Demand on BDS Services					
A. Enhancing the Awareness of SMEs of the Importance of BDS for their growth and development	MOFT, MOInf				
1. Public awareness campaign	Coordinating body	Donors, Private sector, Local administration-on			
2. Vitalizing the role of Business Associations in enhancing the awareness of SMEs of the importance of BDS	Coordinating Body	Business associations, Commodity Councils, Chambers of Commerce			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
3. Strengthening business to business extension	Service Providers, Donors	MOFT, Local Administration, SFD, Business associations			
4. Highlighting Success Stories	Service Providers, Donors	MOFT, Local Administration,			
5. Issuing a Directory of BDS Providers and Updating it periodically	Coordinating Body	MOFT, Donors			
6. Encouraging the utilization of the Internet in dissemination of information on service providers and information centers	Coordinating body	Service Providers, Donors, MOFT			
II. Regulation					
A. Requiring service providers to monitor and evaluate the effect of the service	Coordinating body	MOFT, Chambers & Federations			
B. Developing delivery guidelines, and monitoring, performance and impact indicators	Coordinating Body, providers	MOFT			
C. Monitoring the quality of services provided and its relevance to the needs of SMEs	Coordinating body				
D. Encouraging the private sector to provide these services, especially after the withdrawal of donors from this area	Coordinating body	MOFT			
1. Creating and utilizing new tools (voucher system) to promote private sector provision of services	Donors				
2. Gradual reduction of subsidies	Donors, Coordinating body				

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
THIRD: FINANCIAL SERVICES					
I. Lending					
A. Defining Specific Regulations for Banks' Lending to SMEs & Training Bank Employees	Banks	Technical Assistance Providers, Donors			
1. Defining special credit procedures that suit SMEs			■		
2. Drafting Appropriate Credit Policies Manual			■		
3. Utilizing Credit Scoring Systems				■	
B. Utilizing Prevailing Market Interest Rates to Ensure Sustainability & Avoid Market Distortions					
1. Gradual transition from subsidized to market rates	Banks, Government	Donors		■	■
2. Limiting subsidies to specific sectors & activities targeted in accordance with national policies (based on previously identified sectors, and where the threat of market failure is high)	Banks, Government	Donors		■	
C. Increasing Banks' Profitability of SME Lending					
1. Tax incentives	MOF			■	
2. Reducing the banks' reserves with the CBE in proportion to their SME portfolio	CBE			■	
II. Leasing					
A. Amending Law 95/1995 for Leasing to provide incentives to Leasing Companies targeting SMEs and SMEs utilizing leasing services	GAFI	MOF		■	
B. Increasing the Number of Leasing Companies (Allowing more involvement on the part of financial institutions in leasing activities)	Financial institutions (Legislative Changes)	GAFI			■

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
C. Enhancing Cooperation between Leasing Companies and SME Development Organizations to widen the base of potential clients	Leasing Companies, SME Development Organizations				
III. Factoring & Discounting					
Establishing Factoring & Discounting Companies N.B: See PM Decree 1446/31/8 & Law 8/1997					
IV. Venture Capital					
A. Issuing a Directory of Venture Capital Companies	MOFT	VC Companies			
B. Public awareness campaign targeting SMEs to enhance their awareness of the benefits of venture capital	MOFT	Media, VC Companies			
C. Technical Assistance to VC Companies to enhance managerial, technical, and legal skills (especially in contracting and exit mechanisms)	TA Provider, Donors	VC Companies			
D. Enhancing Cooperation between Venture Capital Companies & SME development organizations to identify a wider base of potential clients					
E. Attracting Venture Capital Firms and Investors (business angels)	Joint Chambers of Commerce	Commercial Representation Offices			
F. Marketing Inventions with Potential Commercial Value & Competitive Advantage	MSR	MOFT, FEI, MOI SFD			
V. Mortgage					
A. Streamlining mortgage procedures & reducing its steps					
B. Incentives & privileges to Mortgage Companies in the law currently being formulated	The Pertinent entity that will be specified by the law				

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
VI. Special SME-Specific Stock Markets					
A. Studying the Experiences and Best Practices in similar experiences	MOFT, CMA	CBE, Judicial Committee in People's Assembly, FEI			
B. Issuing a new law offering this service to SMEs					
C. Technical Assistance & Capacity Building	Donors, CMA				
VII. Credit Guarantee					
A. Establishing new credit guarantee companies by banks and insurance companies	Banks, Insurance Companies	Federation of Egyptian Banks, General Authority for Insurance Supervision			
B. Establishing Credit Bureaus by Public & Private Banks	Banks	CBE, Federation of Egyptian Banks			
FOURTH: INNOVATION & TECHNOLOGY					
I. INCREASE FUNDING AVAILABLE TO R&D					
A. Establishing a Fund to Finance R&D Activities & prototype development for SMEs	FEI	Donors, MSR, MOI			
		Private Sector			
		NGOs			
		SFD			
B. Participation of Tertiary Students in R&D as part of their Academic Education thus lowering the costs	Universities & Institutes	Business Associations, FEI			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
C. Allocating a portion of Research budgets of Universities and Institutes for Demand-Driven R&D for SMEs	Universities & Institutes				
D. Disallowing the reallocation of R&D Funds to other purposes	MOF	All Pertinent Entities			
E. Placing R&D on the agenda of donor funding	MIC, Donors				
II. Focusing on Sectors with Competitive Advantage with the Aim of Increasing Value Added					
A. Identifying current activities that have a competitive advantage that may serve to rationalize imports or promote exports	MOFT	MOI, FEI, CAPMAS			
B. Specifying Indicators to Prioritize Sectors	MOFT	MOI, FEI, CAPMAS			
C. Focusing on Medium & High Tech Sectors	MOFT	MOI, FEI			
III. Supply Side Interventions					
A. Building the capacity of Research institutions to target SMEs.	MOI, MOHE, MOSR				
1. Identification & Categorization of Research institutions to be targeted based on the sectors identified above.	MOI, MOHE, MOSR				
2. Strengthening the relationship between local and international institutions	MOI, MOHE, MOSR				
3. Developing targeting and extension mechanisms					
4. Enhancing Cooperation between SMEs and Academic institutions in areas of practical training & research in various academic stages					
5. Agreements between SME representative bodies & Academic institutions on the local level	Academic Institutions, Business Associations, Industrial Chambers,	SFD, MOFT			
B. Developing the Capacities of R&D workers					
1. Academic orientation towards R&D in Tertiary Education	MOHE				

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
2. Curriculum Development	Business Associations, FEI				
4. Practical Training of Students as part of their education					
IV. Vitalizing Demand on R&D Services					
A. Enhancing the awareness of SMEs of the importance of investing in R&D	MOFT, SFD	Media			
B. Overseas tours for entrepreneurs and representatives of research institutions to internationally renowned Research centers	MOI, FEI				
C. Providing Tax Incentives for Private Sector to Conduct R&D	MOF				
D. Elimination of Customs on Scientific Books and Equipments	MOF				
V. Provision of Technological Support Services					
A. Categorization and Identification of SMEs to receive Technological Support, based on sectors identified above	MOI, SFD	MOFT, IDB, MLA			
B. Assessing the needs of technological support in each sector	FEI	MSR, Research Institutions			
C. Creating a database of appropriate technologies, ways of appropriating them, entities providing technical support.etc.	FEI	MOI, SEDO			
D. Information dissemination to enhance awareness of these technologies	FEI	MOI, SEDO, MOInf			
E. Organizing technology exhibitions in selected sectors and organizing trips to attend overseas exhibitions	MOFT	FEI			
F. Identifying means for transfer of appropriate technology	SFD	IDB, MOI			
G. Assisting SMEs in negotiations and procurement of technology from suppliers	SFD	IDB, IMC			
VIII. Facilitating SMEs' Utilization of Modern Technologies					
A. Establishing Technology Service Centers for	MOI	SFD, MLA			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
Targeted Activities			■		
B. Financial Services	Financial Sector	MOI, IDB		■	
IX. Fiscal Incentives					
A. Tax incentives for Technological Upgrading	MOF		■		
B. Abolishing customs on modern imported equipment					
X. Supporting Commercialization of Inventions					
A. Developing a database of current registered inventions	MSR	FEI	■		
B. Identifying Inventions with Potential Commercial Value and Competitive Advantage.	MOFT, FEI	MSR, SFD	■		
C. Developing a Directory of these Inventions to market them on a large scale	MSR, MOFT	SFD	■		
D. Organizing an exhibition specialized in technology and inviting different countries to participate in it.					
D. Facilitating access to equity finance (see also above)	Financial Institutions	SFD		■	
E. Enhancing SMEs Awareness of Copyrights Law	MOFT, MOI	FEI, Associations	■		
FIFTH: ORGANIC CLUSTERS					
I. IDENTIFICATION & ASSESSMENT					
A. Compiling & Availing Existing Literature and Data on Clusters in Egypt	MOFT, GAFI, GOFI (MOI), CAPMAS, IDSC	NGOs, Artisans Networks following (MLA), Consulting firms	■		

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
1. Availing Information on the Web on Clusters and informing other entities of the website	MOFT	SFD, National Planning Institute, Productive Cooperative Union			
2. Publishing Proceedings of Workshops Conducted on Clusters to Identify Needs	MOFT	SFD, National Planning Institute, Productive Cooperative Union			
B. Identification & Assessment of Existing Organic Clusters	MOFT	CAPMAS, MLA, GAFI			
1. Identification of Existing Organic Clusters and their Activities					
2. Development of Evaluation & Selection Criteria					
a. Number of Enterprises					
b. Number of Workers					
c. Contribution to the Economy					
d. Consistency with National Development Strategy					
e. Current & Potential Competitiveness					
3. Assessment					
a. Development of Indicators					
c. Surveying resident enterprises to identify and assess their needs					
4. Prioritization & Ranking of Clusters to be Developed					
II. INFRASTRUCTURE					
A. Development of Infrastructure of Selected Organic Clusters	MOP	Local Communities			
B. Provision of Basic Services Needed by the Clusters	Local Administration	Local Community			
C. Inclusion of Budgetary Allocation in the National Budget in accordance with Data Presented by Local Bodies	MOP	Local Administration, MOF			
D. Utilizing cost-sharing models (e.g. *Shaa El Teaban)*	MOP	Local Communities			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
III. SERVICES AND TECHNICAL SUPPORT					
A. Offering a Variety of Financial Services on the Local/Cluster level (see also the section on Financial Services)	Financial Institutions	MOI, MOFT, SFD			
B. Establishing Technical Centers that Include:	MOI, SFD				
1. Product Testing Facilities	General Authority for Standardization	General Authority for Standardizatio n			
2. Application of ISO standards					
3. Industrial Design Activities	IDC				
4. R&D Services	MOHE, MSR				
5. Latest models & Specifications	IMC, MOFT				
C. Specialized Business Resource Centers	MOI				
D. Specialized Training Centers	MOI				
E. Supporting Linkages & Networking	MOI, MLA				
1. Within Clusters	BRCs	NGOs,			
2. Among Clusters	BRCs	NGOS, MLA, MOI,			
3. With Regional & International Partners	MOFT, GAFI				
F. Creation of Collective Negotiation Bodies	Networks, NGOs,	BRCs			
G. Specialized Trade Facilitation Centers (ITPs)	MOFT				
IV. Legal & Administrative Services					
A. Establishing OSSs for Licensing & Registration at the Cluster Level	MOFT	MLA, Donors			
B. Establishing Export & Import OSS at the Local Level	MOFT	MOF, Donors			
C. Provision of Collective Legal Services	Networks				
V. PROMOTING POPULAR PARTICIPATION IN DECISION-MAKING					

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
A. Participation of Federations & Local NGOs & Stakeholders in Decision Making	Local Organizations, Local Administration, Central Government				
B. Wider Participation in discussions of the new SME Law	MOFT	CAPMAS, IMC, Representative Associations			
C. Increased SME Participation in Commodity Councils	MOFT	Local Associations			
D. Reliance on Participatory Research Methods to Obtain Stakeholders' inputs	GOE's pertinent agencies	Donors			
E. Increased Representation of SMEs in FEI & its Chambers	FEI				
F. Reliance on Participatory Planning Techniques	GOE	Donors			
SIXTH: NETWORKING & INTERFIRM LINKAGES WITH LARGE & FOREIGN ENTERPRISES					
I. Planning					
A. Identify Sectors & Activities with Actual or Potential Competitive Advantage	MOFT	SFD, Commodity Councils. FEI			
B. Sector specific meetings involving business representatives to identify constraints to linkages and develop steps to overcome them	FEI	Commodity Councils			
C. Developing sectoral long-term & short-term plans to promote linkages with Foreign & large businesses	MOI, GAFI	SFD, Commodity Councils. FEI			
D. Undertaking a Comparative Study of the LRF governing FDI in Egypt and other countries that succeeded in attracting FDI	MOFT	GAFI, ECES			
II. Information Dissemination					
A. Developing a database delineating foreign, large enterprises and SMEs in each activity to facilitate linkages	CAPMAS	GAFI, FEI, GOFI, IDSC			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
1. Data by product/activity					
2. Data by Governorate					
3. Production Capacity					
B. Coordination between data sources to ensure that investors obtain accurate & consistent data	IDSC	CAPMAS, GAFI, GOFI, CROs			
C. Updating Existing Websites with the New Consistent Data and user-friendly and attractive interface	IDSC	CROs, MOFT, GAFI			
II. Incentives					
A. Incentives to SMEs Subcontracted by Large and Foreign Firms	MOF				
B. Incentives in the government procurement systems for subcontracting to large and foreign firms subcontracting with smaller firms	MOF	GAFI			
C. Streamlining Establishment Requirements for Foreign Firms (OSS)	GAFI				
D. Tying incentives to local firms with international quality certification	MOF				
E. Increasing FDI Incentives in General, as well as in the specific sectors identified	GAFI	MOF			
III. Technical Support					
A. Applying & widely disseminating International Quality Standards & Quality Assurance Systems	General Authority for Standardization (GAS)	General Authority for Exports Supervision, IMC			
1. Issuing Guidelines for Performance Evaluation					
2. Updating standards in accordance with Global Developments (environmental, social..etc.)					
B. Information exchange between GAS & IMC, as well as other SME development organizations	GAS, IMC	SFD, SME Development organizations			
C. Technical assistance to SMEs for standardization and quality certification, thus making them more attractive to foreign and larger firms	MOI, IMC	Technical Assistance Providers,			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
D. Encouraging large & foreign enterprises to provide TA to subcontractors through offering them tax incentives for the costs of training & Technical Assistance	World Bank/IFC	FEI			
V. Marketing					
A. Developing an Investment Map for Egypt to attract local and foreign Investors	GAFI	IDSC, MOI, MOFT			
B. Electronic Dissemination of Data to Promote Egyptian Industries	IDSC	MOFT			
C. A General FDI Promotion Campaign "Invest in Egypt"	MOFT	GAFI, MOFA			
D. More Focused FDI Promotion efforts Targeting Specific Sectors					
VI. Creating a Matchmaking Mechanisms					
A. Establishing a Matchmaking facility	FEI, GAFI	GAFI, CROs, Associations, Joint Chambers, IMC			
B. Identifying SMEs that are willing and able to establish linkages with larger and foreign firms	Matchmaking Facility	FEI, IDSC, MOI, Associations, SME Development Organizations, SFD			
C. Identifying Large & Foreign firms that are willing and able to establish linkages with SMEs	Matchmaking Facility	FEI, GAFIIDSC, MOI, Associations, SME Development Organizations, Commodity Councils, Joint Chambers			
D. Information Dissemination to large firms, foreign firms, and SMEs	Matchmaking Facility	MOFT (CROs), GAFI			

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
E. Promotion and Matchmaking Events and Trips	MOFT, Matchmaking Facility	Associations, FEI, SME Development Organizations			
F. Specialized Exhibitions for Intermediary Products of SMEs	MOFT (CROs)	Matchmaking Facility, Associations, FEI, SME Development Organizations			
G. Legal Services (Counseling)	Matchmaking Facility				
H. Training & Awareness Workshops	Matchmaking Facility	FEI, Associations, NPI, IMC, SFD, Commodity Councils			
1. Linkages					
2. Copyrights					
4. Successful Experiences					
SEVENTH: REGULATORY CHANGES					
I. Adapting the OSS Model in All Governorates	MOFT	Local Administration, GAFI			
II. Streamlining Licensing Procedures	BRCs (IMC)	GOFI, Local Administration, GAFI			
A. Vitalizing the PM's Decision to issue Immediate Temporary & non revocable Licenses for SME owners through a single point in the governorates, till the final license is issued.					
B. Speeding up the completion of the establishments' national identity number project.					

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
C. Revising Current Regulations and Laws	MOFT, MOI	MLA			
IV. Encouraging the establishment of private sector SME industrial complexes					
A. Free land	GAFI				
B. Tax incentives	MOF				
V. Representative Associations					
A. Facilitating the establishment of NGOs & Federations	MOSA				
B. Building the institutional structures, systems and capacities of these associations to benefit SMEs.	Associations & NGOs	MOSA			
C. Facilitating the establishment of Specialized networks	Associations & NGOs	MOSA			
VI. Business Transactions					
A. Ensuring Prompt Payments to SMEs					
1. Considering issuing decrees giving priority of settling government overdue payments to private sector firms that are committed to settling their debts to SMEs	MOF				
2. Issuing a Prompt Payment act that specifies penalty fees and interest rates on late payments by government agencies, and that should be reflected in Contracts & Sub-Contracts	MOF	NGOs			
B. Revising procurement laws to provide advantages to SMEs and to promote interfirm networking and linkages	MOF	MOFT, MOJ			
1. Set aside 10-15% of government procurement to SMEs	MOF	Cabinet			
2. Considering breaking down large procurements to smaller ones	MOF	Cabinet			
3. Offer a preferential treatment to large enterprises that have sound subcontracting plans with smaller firms.	MOF	MOFT, MOJ			
C. Reducing the costs of registering real estate	MOF				
VII. Strictly Observing Regulations on Health, Environment and Child Labor					

Tasks	Responsibility		Timing		
	Primary	*Secondary*	S	M	L
A. Strict application of regulations on the employment of women and children, labor rights, environment and health	EEAA, MOH, MOI, MOSA, Local Administration				
B. Preferential treatment for Enterprises complying with environmental regulations	MOF	EEAA			
C. Preferential Treatment for enterprises that conserve resources & energy and minimize pollution	MOF	EEAA			
D. Authorizing the Establishment of any Microenterprise as long as it does not violate Environmental Regulations	MLA	MENV			
VIII. Tax Reform.	MOF	MOI, FEI			
A. Revising the threshold of tax holidays to encourage SMEs.					
B. Increasing the tax holiday period to 5 years starting production date.					

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