IMPLICATIONS OF GLOBAL PRODUCTION FOR INDIAN FIRMS AND LABOUR: AN INTRODUCTION

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India’s growing engagement with the global economy has generated much discussion concerning its potential impacts upon domestic firms and workers. A number of studies have assessed the impacts of globalisation on the basis of aggregate data such as GDP, trade flows of goods and services, and foreign direct investment (FDI). However, trade is increasingly driven and co-ordinated by transnational companies (TNCs) that conduct parts of their production processes across the borders of various countries, via international outsourcing of goods and services, which constitutes roughly one-third of global trade.

As a result of the splitting up of segments of production across borders, components enter into international trade as they are shipped to, say, the assembly point and then once again the value of these components would enter into international trade as part of the value of the full product when it is exported. It is this phenomenon that accounts for the fact that world trade has been growing faster than world income; and also for the obverse fact that, in the current global downturn, the volume of international trade has fallen much more than world income. This greater fall in international trade is not due to greater protectionism, of which there are only minor signs. The greater fall in trade is due to the phenomenon of components entering international trade more than once.

The above-mentioned phenomenon of the splitting up of segments of production among countries and firms is referred to by a number of more or less synonymous terms—Global Production Networks (GPNs), Global Value Chains (GVCs), or Global Commodity Chains (GCCs). The most famous example of this globalisation of production is that of garments, wherein the conception, design and marketing (including branding) are in the hands of a few large corporations, located in the developed countries, while the manufacture of components is often distributed among a number of countries, and the final manufacture of garments, thanks to the now defunct Multi-Fibre Agreement (MFA), is spread over a large number of developing countries, around the world.

I. RESEARCH DIMENSIONS OF GPNs

Research on GPNs has generally fallen into two broad categories—the first, is that of the changing structure of global production. This includes, in particular, what is known as ‘economic upgrading’, that is, the movement of firms or producers up the value chain. The second category is that of the conditions of workers in these systems of global production and the prospects for the improvement of these conditions, often referred to as social upgrading. The study of economic upgrading of firms and enterprises, and social upgrading of workers are the two components of research on global production systems.

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The papers in this Special Issue of the Indian Journal of Labour Economics deal mainly with labour conditions in global production networks in India. Before proceeding to outline the nature of social upgrading and related research issues, it is essential to first point to a couple of important points with regard to economic upgrading.

Economic upgrading can be of the following four types:

1. **Process Upgrading**: The improvements in efficiency in the production process, through increased productivity and better use of technology.

2. **Product Upgrading**: The shift towards producing a more complex, higher value added product type.

3. **Functional Upgrading**: The shift to a more diverse and complex mix of activities for the lead firm, such as design, logistics and transport, towards a ‘full package supply’ of the finished product.

4. **Chain Upgrading**: The shift towards a higher value added chain, for example, from automotives to aircrafts.

How can the economic gains of firms from upgrading be measured? The measure could be: (a) rates of return to capital in different segments; (b) rates of profit; and (c) rates of growth of firms. For instance, as a rough approximation (see papers in Posthuma and Nathan, Forthcoming), the rate of return to capital in the simple manufacture of garments seems to be in the range of 5 per cent to a maximum of 10 per cent, while the return in full package supply is around 30 to 35 per cent. In fact, even the rate of return to the assembly of electronic devices, for example, the Ipod, seems to be around the same 5 per cent in garment manufacture. Since the knowledge of garment manufacture or electronics assembly are both easily acquired and spread, there is not much difference in the returns to these segments of production, irrespective of the value of the final product.

An important research issue in economic upgrading concerns the types of constraints in the process. What are the constraints in moving up from assembly to, say, full package supply? What are the constraints in moving from full package supply to include both supply chain management and post-conceptual design, or Original Design Manufacture (ODM) as it is sometimes called or, in moving from even ODM to conceptualising, creating, branding, manufacturing (or managing the manufacture of) and marketing a product? Stating these questions would itself make it clear that there is no seamless transition from one stage to the next. There are many discontinuities and knowledge gaps in these processes.

Further, it is necessary to take into account the strategies of not only firms in the developing countries, but also lead firms in the developed countries. For instance, lead firms may be wary of handing over full package supply to one supplier, fearing that the supplier in question might learn the full gamut of technology involved and try to emerge as a competitor in the lead firm’s market. This, for instance, probably did happen in the case of the Taiwanese computer firm, Acer, whose technological and manufacturing capabilities worried the buyer lead firms.

Even if the global macro level question of the adequacy of global demand (otherwise seen as the fallacy of composition) is set aside, it nevertheless needs to be recognised that the possibilities and prospects of upgrading depend on a combination of two processes: the
strategies of lead firms (those in the developed economies) and the strategies of suppliers, including first- and lower-tier firms. There is no *a priori* reason why the strategies of lead firms will continue to be those of more and more outsourcing. There might also be a dynamic of reverticalisation. What are the conditions under which one or the other (verticalisation vs. outsourcing) would take place, taking into account the strategies of firms in both the developed and developing countries, and knowledge conditions as they develop around the world?

While trying to understand the dynamics of these evolutionary processes, it would be necessary to consider knowledge and its spread and creation. That an adequate level of knowledge (usually and inappropriately referred to as ‘human capital’) is required for the spread of production segments is well-recognised in the literature. There is, however, less recognition that knowledge is not only an input into production, but is also an output of production. Consequently, the global distribution of production segments also leads to the global creation of knowledge centres of different production segments. How does the dynamics of distributed knowledge affect innovation processes?

Economic upgrading itself is a matter of not the activities of firms (for example, competition and the need to innovate), but also of the industry (for example, agglomeration effects) and the national economy (for example, supplies of labour with particular skills, and competition) levels. What are the constraints to upgrading as they operate at the firm, industry and economy-wide levels?

And, what are the returns to upgrading and how long do they last? This last question is highly relevant to an examination of the links between economic and social upgrading. Is economic upgrading a necessary though not sufficient condition for social upgrading? Or, can there be situations wherein social upgrading drives economic upgrading, as for example, the phenomenon of higher wages driving mechanisation, or of the availability of highly-skilled labour pushing upgradation in IT services?

**Employment, Skills and Conditions of Work**

Social upgrading is the process of improvements in the rights, capabilities and entitlements of workers as social actors by enhancing the conditions of their employment (‘Capturing the Gains’, 2009, Research Methodology, draft). The definition of social upgrading also draws on the ILO definition of decent work, based on four pillars: employment, fundamental labour rights (freedom of association and collective bargaining, no child or forced labour, no discrimination), social protection and social dialogue. Of course, this should be seen as a process. There may be changes in each of the four pillars. Further, they may move in either direction—upward or downward.

What are the determinants of movement in either direction in the volume of employment and the nature of work? How is this linked to the economic upgrading of firms in global production?

A key enabling condition for improvement in the nature of the work contract is obviously the margin of firms and supply conditions in the global chain. The pressures of buyers, as in the drive for low costs or flexible production, is often taken to be a key determinant of labour conditions. However, these pressures of buyers do not work on their own. They
work in conjunction with the labour market and other firm- and industry-level conditions. For instance, the pressure to reduce costs can be met either by forcing labour to accept lower wages or by pushing for greater mechanisation and, therefore, higher productivity, without decreasing wages. Which of the two cost-cutting strategies is adopted under different labour market conditions? This is an important issue for research. The same applies to the issue of flexibility. The seasonal flexibility of demand from buyers can be met in at least two ways. One way is to engage labour in a flexible manner, by laying off workers when there is insufficient demand and bringing labour back in employment when there is adequate demand. This places the entire cost of flexibility on workers. But, will this work in the case of workers who have acquired skills for a particular industry, say, shoe-making? If the firms require these skilled workers to return, will they have to pay them some sort of retention wages to persuade them to return? In the absence of retention wages, it is likely that these workers will be lost to other firms in the same industry. Thus, in the case of workers with skills that take some time to acquire, the result is likely to be a system of retention wages, which puts some of the burden of flexibility on the firm owners.

There is a related issue of retention of skills in the context of an industry-wide downturn. This did happen, for instance, in the case of the diamond cutting and polishing industry during the current global crisis. As the global demand for diamonds fell sharply, more than 200,000 workers in Gujarat lost their jobs in this sector. They moved away, possibly to other jobs. But in the second quarter of 2009, as the international demand for diamonds rose, possibly on account of re-inventorisation demand, there were not enough skilled diamond cutters-polishers around. How can skilled workers and the skills of workers be retained in the context of cyclical movements?

Again the extent to which increased demand for particular types of workers results in increased wages or improved conditions of work seems to depend, to an extent, on the situation in the labour market, differentiated by skill categories. At the low-skill end, in a labour-surplus economy such as India’s, where there is a large flow of migrant labour from rural areas, there is likely to be a close link between wages in industry and rural or agricultural labour conditions. A low agricultural wage rate would mean that in Lewis-style fashion, wages in the industry for low-skill workers, would need to be just above the agricultural wage rate. Schemes such as those under the National Rural Employment Guarantee Act (NREGA) that push up the rural wage rate, would have the effect of pushing up the opportunity cost of labour, thereby increasing the industrial wage rate too.

One of the effects of the insertion of firms of developing countries in global production is an increase in the employment of skilled labour. Consequently, even with an overall surplus of labour, it is quite likely that conditions of scarcity of particular types of labour may arise. This could lead to higher wages and improved conditions of work. Some form of efficiency wages may then become necessary to retain adequately-skilled labour.

While labour market conditions are clearly important in influencing wage and employment conditions, there is another factor that seems to work particularly in the case of global production, that is, the pressure of buyers to conform to various labour standards. These labour standards have become an issue that often influences consumer decisions in the developed countries. The presence or otherwise of child labour is one well-known factor on
which there has been much campaigning by consumer and fair trade groups in the developed countries. These consumer campaigns have led to the adoption of various labour standards by many buyers in the developed countries. Do these standards have an effect on wage and other employment conditions? Do pressures for the imposition of these standards work in conjunction with national regulations on wage and employment conditions? Is it likely that there is more compliance with buyers’ labour conditions in ‘visible’ employment conditions, such as the employment of child labour, but not in other conditions, regarding adequate payment for overtime, or provision of medical facilities?

In the contemporary Indian labour scene, two features stand out—the weakness of unions, which are most often non-existent or have a weak presence in global production sectors, and the ineffectiveness of government regulation, as through labour inspectors and other such officials. Do buyers’ standards and the systems of auditors that they employ, share the same fate? Or, is there some improvement in meeting buyers’ standards as compared to government standards? If this does happen, what are the reasons for such improved compliance with standards? Is it related to a higher cost of non-compliance, related both to the employment of higher-paid auditors and to the risks of losing orders due to non-compliance?

An implication of the globalisation of production is the spread of knowledge. Workers, in the course of production, not only bring their existing knowledge to the production site but also go back with greater knowledge, acquired in the course of production. Arrow’s famous ‘learning by doing’ increases productivity as a consequence of workers’ increased knowledge. Does this increased knowledge lead to improved labour conditions, and to an enhanced dignity for workers at the production site?

One of the features of globalised production in low-skill production is the entry of women in large numbers into the paid labour force. Workers exist not only at the production site but also in their homes and communities. Women, as compared to men, have greater responsibilities for care work undertaken in homes that is not included within production conditions, but is socially necessary for the reproduction of labour and the labour force. How does the intersection of gendered responsibilities with labour market conditions affect the conditions of work for women workers, particularly where this is undertaken in the home?

The home too is often the site of child labour. One of the reported effects of buyers’ pressure is to banish child labour from the factory site. This could have led to a reduction in the incidence of child labour. But it could also leave child labour in the more hidden location of the home. Child labour could particularly be important where children seek to learn traditional skills that have been imparted. Can this acquisition of skills be combined with adequate attention to formal education?

Finally, when the two strands of economic and social upgrading are brought together, what is the connection between the two? It is likely that economic upgrading, if it results in higher margins for upgraded firms, is an enabling condition for social upgrading. But it is unlikely that there is an automatic connection between the two. Labour market institutions, including those dealing with compliance with buyers’ standards and labour market conditions would work together with higher firm margins to determine actual labour outcomes. Further, it is also likely that the relationship is not only from economic to social upgrading; the
relationship could also work in the other direction. Improved labour conditions, as in the presence of highly skilled IT workers and professionals, could also lead to firms’ utilising the opportunity to upgrade into new functions and services.

II. FINDINGS OF PAPERS

Some key research issues related to labour conditions in global production have been listed above. This special issue of the IJLE adopts the perspective of GPNs to examine how the growth of production for export in India is impacting selected sectors and their workers. The volume joins a set of authors who examine different sectors ranging from labour-intensive and buyer-driven (such as textile and apparel), to include medium-skilled and producer-driven (such as auto components and construction), and over to more high-end, knowledge-intensive (such as BPO and biopharmaceuticals) sectors.

These sectoral studies address some dimensions of both economic upgrading (which involves the processes of enhancing technological capabilities, improving products and raising the value-added of production) but mainly deal with social upgrading (which involves the terms and conditions of work as well as workers’ rights and how they may be enhanced).

Only the paper by Sachin Chaturvedi deals with the economic upgrading of Indian firms in bio-medical research. There has been an upward movement of a group of Indian companies in biopharmaceuticals, with a shift from chemistry-driven to biology-based drug development. The Indian companies initially supplied the post-drug development clinical trial services needed to test and secure the approval of new drugs. More recently, however, they have taken up different segments of drug development and small biopharma firms are now participating in the earlier stages of basic and applied research but testing and validation still remain the most common activities in which Indian biopharma companies participate in global networks (see Chaturvedi, this volume).

While Indian companies account for a large part of Indian firms that have got patents (Sunil Mani, 2009), a recent development in this sector is that some of these companies are being taken over by developed country firms (for example, Ranbaxy has been taken over by Daiichi Sanyo, and Shantha Biotechnics by Aventis), or entering into alliances with them (for example, Dr. Reddy’s has entered into an alliance with GSK, and Aurobindo Pharma with Pfizer). It is a moot point as to whether research undertaken in India in the field of bio-technology will be owned by Indian or developed country firms, as is already the case with IT research in India.

Other than the paper by Sachin Chaturvedi, the rest of the papers basically deal with labour issues in global production. Increased market access through participation in global production has enabled employment to rise in all sectors examined in this volume. The current economic crisis, which brought a sharp downturn in international trade volume, has had the harshest impact upon sectors closely linked to global demand, such as those of gems, garments and auto components. IT-enabled services, on the contrary, such as India’s business process outsourcing (BPO) sector, appear to have benefited from rising orders during the crisis (Rajeev and Vani, this volume). Along with this, the recent survey conducted by the Labour Bureau of some 2,000-odd units in the main exporting sectors, shows that while they lost some 500 jobs over 2008, by the end of September 2009, these units had not only
recovered the lost jobs but also added about 100 jobs. Overall, there is clearly an increase in the number of jobs created in the more globalised sectors of the Indian economy.

While examining the construction sector, Smita Srinivas (this volume) deals with the important question of the nature of labour market institutions in the context of global production. To the usual labour market institutions and gender roles analysed in labour market outcomes, she adds the important dimension of local or community institutions which can enable wider risk-mitigation and risk-pooling in bounded territories. Her paper, therefore, adds the neglected dimension of place and related community-based institutions in influencing labour market outcomes.

The quality of jobs, as can be expected, differs by sector and position in the global value chain. It is also influenced by the relative pressure from global buyers to continuously achieve low-cost and flexible production. K.V. Ramaswamy finds that global production in textiles and apparel has created substantial employment, but not necessarily resulted in an improved quality of employment. There is a growth in labour contracting, not just in numbers but also in proportion to regular employment in the garments sector. One of the two studies of embroidery and embellishment of garments (Mehta and Sherry, this volume) explicitly recognises the presence of child labour in these activities. While legal protection against child labour had been established over a century ago, child labour is nevertheless perpetuated in domestic and export production due to economic necessity, and the desire for a child to learn a manual trade. In their case study of the zardosi industry, Mehta and Sherry clearly measured gains in productivity and profitability among establishments that were paying children less than both the minimum wage and adult wages. Working conditions are harsh in this sector, and many adults reportedly quit working in their 30s, when their eyesight starts failing due to the visually strenuous work they have to undertake. The authors draw attention to the difficulties entailed in eliminating child labour.

Patterns of skilling differ between sectors and their position within the global value chain. The studies of textile and apparel production show that skill acquisition is largely on the basis of observation, apprenticeship and learning-by-doing. In the knowledge-intensive sectors such as biopharmaceuticals, Chaturvedi (this volume) finds that scientists choose the firm on the basis of the ‘star scientist’ with whom they would like to work.

This is quite in contrast to the situation in the BPO industry that is associated with well-educated workers who would seem likely to enjoy the choice of various career options. However, the study by Rajeev and Vani found that the majority of BPO workers interviewed (including post-graduate degree holders) expressed doubts that they would have found any alternative type of meaningful employment. The issue of a skills mis-match is raised in the BPO study. A majority of the BPO workers interviewed (57 per cent) considered themselves over-qualified for the job, but only 28 per cent felt that they were over-skilled. Companies in the BPO sector reported a shortage of skilled labour and instead had to invest in training staff for their jobs.

The paper by Palit notes a strong pattern of substituting unskilled labour for skilled labour in industry segments such as transport equipment and chemicals (typically representing producer-driven chains) and among larger firms. This process was driven by the demands of global buyers for higher quality and more advanced production technology. The substitution
effect was not observed to the same degree, but is also growing in labour-intensive sectors such as food processing and textiles.

The study of garment embellishments and embroidery by Unni and Scaria observes strong gender divisions in job activities, mode of payment and mobility into higher skilled occupations. In garment factories seeking to cut costs and achieve flexibility through outsourcing, women accounted for nearly 90 per cent of all home-based workers, while men predominated as formal workers in factories. Unni and Scaria find that the labour cost in the chain can be kept low due to the home-based work undertaken by women. Further, with workers being able to switch from working for foreign to domestic markets, and vice versa, there is no difference in the conditions of work in these two market segments. The authors do not find evidence of improved working conditions for those engaged in supplying to global markets, though the quality and lead time parameters are stricter for global markets. The authors make an interesting observation that firms operating in the bottom tiers of low value-added sectors reportedly preferred to sell their products in the domestic market, due to the tight lead times and extreme cost-cutting practices of global buyers.

Uma Rani’s discussion of skill acquisition in the auto components sector points toward the great absorptive capacity of manual workers, including even those with low levels of formal education, working in informal enterprises. She argues that the processes of skill acquisition and skill upgrading are indeed more complex and widespread in India’s informal economy than is commonly recognised. Enhancing the skills of a vast majority of India’s labour force will necessitate the adoption of new approaches by the formal educational and vocational training institutions, in order to meet the skills needs of informal economy workers.

The papers in this special issue bring together some of the research on the labour implications of GPNs. The book edited by the two authors (Posthuma and Nathan, Forthcoming) is a companion volume that has also brought together some other studies on the same subject. All of this is just a small part of the research being undertaken in India, and in other countries too, on the implications of the current process of globalisation of production systems. It is hoped that these two volumes will serve to carry forward the discussion on the types of policies and interventions by trade unions and other worker-related organisations, including community-based organisations (CBOs) and women’s organisations, to enable workers to earn a higher share of the benefits and improved work conditions from global production systems.

Note
1. This note draws substantially on the Draft Methodology note of the ‘Capturing the Gains’ research network, of which the two authors are members. The authors wish to thank all those involved in this network for the various anonymously received ideas incorporated in this Introduction.

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