

INDUSTRIALIZATION IN BANGLADESH: A CASE OF FAILURE

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Abstract: This paper makes a meager attempt to trace the industrialization performance of Bangladesh. While doing so it reveals that aiming at rapid growth of the industrial sector the government has actively intervened into the system and adopted an industrial policy specially emphasizing on import substitution. But the bitter reality is that in spite of various support measures the sector has experienced sluggish rate of growth throughout the past several decades. The study traces that this unexpected performance was a result of limited domestic market and contracting foreign market for industrial products. Moreover, industrialization policies aiming at import-substitution, by making capital relatively cheaper encouraged capital-intensive structures. This is in clear conflict with the employment objective of the government. Hence the paper suggests an outward looking strategy, that is, export-oriented industrialization rather than the inward looking one that is import-substitution.

Key Words: Industrialization, government intervention, import-substitution, export-orientation, employment creation.

Introduction

In modern times the two terms, industrialization and development are used synonymously. Though there is considerable controversy over the issue, whether industry or agriculture should be emphasized during the formative stages of an economy, there is no denying of the fact that in the long run it is the industrial sector which should play the leading role.

In this century, and especially since the Second World War, industrialization in developing countries has typically meant import-substitution. Industries have been set up to produce goods that were previously imported and these goods have mainly been sold in the protected home markets. Bangladesh is also not an exception to this widely followed strategy.

On the basis of secondary data the paper is aimed at tracing the course of development in the manufacturing sector of Bangladesh during the past few decades. By doing so it attempts to show that deliberate economic policies have been adopted to encourage industrialization involving significant government intervention. Moreover, profitability of the domestic industries have been ensured by protecting them against competing imports, through tariffs and various other import control measures. The paper further reveals that policies adopted to encourage import-substituting industrialization has led to unduly capital-intensive industrial structure and that, in spite of various policy measures the sector experienced sluggish rate of growth over the studied period of time.

Recognizing the fact that whatever development which have taken place in Bangladesh, is significantly related to what happened in the then East Pakistan, the paper presents the nature of industrial development during that period as influenced by the policies pursued during that time.

Development During 1947-1970 Periods

The two basic elements of industrialization policy pursued by the Pakistan government were, firstly, industrialization was to be achieved through private enterprise and secondly, the government was committed to promoting industrialization through suitable and active intervention. Thus private entrepreneurs interested in establishing industrial enterprises got active government support in financial terms and other like facilities almost since partition.

Industrial development in Bangladesh started with jute manufacturing through private initiative backed by government patronage, which included protection to private industrial investments. These steps played an important role in the process of rapid industrialization of the country.

From being negligible in 1947, the industrial base of Bangladesh reached a substantial level by the end of the 1960's. At constant 1959-60 prices the manufacturing sector contributed 7.8 % to the GDP in 1969-70, compared to 3% in 1949-50. Contributions of the large-scale industries were 3.7 %, while the corresponding figure for 1949-50 having been 0.6 %.

According to the study (Ahmed, 1978) main problem with the large-scale industrial sector was that their establishment was not always based on comparative cost advantage. Factor intensities in many industries failed to reflect the true picture of internal factor endowment, that is, they were more capital intensive than they should have

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been, given an abundance of labour and scarcity of capital in the country. The study also observes that during the same period the industries also suffered from substantial under utilization of capacity. The same study identifies the root causes of these deficiencies in the artificially distorted price structure and heavy protection available to industries because of the overvalued currency, import licensing system, export bonus scheme, high tariff protection and other concessions enjoyed by the industries. Due to overvaluation of the currency, availability of foreign exchange for import of machinery and equipment made capital relatively cheaper and was therefore primarily responsible for adoption of capital-intensive techniques. As a result, good profits were ensured even for very inefficient producers. Consequently, the industries could take a relaxed attitude towards productivity growth and improvements in capacity utilization.

Development During Bangladesh Period

The announcement of the nationalization program on 26 March 1972 meant that the private enterprise industrialization policy of the then Pakistan was largely abandoned. Nearly 90 % of the fixed assets in the modern industrial sector were brought under public ownership and control. According to well-informed theoreticians the nationalization programme was a hasty act, without a clear vision of the goals to be pursued through the programme and without any clear-cut role assigned to the private sector.

As a direct consequence of this deficiency inherent in the programme itself and other socio-economic considerations, pressures originated from different spheres of the economy in the following years to revise the policy and soon succeeded in starting a process of policy changes favouring private entrepreneurship. Thus the private investment ceiling, which was fixed at taka 2.5 million in January 1973, was raised to taka 30 million in July 1974 and then to taka 100 million in December 1975. How these latter policies affected the performance and structure of the industrial sector is another story. In this paper we shall not indulge in that. We are here concerned with the specific industrialization strategy as followed by the government and its consequences. Accordingly, we here attempt to overview the performance of the industrial sector of Bangladesh during the past decades. For forming an idea about sectoral performance and structural changes that have taken place during Bangladesh period following table is at our aid.

Table 1. Sectoral share of GDP (in percentage)

Sectors	1973-74	1979-80	1985-86	1991-92	1997-98
Agriculture	57.0	49.0	46.8	36.9	31.6
Industry	6.7	10.0	9.8	10.1	11.5
Services	36.3	41.0	43.4	53.0	56.9
Total	100.0	100.0	100.0	100.0	100.0

Source: BBS 1974, BBS 1980, BBS 1986, BBS 1992, BBS 1998.

It shows that throughout this period, share of the industrial sector in the GDP has remained below 12 % and has grown very slowly over time. So it can be safely said that the sector has failed to perform as it was expected. The share of industrial production of an economy is an important indicator of the stage a country has reached in the process of structural transformation. It is generally held that growth of an economy is associated with a declining share of agriculture in GDP and a rising share of industry. But in case of Bangladesh the finding is that, though agriculture's share has declined over time the share of industry has remained more or less stagnant. The table also shows that to make up the deficiency created by agriculture's declining importance, service sector has increased its share in the GDP.

Pace of industrialization of a country is also traceable in the rate of growth of import of capital goods and material for capital goods. Following table shows that import of capital goods as percentage of total imports has risen over time. This evidence reflects a tendency towards more capital intensive industrial structure, rather than industrial growth.

Table 2. Import of capital goods as percentage of total imports

1973-74	1977-78	1983-84	1991-92	1996-97
18.1	21.4	26.6	31.0	37.0

Source: BBS 1974, BBS 1980, BBS 1986, BBS 1992, BBS 1998.

Factors Behind Retarded Growth of the Industrial Sector

Post liberation period of Bangladesh has been marked by a series of international problems that have contributed to reduce growth rates or declines in global economic activity. These problems emerged from a series of related events.

Oligopoly pricing of crude petroleum products followed by rapid worldwide inflation, recession in the industrialized countries and consequent development of an era of rising protectionism are some of them.

In the domestic sphere the economy was similarly hit by different problems. Since independence in 1971, agricultural output failed to keep pace with the needs of a growing population. Moreover, rise in the cost of importing food grains due to increasing international prices was part of the external shock. During the same period economic difficulties were aggravated by political instability in the domestic front. Few measures were taken to promote structural adjustments; rather the country relied mostly on external aid.

The 1979-80 oil price rise, coming on top of the 1979 monsoon failure worsened the situation further. In short, the last two decades witnessed major economic changes in the international sphere and natural calamities like famines, prolonged drought and flooding in the domestic sphere. More importantly, successive changes in the government and consequent revisions of economic policies characterized the entire period.

All these internal and external events left deep impression on the overall performance of the economy. Agriculture being the largest sector was the hardest hit. Worsening of the terms of trade of primary products due to worldwide recession and persistent difficulty in raising productivity were the most common problems with this sector.

In the international side it is difficult to expect that high levels of exports could be maintained in an era of slow growth and rising protectionism in the industrialized countries against LDC exports. Although low participation in external trade served to cushion the country from the recession in the industrialized countries, a lack of exports remained a critical constraint on its growth. To the extent that around 50% of total trade of Bangladesh involves the major industrialized countries, any economic change in these countries is likely to have significant repercussion on her economy. An alternative to finding of external market might be expansion of the domestic market. Relatively small domestic market of the country is traceable to the high density of population in the rural areas. Economic fortune of Bangladesh is limited to the success of its agricultural sector. To the extent that manufacturing sector processes agricultural products for export, and produce consumer goods for internal market, its growth rate depends on the growth of the agricultural sector.

Climatic condition here necessitates highly labour intensive agricultural activities during peak seasons but providing virtually very little opportunity of economic activities in the slack seasons. Rising agricultural productivity and income leads to rise in demand for agricultural inputs and consumer goods, which stimulates expansion of industrial output with increasing economies of scale. Without increase in agricultural productivity, price per unit of agricultural product will not fall and consequently domestic demand for manufactured goods will tend to rise slowly. Increase in agricultural productivity and income are particularly important for generating domestic demand for industrial products at the earlier stages of development. When agriculture provides employment for well over half of a country's labour force then increments in rural income will have powerful multiplier effects because of the fact that such increment increase the demand for non-agricultural goods and services. This in turn will increase the income of the latter sectors.

Available evidences show that where rural purchasing power increases a little bit, increase in demand for industrial items like textiles and other consumer goods take place and when significant increases in agricultural yields is the case then demand for fertilizer, insecticides and other agricultural implements will increase. Moreover, analysis also shows that the rural sector of the country has not only experienced relative impoverishment but is plagued with absolute impoverishment down through the ages. Agricultural productivity has failed to rise significantly due to various reasons. These facts are reflected in the low purchasing power of the rural mass, consequently limiting the domestic market for industrial goods.

Besides these common reasons retarded state of the industrial sector has resulted from several other factors many of which are specific to certain industries. Shortage of raw materials, frequent power failure, uncontrolled import or smuggling of some products, labour unrest and transportation problem are some of them.

Import-substitution Strategy-its Impact on Employment Creation

The country inherited from the past not only its industrial base but also the germs of import-substitution strategy. In following this strategy the country relied heavily on the system of import licensing, tariff measures and price preferences.

The extent of import-substitution in the post liberation period is not known and is difficult to measure. A crude measure like, the percentage of total supply of the country met from domestic production over a specific time period

is used in one study (Rahman, 1985) to indicate very roughly the magnitude of import-substitution. The table below reproduces the finding of the study. It shows that in the production of cotton textiles, fertilizer, cement and pharmaceuticals the country has become more self-sufficient.

Table 3. Percentage of total supply met from domestic production for some selected commodities

Commodities	Years	Percentage of Supply	Commodities	Years	Percentage of Supply
Food grains	1972-73	78.0	Cement	1972-73	8.9
	1977-78	88.6		1977-78	38.6
	1982-83	89.6		1982-83	60.3
Oilseeds	1972-73	81.2	Drugs and Pharmaceuticals	1977-78	50.6
	1977-78	80.6		1978-79	57.4
	1981-82	95.1			
Yarn	1972-73	90.1	Transport Equipment	1976-77	29.3
	1977-78	86.4		1977-78	43.3
	1982-83	82.7		1978-79	20.5
Cotton Textiles	1972-73	90.1	Other Capital Goods	1976-77	23.0
	1977-78	67.8		1977-78	13.6
	1982-83	74.9		1978-79	14.2
Fertilizer	1972-73	44.4	All Capital Goods	1981-82	12.0
	1977-78	38.6			
	1982-83	60.3			

Source: (Rahman, 1985)

Now we turn to one very important feature of the industrialization process. It is creation of employment opportunity. Pursuit of industrialization though have provided employment in some cases, in general it has aggravated the unemployment problem by stimulating migration from the rural areas to the cities.

Policies of industrialization by boosting up industrial income and hence wages has acted as a driving force behind such move. Wages depend not only on supply and demand in the labour market but on the relation of profits to wages as well. As long as protection keeps industrial profits high, industrial wages also remain high, whatever the unemployment situation is, because of trade union pressures and other political reasons. As long as the gap between urban and rural wages remains high, one must expect the towns to be full of partially employed people. In addition, however too fast migration has increased total unemployment as well. To begin with, much rural unemployment is seasonal, which can be reduced by diversifying crop activities but not by moving people off the farm.

Another adverse impact on the employment situation stems from the highly capital intensive nature of the Bangladesh industries. One study (Ahmed, 1975) attempted to judge whether industries here are unduly capital intensive or not, by comparing the capital intensities of these industries with those prevailing in countries whose economies are characterized by labour scarcity. Capital intensity here is defined as the value of fixed assets per man-year of employment (the capital-labour ratio). Finding of this study is presented in the following table.

Table 4. Capital-labour ratios in manufacturing industries: Bangladesh, Japan and the USA

Sectors	Bangladesh	Japan	USA
a) Cotton textiles	1.00	0.38	2.18
b) Jute Textiles	1.00	-	-
c) Paper	1.00	0.07	0.85
d) Leather Goods	1.00	0.59	1.40
e) Rubber Goods	1.00	0.32	4.43
f) Fertilizer	1.00	-	-
g) Other Chemicals	1.00	-	-
h) All Chemicals	1.00	0.33	2.49
i) Basic Metals	1.00	4.04	13.60
j) Machinery	1.00	0.20	1.96
k) Wood Products	1.00	0.40	-

Source: (Ahmed, 1975)

Conclusions, which follow from the above finding, are that except the basic metal industry all other industries in Bangladesh are more capital intensive than those of Japanese ones. Moreover, many of these industries are as capital intensive as the US ones. These evidences are sufficient to prove that capital intensities in the industries do not reflect the actual picture of factor availability of the country. The study though based on data of pre-liberation

period; so far we are concerned with broad qualitative conclusions it is less likely that changes, if any, which have taken place, are drastic enough to render our conclusion invalid.

It is rather perplexing to note that in spite of high level of unemployment in the country, industries tended to be relatively capital intensive. This phenomenon has its root cause in the distorted structure of the factor prices, which itself is the result of the specific policies pursued to encourage industrialization in the country. Such price distortions have led to reduction in the price of capital below its equilibrium value (its marginal value product) while forcing the price of labour above its equilibrium value. As a result of such distortions in factor prices, industries of the country naturally tend to take advantage of the relatively cheaper factor (capital) and economize on the relatively more expensive one (labour).

Several other factors tended to reduce the price of capital. As for example relative cheapness of capital goods stem from the fiscal incentives as provided by the government from time to time to foster industrialization in the country. One such incentive categorizes the whole country into three areas, viz. priority development area, developed area and development area and specifies the rate of import duty on capital machinery and equipment to be applicable to these areas which clearly favours priority development areas over development areas and the latter over developed areas. In addition, export oriented industries with commitment of export of lion's share of their products were entitled to a concessionary rate on capital machinery irrespective of their location.

In many cases it is a part of the industrialization policy to encourage investment by allowing importation of duty free equipments. Such artificial lowering of prices therefore understates the scarcity and social cost of capital. While due to various legislations and other reasons wages over state the social cost of labour. This twin phenomenon encourages use of capital intensive and labour saving equipments. How large scale capital intensive enterprises have been unduly encouraged is observed in short by the five year plan of Bangladesh as follows: "The past incentive system much of which still survives today, was unduly biased in favour of large scale and more capital intensive technique. It has always been easier for large borrowers to obtain cheap credit for the purchase of expensive equipments. Users of large equipments had access to foreign markets, which was kept artificially cheap through the under pricing of imports purchased against license at the official exchange rate (over valued). Small producers have bought these equipments in the protected, over priced domestic market or from a commercial importer who appropriated the scarcity premia of foreign exchange. While capital (especially in bulk) has been kept cheaper (particularly to the large scale users), labour at market price has almost certainly been more expensive than its social value. The consequence of the policy of keeping down the cost of investment with a lower rate of duty on capital machinery has been under utilized capital-intensive capacities. Liberal import of capital equipment runs counter to the labour intensive activities."

Besides over valued currency and lowered import duty on capital goods, other two phenomena, which have pulled in the direction of more capital intensities in the industries, are the import licensing system and reliance on administrative controls. Administrative regulations that delay the carrying out of routine decisions usually increase the marginal capital-output ratio, that is amount of capital needed to produce a given level of output. The most common instance in this case is the administrative rationing of foreign exchange, which delays the availability of imported materials, component and replacement parts to the local enterprises. Manufacturers who anticipate such delays try to hold larger inventories of imported inputs, thereby increasing the amount of capital that needs to be invested to produce a given flow of output. If this is not done, delays causes slowing down of production thereby reducing the flow of output in relation to the capital invested.

On the other hand import licensing leads to excess capacity by discriminating in favour of the importation of capital goods. In general import license gives import of equipment for new plants priority over imports of materials, components and replacement parts needed for operating existing plants. The purpose was to encourage capital formation and growth of the industrial sector but the result everywhere was under utilization of manufacturing capacity. The following table, which exemplifies the extent of capacity utilization in some selected industries, shows that there exists alarming rate of under utilization of capacity.

Table 5. Rate of capacity utilization

Industrial Products	Jute Textiles	Cotton Textiles	Cement	Fertilizer	Paper & Newsprint	Steel Ingot
Rate of Capacity Utilization	48.8	66.0	66.7	70.8	73.2	40.2

Source: Five-Year Plan of Bangladesh

Acceptance of single shift operation in the long run, persistence of excess capacity over many years and building up of additional capacity in industries whose already existing capacity is under utilized are striking and adequate proof of the presence of profitability of investment in the manufacturing sector. Moreover, this profitability is excessive in the sense that it allows and leads to the use of too much capital in a wasteful way. In other words under utilization of capacity imply that the concerned industries provide employment far less than they should have provided. There are other causes as well of the failure of the manufacturing sector to provide enough employment; many of these are again the result of specific industrialization policies.

Most developing countries tend to import capital intensive and labour saving manufacturing equipment, which undoubtedly contributes to their unemployment problem. To begin with, most manufacturing equipments are designed and produced in the advanced countries, with their very different requirement and resource availability keeping in mind. Occasionally, there is no other choice, because only one method of production is available. Nevertheless, wrong choice is often made even when several alternatives are available because of preoccupation with the prestige of modern sophisticated equipments.

Another inducement to obtain excessive capital intensity stem from the existence of relatively expensive labour which in turn is rooted in the social legislations aiming at assurance of job security and improvement in working conditions. A general tendency observed among the managers of these industries is to avoid labour troubles by having as few workers as possible and pay them very well, which in other words means establishment of capital intensive enterprises.

Finally, foreign aid, as administered by donor countries and development banks, often encourage the use of capital-intensive techniques. Tied aid leads to procurement of required equipments from the donor countries in preference not only to other advanced countries but sometimes in preference to the recipient country as well. Which obviously results in the adoption of more labour saving equipment and methods of production than would be desirable in countries, poor in capital and anxious to create employment opportunity for the growing population.

Conclusion

It has by now become sufficiently clear from the above discussion that the manufacturing sector of Bangladesh has not only experienced sluggish growth over the past several years but also that over encouragement to the industrialization program has led to unduly capital intensive industrial structure, which fails to reflect the true scarcity (abundance) of productive factors and consequently aggravates the existing unemployment situation.

We have also seen that the retarded growth of this sector is traceable to the dual existence of limited domestic market and contracting foreign markets for manufactured goods and policies of industrialization are responsible for the perverse phenomenon of undesirable capital intensity.

Accordingly we deal here with two sets of policy prescriptions. One aimed at expanding the market for manufactured products, the other at correcting the distorted price structure created by the specific policies. Domestic market can be expanded by increasing the purchasing power of the mass, which in turn depends on the productivity of the agricultural sector. New high yielding varieties, chemical fertilizer and other improved technique can play an important role in this respect. Increase in agricultural productivity will reduce prices per unit of agricultural products and hence raise demand for manufactured goods. Besides this, creation of sufficient off-farm employment opportunity will benefit the small farmers and reduce income inequality existing within the agricultural sector. This again will have significant positive impact on the expansion of the domestic market.

As for policy towards creation of external market distinction can be made between those goods of which Bangladesh is one of the leading exporters (readymade garments, jute goods etc.) and those goods whose export by Bangladesh is a small part of total world export. Though there exists little scope for expansion in the former case, there is plenty of scope in the latter case. Even then, in case of the former types of goods, diversification of products by technological breakthrough can help much to expand export. There is much scope for the expansion of labour intensive manufactured goods because of the fact that labour price in Bangladesh is much lower in comparison to countries like Hongkong and Taiwan which have penetrated the western markets by their relatively cheaper manufactured goods produced in labour intensive industries.

Concerning the external market the problem is on the supply side rather than on the demand side. Hence timely supply of raw materials and power, quality control, efficient management and effective coordination can go a long way in reducing cost of production and consequently supplying the end products at much lower competitive price in the world market leading to greater share of Bangladesh in world trade.

If the cost of the capital-intensive industrialization is to be reduced a different approach is obviously needed. This alternative can be elimination of government induced distortion and letting the solution to be decided by the market. But the problem with this approach is that not all prices adjust instantaneously, there are always lags and leads.

To encourage adoption of labour-intensive technology in general, relative cost of labour must be reduced and that of capital increased. One way of reducing labour price is to subsidize the use of unskilled labour in the industrial sector. Conversely, increase in the rate of duty on imported capital machinery can increase capital price. These together can help reflect the true scarcity (abundance) of the productive factors.

So far, we have dealt with the consequences of specific policies pursued under the broad strategy of import substituting industrialization. But the strategy itself is not beyond question. Experience of different countries show that pursuance of an inward looking strategy for too long a period can have disastrous consequences on the economy in terms of inefficiency, development of high-cost enterprises, discouragement to agricultural production etc. Experience also suggests that transition to more outward looking trade policies face increased difficulties with the duration and extent of import substitution policies due to creation of vested interests during the latter process.

A country like Bangladesh, which is still in its early stage of industrialization, can successfully deploy protective measures while required skill is developed and the necessary infrastructure is established. Such protection, however, should be of limited duration and the tendency should be toward an outward looking regime before it gets too late. In particular, since manufactured exports tend at first to be more labour intensive and less skill intensive than import substitutes, an outward looking strategy will economize both on skill and capital requirement and simultaneously increase job opportunity for the unskilled labour force. This will raise the income level of the mass by creating wage employment, which in turn will loosen the constraint on the industries acting through limitation of the domestic market. A further positive consequence of the above move is to take advantage of economies of scale and thus lead to increase in capacity utilization.

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