Trade Openness and Productivity of Industries in India

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The basic argument in favour of examining such linkage is that after twenty years of implementation of reform policies there is no marked improvement in our industrial scene and in international trade. Foreign multinational companies are still hesitant in investing in a big way and foreign direct investments are not coming enough in the priority sectors. Productivity and efficiency of industries are still far behind those of any advanced country. It is true that India is at the recipient end and it is her interest to make the environment conducive for foreign investment. However, some evidence of FDI and technological collaborations in a lower scale are confirmed during the post liberalization period in India. Import tariffs have been lowered drastically across the board. Some positive efforts in terms of giving subsidies to export intensive industries and tax reduction on export earnings have been made to boost the export growth. The industries whose import content of input is higher compared to others are expected to get the benefit of reduction of import tariff and can produce more efficiently. Increasing incidence of technological collaboration helps producing higher quality goods at a lower price by avoiding the sunk cost of R & D. Thus due to all these reasons it is expected that there will be a rise in productivity and competitiveness in the industries and the industries those take the advantage of liberalization can compete the international market with a better quality good at a competitive price. Since governments determine trade policy, and governments serve to specific interests of the country, estimating how productivity and efficiency evolve in response to trade reforms is interesting from the point of effectiveness of such policy.

In post independent economic planning emphasis was given on protected home market and inward oriented growth. This resulted in a sinking economy of no return zone in the eighties. India embarked upon a 'New Economic Policy' to revive the economy from its dismal condition. The main features of the so-called 'New Economic Policy' are (i) gradual process of easing out government control such as industrial deregulation and opening the trade to international market. The experiences of East Asian countries had emboldened the policy makers to recommend in favour of new economic policy. The debacle of some South American countries and African countries after they have pursued the policy of liberalization created a fear of higher dependency on import and greater indebtedness on external front.

On the other hand, the propagandists of the 'New Economic Policy' welcomed it because they thought that this policy is expected to correct the deficiencies those were inherent in the earlier strategy.

It has been observed that inefficiencies are not confined to public sector only but pervaded over the entire economy. The researches on productivity of industries in India and abroad show that competitive environment is crucial for enhancing efficiency of resource use and allocation in the economy. It is recognized that the protective trade policies during the plan period of 30 years before 1990 is the major impediment for higher productivity and efficient use of scarce resources. Thus to increase the productivity and efficiency of the economy liberalized trade policies have been taken to open up the economy to the international market. As a policy lowering the tariff rates reduces the rates of effective protection for the inefficient domestic manufacturing and more uniform rates across industries are gradually implemented.

It is expected that after trade liberalization through export promotion policy (abolition of quota) and reduction or abolition of import tariffs the industries will increase their productivity and efficiency through healthy competition among the firms in the industries. The industries are now expected to get the import component of input use more easily and with cheaper price than before to help the firms to produce better quality of product with a comparatively lower cost. Also, due to various export promotion policies the firms within the export intensive industries are likely to increase their export. On the other hand trade can spur innovation by enhancing industrial learning since it facilitate international exchanges of technical innovation and improve the efficiency of firms. However, findings of different studies on this issue indicate that the direction of the effect of trade liberalization on the productivity and efficiency of firms is ambiguous and industry specific.

It has been observed that during last thirty years a definite structural change in Indian industries has been occurred in favour of modern industries with more sophisticated technology. The analysis of Total Factor Productivity Growth (TFPG) of traditional and modern sectors suggests that the pattern of movement of productivity growth for both the sectors are similar but the level of productivity growth of modern sector industries is low compared to that of traditional industries. The aggregate TFP growth in India was mostly due to the intra branch effect of productivity growth.

It is interesting to examine if there is any rise in export during the recent period in India that can be explained as an effect of liberalization and is there any link between this rise in export and increase in productivity. In other words, whether the export-oriented industries, using both the imported inputs and imported technology could lower costs than before and increase their export by lowering price at international market. We find that reductions in trade protection led to higher levels of productivity. There are two forces driving this finding. First, increases in competition resulting from lower output tariffs caused firms to increase their efficiency. Second, the trade reform lowered the tariffs on inputs, which lead to an increase in the number and volume of imported inputs from developed nations. Firms are now thus able to access more and cheaper inputs that helps increasing firm-level productivity.

It has been observed from the trade data for the period 2005-06 to 2009-10 that almost all the industries have registered a growth of export. Some important items in terms of growth and share of exports are 'Electronic goods', 'Petroleum product', 'Engineering goods', 'Gems and Jewellery' etc. However, the ranks of the industries according to their share in total export have not changed dramatically during this period. The industries that performed better during this period and have large share of export to total are namely, 'Engineering goods', 'Gems and Jewellery', 'Textile industries', 'Drugs and Pharmaceuticals', etc. Some of these industries, studied here, however, registered lower growth during the liberalization period but the shares of export of these industries are high enough compared to other industries.

Published figures by the Government on export values of major items during 2005-06 to 2009-10 indicate that the most important item group exported by India in 2009-10 was 'Engineering goods' which is about 18.25 % of India's total exports. It is observed that India's exports of these sophisticated manufactured items to major economies have gone up substantially in recent years. This indicates the newly gained maturity of India's manufacturing base. 'Gems and Jewellery' is next important item in India's export basket and it has recorded highest increases in share (16.27 %) in the years 2009-10. Among some other industries those are important in the value of share in total export are 'Petroleum', 'Drugs & Pharmaceuticals' and 'Textile industries'. Traditionally, India has had a comparative advantage in textiles. But the share of this item in India's total export is gradually decreasing over the years.

In-depth studies with some of the top ranking industries in terms of growth and share of export for the analysis of linkage between productivity and trade reform show some interesting results. This group comprises both traditional and modern industries, and the import content of input use of these industries differs considerably. Export promotion policy (subsidization) usually affects the competition in both ways. Firms may increase their efficiency to compete in the international market and may increase export while on the other hand excessive export subsidy may distort incentive and leads to higher inefficiency. Total factor productivity growth is one of the measures of efficiency and the results of some recent studies suggest that efficiencies of the selected industries increased during post liberalization period however the difference between the two regimes is not always significant. The TFP growth is positively related with the export and competitiveness captured by the Effective Rate of Protection.

In a less developed economy like India the market is characterized as oligopolistic and the policy of liberalization is expected to change the character of the market to a nearly perfect competition. In some studies changes in mark-up have been estimated for some selected industries using firm level data and the results indicate the changes in the level of competition. The results suggest that competitiveness have increased in most of the industries during this period, but productivity of many industries has been declining during the same period. In some studies it is observed that there are some negative and significant impacts of some trade related variables such as Import Coverage Ratio (ICR), Import Penetration Ratio (IPR) and Real Effective Exchange Rate (REER) on the productivity of Electrical Machinery Industry, Cotton Textile, Basic Chemical and Metal Products Industries. Change in each of these variables the magnitude and responsiveness of productivity growth vary across industries. On the other hand, lowering of ERP has positive effect on productivity growth in some industry groups like 'Metal Products' and 'Transport Industry'. Also, reduction in Import Coverage Ratio (ICR) and fall in Import Penetration Ratio (IPR) indicates that imported goods become cheaper leading to greater access on more capitalistic and sophisticated technology and the cost of production may fall which has produced a favourable effect on productivity growth in many industry groups over the years. It is observed that there is great heterogeneity in productivity performance across industry groups and there exists intra-industrial differences in the determinants of productivity growth also. One point is very clear that there is a need for formulating industry-specific policies for enhancing productivity growth of Indian manufacturing sector.

It is observed that Indian industries are still far behind the standard of advanced industrial nations in terms of productivity and efficiency. Also it is still hard for the Indian companies to penetrate into the world market in a big way. However, in general, the trade reform has increased productivity and efficiency of Indian firms and the larger impact appears to have come from increased access to foreign inputs. Thus, India's liberalization policy of switching from import substitution policies to open trade policies exposed these firms to competitive pressures and help increasing productivity and efficiency in general. Also, it is expected that Indian companies will be able to capture a big share of the world market in near future.