

THE ETHIOPIAN MANUFACTURING SECTOR: COMPETITIVENESS AND THE WAY AHEAD

Admit Zerihun¹ and Getnet Alemu²

1. HISTORICAL OVERVIEW AND POLICY ENVIRONMENT

The history of Ethiopian manufacturing industry more or less related with the post Ethiopia-Italy war.³ In the second half of 1940s there was very little manufacturing industry, which accounted only 1% of the national income. In proper sense industrialisation begun in the 1950s and consolidated following the three successive five-year developments plans.

With regard to policy environment, following the Mutual Aid Agreement of 9 August 1943 with the USA, the Ethiopian government asked for a USA technical mission to be sent to Ethiopia to investigate the country's resources and its economic problems and to draw up an aid package for its development. The mission arrived in May 1944 and with the help of them the Ethiopian Government initiated a ten-year programme of industrial development (1945-55). This was followed by the three successive Five-Year Development Plans (1958-1962, 1963-67, 1969-74). With respect to industrial development, the recommendation was import substitution.

The government placed much hope on the contribution of foreign capital. This was evident from its first measure in the area of economic policy, which gives much emphasis on foreign direct investment. The issuance of Notice for the Encouragements of Foreign Capital Investment, in 1950, reveals less concern for indigenous investment. This kind of policy gives a lot of incentives for foreign investors, which was not available for existing or potential local investors until the issuance of the Investment Decree of 1963 and the 1966 Investment Proclamation. Despite the first five-year plan and the investment proclamation emphasis on the role of local investors, the 1966 investment Proclamation provides a lot of incentives for those investments not less than \$200000, which was beyond the reach of most local investors.

¹ USAID

² Institute of Development Research and Economics Department, Addis Ababa University.

³ Of course during the Italian occupation, there were small scale manufacturing producing consumer goods such as soap and textiles (Eshetu, 1995:194-195 and 201).

After the collapse of the Imperial regime, Derg nationalised enterprises involving in major economic activities and private sector was allowed to participate in small-scale industries and handicraft activities.⁴ With regard to industrial policy, there was no any types of economic plan for the first four years (1975-1978), with all sectors of the economy becoming run down as the period was characterised by intense political confrontation, fierce power struggles within the *Derg* itself and the Ethio-Somali war. At the end of 1978, the Central Planning Supreme Council was set up as an instrument to control and allocate resources. Following its establishment, Six Annual Development Campaign Plans were successively launched, between 1979 and 1984 with the aim of rehabilitating the war-ravaged economy of the country. It should be noted, however, that these were annual programmes, short-term in nature, intended to meet the immediate challenges of food shortages, low capacity utilisation in industry and the like, and could by no means be construed as comprehensive development plans.

In September 1984, the regime issued a comprehensive and long-term development plan, which came to be known as the Ten-Year Perspective Plan, covering the period from 1985 to 1994. The development strategy was the same, import substitution industrialisation. The major difference being that during the socialist regime, the strategy was state-led.

The current government is pursuing an agricultural development led industrialisation as opposed to the previous regimes. It is believed that priority to agriculture in the short and medium term will create a big domestic market for industry and supply food and raw material to industry and this is anticipated to strengthen the inter-sectoral linkages between agriculture and industry will lead the economy to the development of industry.

Considering the long years of adverse policies and economic management in which the private sector remained inactive and where the state sector lacked the dynamism required to foster industrial growth, it would be interesting to establish whether the resource use and learning of the Ethiopian manufacturing industry has made any headway and establish to what extent Ethiopia's industrialisation effort has succeeded or otherwise failed in establishing internal and external competitiveness. Finally, a summary of findings and proposals for manufacturing competitiveness shall be made keeping in full view current debate relating to the globalisation of the world economy and Ethiopia's accession to COMESA.

The rest of the paper is outlined as follows. The next chapter describes briefly the methodology. Chapter 3 discusses the estimation of competitiveness while chapter

⁴ Government ownership in the manufacturing sector was more than 90 percent.

4attempts to pinpoint what sorts of manufacturing activities Ethiopia should promote, at what pace and what measures to consider. Finally, concluding remarks are set out in Chapter 5.

2. CONCEPTUALISING COMPETITIVENESS: CONCEPTS AND METHOD OF MEASUREMENT

2.1 Conceptual Framework

There is little consensus about the precise meaning of competitiveness, though economists, politicians, and business leaders frequently use it. There is even less consensus about the method of measuring competitiveness.

Some authors use the term to describe resource use by different entities such as the firm, industry, state or country. Sustained international competitiveness requires a productivity level and rates of growth equal to or exceeding those of competing countries. Levels and rates of growth of productivity are of paramount importance for an assessment of the manufacturing sector's current and potential competitiveness. Comparison of average productivity levels of different firms within an industry and similar industries in different countries provides relative efficiency levels and, at the end, competitiveness. Inefficient firms can hardly compete in international markets even if they have enabling external environment. Hence, productivity measures are the direct venue for measuring competitiveness. However, such an approach cannot reveal information on the cost of productivity improvement. Productivity can be improved through costly incentive measures that could offset the gain obtained through the latter, which could leave unit cost and competitiveness unchanged. Combining production inputs efficiently in the production process is not synonymous to selling products efficiently and increasing market shares.

Other authors define competitiveness as a nation's ability to produce and market a product in international trade while earning a level of return to the resources used in production. This level of return to resources is comparable to what these resources could earn in alternative activities (i.e., opportunity cost). This is similar to the domestic resource cost (DRC) concept. The DRC is estimated as the ratio of the economic value of domestic resources (i.e., factors of production) used in production relative to the economic value-added (economic value of outputs minus the economic value of tradable inputs) generated by the production process. The DRC, thus, represents the value of domestic resources spent in order to gain or save a unit of foreign exchange. But as Salinger (2001:10) points out, such a calculation is based on outdated notions: that there are no economies of scale, that technologies

everywhere are identical, that products are undifferentiated, that the pool of national factor is fixed, and that skilled or high quality factors are not tradable.

Most authors use the term competitiveness to refer to an advantage of firms or industries vis-à-vis their competitors in the domestic or international markets. For such authors, competitiveness is simply the capacity to sell one's product profitably. To be competitive, a firm must be able to undercut the prices or offer products of better quality than its competitors. At the enterprise or industry level, producers are deemed to be competitive if their unit cost of production is inferior or equal to those of their competitors both in the domestic as well as in the international markets. This is the firm or industry level (microeconomic) use of the term. In this case, the indicator of competitiveness used is the unit cost ratio, defined as total cost divided by the value of output, which in turn equals to output quantity times the ex-factory price. For domestic sales, the ex-factory price is the domestic market price, which is typically higher than the international price of a similar imported product by a margin equal to the nominal rate of protection. For export sales, the ex-factory price is equal to the international price. However, competitiveness estimations at a minimum must be careful to compare comparable goods, as manufacturing diversifies into increasingly differentiated products, which are sold to end consumers via sophisticated marketing campaigns. As well, it requires care to include overhead expenditures (research and development, travel, advertising, customer relations, professional association networking). The shortcoming of such an approach is that it does not take into consideration the selling capability of a firm. A firm may be cost competitive while it does not have the necessary know-how to successfully market and deliver its product. Non-cost determinants of competitiveness are excluded.

Some researchers have extended the meaning of competitiveness to entire economies. The economy wide competitiveness is measured by the exchange rate, which some call a dangerous obsession. In the aggregate, a country cannot be competitive in all activities as this would lead to currency appreciation until some activities become internationally non-competitive. Exchange rate over-valuation or under-valuation can temporarily affect the competitiveness of all activities, but it will tend to correct itself automatically through a balance of payments mechanism.

Researchers such as Balassa measure competitiveness through outcomes. The outcome of competitiveness is profitable trade. Profitable trade leads to maintaining an increasing market share. Market share is used as a measure of competitiveness. These measures are ex-post measures based on past performance. The best-known market share indicator of competitiveness is the 'revealed comparative advantage' developed by Balassa, which can be put as follows:

$$RCA = \frac{X_k^A / X_k^w}{X_T^A / X_T^w} \quad 2.1$$

where RCA = revealed comparative advantage and where A stands for a particular country, k for exported product, T represents total export, w represents world export and X represents the magnitude of export by country A and the world for product k and all goods. RCA greater than one implies a comparative advantage or specialisation of trade in that commodity by that country. By allowing intra-industry trade through the inclusion of imports, the above expression can be transformed to:

$$RC = RCA - \frac{M_k^A / M_k^w}{M_T^A / M_T^w} \quad 2.2$$

where RC = revealed competitive advantage and M represents imports from country A or the world of Commodity k or all commodities. The revealed competitiveness advantage index as a measure of competitiveness shows how well a country's particular economic sector or industry competes abroad and at home. A positive RC measure demonstrates that country A has a competitive edge in producing and trading commodity k. However, the market share is the result, not the cause of competitiveness. Such an approach leads to no specific policy implication since it does not deal with causes.

The World Economic Forum approached competitiveness, through its World Competitiveness Report and African Competitiveness Report, in terms of economy wide business environment. Here, competitiveness is measured through a weighted index that includes different items, namely political and economic stability, openness to trade and investment, legal and institutional enabling environment, financial infrastructure and institutions, human resource development and technology, and economic and social infrastructure. Such a measure, however, does not allow for evaluating single industries or firms since it does not capture industry or firm specific capability differences and since it heavily depends upon subjective judgements.

2.2 Methods of Measurement

Though diverse are the measures of competitiveness, unit cost indicator is employed in this paper to determine the competitiveness of the Ethiopian manufacturing industries.

Productivity and competitiveness are linked to realising many of the management concepts that affect the human capital necessary for improving productivity. To the extent that one firm manages its materials inventory and flow-through, the organisation of its labour force, technology acquisition, and the supply chain out to final consumers more efficiently than another, it will be able to increase its sales per unit factor input compared to other firms. This is increased total factor productivity. If a firm does not make a productive use of its factors and other inputs, it is unlikely that it will master costs or generate value-added to such an extent that it will have competitive advantage in production. Though productivity improvement could be the necessary condition to be cost competitive, factor costs and the knowledge to master costs are the relevant elements. Hence, analysing unit cost indicators, the main focus of this section, is of paramount importance in formulating an industrial policy that builds up internationally competitive manufacturing industries.

The unit cost indicator used in this section follows that of Cockburn et-al (1998), Siggel and Scemogerere (1999) and Siggel and Ikiara (2000). Their approach rests upon comparing the cost structure of local firms with those of their competitors to determine their competitiveness. This is in line with the neo-classical firm theory. Firms always drive to maximise profits subject to technological and resource constraints. As long as profitable opportunities exist, firms will increase their production and sales. Making profits and expanding sales require firms to bring the unit cost below market prices (or marginal cost below marginal revenue). Costs are, thus, the fundamental determinants of competitiveness. Competitiveness of local firms is, therefore, defined by a cost advantage over foreign competitors, namely unit cost of local firms should at least be equal to that of their foreign competitors. Symbolically, this can be put as:

$$UC \leq UC_F \quad 2.3$$

where F represents the foreign competitor and UC = unit cost, which is total production cost (TC) per physical unit of production. This leads us to:

$$UC = \frac{TC}{Q} \quad 2.4$$

where Q = quantity produced. Since firms produce products of different quality, such physical unit comparisons among firms might be unreasonable. As long as consumers value quality over price, equation (2.4) can be transformed into:

$$UC = \frac{TC}{pQ} \quad 2.5$$

where p represents market price. Now, unit cost takes a monetary form that allows comparison across firms. Hence, the indicator of competitiveness – the unit cost ratio – is defined as total cost divided by the value of output.

Such a comparison will require information on the cost structure and output of both local firms and their international competitors, which could be data intensive and a demanding task. One way out from such a difficulty would be to impose the assumption of long-run behaviour of firms. Firm's theory asserts that in the long-run, through free entry and exit of firms and the free interplay of market forces, firms are supposed to operate at or near zero profit in order to survive. Employing the same principle, a typical international best practice competitor is assumed to sell at cost, implying that $TC = pQ$. Therefore,

$$UC_F = \frac{TC}{pQ} = 1 \quad 2.6$$

Thus, the unit cost of this typical best practice international producer corresponds to the international price. As a result, the indicator of competitiveness will reduce to:

$$UC \leq 1 \quad 2.7$$

Such a formulation of the competitiveness indicator will have two advantages. First, the usual difficulty of making inter-firm comparison due to product mix and quality differences will be eliminated. Second, such an indicator will become free of actual comparison with foreign firms, which otherwise would require looking for data on an international competitor.

If $UC < 1$, the firm in question produces at a lower cost than its competitors and is thus more competitive. A unit cost inferior to one indicates that the firm is making pure profit. Since total cost includes the opportunity cost of capital, a firm may earn a positive rate of return and still show up as uncompetitive if its rate of return is lower than the lending rate. Competitiveness in this sense, therefore, means that the price covers all costs including the full opportunity cost of capital, and is a long-run analysis.

There are different types of competitiveness indicators. These are indicator of domestic competitiveness, indicator of international competitiveness, and indicator of comparative advantage. Their basic difference mainly rests upon the valuation. While domestic competitiveness denotes the situation of cost advantage under protection, international competitiveness reflects the situation at free trade prices while that of comparative advantage relates to shadow price conditions (competitiveness measured in the absence of price distortions). Competitiveness, domestic and international, is measured in terms of market prices while comparative advantage is measured in terms of shadow prices (economic opportunity costs) net of all price distortions. Domestic competitiveness reflects financial profitability at domestic, protected, distorted prices. International competitiveness is the financial profitability at international output prices. Comparative advantage is economic profitability at shadow prices. In order to measure comparative advantage one has to replace all prices, in output as well as all inputs, by shadow prices.

Symbolically, hence, an indicator of domestic competitiveness can be expressed as:

$$UC_D = \frac{TC}{p_D Q} \leq 1 \quad 2.8$$

where D represents domestic competitiveness and p_D represents domestic (protected) prices, which usually refers to ex-factory prices for domestic sales and border prices for exports. The domestic price of output is assumed to depend on border prices of equivalent imports, implicit nominal rate of protection, and monopoly power. In the absence of quantitative restrictions and monopoly power, the domestic output price is affected only by the nominal rate of protection. And, in the absence of the above, nominal rate of protection is normally equal to the tariff levied. When contraband, under-invoicing, and dumping are significant, however, this setting will be jeopardised. In this setting, domestic prices could be less than border prices, local industries no more enjoying the tariff protection.

In the same way, indicator of international competitiveness (or indicator of export advantage) will be:

$$UC_X = \frac{TC}{p_W Q} \leq 1 \quad 2.9$$

where X represents indicator of export advantage and p_W is the international price. The comparative advantage criterion is similar:

$$UC_s = \frac{TC_s}{p_s Q} \leq 1 \quad 2.10$$

where TC_s is total cost in shadow prices and p_s is the shadow price of output, which is usually equal to the international price adjusted for any distortions in the exchange rate. Total cost at shadow prices is the sum of all cost components adjusted for all price distortions and subsidies. Since competitiveness of firms is determined by its cost at market price, as these are prices that consumers and producers face, rather than shadow prices, and since the estimation of shadow prices is quite a cumbersome exercise, only domestic and intentional competitiveness indicators are used for our purposes.

We estimate using a four-digit ISIC manufacturing based on CSA data. We assume the following for this purpose:

- a) Total cost is the difference between gross value of production (GVP) and operating surplus (P), as defined by CSA. Symbolically: $TC = GVP - P$.
- b) In the short-run, fixed costs are assumed to be sunk costs; what matter in the decision making process would be variable costs. It is difficult in the short-run to dispose or expand fixed assets. This assumption implies that the opportunity cost of capital (fixed assets) will be zero, and the cost of capital will only be the sum of the accounting depreciation, rental expenses and interest paid (for working capital or otherwise). This will leave total cost as that of above: $TC = GVP - P$.
- c) In the long run, fixed costs are not sunk costs. Fixed assets are variable. They can be disposed off or can be put in another field of operation in which they can generate better profit. They can be expanded to reach a level that maximises economies of scale. Hence, fixed assets have an opportunity cost and this cost has to be included in the total cost.
- d) Among the different alternatives of estimating the opportunity cost of capital (rate of return forgone, the current lending rate, the current saving rate, the official discount rate), the official discount rate (r) currently in force, which is 10 percent, will be used.
- e) The fixed assets of a firm or an industry are measured by their net fixed asset value (K), as defined by CSA. This makes the total cost differ from the above by the amount of the opportunity cost of capital or fixed assets. Symbolically, $TC = GVP - P + rK$.

Using these basic assumptions, the indicator of domestic competitiveness for the two scenarios will be the following: -

a) Short-run Scenario:

$$UC_D = \frac{TC}{p_D Q} = 1 - \frac{P}{GVP} \leq 1 \quad 2.11$$

b) Long-run Scenario:

$$UC_D = \frac{TC}{p_D Q} = 1 + \frac{rK}{GVP} - \frac{P}{GVP} \leq 1 \quad 2.12$$

In order to compute international competitiveness, we impose the following additional assumption in addition to the above: -

The cause for the difference between domestic prices and border prices (international prices) is the customs tariff imposed. Hence, the subtraction of the customs tariff (t) in GVP at domestic prices (GVPd) will give GVP at border prices (GVPb). Symbolically: $GVPb = (1-t) GVPd$.

With this additional assumption, the indicator of international competitiveness for the two scenarios will take the following form:

a) Short-run Scenario:

$$UC_X = \frac{TC}{p_S Q} = \frac{GVP}{GVP(1-t)} - \frac{P}{GVP} \leq 1 \quad 2.13$$

b) Long-run Scenario:

$$UC_X = \frac{TC}{p_S Q} = \frac{GVP - P + rK}{GVP(1-t)} \leq 1 \quad 2.14$$

3. ESTIMATION OF ETHIOPIAN MANUFACTURING COMPETITIVENESS

Indicators of the competitiveness of the Ethiopian manufacturing industry have been computed using the above formulation and CSA data. The recent three years (1998/99, 1999/00 and 2000/01) have been considered for the purpose. Based on a four-digit ISIC grouping, about 45 manufacturing activities have been identified for analysis. For each of the manufacturing activities identified, an indicator of domestic competitiveness has been computed using three cases: without the cost of capital, namely depreciation and the opportunity cost; without the opportunity cost of capital; and all costs of capital included. The first two cases are short-run scenarios in which fixed assets could possibly be considered as sunk costs. In the short-run, it could be managerially admissible to allow production to continue, even if all the costs of capital are not recovered. The third case is the long-run scenario in which it is not advisable to continue production, if all costs are not to be recovered. In this case, shifting to other activities needs to be considered. The result is summarised in Table 3.1.

In the analysis, a value greater than one indicates that the particular sectors are financially unprofitable at domestic, protected, and distorted prices, implying that these sectors sell their products below their unit costs of production. As shown in Table 3.1, there are sectors, which are not financially profitable even with the current tariff barriers Ethiopia imposes on imported products. As per computations made, about half of the four-digit manufacturing activities were unable to cover all costs of production in 2000/01, including the cost of capital. This implies that about half of the Ethiopian manufacturing sector is not competitive even in the current protected and distorted domestic market. Surprisingly, the majority of these belong to sub-sectors in which one would expect Ethiopia to have a clear competitive advantage in the global market, namely food, beverages, textiles and leather sub-sectors. Alarming, all the four-digit manufacturing activities under the textiles and leather sub-sectors prove to be uncompetitive in the domestic market. All except the manufacture of wearing apparels become domestically competitive should the cost of capital be ignored. The manufacture of wearing apparels is not competitive even excluding the cost of capital for the whole period under investigation. It is interesting to note, here, that the number of four-digit manufacturing activities that are domestically uncompetitive even without considering the cost of capital has dropped from three in 1998/99 to only one in 2000/01. The significance of contraband, dumping, and under-invoicing (see next section) could be the reason behind such a situation, for this would nullify any advantage the protection of these sub-sectors would otherwise provide.

In like manner, indicators of international competitiveness have been computed using the above three cases. The result is summarised in Table 3.2. Here, too, a figure below one indicates that the particular sector in question will have cost advantage under free trade prices, making it competitive in the international market. Based on calculations made, sub-sectors with such a cost advantage at free trade prices were only four in 2000/01, namely the manufactures of sugar, wood and cork, publishing and printing services, and plastics. In 1999/00, the number of manufacturing activities with cost advantage at border prices were eight, double that of 2000/01. These manufacturing activities, as shown in Table 3.2, were sugar, tobacco products, publishing and printing services, other chemical products, plastic, glass, basic iron and steel and parts, and accessories of motor vehicles.

Three clear facts stand out from Table 3.2. First, local-resource-based manufacturing activities did not reveal any tendency of being internationally competitive, with the exception of the manufacture of sugar, although it is easier to expect cost advantage to stem from the low cost of labour or the abundance and low prices of material inputs and utilities, as long as they are not imported, leading to competitive advantage. Interestingly, import-based manufacturing activities like the manufacture of plastics revealed consistent cost advantage at border prices. Second, the four-digit manufacturing activities that had recorded a sign of being internationally competitive had dwindled in number since 1998/99 – from eight in 1998/99 to five in 1999/00 and four in 2000/01. This indicates that competitiveness of the Ethiopian manufacturing sector has been on the decline. Third, the likelihood that Ethiopian manufactured products would be internationally competitive, even considering the cost of capital as sunk, is limited. The cost of capital did not significantly influence the competitiveness of manufacturing activities, though it is an important factor in the production process.

Table 3.1 Indicators of Domestic Competitiveness

	INDUSTRIAL GROUP	1998/99			1999/00			2000/01		
		Wocc	Woocc	Wac	Wocc	Woocc	Wac	Wocc	Woocc	wac
1	Processing and preserving of meat, fruits and vegetables	0.726	0.782	0.839	0.725	0.780	0.834	0.764	0.838	0.917
2	Manufacture of vegetables & animal oils & fats	0.953	1.050	1.182	0.954	1.086	1.293	0.913	1.096	1.313
3	Manufacture of dairy products	0.800	0.969	1.257	0.720	0.856	1.206	0.732	0.821	0.944
4	Manufacture of grain mill products	0.950	0.977	1.014	0.926	0.958	1.005	0.961	1.002	1.057
5	Manufacture of prepared animal feeds	0.877	0.896	0.921	0.919	0.931	0.947	0.916	0.929	0.944
6	Manufacture of bakery products	0.824	0.856	0.891	0.832	0.869	0.919	0.837	0.888	0.946
7	Manufacture of sugar & sugar confectionery	0.479	0.521	0.564	0.545	0.599	0.668	0.450	0.510	0.587
8	Manufacture of macaroni & spaghetti	0.824	0.845	0.869	0.778	0.802	0.832	0.836	0.857	0.882
9	Manufacture of food products n.e.c	0.753	0.817	0.904	0.764	0.812	0.900	0.669	0.835	1.030
10	Distilling, rectifying & blending of spirits	0.699	0.717	0.736	0.813	0.829	0.847	0.784	0.806	0.823
11	Manufacture of wines	0.859	0.871	0.878	0.880	0.974	1.099	0.887	0.952	1.028
12	Manufacture of malt liquors & malt	0.914	0.952	0.997	0.755	0.812	0.886	0.691	0.772	0.864
13	Soft drinks & production of mineral waters	0.886	0.942	0.993	0.922	0.995	1.069	0.918	0.972	1.025
14	Manufacture of tobacco products	0.504	0.516	0.527	0.636	0.646	0.655	0.785	0.804	0.831
15	Spinning, weaving & finishing of textiles	0.984	1.103	1.245	0.977	1.111	1.292	0.960	1.067	1.197
16	Manufacture of cordage, rope, twine & netting	0.829	0.867	0.919	0.846	0.879	0.938	0.981	1.024	1.077
17	Knitting mills	0.814	0.915	1.041	0.846	1.121	1.490	0.992	1.155	1.361
18	Manufacture of wearing apparel except fur apparel	1.040	1.116	1.221	1.005	1.079	1.204	1.051	1.116	1.208
19	Tanning & dressing of leather, luggage & handbags	0.833	0.868	0.909	0.927	0.988	1.075	0.954	0.992	1.039
20	Manufacture of footwear	0.865	0.922	0.986	0.891	0.964	1.055	0.890	1.010	1.138
21	Wood and cork, except furniture	0.822	0.838	0.855	0.832	0.851	0.864	0.757	0.769	0.780
22	Manufacture of paper & paper products	0.876	0.921	0.975	0.815	0.847	0.896	0.832	0.865	0.903
23	Publishing and printing services	0.717	0.756	0.797	0.700	0.737	0.777	0.716	0.750	0.789
24	Basic chemicals	1.112	1.489	1.951	0.796	1.216	1.865	0.773	0.955	1.182
25	Manufacture of paints, varnishes and mastics	0.793	0.825	0.861	0.800	0.824	0.868	0.814	0.834	0.857
26	Pharmaceuticals	0.861	1.001	1.160	0.739	0.892	1.085	0.880	1.021	1.181
27	Soap, detergents, perfumes and toilet preparations	0.913	0.951	1.004	0.855	0.879	0.922	0.854	0.881	0.912
28	Manufacture of chemical products n.e.c.	0.794	0.837	0.891	0.809	0.884	0.995	0.921	0.967	1.026
29	Manufacture of rubber products	0.770	0.855	0.953	0.754	0.819	0.911	0.714	0.774	0.845
30	Manufacture of plastic products	0.793	0.853	0.924	0.835	0.900	0.992	0.797	0.856	0.925
31	Manufacture of glass and glass products	0.624	0.691	0.765	0.754	0.931	1.048	0.686	0.770	0.865
32	Manufacture of cement, lime and plaster	0.749	0.789	0.832	0.701	0.730	0.796	0.721	0.748	0.783
33	Manufacture of articles of concrete, cement & plaster	0.799	0.882	0.932	0.809	0.860	0.910	0.848	0.881	0.914
34	Manufacture of non-metallic mineral products n.e.c.	0.879	1.120	1.391	0.856	1.070	1.342	0.936	1.172	1.437
35	Manufacture of basic iron and steel	0.885	0.903	0.922	0.844	0.867	0.894	0.916	0.941	0.973
36	Structural metal products, tanks and containers	0.907	1.014	1.139	0.890	0.983	1.114	0.887	0.951	1.037
37	Manufacture of cutlery, hand tools and hardware	0.920	0.966	1.022	0.962	1.009	1.075	0.922	0.968	1.028
38	Manufacture of other fabricated metal products	-	-	-	0.817	0.983	1.217	0.864	0.990	1.147
39	Manufacture of ovens, furnaces and furnace burners	0.887	0.910	0.934	0.831	0.861	0.879	0.900	0.904	0.909
40	Manufacture of other general purpose machinery	0.918	-	-	0.839	0.0	0.851	-	-	-
41	Machinery for food & beverage processing	0.844	0.928	1.036	0.851	1.063	1.395	0.741	0.846	0.982
42	Accumulators, primary cells & batteries	1.513	1.544	1.594	0.914	0.0	0.974	0.914	0.940	0.967
43	Manufacture of bodies for motor vehicles	0.903	0.911	0.920	0.806	0.816	0.828	0.848	0.863	0.881
44	Parts and accessories for motor vehicles	0.262	0.396	0.519	0.341	0.478	0.601	0.757	0.918	1.077
45	Manufacture of furniture; manufacturing n.e.c	0.859	0.925	1.008	0.854	0.909	0.997	0.866	0.929	1.013

Source: own computation from CSA survey

Note: Wooc: competitiveness without considering all costs of capital.

Woocc: competitiveness without taking into consideration the opportunity cost of capital.

Wac: competitiveness considering all costs of capital, i.e. depreciation and opportunity cost of capital, about ten percent of the net fixed asset.

Table 3.2: Indicators of International Competitiveness

	INDUSTRIAL GROUP	1998/99			1999/00			2000/01		
		wocc	woocc	Wac	wocc	woocc	wac	Wocc	woocc	Wac
1	Processing and preserving of meat, fruits and vegetables	0.976	1.032	1.049	0.975	1.030	1.043	1.014	1.088	1.146
2	Manufacture of vegetables & animal oils & fats	1.620	1.716	1.971	1.620	1.753	2.155	1.580	1.763	2.188
3	Manufacture of dairy products	1.050	1.219	1.571	0.970	1.106	1.508	0.982	1.071	1.180
4	Manufacture of grain mill products	1.061	1.089	1.127	1.037	1.069	1.116	1.072	1.113	1.174
5	Manufacture of prepared animal feeds	1.127	1.146	1.151	1.169	1.181	1.184	1.166	1.179	1.180
6	Manufacture of bakery products	1.491	1.522	1.486	1.499	1.536	1.531	1.504	1.554	1.577
7	Manufacture of sugar & sugar confectionery	0.531	0.574	0.593	0.597	0.652	0.703	0.502	0.562	0.618
8	Manufacture of macaroni & spaghetti	1.491	1.511	1.449	1.445	1.468	1.386	1.502	1.524	1.469
9	Manufacture of food products n.e.c	1.420	1.484	1.506	1.431	1.479	1.500	1.335	1.502	1.716
10	Distilling, rectifying & blending of spirits	1.366	1.384	1.227	1.480	1.496	1.412	1.451	1.473	1.372
11	Manufacture of wines	1.526	1.537	1.464	1.547	1.641	1.831	1.554	1.618	1.713
12	Manufacture of malt liquors & malt	1.580	1.619	1.662	1.422	1.479	1.477	1.358	1.438	1.440
13	Soft drinks & production of mineral waters	1.552	1.608	1.655	1.589	1.662	1.781	1.585	1.639	1.708
14	Manufacture of tobacco products	0.933	0.945	0.753	1.065	1.075	0.936	1.213	1.232	1.187
15	Spinning, weaving & finishing of textiles	1.095	1.214	1.383	1.088	1.222	1.436	1.071	1.179	1.330
16	Manufacture of cordage, rope, twine & netting	1.079	1.117	1.149	1.096	1.129	1.172	1.231	1.274	1.346
17	Knitting mills	1.480	1.582	1.735	1.513	1.787	2.483	1.659	1.821	2.268
18	Manufacture of wearing apparel except fur apparel	1.707	1.783	2.036	1.671	1.746	2.006	1.718	1.783	2.013
19	Tanning & dressing of leather, luggage & handbags	1.261	1.297	1.298	1.356	1.416	1.536	1.382	1.420	1.485
20	Manufacture of footwear	1.531	1.589	1.643	1.557	1.630	1.759	1.557	1.677	1.896
21	Wood and cork, except furniture	0.998	1.015	1.005	1.008	1.027	1.017	0.934	0.946	0.918
22	Manufacture of paper & paper products	1.052	1.098	1.148	0.991	1.023	1.054	1.008	1.042	1.062
23	Publishing and printing services	0.770	0.809	0.839	0.753	0.790	0.818	0.769	0.803	0.830
24	Basic chemicals	1.223	1.600	2.168	0.907	1.327	2.072	0.885	1.066	1.313
25	Manufacture of paints, varnishes and mastics	1.222	1.253	1.230	1.229	1.252	1.240	1.243	1.262	1.225
26	Pharmaceuticals	0.913	1.054	1.221	0.792	0.944	1.142	0.933	1.073	1.243
27	Soap, detergents, perfumes and toilet preparations	1.341	1.380	1.435	1.283	1.308	1.317	1.283	1.309	1.303
28	Manufacture of chemical products n.e.c.	0.905	0.948	0.990	0.920	0.995	1.105	1.032	1.078	1.141
29	Manufacture of rubber products	1.199	1.283	1.361	1.183	1.248	1.301	1.143	1.203	1.207
30	Manufacture of plastic products	0.846	0.906	0.972	0.888	0.953	1.045	0.850	0.909	0.974
31	Manufacture of glass and glass products	0.874	0.941	0.957	1.004	1.181	1.311	0.936	1.020	1.081
32	Manufacture of cement, lime and plaster	1.416	1.456	1.386	1.368	1.397	1.326	1.387	1.414	1.304
33	Manufacture of articles of concrete, cement & plaster	1.466	1.549	1.553	1.476	1.526	1.516	1.514	1.548	1.523
34	Manufacture of non-metallic mineral products n.e.c.	1.545	1.786	2.319	1.523	1.737	2.237	1.602	1.839	2.394
35	Manufacture of basic iron and steel	0.938	0.956	0.971	0.897	0.919	0.941	0.968	0.994	1.024
36	Structural metal products, tanks and containers	1.019	1.125	1.265	1.001	1.095	1.238	0.998	1.062	1.153
37	Manufacture of cutlery, hand tools and hardware	1.348	1.395	1.460	1.390	1.438	1.535	1.350	1.397	1.469
38	Manufacture of other fabricated metal products	-	-	-	1.067	1.233	1.521	1.114	1.240	1.434
39	Manufacture of ovens, furnaces and burners	1.137	1.160	1.167	1.081	1.111	1.099	1.150	1.154	1.136
40	Manufacture of other general purpose machinery	0.971	-	-	0.892	-	0.896	-	-	-
41	Machinery for food & beverage processing	0.897	0.981	1.090	0.903	1.116	1.468	0.794	0.899	1.034
42	Accumulators, primary cells & batteries	1.763	1.794	1.992	1.164	-	1.218	1.164	1.190	1.209
43	Manufacture of bodies for motor vehicles	1.332	1.339	1.314	1.235	1.245	1.183	1.277	1.292	1.258
44	Parts and accessories for motor vehicles	0.512	0.646	0.648	0.591	0.728	0.751	1.007	1.168	1.346
45	Manufacture of furniture; manufacturing n.e.c	1.288	1.353	1.440	1.283	1.337	1.424	1.294	1.358	1.447

Source: own computation from CSA survey

4. THE WAY AHEAD FOR COMPETITIVE INDUSTRIALISATION

Competitiveness is the way to face the challenges and to grab the opportunities provided by globalisation. Identifying sectors or activities in which there is competitive advantage is, therefore, crucial. Looking for sustainable competitive advantage is even more crucial.

Industrialization is imperative given the fluctuating and persistently deteriorating prices of primary products vis-à-vis industrial products on world markets and the fixed nature of land and its low productivity with population pressure. In nearly all economies, the manufacturing industry has been the critical agent of the structural transformation that marks the transition from a primitive low productivity, low-income state to one that is dynamic, sustained, and diversified. The history and experience of developed countries show clearly that the process of change from a low income, low-productivity economy based on traditional agriculture to one utilizing highly productive modern technologies nearly always requires a sustained period of manufacturing industrial expansion. In the Ethiopian context and the current globalisation context, the need is not simply manufacturing industrial expansion but the government has to also create enabling environment where the sector can move by its own dynamics in the long run and made selective intervention to promote competitive enterprises in the short run. Thus, we envisaged two ways of government intervention: selective and neutral.

4.1. Selective Intervention

In the context of resource limitation and other constraints where the Government cannot intervene in all manufacturing activities, there is a need for selective intervention in order to bring about significant change in the structure of industry and to increase the role of the manufacturing sector in the Ethiopian economy. This does not mean direct intervention in terms of public investment in the activities. It is rather adopting a preferential policy that supports activities with high competitiveness capacity. The Government has to develop a specific manufacturing zone with special package of fiscal incentives, technology and other like preferential rating on public utility services, particularly electricity and direct provision, such as land, buildings, and finance. The government has to also commit itself in establishing training institute to provide tailored training for competitive manufacturing activities. In order to be selective, it is prudent to seriously consider such factors as contribution to the economy, factor and raw material base, resource use efficiency, and competitive advantage.

An attempt is made to develop composite index criteria for selecting such industrial activities for Ethiopia to commit its limited resources and effort as a priority. The index considers the following elements important for the selection:

i. Contribution to GDP, Employment and Exports: The Government's effort in bringing about industrialisation is believed to ultimately lead to higher contribution to the gross domestic product, employment, and exports of the country. And, in essence, economic integration should benefit the manufacturing sector by helping promote its performance. Therefore, when selecting manufacturing activities for strong intervention, contribution of the particular activity to industrial GDP, employment creation, and exports has to be seriously considered. If the contribution of a particular manufacturing activity is insignificant, the growth of this particular manufacturing activity does not influence the performance of the sector as a whole. Support to such activities or sub-sectors thus will lead the economy nowhere.

ii. Factor Intensity (Resource Base Intensity): The relative abundance of factor resources is quite a relevant guide for selection. Competitiveness is an issue of cost advantage and the latter highly depends on factor prices. Price is a reflection of scarcity and abundance. Capital is costly since it is a scarce factor of production and labour is cheap, being an abundant factor of production. Factor intensity, measured by capital-labour ratio, will, hence, be a relevant guide for selection. If a particular manufacturing activity happens to be more capital intensive, it is away from the resource base of the country and its chance of enjoying cost advantage will be low. The implication is that the chance of such a manufacturing activity to be internationally competitive will be a far cry. Hence, Government efforts and resources should not be directed to such manufacturing activities at least in the short run.

iii. Import-intensity: Manufacturing is nothing but the transformation of brought in materials into new products. The source of raw material, whether it is locally based or imported, influences the cost of raw material, which in turn determines the price of the product. If the raw material of a particular manufacturing activity is locally based, transport and handling costs will be lower than otherwise, the cost of stock management will be less, supply will not be constrained by the availability of foreign exchange and ex-ante inspection will be possible. All these could reduce the cost of raw material of a particular industry, while further reducing the price of the new product, leading to cost advantage or increase in profit. The contrary will hold true if raw material is imported. Hence, the extent of import intensity, as defined in the previous section, could influence the competitiveness of enterprises and, as such, becomes a relevant guiding principle for selecting manufacturing activities in which Government should intervene.

iv. Productivity: As already stated, factor intensity and import intensity in relation to resource base would matter greatly in the success of a particular manufacturing activity only in as long as productivity gains could not compensate the loss this could entail. Hence, the extent of productivity gains could count more to competitiveness than factor or import intensities. Inefficient firms can hardly compete in international markets even if they have enabling external environment. Productivity, measured by total factor productivity has, thus, to be considered as one of the basic guiding principles in selecting sectors in which Government has to commit its effort and resources to bring rapid changes in the performance of the manufacturing sector.

v. Domestic Competitiveness: Productivity can be improved through costly incentive measures that could offset the gains obtained through the latter, leaving unit cost and competitiveness unchanged. Combining production inputs efficiently in the production process is not synonymous to selling products efficiently and increasing market share. To be competitive, a firm must be able to undercut the prices or offer products of better quality than its competitors. The extent of domestic competitiveness could be and might serve as a sign of the good performance of a particular manufacturing activity, at least at the protected, distorted domestic market. This could indicate that, with some experience and learning by doing, the chance for that particular manufacturing activity to be internationally competitive is not far away. Hence, domestic competitiveness could be one of the yardsticks for selecting manufacturing activities for strong intervention by the Government.

vi. International Competitiveness: More important for Government to select activities or sub-sectors for intervention would be cost advantage at border prices. A manufacturing activity that reveals cost advantage at border prices is, at the same time, capable of penetrating international markets with a minimum of extra effort. Such a manufacturing activity has the basic ingredient to be competitive in the international market. Cost advantage, hence, international competitiveness, as defined above, is considered a good yardstick for Government to select manufacturing activities in which it will devote its effort and resources. These six factors including two others have been used as the basis for the score.⁵

⁵ Namely: (i) Contribution to industrial GDP, measured by the share of the value of the particular manufacturing activity in total industrial GDP; (ii) Contribution to employment, measured by the share of the particular manufacturing activity in total industrial employment; (iii) Contribution to export, measured by the share of the particular manufacturing activity in total industrial exports; (iv) Factor intensity, measured by the ratio of net fixed assets to wages and salaries of the particular manufacturing activity; (v) Import intensity, measured by the ratio of imported raw materials consumed in the total raw materials consumed by a particular manufacturing activity; (vi) Total factor productivity, measured by the ratio of value-added at factor cost at the national accounts concept to the combined factor inputs, each weighted by their respective income share in the particular manufacturing activity; (vii) Indicator of domestic

Each factor is assumed to have equal weight. As described above, there is no reason to believe that, among these factors, one is more important than the other. All factors are equally important. The score is based on the number of the four-digit manufacturing activities treated in this section. About 43 four-digit manufacturing activities, for which information is available consistently for all factors, have been considered for intervention selection. The particular manufacturing activity that ranks first for a particular factor will score 43 for the same and the one ranking last will score one. The sum of these scores (and the average score) is the decision point for intervention selection.

Information collected for these factors is for the recent three years for which there are data (1998/99, 1999/00 and 2000/01). The average result of these three years is used for comparison among the four-digit manufacturing activities, not to be unnecessarily influenced by outliers (mild or extreme) of a particular year for reasons, which could be irregular. The data source is the "Report on Large and Medium Scale Manufacturing and Electricity Industries Survey" of CSA.

Based on available resources to provide special extension services to the manufacturing sector, Government may choose the manufacturing activities with the highest average scores for intervention. The manufacturing activities with the highest average scores, by implication, are relatively more resource based, efficient in resource use, and more competitive than others. The score for each factor and the average score for the 43 four-digit manufacturing activities are reported in Table 4.1.

As clearly exhibited in the table, the highest scoring manufacturing activities are limited. This shows the existing actual competitiveness capacity of the sector is not that much dependable. If we take activities whose score is greater or equal to 30, we have only five manufacturing activities, namely: manufacture of sugar and sugar confectionery; publishing and printing services; production, processing, and preserving of meat, fruits and vegetables; manufacture of tobacco products; and manufacture of wood and products of wood, except furniture. This implies that these sectors are relatively more significant contributors to the Ethiopian manufacturing sector, are resource- based, efficient in factor use, and competitive than others.

The result indicates that focusing and investing in these manufacturing activities could have more chance of succeeding in influencing the Ethiopian manufacturing

competitiveness (IDC), measured by the ratio of total costs of the particular manufacturing activity to gross value of production of the same at domestic prices; and (viii) International competitiveness indicator (ICI), measured by the ratio of total costs of the particular manufacturing activity to gross value of production of the same at border prices.

sector and entering into the international market than otherwise. Thus, the government should follow a preferential policy including the investment code that supports these kinds of activities.

Table 4.1: Factor Scores and Average Scores for Four-digit Manufacturing Activities

Manufacturing Activity	Contr. GDP	Contr. Employ.	Contr. export	Factor Intensity	Import intensity	TFP	IDC	ICI	Average Score
Production and preserving of meat, fruits and vegetables	35	33	36	20	36	24	34	35	32
Manufacture of vegetables & animal oils & fats	15	26	33	2	43	2	4	3	16
Manufacture of dairy products	10	8	25	1	38	4	10	18	14
Manufacture of grain mill products	29	34	28	14	32	8	15	31	24
Manufacture of prepared animal feeds	4	6	25	41	40	38	24	30	26
Manufacture of bakery products	32	36	25	24	27	23	27	10	26
Manufacture of sugar & sugar confectionery	43	42	42	12	34	35	43	43	37
Manufacture of macaroni & spaghetti	21	9	25	22	42	32	36	17	26
Manufacture of food products n.e.c	19	16	40	6	39	9	23	9	20
Distilling, rectifying & blending of spirits	20	15	25	39	30	41	39	22	29
Manufacture of wines	11	13	32	34	29	36	18	8	23
Manufacture of malt liquors & malt	42	32	35	10	19	13	29	12	24
Soft drinks & production of mineral waters	34	39	37	26	22	17	14	7	25
Manufacture of tobacco products	37	17	25	33	10	43	42	40	31
Spinning, weaving & finishing of textiles	39	43	41	18	28	18	5	19	26
Manufacture of cordage, rope, twine & netting	17	31	25	38	13	34	19	26	25
Knitting mills	2	4	25	7	12	7	3	2	8
Manufacture of wearing apparel except fur apparel	14	38	38	32	35	1	6	4	21
Tanning & dressing of leather, luggage & handbags	36	37	43	27	33	19	16	15	28
Manufacture of footwear	30	35	34	16	23	10	12	6	21
Wood and cork, except furniture	16	21	25	43	17	42	37	38	30
Manufacture of paper & paper products	25	25	25	30	9	26	26	34	25
Publishing and printing services	38	41	27	37	20	37	40	42	35
Basic chemicals	12	20	25	4	24	6	1	5	12
Manufacture of paints, varnishes and mastics	23	12	25	15	15	28	35	25	22
Pharmaceuticals, medicinal & botanical products	24	19	26	3	8	5	8	28	15
Soap, detergents, perfumes and toilet preparations	26	24	25	17	11	20	22	20	21
Manufacture of chemical product n.e.c.	7	5	25	13	6	13	20	36	16
Manufacture of rubber products	33	18	25	9	2	15	31	23	20
Manufacture of plastic products	31	29	25	11	4	11	21	37	21
Manufacture of glass and glass products	13	11	25	23	31	22	32	33	24
Manufacture of cement, lime and plaster	41	28	25	21	26	31	38	21	29
Manufacture of articles of concrete, cement & plaster	22	30	30	36	41	33	28	11	29
Manufacture of non-metallic mineral product n.e.c.	18	27	29	5	37	3	2	1	15
Manufacture of basic iron and steel	28	22	25	29	3	29	25	39	25
Structural metal products, tanks, and containers	9	14	25	25	16	16	11	27	18
Manufacture of cutlery, hand tools and hardware	8	10	25	35	7	27	13	13	17
Manufacture of ovens, furnaces and furnace burners	2	3	25	42	14	40	30	32	24
Machinery for food & beverage processing	5	7	31	19	21	12	9	29	17
Accumulators, primary cells & batteries	1	1	25	40	1	30	7	14	15
Manufacture of bodies for motor vehicles	40	23	39	28	5	39	33	24	29
Parts and accessories for motor vehicles and their engines	6	2	25	8	18	21	41	41	20
Manufacture of furniture; manufacturing n.e.c	27	40	25	31	25	25	17	16	26

Source: own computation from CSA survey

It should be noted, however, that this does not mean Government shall neglect the other sectors or the potential competitiveness of the manufacturing activities are limited. If the government provides all the necessary supports and engages the private sector in real partnership, the ground will be leveled for manufacturing activities to be mushrooming. The government is therefore expected to remove the constraints that the manufacturing sector faces in order to create the enabling environment, which could bring sustained and competitive manufacturing sector, a point to which we shall turn now.

4.2 Neutral Intervention

Ethiopian manufacturing sector has been engulfed in diverse and immense constraints for extended periods. The main constraints affecting the manufacturing sector may be grouped into a number of inter-related problems, among others, including infrastructure, technology, finance, Government policy, inefficient bureaucracy and poor private-public dialogue. Thus, the government has to involve itself in alleviating and removing these constraints and engage itself with structured dialogue with private sector to promote investment.

4.2.1 Role of the government

The main focus with regard to the role of government in enhancing competitive manufacturing sector lies on providing efficient infrastructure, skilled manpower, the legislative framework and stable environment for business. This can be provided in the following context:

Providing legislative framework

The government should provide a clear and predictable legal framework for businesses. Regulations should be administered in an open and transparent system, and applied fairly to all parties. The government has to make it clear to businesses that it deals with them solely on the merits of their case. There is no favoured treatment for local companies or for government-linked companies. Policies should be guided by the principle that it should support the private sector as the engine of growth and ensures that the macro-environment is stable. A lot remains to be done to provide a legislative framework like this one.

Investing in infrastructure and manpower

The government has to invest in infrastructure and manpower, areas in which the private sector is likely to under-invest. Public investment in hard and soft infrastructure facilitates for the private sector to come in. It has a strong crowding in effect.

As it has been evidenced by the East Asian economies, the role of the government in investment in human capital is the kernel of competitiveness. In order to build a successful competitive economy there is a need to develop a workforce with capabilities in business, technology, innovation, production and services, and international market development. The government has to ensure that the education and training system is geared towards the needs of the economy, tailored to what is required, with a strong emphasis on providing technical and professional manpower. These human resource strategies call for a special policy for manpower development and perhaps a special agency to accomplish.

Similarly, an efficient infrastructure lowers business costs and makes it attractive for investors. Efficient infrastructure significantly lowers the transaction cost and improves the competitiveness of the manufacturing sector. Despite the government efforts to improve the country's road network, Ethiopia's road transport infrastructure is relatively weak. The percentage of paved roads for the year 1996 is 15 percent and it is by far below from other African countries. The normalised road index for the same year was 55, which is considerably far away from the average.^{6 7}

Telecommunication services, the other significant infrastructure, is totally operated and owned by the state's corporation. This might be one of the reasons that make the country one of the lowest telephone densities in the world. Telephone mainlines per 1000 people is only 3.⁸

4.2.2 Public-private Dialogue Forum

Government may lack proper understanding, technical know-how and managing capability to effectively know the problems of manufacturing sector in general and sub sector level in particular. Thus, it always has difficulty in addressing factors that drive the competitiveness of manufacturing. The recognition of the private sector as a stakeholder in the country's economic development and allow, and hence, institutionalise the participation of the private sector in the policy process and formulation at different levels, allows the economy to pool the two key actors and sector in the economy (government and private sector) together to have consensus on policy issues, shared vision and find common solutions.

⁶ The normalised road index is the total length of roads in a country compared with the expected length of roads, where the expectation is conditioned on population, population density, per capita income, etc. A value of 100 is normal; less is below average.

⁷ Based on The World Bank, World Development Indicators, 1998, table 5.9

⁸ This is 48 for Botswana, 50 for Egypt, 45 for Morocco, 15 for Zimbabwe and 162 for Mauritius. Source: based on the World Bank, World Development Indicators 1998, table 5.10

As it stands now, private sector involvement in policy making is minimal. Institutionalised processes of public-private dialogue are virtually absent. Thus, the government has to enact legislation that facilitate instituting public-private partnership which allow structural dialogue at different levels with clear mandate and constituency.

A great deal may be learned from the Mauritius experience, in this regard, where an effective system of governance is the hallmark of policy design and implementation. Policy making in Mauritius is participatory, based on an effective partnership between the government, business, and trade unions, all contributing to the formulation of the national economic strategy. Private sector needs are fully recognised in government policy in line with the overall development objectives of the country.

5. CONCLUSION

As observed above, the Ethiopian manufacturing sector is not performing well in all aspects of its operations. Its contribution to GDP, exports, employment, growth in output and domestic and international competitiveness and import intensity, are quite disappointing and deteriorating. The transformation of the economy is still a challenge.

The Ethiopian experience shows no encouraging signs in industrialization and competitiveness despite a relative early entry compared to other African countries and far less, to a point of non-comparability, to the East Asian economies that began the process at about much the same period. Changing the disappointing state of the Ethiopian manufacturing industry requires profound measures that would improve conditions for growth and expansion. These include, *inter alia*, sound public policies and support services capable of attracting both domestic and foreign investment to enhance the development and optimum use of available natural and human resources.

To avoid a widening gap and marginalisation from the rest of the world, industry must be competitive and responsive to the requirements of global interaction. This would require, in addition to technical know-how and market intelligence, the creation, by the State, of an enabling environment for private entrepreneurship invoking minimal control through regulation and investment in complementary services essential to permit a competitive, innovative response to opportunities. An efficient and well-adapted industrial structure to competitiveness will further require the building of entrepreneurial, managerial, and technical capabilities through education, research, training on-the-job, and experience.

Thus, there is a need for a competitive industrial policy, which includes the provision of a package of market information, assistance in the acquisition of technology, subsidised credit, tax holidays, and incentives to new investments. Supporting services and institutions are also required to enhance the competitiveness of the sector.

The competitiveness and efficiency of enterprises often depends on the availability of infrastructure and clusters of mutually supporting services and institutions of the markets in which they operate. These include, among other things, institutions for industrial standards, testing and quality assurance, design, training, technology acquisition, dissemination and adoption, information, research and extension services.

Of immediate concern in this regard should be in the areas of increased efficiency and competitiveness heretofore absent through the promotion of private industry. This would require practical measures at the policy, institutional, and enterprise levels, supported by specific steps relating to capacity building and the strengthening of the institutional framework for the creation of skills in all aspects of industrial operations. As it stands now, private sector involvement in policy making is minimal. Institutionalised processes of public-private dialogue are virtually absent.

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