

POST-FORDISM, GLOBAL PRODUCTION NETWORKS  
AND IMPLICATIONS FOR LABOUR  
Some Case Studies from National Capital Region, India

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# POST-FORDISM, GLOBAL PRODUCTION NETWORKS AND IMPLICATIONS FOR LABOUR: Some Case Studies from National Capital Region, India

*Praveen Jha & Amit Chakraborty\**

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*[Abstract: There has been a significant global restructuring of organization of production under capitalism over the last three decades, which is reflected, inter alia, in increased pace of technical progress, global competition and interpenetration of productive activity on a transnational scale. This has created opportunities/pressures for emerging economies to shift from a simple export-oriented industrialization to gaining access to higher value activities in global production networks (GPN). In this respect, India's automobile sector has been successful in integrating itself in the global production networks, with cheap labour and strong supply base, as a preferred site of production for global leading firms and indigenous component industry. To remain globally competitive, Indian automobile industry has progressively been adopting AMT (Advanced Manufacturing Technology) and lean or JIT (Just-In-Time) production process. These changes are, of course, not neutral in terms of implications for labour. This paper seeks to study the nature of changes in organization of production and work, both intra-firm and inter-firm, and particularly its impact on the changing labour process and issues of managerial control, skill or working conditions under GPN in automobile industry using case studies (including particularly that of India's leading car-maker Maruti Suzuki) from National Capital Region, India. The "field-site" for this study happens to be the automobile cluster in Gurgaon-Manesar-Dharuhera-Bawal region, with its important global lead firms, sophisticated technology, deep backward integration with strong supply base of different tiers extending up to slum production, and huge and segmented labour force. The paper also seeks to understand the anatomy of the recent waves of labour unrest; in particular it tries to investigate the linkages between turbulence in industrial relations and changing labour process. In sum, it is a modest attempt to understand the new regime of accumulation from a political economy perspective in terms of dynamic interaction of capital's strategy, technology and agency of labour—which shapes the labour process in GPN.]*

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## 1. Introduction

It is a well acknowledged fact that in last four decades there has been tremendous transformation in the sphere of production on a global scale. A major centre of global production has been the large developing countries where global capital has arrived to exploit the cheap, less organized labour and to tap the market. The “just-in-time” production process today is not only regionally decentralized, but also trans-nationalized. The components of a single manufactured good are made in different corners of the globe before they are assembled together. While the emergence of global production networks has provided the economic base for neo-liberal globalization, the “Fordist” kind of production regime that dominated the sphere of production till 1970 has now taken a back seat. Though recently there are significant discussions regarding the ascendancy, nature, linkages, hierarchy, etc., in global value chains or global production networks, the aspect of “labour” in these frameworks is still underdeveloped. It is important to study the dynamic interactions and co-influence of emerging patterns of production networks and the labour process/struggles within it. Also, there are living debates regarding the nature of this transformation in the sphere of production process. Some argue that a new “post-Fordist” regime has ushered in, replacing the erstwhile Fordist mass production. It is also argued that the despotic control and deskilling of workers because of separation of conceptualization and execution of tasks in the “Fordist-Taylorist” kind of production process have been substituted by a process of workplace participation, shopfloor democracy, and re-skilling in the “lean” production process. But others emphasize the point that if there are important ruptures that need our close attention, there is continuity too. From our study we will try to address some of these issues and investigate these claims of “rupture,” particularly under the production conditions experienced in a developing country like India.

India’s attempt to integrate itself to global production networks has been partially successful in some specific sectors like automobile, garment, software, etc. In our study we have chosen the Gurgaon-Manesar-Dharuhera-Bawal industrial region in the National Capital Region, which has been in recent past a major destination of capital and also an important node of Delhi-Mumbai Industrial Corridor (DMIC), the most ambitious industrial project planned by the Central Government to boost India’s manufacturing sectors’ global integration, competitiveness, share in GDP and employment generation. But it has its underbelly—labour—that needs closer attention amidst all these transformations. We have chosen automobile and garment sectors for our case studies, as both these sectors are now integrated to global production networks, have experienced a transformation in the production and labour process and are directly exposed to the global economic events because of close connection to the export markets, and faced a series of labour unrests in the recent past. The study has been majorly based on primary survey work of qualitative nature among workers and trade union activists, and secondary literature and published data.

## 2. Collapse of Fordist Production Regime and Ascendency of Global Production Networks

After World War II, the spontaneity of capitalism was regulated to some extent through various State interventions. The basic aspects of the then “Fordist” production regime of the so-called “Golden Age” were marked by: standardized mass production driven by moving assembly-line techniques run by the semi-skilled mass workers, increasing productivity generated from the “economies of scale” together with rising levels of profits and real wages, and collective bargaining of unionized workers and management. But at the end of 1960s this regime faced a problem as productivity gains started to decrease because of social and technical factors. Increased bargaining power of workers, growing social expenditure and thus inflationary pressure, and rigid mass production line incapable of exploiting “economies of scope” led to a crisis of accumulation. It created the objective conditions for a restructuring of production regime. In response to the crisis of “oil-shock” and “stagflation” (both stagnation and inflation affecting the economy) in the 1970’s which the dominant Keynesian demand management policy of welfare State failed to address, Capitalism entered a neo-liberal phase with State regulation in economic affairs taking a back seat and trade union organizations facing severe attacks from capitalists. Production process was decentralized and made “flexible” in terms of organization of production and labour to exploit “economies of scale and scope”. New pioneering technologies mostly in the field of information, communication and electronics, made it possible to globalize the production process. There seems to be an emerging pattern of division of labour and separation of conceptualization and execution on a global scale, and also increasingly within the regional clusters. To tap the low-cost labour regime and the huge market of the emerging economies, the lead firms have shifted their production base to those locations and also outsourced their productive activities keeping the control over core competences, which take the shape of codified information. The role of state in terms of different policies was important for the localization process of lead assembly plants’ productive activity; simultaneously, localization was also important for the firms to take advantage of the low-wage economy.

To understand the processes of trans-nationalization of production and economic development in contemporary capitalism, frameworks like Global Commodity Chains (GCC), Global Value Chains (GVC) or Global Production Networks (GPN) give useful insight. Though these frameworks have some broad similarities and are often used interchangeably, in this section an evolution of these frameworks and their differences have been discussed and the GPN framework has been prioritized (yet sometimes expressions like “value chains” or “production chains” have been used in this work reflecting the broad similarity). Gereffi and Korzeniewicz’s (1994) seminal work theorizing Global Commodity Chains attempted to describe the functionally integrated but geographically dispersed systems of production to explain the concrete basis of “globalization,” a more recent phenomena than internationalization in the context of post-1970 “new international division of labour”(Gereffi *et al.*, 2001, Dicken, 1998). For the



governance structure of GCC they distinguished between two types of commodity chains, namely producer-driven and buyer-driven. Producer-driven chains were seen as capital- and technology-intensive, and a vertical exercise of corporate power (e.g., automobile or electronic products), whereas buyer-driven chains were labour-intensive with a horizontal governance structure led by the brand-holders or retailers (e.g., garment products). Global Production Networks (GPN) theorists critiqued GVC's framework as being restricted in terms of exploring territoriality and the role of various actors, and criticized the "chain" metaphor which represents a vertical and linear sequencing. Though the core of all three conceptualizations—GCC, GVC, GPN—has commonalities, to explain production, distribution and consumption of goods or services in the era of economic globalization in terms of networks of interconnected functions, operations or transactions (Coe *et al.*, 2008), GPN seems to offer more potential to capture the complex (and often non-linear) dynamics of global capitalist production embedded in socio-spatiality, and gives scope to locate the agency of various actors in the "trans-national space" to shape the economic and political phenomena within GPN. Because of this potential of openness to complex reality, this framework can go for productive dialogues with different branches of heterodox economics and beyond.

GPN approach is based on three conceptual categories—value, power and embeddedness (Mackinnon, 2012, p. 229). The concept of value attempts to incorporate both Marxian notion of surplus value and the economic rent (Henderson, 2001). Power within the GPN is understood in terms of corporate power, institutional power (local or national state or inter-state agencies like EU, NAFTA, IMF, ILO, etc.) and collective power (which includes collective actors like employers' associations, trade unions or NGOs within given network) (*ibid.*). Thus departing from GCC-GVC's narrow focus on the governance of inter-firm transaction, GPN attempted to incorporate the relevant actors and relationships (Coe *et al.*, 2008) and provided a multi-scalar approach. Again, GPN approach emphasizes that each stage of a production chain is embedded in much broader set of non-linear relationships, they moved beyond the vertical-horizontal division of GCC-GVC framework and tried to incorporate multi-dimensionality in terms of 'aspects of the social and spatial arrangements... which influence firms' strategies and the values, priorities and expectations of managers, workers and communities alike' (Henderson, 2001). There are three kinds of embeddedness that have been highlighted in GPN literature—societal embeddedness, to emphasize broader regulatory and institutional framework; network embeddedness, to emphasize economic and social relationships of firms; and, territorial embeddedness, to "anchor" a GPN in different places (Mackinnon, 2012).

The genesis of GPNs is deeply rooted in the response to the 1970's crisis after which there have been some distinct shifts in the *modus operandi* of global capitalism, the nature and degree of these changes are widely debated. There are three main strands of theory which attempt to conceptualize the transition from the so-called Fordism to post-1970's new regime of accumulation—regulation theory, long wave theories and flexible specialization theory (see Amin, A., 1995). The regulation school, initially developed in France in 1970s,

emphasizes on the structures, principles or mechanisms that regulate and check the inherent tendency of capitalism towards crisis instability and stabilize it around a set of norms or institutions to maintain the process of accumulation, like “Fordism” or “post-Fordism” (See Nielsen, 1991; Amin, A., 1995). For the long wave theorist, both from the Marxist and neo-Schumpeterian approach, there is a significant emphasis on technology in initiating, sustaining or separating one long wave or cycle of economic development from another. The flexible specialization approach, first elaborated by Piore and Sabel (1984), focuses particularly on the arena of production by juxtaposing two categories, namely mass production and flexible specialization, and claiming the later as the characteristics of post-1970’s new production regime, with a rise of highly flexible manufacturing technologies, increasing demand for non-standardized quality product and flexible work practices, objectivity arose for re-emergence of craft-based flexible production with relatively skilled workforce. Lash and Urry (1987) proposed a similar conceptualization in terms of arrival of a flexible new era of “disorganized” capitalism in place of “organized” capitalism.

Another related debate located more in the domain of production organization took shape with the rise of Japanese automobile industry, particularly Toyota. Studying Toyota Production System (TPS), Womack *et al.* (1990) coined the term “lean production” in contrast to both mass production and craft as the new superior production technique. They described lean production as a system which combines the advantages of craft and mass production, while avoiding the high cost of the former and the rigidity of the latter. ‘Towards this end, lean producers employ teams of multi-skilled workers at all levels of the organization and use highly flexible, increasingly automated machines to produce volumes of products in enormous variety... Perhaps the most striking difference between mass production and lean production lies in their ultimate objectives. Mass producers set a limited goal for themselves—“good enough,” which translates into an acceptable number of defects, a maximum acceptable level of inventories, a narrow range of standardized products... Lean producers, on the other hand, set their sights explicitly on perfection: continually declining cost, zero defects, zero inventories, and endless product variety...’ (Womack *et al.*, 1990). They promise a tendency of multi-skilling, re-integration of conceptualization and execution, and autonomy of workers in the “lean world” as opposed to Braverman’s “deskilling hypothesis”. The superior lean or just-in-time production techniques are assumed to diffuse everywhere in automobile (and also other) sector in the era of GPNs, as the dominant discourse claims following Womack *et al.* (1990).

Marxist geographer David Harvey (1987) interpreted “flexibility” in terms of flexible geographies of production and flexible labour market as a distinct feature compared to Fordist production regime. Another important contributor to this debate was a group gathered around the journal, *Capital & Class*, who rather opposed the overemphasis on the sharp binary distinction between phases in terms of “regime change” and instead proposed an open nature of change with both continuity and rupture due to contestation in class societies.

As with hindsight we can say that even with significant “flexibility” of different kinds, significant elements of Fordist mass production and Taylorist management techniques have been retained in different adapted forms, more dominantly in the production sphere of developing countries that we will discuss later.

### **3. Recent Transformations in Indian Industrial Landscape and Policy**

The global automobile industry has experienced a profound transformation since 1980s. It is emerging as an integrated global industry from being a few national industries and simultaneously developing strong regional patterns in production processes spread across different clusters which are majorly located in developing countries. There is another important factor behind the emergence of global supply base. The lead firms produce cars in the regional clusters mainly for the regional market whereas to achieve the economy of scale, modular suppliers export sub-assembled components in many destinations globally. Thus, their role and bargaining power has made the network more deverticalized and complex, and more important in the dynamics of GPN.

India has three major auto component clusters—Northern, Chennai and the Pune cluster. While the latter two are comparatively old, the Northern cluster developed particularly after Maruti started its operation in Gurgaon in 1983. The Northern region cluster, which includes the national capital region (NCR) spread over three states—Delhi, Haryana (Gurgaon, Manesar, Faridabad) and Uttar Pradesh (NOIDA and Ghaziabad)—is the base for the most number of supplier companies (according to ACMA there are more than 250 suppliers in this cluster). The presence of two market leaders in passenger cars and two wheelers segments for almost three decades (MUL started its operation in 1983 and was joined by Hero Honda in 1984) helped to consolidate the supply base, often with the help of Japanese investment or equity stake and technology. After 1980s domestic demand for automobile production started to rise and with gradual course of liberalization, many joint ventures of Indian enterprises with foreign companies, with foreign technical collaboration and financial investment started to emerge and dominate the production of critical components. And with the deepening of backward linkages, small and medium enterprises (SMEs) came into the growing market of automobile components. Some of them succeeded in keeping up pace and became large enterprises gradually. The OMEs, keeping only their core competencies, subcontracted all other activities to tier one or tier two suppliers. A tier one supplier generally adopts, as a value chain cluster, a hub-and-spoke model where a number of smaller companies supply products to it and it majorly sub-assembles the components for the lead firm. The tier three suppliers are mostly metal forming, foundry, forging, and heat treatment units. But in the 2000s, because of high initial investment due to high technology use, new entry was more and more restricted. In 1994, the government had de-licensed car production. Following on the heels of Maruti, other global players entered the scene, raising not only India’s vehicle output quite substantially, but simultaneously diversifying the industry with their new and “quality” products. In 1997, a

new government policy allowed the companies to localize 50 per cent of production within 3 years and after that 70 per cent of production within 7 years, thus further liberalizing the market. Apart from cars, they were permitted to export components and ancillaries, and as a policy it further promoted the integration of Indian automobile sector to global production networks of the industry. Import duties on components fell from 60 per cent to 10 per cent in the period between 1980s and now. Since 2008 the production network on a global scale has deepened, the export of auto parts are growing faster than the export of assembled cars, integrating the component suppliers on a global level. At the same time, we can see that since 2009 the share of car component imports for local assembly—to a large extent from Thailand and South Korea—are growing faster than the local parts manufacturing (*Table 1*). It shows that the assembly plants in India are using more parts from abroad, whereas part manufacturers in India are sending increasingly more parts abroad compared to the local assemblers. In the last several years thus we see an extension and re-coupling of the supply network between North and South and also within Asia, integrating India's automobile industry more closely to the complex network of global production.

**Table 1. India's Automotive Component Industry (Figures in USD billion)**

	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11
Turnover	18.9	22.9	26.5	23	30.1	39.9
Investment	0.7	1.0	1.8	0.1	1.7	2.25
Component exports	2.7	3.1	3.8	4.0	3.4	5.2
Imports (assemblers)	3.0	3.9	6.2	6.8	6.5	8.5

Source: ACMA

Garment industry is a major export-based industry of India. The volume of garment industry in India was of ₹3,270 billion in India. There are some important clusters of garment industry which are well placed in the global production network and well connected to the export market. The Udyog Vihar region in NCR, apart from other clusters in Delhi, Tamil Nadu and Karnataka, is an important cluster for the garment sector in India. The major global players who are the “buyers” for Indian garment industry are Marks and Spenser, Dollar, Adidas, Gap, Kellwood, etc. In the post-quota period, the garment industry has seen major growth in terms of global demand (*Table 2*). Though in recent past, because of global recession, the export volume encountered a fall and there was a major labour retrenchment.

The process of DMIC, which is the biggest industrial project undertaken by India so far, started in 2008. As part of this project, a 1483 km long freight corridor called Dedicated Freight Corridor (DFC) will be developed parallel to the existing railway track to join Delhi and Mumbai for industrial transport and development. DFC will also run parallel to the National Highways which are part of Delhi-Mumbai link. The influence area of DMIC will cover 100 per cent of Delhi, 60 per cent of Haryana, 58 per cent of Rajasthan, 62 per cent of

**Table 2. India's Garment Export in Comparison to Total World Export (in billion USD)**

<i>Year</i>	<i>World export</i>	<i>India's export</i>	<i>India's percentage share in world export</i>
2004	258	6.62	2.57
2005	276	8.29	3
2006	311.4	10.2	3.3
2007	347.06	9.93	2.86
2008	364.91	11.5	3.15
2009	315.62	11.45	3.62
2010	351	11	3.13
2011	412.45	14.36	3.48

*Source:* International Trade Statistics 2012, WTO Secretariat.

Gujarat, 18 per cent of Maharashtra, 12 per cent of Uttar Pradesh and some areas of Madhya Pradesh and Uttarakhand. 11 Investment Regions (IR) with minimum 200 sq. km. area, and 13 Industrial Areas (IA) with minimum 100 sq. km. area, within 150–200 km both sides of DFC will be developed by 2017. Manesar-Bawal Investment Region (MBIR) is supposed to be second largest industrial zone of the whole project and one of the 6 Industrial Regions that are to be developed in the first phase of DMIC. According to the plan, the entire industrial area from Manesar to Bawal will be developed as a single industrial zone covering 354 sq. km. area. It will primarily be a major centre of automobile and auto parts industry in India. But other industries and industrial clusters are supposed to develop gradually. This industrial region has the potential to attract nearly 30 industries, with major clusters like Engineering Cluster (automobile, engineering, downstream iron and steel), Consumer Product Cluster (food processing, readymade garments, downstream plastics, building materials), Technology Cluster (IT/ITES, telecom equipment, consumer durables), Service Cluster (education, healthcare, hospitality), and Future Technology Cluster (Nuclear equipment, pharmaceuticals, research and development, biotechnology).

In 2011, Government of India brought out a comprehensive National Manufacturing Policy (NMP) with a target to increase the share of manufacturing to GDP from 16 per cent to 22 per cent by 2022. For this purpose, the plan is to set up National Manufacturing Investment Zones (NMIZ) to boost export and domestic industries, develop small and medium enterprises (SME), set up and upgrade ITI with public private partnership (PPP) model for skill upgradation, simplify business regulations, change labour laws, create infrastructure and technological capacity and give more incentives for investment. National Manufacturing Investment Zones (NMIZ) have been planned as cluster of many industrial areas and SEZs, with a minimum area of 50 sq. km., where large and small manufacturers can operate within close proximity to reduce cost and have better connectivity and co-operation. In the first phase, the plan is to have 6 Investment Regions as NMIZs along DMIC, where Manesar-Bawal Investment Region is one of them. The National Manufacturing Policy also declares that under National Manufacturing Investment Zones (NMIZ) there will be limits on the right to form Trade Union; workers with salaries higher than a certain level will not be allowed to form Trade Union; Contract Labour Regulation

(and Abolition) Act will not be implemented here; hours of work per shift will not be fixed; women workers can be employed on a shift basis, including night shift; the rules and conditions to retrench workers and reduce workforce as per requirement will be made easier and flexible; the amount of any retrenchment payment will be flexible and will depend on the affordability of the company; temporary status can be assigned to the workers; and, it will be easier for the company to stop production and exit from the zone. The impact of all of these can be serious for the workers in this belt.

#### **4. A Study on the Labour Process in Automobile and Garment Industry under Contemporary Production Regime**

In our study of the automobile industry in Gurgaon-Manesar cluster, we found complex web of interactions of lead firms and different tiers of suppliers. To be more precise, the polarization or power relations do not seem to exactly correspond with the hierarchy of OEMs (original equipment manufacturers), 1<sup>st</sup> tier suppliers, 2<sup>nd</sup> tier suppliers and 3<sup>rd</sup> tier suppliers. A kind of deverticalization seems to be relevant where a single firm can supply parts to OEMs or to component assemblers. A different kind of polarity seems to be growing. On the one side, there are OEMs like Maruti Suzuki, Honda, Hero Honda, etc., and global component suppliers like Delphi, Denso, Bosch, Rico, Pricol, etc., having relational linkages with the lead firms. The labour process, work organization or technology of these firms has broad similarity and they have in-house R&D. They are the main players in GPNs and benefit from the increasing integration with global market. In the middle there are large enterprises that operate as 1<sup>st</sup> or 2<sup>nd</sup> tier vendors. They benefit from domestic growth of automobile industry and are important players of the regional production network. Increasing global competition creates further polarization in this segment. At the bottom there are large numbers of tiny, small and medium enterprises that have no idea of “lean production” or “technological upgrading” and are struggling to survive. The working condition, as we have seen, is terrible. The GPN frame captures this network complexity in automobile clusters with its spatial and institutional dimensions quite well. There is increasing internal segmentation of the working class with growing contractualisation. Even in the upper layer of the production chain, about 60–80 per cent contract workers are involved in the main production activity. At the bottom the idea of “permanence” is often hazy.

The representative study of the first layer, which matters most in terms of their roles in GPNs, adopts mostly intensively studied changes in production organization, and which of late seem to be the reason for the labour unrest; here we focus on the labour unrest at Maruti Suzuki.

#### **5. Labour Process in Maruti Suzuki, Manesar**

The production process in this assembly plant starts from the press shop, where the sheet-metal is cut or pressed generally a day in advance, which means that what is pressed today

will be assembled tomorrow. There are, in Manesar plant, six lines of power presses. The press-tools of these machines change automatically (i.e. without human intervention) according to the different types of parts to be pressed. The press-shop runs on three shifts. In the press-shop there are almost 40–50 permanent workers in one shift which includes, apart from permanent workers, apprentices and trainees, and additional 30 workers hired through a contractor. The harder work, such as taking out pressed parts from the machines, is done by contract workers and apprentices. Still, in general, the press-shop work is less strenuous, as most work-stations here are machine-stations, which gives little breathing space to the workers while the machines work. But the workers have a really hard time assembling parts together in the welding shop. In the welding area in Manesar A-plant, there are 250 to 300 who do spot-welding by hand, while the B-plant is fully automated. Out of the 300 workers in A-plant, about 200 have been hired through a contractor. Since 2006, the numbers of work-stations at the plant reduced from 16 to 8 and thereafter since June 2011 from 8 to 4, through increased degree of automation and use of robots. But, so far, work was re-distributed in such a way that though it did not really reduce the number of employees, work was indeed replaced. In other words, while jobs were redesigned, robots replaced most of the work done by humans (in general one robot is a substitute for ten workers). In the painting area, 10–12 robots are seen rubbing shoulders with human workers. But this does not reduce the workload. Each worker needs to carry 70-80 car screens up and down the stairs and sometimes even work an extra hour without pay if the job is not done properly at the end of the shift. The cars then arrive at the sealer-line from the welding shop. There are about 38–40 work-stations with two workers are at each station. Most workers at the line are either temporary or casual workers, or trainees. The plastic moulding of bumpers is done at the department itself, after which lights and other parts are attached. Thereafter, the bumper-shop workers fix the bumper to the car at the assembly line. In the bumper department, out of almost 250 workers only 20–25 workers are permanent workers, rest are either trainees or contract workers.

The car is finally assembled at the assembly line. The assembling process was well-captured in an article in *The Hindu* and is worth quoting in some detail:

“In Manesar, Maruti produces about 180 variants of three basic models: ... When a car rolls in, the worker looks at a large matrix pasted on the vehicle that indicates if the car is a left or right hand drive, powered by petrol, diesel or compressed natural gas engines intended for the domestic, European or general export market. Depending on his work station the worker chooses from 32 different upholstered seats, 90 tire and wheel assemblies, and innumerable kinds of wire-harnesses, air conditioning tubes, steering wheels, dashboard trims, gearboxes, switches, locks, and door trims, in an average time of 50 seconds per car.

For parts like air conditioning tubes, the worker stands between a set of parts racks. As a particular car variant rolls in, a light above the corresponding parts rack blinks with increasing urgency as the worker runs to it, grabs a part and pulls a cord to acknowledge he has chosen the right part. He then steps onto the conveyor

belt, fits the part and rushes back to match the next car to the next blinking parts rack before an alarm rings.

If the line halts, signboards across the shop floor light up – flashing the number of the workstation where the line has stopped and the duration of the stoppage.”<sup>1</sup>

This gives us the age-old picture of Charlie Chaplin in “Modern Times!” In general, there are not many stoppages at the assembly line, once or twice per day, if at all, and generally not longer than one or two minutes.

There are about 200 work-stations on the long-block assembly-line, attended to by one worker each. The engine block arrives and is then washed. A single worker uses a crane to clamps the engine block, operates the washing machine, and takes the engine out. But these workers are forced to multitask; as a result, they hardly acquiring a “skill” in the real sense.

Further, data entry takes place separately for eight different engine models in another workstation, though the number of engine models will increase soon as more diesel engines are to be added. A worker has to attach a bar-code and punch the engine number. Thereafter, he fits the crankshafts which, too, are checked, washed, and then fitted manually. This fitting, physically, is the most demanding work as each crankshaft weighs between 15 kg and 20 kg. In the context of a developing country like India, cheap labour, to a great extent, determines the work organization, and much less mechanization takes place in works which are not that important for standardization or quality of products, however strenuous the work may be.

The pistons, which come from multiple vendors like Amtek, Sensera, Subros, are then attached. And next comes the dressing-line. There are around 12 stations at the dressing-line and each station is manned by a single worker. Here “attachments” (like motor starter or compressor) are fitted. These parts come from first tier suppliers like Bolio, Bosch, etc. Heavy work, like taking crankshafts out of the trolley or testing it mechanically is generally done by the contract workers, whereas the relatively lighter and supervisory kind of work like data entry or final check is done by the permanent staff. The internal labour market and the segmentation of workforce take shape in such a way that capital can push the maximum workload of production towards the least organized segment of workforce.

Workers at vendor companies such as Krishna Maruti, Bellsonica, SKH Metal, etc., work in the company premises. Six hundred contract workers and about 40 to 45 trainees at Bellsonica work in two shifts of 12-hour each, making smaller sheet metal parts. They have to work on Sundays, too. They are compelled to work for longer hours, and the overtime reaches 150 to 200 hours per month at the rate of only ₹24/hour. This clearly shows a strategic human capital plan—to “divide” the workforce at their convenience to extract both absolute and relative surplus values (*Table 3*).

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<sup>1</sup> Sethi, Aman, ‘Gone in 50 seconds,’ *The Hindu*, November 6, 2011.



**Table 3. Different Indicators related to Sales, Profits and Employee Cost at Maruti Suzuki**

<i>Year</i>	<i>Net Income (in ₹ million)</i>	<i>Profit After Tax (PAT) (in ₹ million)</i>	<i>Employee Cost (in ₹ million)</i>	<i>% ratio of Employee Cost to PAT</i>	<i>% ratio of Employee Cost to Net Sale</i>
2010–2011	375,224	22,886	7,036	30.74	1.9
2009–2010	301,198	24,976	5,456	21.84	1.9
2008–2009	214,538	12,187	4,711	38.66	2.3
2007–2008	188,238	17,308	3,562	20.58	1.99
2006–2007	152,523	15,620	2,884	18.46	1.98

*Source:* Annual Reports of Maruti Suzuki, 2006–07, 2007–08, 2008–09, 2009–10, 2010–11.

## 6. Labour process in Pearl Global, Udyog Vihar

Pearl Global is a major export-oriented company in the garment cluster in Udyog Vihar, NCR. It is a representative company of the first layer in the garment sector. As there is a restriction on the plot size of production unit, Pearl has multiple plots in this area and the production plants are similar in nature in terms of organization of production and labour. The production unit under study has nearly 1000 workers, maximum of them being contract workers. Only a small number of workers in the department of production and finishing are employed as permanent employees. Gap is the major buyer for Pearl, apart from other global buyers. The production unit has different parts:

1. **Store:** The store is divided into two parts. One, *Fabric store*, which is responsible for keeping stock of a particular design of fabric and supplying it to the cutting department according to the need. It is manned by a person known as the store in-charge along with some helpers. Two, *Accessory store*, which is responsible for keeping stock of the materials required for stitching, different types of labels, buttons, etc. The store in-charge and helpers are responsible for arrangement and supply of goods as per requirement.
2. **Cutting Department:** Almost 10 per cent of the total workforce is employed in the cutting section. Here, while women comprise the majority of the worker population, their salaries are lower than that of the male counterparts. The entire cutting section is divided into lines, and each line consists of a few tables. A “line master” is in charge of each line, and the “cutting in-charge” is supposed to monitor the entire activity.
3. **Stitching/Production Department:** The ground floor and the first floor are dedicated to stitching and production. Almost 400 workers, both male and female, run around 400 machines. The salary of female workers is less than that of the male workers. Each line has two machines and between them there is a “canal”. Each machine operator picks up his/her required piece from the canal and then forwards it to the next operator when his/her work is done. The entire operation is broken down into a number of simpler operations and production is maximized by placing more operators for complex operations. Each worker is given an “hourly” target by the supervisor. The hourly target for each individual is set according to the time taken to

stitch a single good. Production manager and production in-charge control the entire production process and the line supervisor monitors the work done per line. There are two to three helpers for each line who help in the smooth functioning of the assembly line. Simultaneously, the “quality” of the pieces that are produced are also checked. So, each machine operator is under dual pressure—to maximize both production and quality. They require “toilet-pass” from the supervisor to go to the toilet.

4. **Button Department:** After stitching is completed, the pieces are sent for buttoning. This operation requires 8–10 machines. There is no separate floor and a section of the production department is used for this purpose.
5. **Washing Department:** The pieces are then sent to the washing department where a master and some helpers are responsible for washing, drying and arranging the pieces according to their style.
6. **Finishing Department:** There are assembly lines in this department, too. The finishing department has an entire floor to itself and almost 200 workers. The first operation in this process is called “dhaga-cutting,” where female workers are generally employed to cut and size the extended fabric of the stitched piece. Next come the general check and the final check after which the piece goes for steam press. Thereafter, the final check is carried out once again along with the auditing and packing of the final pieces.

Generally, the design is sent by the “buyer” to the company. Then a master tailor cuts the fabric according to the design and a sample is sent to the buyer. Then the order for mass production comes with a deadline for delivery. The company maintains huge “flexibility” in terms of workforce employed, working hours, etc. When the delivery deadline comes near, the workers have to compulsorily work for 24–36 hours at a stretch. There are “fabricators” with 25–30 machines. Bigger production units like Pearl, Modelama, Richa, Gaurav, Sargam, etc., subcontract production to these informal units in industrial areas.

## **7. A Study on the Contractualization and Informalization and the (In) security of Work**

“Development” has an underbelly, which is quite large and precarious. Like other “shining” industrial belts in India, the burden of the so-called “development” in the Gurgaon-Manesar-Dharuhera-Bawal industrial belt falls directly on the low-paid and insecure workers. If we look at the automobile or the garment industries here, contract workers do the majority of the work in the core production units. This type of work is considered to be “regular” work, neither intermittent nor incidental. They work in the core production line (assembly line) and do jobs similar to those of the permanent workers. In many factories, regular production work is solely managed by the contract workers. In almost all cases the contractors are only for namesake. The Company’s management has the power to takes decisions and implements changes like deciding/changing salaries; to supervising and controlling contract workers and their activities on the shop floor;

employing them in different types of works, in different departments, in different lines and in different stations; and, punishing workers for misconduct and/or discharging them. Contractors have no role to play in these matters, neither do they have the primary control over the contract workers; it is with the company management. These are mere camouflages of the contract system, or sham contracts, so that the companies do not have to give the workers their due, i.e. economic and social benefits and security. Often, “wage” is subject to oral settlement agreement and varies among workers. Working hours are flexible as ever for contract workers, including forced night shifts. In most of the companies, overtime is forced and mandatory, and workers are paid according to single overtime rate instead of double overtime rate, which is otherwise their legal right. Payment is often irregular. If a worker is forced to leave the job in the middle of the month, it becomes hard to recover the salary for the number of days he/she worked in that particular month. Welfare and health facilities according to chapter V of Contract Labour (Regulation and Abolition) Act, 1970 are grossly violated; even ESI, PF benefits are skipped in many cases. Since contract workers are mostly migrant workers and cannot sit idle, they cannot afford to put up a fight against the company or the contractor for long, lest they are cheated or denied benefits.

Automobile industry is considered by the government and the corporate media as a flagship industry of “shining India”. This industrial belt is the biggest automobile hub of the country. Let us look into the condition of contract workers in the globally reputed automobile companies which claim to offer the “best” for the workers.

Maruti Suzuki’s Manesar facility houses three units: A-plant manufactures Swift, Swift Dzire, A-Star and SX4 models; B-plant manufactures Swift and Swift Dzire; and, C-plant is about to start operation. Workers in this plant had an eventful journey in the last two and a half years. Because of the huge workload, and exploitation and oppression at the hands of the management, the workers revolted several times against the company in 2011 with the demand to form their own union. Though contract workers were formally represented by the union, but the unity between regular and contract workers was unprecedented, and they went on strikes in June, September and October 2011 respectively. The last one was particularly significant, as regular workers closed the plant against the discharge of 1200 contract workers by the management because of their involvement in earlier strikes. In February 2012 when ultimately the workers were able to form their union, the union raised the demand for abolition of illegal contract system in the plant and absorption of all contract workers as “regular” workers, which annoyed the management greatly. On 18 July 2012 a clash between workers and the management personnel and their hired goons took place in the company premises. An HR manager died because of smoke as the room caught fire. Thereafter, the organization of production and the condition of workers changed greatly. The company management announced that it would abolish contract system in the Manesar plant and regularise temporary workers. In a letter submitted to the Labour Department a few months ago, they claimed to achieve the same. But, the reality is quite different. After 18 July 2012, 546 regular workers and all 1800 contract workers were

dismissed without any domestic enquiry. Before that, contract workers formed 65–70 per cent of the total workforce and were tasked with the major burden of regular production. Now, the company directly employs “casual” workers—a new tag with old rules. Nearly 500 permanent workers have been retained in the Manesar plant and another 100–150 workers in the Gurgaon plant. There are around 300 trainees, very few apprentices and 2500–3000 casual workers.

The company had promised that the discharged contract workers would be taken back as regular employees. However, though they did conduct a test, it was merely to avoid a conflict with the terminated employees.. The present situation is that less than five per cent of them have been taken back. Those who are employed as “casual” workers get a salary of ₹11,000 compared to a salary of ₹32,000 for permanent workers, despite the fact that both do similar kind of work in all departments, like press shop, welding shop, paint shop and assembly line. The casual workers are supposed to undergo training for 28 days at the time of joining. However, it comes down to 5–6 days of training after which they are forced to work on their own and learn on the job and that, too, while facing heavy mental torture at the hands of the supervisors. After 7 months these casual workers are discharged and the next batch is taken in for another 7 months. While regular workers are kept under constant pressure, the reserve army of discharged workers is called back to run the production work in case the permanent staff goes on strike. The management has effectively stopped taking regular workers. Rather they have increased the production capacity by increasing the workload on a small number of workers. Earlier there were relievers in each line, to help run the process of production in case someone was absent from the line or from duty. Now there are no relievers. Earlier, in vehicle inspection (V.I.) department for road test there were 16–17 workers in A-plant; now, the same amount of work is managed by 8 workers only. In the Trim line, there were 125–130 workers; now there are 70–80 workers. Also, in Final-1 assembly line there were 4 areas and each headed by a supervisor; now there are 3 areas for the same work with 3 supervisors, few workstations and still fewer workers. If the demand for cars is low, then production is stopped for about an hour and the workers are asked to stay at their respective stations and clean them, but the speed of line and the workload never decrease. During festivals, if some workers take leave, it leads to a shortage of workers (about 4–5) in each line and the remaining workers are tasked with the burden of completing the work. And obviously, these casual workers are victims of market volatility, with increasing workload and increasing job insecurity. In each batch of casual workers, lesser number of workers (than in previous batch) is employed for the same amount of work. All casual workers are ITI holders and come from Himachal Pradesh, Punjab, Uttar Pradesh, Rajasthan, Orissa, etc. Thus, this system of “company casual” acts as a useful camouflage for the erstwhile contract system. Lastly, the previous contract system has not at all been abolished. Around 150 contract workers—working for two contractors, BGR and Gulab Singh—are employed in the material supply department for loading and trolley work, and other physically demanding jobs at a salary of ₹5,500, which may go up to ₹6,000. Thus, it becomes clear that after receiving criticism from both the union and the society and in order to escape from the illegal contract system, the management has started

a similar illegal activity but under a different name, that of “company casual”. This is because casual and *badli* workers constitute only a small proportion of permanent workforce and they can be engaged only to make up for the absence of permanent workers and the fluctuations in production. Employing casual workers in the main production activity is contrary to the Industrial Disputes Act, 1947. According to the Industrial Disputes Act, 1947, if a casual workers works for 240 days in a year, he/she can claim to be made permanent. That is why the management discharges the casual workers every 7 months.

In the Gurgaon plant of Maruti Suzuki, all other models except Swift, Swift Dzire, SX4 and A-Star are manufactured. There are around 2500 permanent workers, around 3000 contract workers working for 5–6 contractors, and nearly 400 trainees. A section of trainee workers are called “company trainees” (CTs) who are neither supposed to have any link with the workers union nor are allowed to approach the union with their problems. The contract workers may work in the plant for few months or a few years. Though every six months their work permit or cards are renewed, a gap of few days is shown so that they cannot claim permanency according to the Industrial Disputes Act, 1947. Contract workers are employed in the core production process in each line and department like the welding shop, paint shop, assembly line, etc., doing the same kind of work as that of the permanent workers. In some departments their proportion is quite high, like in machine shop or engine shop. These contract workers are all ITI holders and get around ₹11,000, much less compared to that of the permanent workers. There is another category among the contract workers called “helper” who are mostly non-ITI-holders and get a salary of ₹5,500 to ₹6,000. After gaining two years of experience as contract workers, the ITI-holders sit for a test taken by the company; thereafter, a few of them are taken as trainees for another two years. After completion of the training period, there is a chance of becoming a permanent employee. In this way the company allures the contract workers towards the transition to permanency. Also, only contract workers are employed for the purpose of overtime because of the flexible working.

In the Dharuhera plant of Hero Honda (now Hero MotoCorp), there are around 1500 permanent workers, around 1000 trainees and apprentices, around 4000–4500 contract workers, and 600–700 casual workers. The salary of the contract workers is ₹9,200. The main burden of core production is on the contract workers who mostly work as machine operators. They work in all core areas of manufacturing department along with the permanent workers. All contract workers have ITI degrees. They are mainly from Uttar Pradesh, Bihar, Uttarakhand, Jharkhand, Orissa, and very few from Haryana. There is no provision of regularizing a contract worker even after he/she has gained work experience. Here contract workers have been working for 15–20 years. Like in Maruti Suzuki, here, too, the work permit or cards are renewed every six months with a gap of few days to avoid the demand for permanency. In 2008, contract workers revolted against the exploitation and oppression suffered at the hands of the management and went on strike. As a result, out of the 2300 contract workers, 993 workers were discharged. The contract workers had to work

overtime. Till 2008, workers were paid according to single overtime pay rates. Thereafter, overtime wages were paid at double the ordinary rate.

At the Manesar plant of Suzuki Motorcycle, there are 275 permanent employees and 275 trainees, and around 250 contract workers. There are 3 contractors, out of which two have been around since the time of the setting up of the plant in 2005. The management was forced to change the third contractor, Satish, who brought fire-arms and fired at the factory gate to terrorize the striking workers of the plant in 2011. Here, too, contract workers are employed for doing jobs that are similar to those of the permanent workers, like in press shop, welding shop, paint shop and assembly line. Their cards are renewed twice a year, in April and October. Contract workers get a minimum salary of ₹6,000 in hand. All contract workers are ITI degree holders. After a year of work experience, a test is taken and the best are chosen as trainees. Training continues for a period of three years.

So, even in these lead assembly plants which make huge profits in the domestic and international markets, illegal practices in the name of contract system and denial of higher salary and job security to the majority of workers engaged in regular production is commonplace. Apart from some plants like Rico, Dharuhera, FCC Rico, Omax, Dharuhera, Powertrain or Suzuki Motorcycle, Manesar where a proportion of contract workers are regularized because of the pro-contract labour intervention of the union, in most factories the situation is dismal for contract workers. Even the period of training is kept “illegally” longer for the same purpose. In small vendor companies, apart from these types of lead assembly plants, the condition of contract workers is considerably worse. The minimum salary is ₹5,200 in Bajaj Motor (overtime double), ₹5,850 in Sona Okegawa (overtime single), and so on. There is no transport facility, so at midnight (after work) the workers have to walk or cycle back home. There is no leave on Sundays and Holidays, including national holidays in majority of the factories. Apart from the contract workers who work in the main production line, very few workers are shown as permanent, and a section of workers is shown as “staff” to exclude them from availing the “workmen” benefits provided under the Industrial Disputes Act, 1947. Also, in small vendor companies, there are massive irregularities regarding wage payment, ESI and PF, overtime, working condition, accident compensation, etc., for contract workers.

Let us take an example of a vendor company of Maruti Suzuki. In India, at India Japan Lighting Private Limited, which is an equal partnership joint venture between Koito Manufacturing Company Limited, Japan, and Lucas TVS Limited, Chennai, this contractualization and informalization of work comes out starkly. It manufactures automotive lighting systems like headlamps, signal lamps, etc. It has two production units in India, one in Bawal industrial area and another in Chennai. The Bawal unit, established in 2007, is a major supplier for Maruti Suzuki and almost 60 per cent of its production is done for Maruti Suzuki. Apart from that, it is a vendor of Honda (30 per cent of production) and Yamaha bikes. It will also start supplying parts to Tata and Ashok Leyland. The Bawal plant has 101 permanent workers, around 350 diploma trainees and around 200 contract workers. The plant has three units—moulding, processing and

assembly. Raw plastic components and other raw materials are brought to the moulding unit where three parts of a lighting system are moulded. Then, in the processing system, coating is done on the moulded parts. Next, these are assembled in the assembly unit. The company has set an assembly target of 60 units per hour and an overall 391 units in a shift at 85 per cent of production capacity according to the “cycle time” as agreed upon during the last settlement with the workers’ union. However, the management has laid a condition—that the work will be done only by the skilled workers and there should be no breakdown. But, apart from frequent breakdown, the company has put the major burden of production on diploma apprentices and contract workers, because it is easier to make them work harder and without any security. Even the line where swift tail lights are made is run by the solely by the diploma trainees. Despite the fact that employing diploma trainees (who come for a year-long apprenticeship after their diploma course to learn supervisory skills) in the core activity of production is illegal according to the Indian labour law, it is a popular practice not only in IJL, but also in other factories like Kenfei and others in the industrial belt. The IJL Company has not only stopped regularization of services of workers, but also does not employ trainees; rather it employs workers almost on a daily admission process—the DAA (Diploma Act Apprentice)—and on a yearly basis. They get a monthly salary of ₹6,200. The management forces them to do all kinds of work, including that of helpers to load-unload materials instead of doing supervisory work which they are supposed to do. Also, they are forced to do overtime on a regular basis at single overtime pay rate and after one year their employment is terminated. Since diploma holders are not local people and come from faraway places like Uttar Pradesh, Bihar, etc., they are legally not part of workers’ union and do not enjoy any kind of protection; as a result, they are unable to protect themselves against coercion and exploitation. The contract workers are paid a minimum of an employee’s wage equivalent and are forced to do overtime at the single overtime pay rate. Neither the diploma apprentices nor the contract workers get any ESI or PF. In February 2012, contract workers who had been working for more than 4 years in the plant got together and demanded a wage increase of ₹500. The management responded to this demand by terminating 70 workers from service. There is no provision for regularizing the contract or casual workers or trainees. Contract workers are employed for regular work in all departments, and particularly in those where the workload is more and work is hazardous, like painting. For painting, work is done on piece-rate. A contractor employs workers who get ₹1.50 per piece; workers have to work with hand-guns amidst hazardous conditions (like toxic fumes). In the initial two years, regular workers did this work, but later for cheap and high volume production this work was contractualized for piece-rate and also informalized.

Now if we turn our attention to the garment sector, the situation seems even worse. Almost all workers are migrant workers. There are mainly three types of production systems in the garment industry. Some garment companies which are relatively bigger employ some regular workers, pay them directly and keep their account for the purpose of inspection. Remaining majority of the workers are contract workers who are paid by the contractor without the presence of any representative of the principal employer. Contractors also

often supply “supervisors” and “bouncers” to control workers. Otherwise there is no significant difference between regular and contract workers in terms of salary or nature of work. In other companies, all workers are contract workers. Even those workers who are employed by the company are listed under a contractor. And there is fabrication system where a part of main production is done outside the company premises by local fabricators, each consisting of 30–40 workers. The contractors often supply large numbers of workers—much more than permitted by license, and sometimes even without license. The contract workers are illegally engaged in core production activities. The idea of regular or permanent employment in garment sector is extremely vague, actually non-existing—even for a worker who is working in a single company for 10–12 years. They are discharged at a very small notice, whenever required. Their salaries are equivalent to the minimum wages; those working as skilled tailors get around ₹7,000–7,500. Overtime is compulsory. Generally, the workers have to work 12–14 hours a day, including Sundays. Sometimes, in case of urgent delivery they need to work continuously up to 36 hours. The workers are paid wages either according to the piece-rate system or the number of items made by him/her or daily wage system or the monthly wage system. In the first two cases, the worker has no security or claim on his/her job. In the last case, the contractor often cheats the worker and does not pay his/her due, particularly when the worker is discharged or discontinues work. Workers are denied leaves of absence and are forced to do overtime on holidays. In almost all cases, workers are illegally given overtime at single overtime pay rate. Many a time contract workers do not have any identity proof. There is no union and any such attempt is brutally crushed. There is no grievance redressal committee or works committee.

## **8. Issues of Technology, Workplace Democracy and Participation, and Deskillng/Reskilling**

A study of technological shifts taking place in the automobile industry suggests that there are two important dimensions of the genesis of technological changes from the viewpoint of capital: firstly, a capital-capital (competition among capitalists) one, to improve quality or standardization of products to ensure larger market share; secondly, a capital-labour (class domination and control) one, to shift maximum workload to a category of workers that is as cheap and unorganized as possible. These changes redesign the organization of work and alter the labour process. Work redesigning contributes to technological changes, too, and the workers’ response generating from an altered labour process influences the trajectory of technological transformation. From this viewpoint, technological change is not something entirely “exogenous” to labour process. To take technology as “given,” where redesigning of work will take place only *after* technological change has taken place, gives us a contingent and partial view of this change. One important dimension of technological change may be incremental and endogenous to the experience of concrete work, which comes from the tacit knowledge of labour process in the form of suggestions of quality circles of workers or otherwise. Another important dimension of the change is the larger



application of advanced manufacturing technologies (AMT) that covers a broad range of computer-controlled process technologies. AMT is a term used to describe a large number of automation and other technologies related to it, which have grown during the last two decades as a result of developments in IT sector. More specifically, AMT may be described as a collection of computer-based technologies, which includes computer-aided design (CAD), computer numerical control (CNC) machines, direct numerical control (DNC) machines, robotics (RO), flexible manufacturing systems (FMS), automated storage and retrieval system (AS/RS), automated material handling systems (AMHS), office automation (OA), etc., to get the benefit of inventory savings, less floor space, reduced unit cost of production, an enhanced competitive advantage due to increased flexibility, improved product quality or quick response to customer demand (Dangayach *et al.*, 2004).

But this “automation” or mechanization is not a given “black-box;” there are different components of this mechanization that have different consequences for labour. As Blackburn *et al.* (1985) drawing from Bell (1972) show, the degree of mechanization can vary for three different processes of production, namely, *transformation* of materials into new products, *transfer* of materials from one part of production system to another, and, *control* of these two activities. Even in the Fordist era, mechanization of the transformation process and transfer took place on a significant scale, but the use of microelectronics in the era of GNP has revolutionized the process of control, both on individual machines and in the co-ordination of other two processes. In fact, it is worth emphasizing that the labour process at the current juncture is dramatically different from the Fordist mass production regime and is quite amenable to flexibilities of various kinds. There is a major opinion that lean production<sup>2</sup>, as a generalized concept developing from Toyota Production System, has brought together the best elements of craft production and mass production and has ushered in a new era of workers’ autonomy and democracy on the shop floor in the modern automobile industry, which has been a cornerstone of work organization under GPN. However, such view needs to be modified. It is true that a large number of workers participate in the production process in the form of quality circles or “cells” in the upper strata of production network, but it is only to that extent which helps the company to appropriate the “local” knowledge of production, which they do not otherwise have access to, for developing a better control over production process. And, to this extent only, they promote a partial integration of conceptual and executive labour process, for example, the linking of computer-aided design (CAD) with computer-aided manufacturing (CAM).

But now, as managerial control has become more sophisticated with significant changes in productive forces, lean production has actually become a more intensified form of Taylorism. In lead firms or first tier MNCs, along with increased automation, teams of workers use their tacit knowledge of the labour process to streamline and intensify their work. Teams face peer pressure which results in self-policing and enforcing of production

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<sup>2</sup> See Womack *et al.* (1990) who introduced and elaborated the term in the book, *The Machine that Changed the World*.

speedup. These forms of “worker” participation, in general, do not improve the quality of work life and do not create a worker friendly environment; rather it becomes a tool for increasing corporate control and work standardization. But even that kind of participation is also very rare, applicable to very few companies, and to a very small stratum of workers. For majority of workers, a lion’s share of which is the contract workers, coercion and subjugation rather than hegemonic control is the main expression of just-in-time production. There seems to be growing clash between the technocratic logic and the democratic logic. At Maruti Suzuki, ‘...if the line halts, signboards across the shop floor light up – flashing the number of the workstation where the line has stopped and the duration of the stoppage. Another board displays the total time “lost” during the shift; a scrolling ticker lists the production targets at a given time of the day, the actual cars produced and the variance. For every fault, the feedback is recorded and the worker has to sign against it ... it goes into his record. Every Maruti worker must sign “Standing Orders” that, among 100 other conditions, bar them from slowing down work, singing, gossiping, spreading rumours and making derogatory statements against the company and management.’<sup>3</sup>

In our judgment these different forms of interaction between the firms strongly influence the labour process. Where tacit knowledge grows from the shop floor labour process matters to capital—like lead firms and component suppliers with relational linkages—cellularization, quality circles or some aspects of “responsible autonomy” may be present in the upper strata of the workforce who are controlled by both hegemony (see Burawoy, 1979) and coercion of workers in the global “design clusters”. But with an increasing polarization of two types of firms, lead firms and global component suppliers on the one side and the rest of the supply chain on the other side, and also with the internal segmentation of workers in the former segment of production chain, majority of the firms with an overwhelming majority of the workers in the regional production clusters face despotic control.

Also, often social hierarchy is reproduced in the shop floor. On the 19<sup>th</sup> of November 2009 a labour unrest developed at Napino Auto and Electronics Ltd near Gurgaon<sup>4</sup>. It seemed like a trivial incident at that time—a manager on the shop floor punished a worker for committing a fault at the assembly line. The manager ordered the worker to stand on a table and hold his ears, squat, and stand up again. Such coercive measures show the extent of workplace democracy. Again various religious-cultural forms are used to ensure control. After the strike in Denso in 2010 or after the first phase of Maruti strike, the management arranged an interactive session with spiritual management consultant “Brahma Kumaris” to win back the hearts of the workers.<sup>5</sup>

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<sup>3</sup> Sethi, *op cit*.

<sup>4</sup> [www.gurgaonworkersnews.wordpress.com](http://www.gurgaonworkersnews.wordpress.com)

<sup>5</sup> K.K. Sruthijith and Chanchal Pal Chauhan, ‘Workers strike thrice in five months: How Maruti Suzuki lost connect with them,’ *The Economic Times*, October 17, 2011.

There are different views regarding the impact of new technology on the skill of workers. There is a celebration of the new work organization with a view that AMT is a means to free workers from boredom by reducing the repetitive or physically demanding parts of the job and the individual is liberated to pursue its more fulfilling aspects, as skills develops through the competency to operate sophisticated machinery. On the other side, Braverman's deskilling hypothesis suggests that the technical change shows a secular trend in the direction of reduction of skills and makes craft redundant.

We found in our survey the question of skill to be quite complex where it has to be understood with manifold dimensions like craft-input, know-how, experience, market value of skill, etc. There seems to be a general decline in terms of craft-input in the labour process. The know-how increases or decreases depending on the specific changes in the labour process in terms of technological shift or reorganization of production. Experience seems to be less and less important as it is now easily replaceable by suitable training. CNC machines are controlled by micro-processors and are programmed to carry out a detailed sequence of machinery operations and thus offering comparatively narrow choice of tasks for workers. The use of the CNC machines moves the responsibility from the operator, i.e. the worker, to the computer. The skills required to handle new machines are minimal and could be learned by anyone in a matter of few days. With the evaporation of conventional skill, the possession of a "devalued" skill and the fear of inability to cope with the new technology develop insecurity of job loss among the workers. Only a few workers are required as supervisors with the experience to identify a fault when it occurs in the process of production. In the garment sector, the master tailors and so-called experienced *karigar* possess some skills in terms of craft-input but others are easily replaceable.

Thus, from the earlier discussion of a most mechanized labour process at Maruti Suzuki and the above discussion it becomes clear that the promise of "reskilling" is more of an ideological campaign than a practical process. This understanding has significant implication for illuminating the ongoing process of real subsumption with increasing mechanization, where the general tendency of deskilling, alienation and suffocation on the shop floor increase the cost of reproduction of labour that capital at the present process of accumulation is not ready to provide. This creates a ground where the demands for better working condition and greater subsistence wage for the reproduction of labour power becomes the cornerstone of new waves of workers' struggle in the developing countries.

## **10. Other Issues of "Decent Work"—Wages, Trade Union and Other Rights**

This Gurgaon-Manesar-Dharuhera-Bawal industrial belt is an important source of India's wealth creation. But here the vast majority of the workers who contribute to it cannot enjoy the rights. They get salaries that are equivalent to the minimum wage, presently ₹5,356 set

by the Haryana Government (for unskilled labourers as per August 2013 declaration)<sup>6</sup>. With a minimum wage of ₹5,356, lakhs of workers are forced to do hours of overtime just to survive and sustain their families. They live in small, dark and unhealthy rooms. Three to four people are forced to stay together. The workers cannot spend time with their families or friends; in fact, they cannot even indulge in recreational activities. Their children cannot receive proper education. They spend their lives under pressure from and surveillance of supervisors and landowners. Lack of balanced diet causes malnutrition and various diseases. Also, there is not sufficient money for proper treatment. So, the reproduction site is in a dismal condition for majority of the workers in the automobile sector and almost the entire workforce in the garment sector who earn the equivalent of the minimum wage.

And, the issue is not only of justified minimum wage. The Constitution of India accepts the responsibility of the State to create an economic order in which every citizen finds employment and receives a “fair wage”. This made it necessary to quantify or lay down clear criteria to identify a fair wage. Therefore, the Central Advisory Council in its first session (November 1948) appointed a Tripartite Committee on Fair Wages. The Committee consisted of representatives of employers, employees and the Government. Their task was to enquire into and report on the subject of fair wages to labour. The Committee on Fair Wages defined three different levels of wages—living wage, fair wage, and minimum wage. The living wage represents the highest level of wage which should enable the worker to provide for himself and his family not merely the basic essentials of food, clothing and shelter, but also a measure of frugal comfort including education for children, protection against ill health, requirements of essential social needs and a measure of insurance against more important misfortunes including old age. But the Committee felt that when such a wage is to be determined, the considerations of national income and the capacity to pay of the industry concerned have to be taken into account. Until the living wage is achieved, the standard should be “fair wage” to enable the worker and his family to lead a decent life. It should be linked to productivity and should increase towards living wage as the industry develops. For the organized industries, fair wage should be the prevailing rate of wage and minimum wage is an exception there. Now when it is said that the economy of the country is growing at a fast pace, when the big companies in automobile sector are earning profits of few thousands crores a year, medium automobile companies and leading garment companies are earning profits of some hundred crores a

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<sup>6</sup> The conditions that need to be kept under consideration while deciding the minimum wage are set following the declared criteria according to the Minimum Wages Act, 1948; they are:

- i) The total expenditure of the worker and three dependants.
- ii) 2700 Kcal food for each—everyday.
- iii) 72 gauge garment in a year.
- iv) Average room rent in that area or state.
- v) 20 per cent of the minimum wage for fuel, electricity, etc.
- vi) 25 per cent of the minimum wage for education, health, recreation, old age expenditure, etc.

year, a vast majority of workers there get near minimum wages. According to the direction of the Constitution, workers in these sectors must get fair wages, and workers in big automobile companies should actually get more—the living wages.

A major challenge before the workers of this belt is to establish their legal rights to form unions and have collective bargaining with the management. In the last few years, there have been numerous cases of repression of workers in this belt—whenever the workers stood up against the unjust and illegal activities of capitalists and came together to form their union. To form the union of their choice is a fundamental, constitutional (right to form association) and legal right of the workers, and any unjust intervention by the management in the process of formation and functioning of union amounts to “unfair labour practice” according to the Industrial Disputes Act, 1947. If the application of registration for workers union is legally correct, the workers should get the registration of union in 45 days from the Labour Department, and the company management is not a part of this process and should not have any knowledge about this process either. But in reality, no union is formed without a green signal from the management in this belt, and on most occasions such attempts of forming a union face heavy repression. In the automobile sector, in 2005, when workers at Honda stood against the exploitation and oppression of the management and demanded to form a union, they were brutally lathicharged by the police. Later, cases were slapped against the leaders of agitating workers; even now, they are harassed as those cases are currently being heard or under deliberation. In 2009, when the workers of Rico, Gurgaon, went on a strike for 44 days demanding their right to form a union, the hired goons of the management killed Ajit Yadav, a striking worker, at the site of *dharna* outside the factory gate. But the charge of murder was put on the Rico workers and other leaders of agitating workers in this belt, and they were jailed for months. The leaders were forced to resign. Similarly, in 2010 in Denso, a strike demanding the formation of a workers union was met with repression. There are many such examples like suppression of workers’ protests in Sunbeam, Bosch, Napino, Senior India, Bajaj Motors, etc. The most glaring example is that of Maruti Suzuki’s Manesar plant. To form their own union, the workers had to resort to strikes, face bouncers and legal and police crackdown, and face the forced resignation of leaders of agitating workers. While they were successful in forming a union, they had to face the 18 July 2012 conspiracy of the management to smash the union. Since 18 July, 147 workers, including the whole of the union body, spent a year in prison, without bail. For last one year, production in the plant flows from the barrel of the gun, as workers are forced to work under heavy police presence inside the plant. Workers, even in the same line, cannot talk to each other. To facilitate transport of workers, in every bus there is a police personnel or PCO. In Suzuki Powertrain (now merged with Maruti Suzuki), the management terminated three leaders of struggling workers, including the then union president, to teach the workers a lesson. In Suzuki Motorcycle plant, the General Secretary and the Vice President of the union were terminated a few months back. In recent months, there have been instances where workers and their leaders in an attempt to form a union were either terminated or transferred (for example, at AG Engineering, Munjal Kiriu, Kiran Udyog, Autofit, Baxter and Daikin). In the garment sector also there are a few cases, like in

Modelama where in the recent past workers who tried to form a union found their contracts terminated immediately or were beaten up by the company goons. In last one year, post 18 July, even peaceful demonstration of the workers was not permitted in the entire Manesar industrial area. In the garment sector, too, any attempt to form a union faces immediate termination of workers or attack from paid goons of company management or contractor. This entire area seems to be in a “permanent state of exception” regarding the workers’ rights to decent work.

## **11. The Strikes, Struggles and Class Contradiction: Some Explorations**

This section examines the nature of workers’ assertion vis-à-vis the changes taking place in the production process, which has, time and again, expressed itself in factory occupations, strikes, or other forms of labour unrest, locally or globally. In India, the major automobile clusters under GPN have been shaken by major incidents of labour unrest in the last few years, be it the strike at Hyundai in Tamil Nadu, or at General Motors in Gujarat or at Maruti Suzuki in Haryana—it reflects the morbid symptoms of a crisis accumulating under the “boom”. Particularly in the Gurgaon-Manesar cluster, the automobile industry has seen wave of strikes in recent times. After the 89-day long strike by Maruti workers in Gurgaon in 2000 got crushed by the management, it was the spirited struggle of Honda workers in Manesar in 2005 and their success in forming workers’ union that triggered a series of moments when labour went in offensive against capital. Contract workers sporadically revolted against their dismal working conditions and low wage in the entire belt, including Hero Honda factory occupation in April 2006, Honda HMSI wildcat strike in September 2006, and strike at Delphi in January 2007, unrest in Hero Honda Dharuhera plant in May 2008, and another wildcat strike at Honda HMSI in December 2010. Workers in Napino Auto (November 2009), Omax Auto (December 2009), Denso (February 2010), Sunbeam and Rico Auto (September 2009) or Maruti Suzuki, Manesar plant (in three phases from June 2011 to October 2011) went for sustained unrest amidst strikes demanding their right to unionize, better working conditions or higher wages. The workers’ upheaval in the entire belt shows some emerging new tendencies, which demand close attention. We will try to explore these tendencies, putting a focus on the recent experience of Maruti Suzuki workers’ strike in Manesar plant. In the garment sector also, workers at Orient Craft in Manesar in 2012, workers at Okhla region in Delhi during the All-India strike of trade unions (20–21 February 2012) and the workers at Richa in Udyog Vihar in 2013 burst into violent acts against the oppression and exploitation of the management, that led to burning of cars, smashing of company property and even the killing of a supervisor in the latter case.

In our judgment, one important dimension of the new wave of workers’ struggle in the automobile industry under GPN is that these are deeply grounded in labour process, in the shop floor work experience. In most of the cases, the strikers do not put forward documented concrete “economic” demands to negotiate with the management and, if

required, go on a strike with prior notice as the last resort to collective bargaining in the traditional trade union framework. Sometimes the demands are initially disarticulated since they are linked to different dimensions of working condition and aspiration for dignity and workplace democracy, and gradually take shape in the course of the struggle. Sometimes those are semi-articulated, and a plethora of demands get together representing a demand to form a union of workers, where the union symbolizes a united assertion of workers. In case of Maruti Suzuki, the workers went for a sudden occupation of the factory on 4<sup>th</sup> June 2011 demanding recognition of their own union. But the actual genesis of this strike can be traced back to the worsening of working condition, increased managerial and supervisory control and intensification of work to meet the post-2008 increased demand as discussed earlier.

Another important dimension of these struggles is the use of strategies that goes beyond the traditional legal trade unionist framework of workers' struggle, and makes capital vulnerable in a new way. At Maruti Suzuki, in the first and third phases of struggle, workers occupied the factory so that it would not be possible for management to continue production by training new workforce. Workers went for "go-slow" policy in production. Workers in factories like Suzuki Powertrain, Suzuki Castings, and Suzuki Motorcycle went on sustained solidarity strike, while those in seven other companies like Satyam Auto, Bajaj Motor, Endurance, Hi-lex, Lumax, etc., went on a one-day solidarity strike on 8 October 2011. All these are "illegal" –factory occupation, go-slow policy, and solidarity strike. But in a production network with strong interdependence of firms, these forms show the disruptive capacity of workers against the strategy of capital.

But labour in the neo-liberal era in a GPN faces some serious constraints with the form of collective bargaining. The shift in work organization, new technology, increasing contractualisation and increased bargaining power of capital vis-à-vis labour due to mobility and shifting of production activity in GPN have undermined the effectiveness of trade unions which comprise only permanent workers and act on factory level. When contract workers are in majority and run the production work, and there is a growing interdependence of firms on a regional and global basis, it becomes a serious constraint. Another problem is that technological shift in terms of adopting advanced manufacturing technology (AMT) has rarely been considered an area of workers' struggle in the traditional trade union framework. In many cases where permanent workers get production incentive, any technological shift that enhances production is considered beneficial and its impact on labour process is overlooked. But flexibility and redeployment is crucial to the successful implementation of AMT. Redeployment of workers—from one job to another, one line to another or one department to another—is not considered a part of collective bargaining. And thus, localized resistance of workers against redeployment or intensification of work due to new technology is not properly articulated vis-à-vis the "lack of discipline" accusation of the management.

In the context of Gurgaon, the entire local workforce comes from a rural background. Unlike the Fordist regime and the Welfare State, due to the history of workers' movement

and the profitability, capital could take the responsibility of social reproduction of labour power giving various social securities. Now in the era of globalised production, to exploit the low-wage regime, capital is not prepared to take that responsibility in developing countries in terms of providing shelter, health facilities or schools. Aliyar Gaon or other *mohallas* do not offer decent living conditions or any source of recreation. So the “emotional depreciation” that the workers experience because of the intensive “robot-like activities” in the assembly line or paint-shops where they are constantly rubbing shoulders with robots in high-tech factories, does not get compensated for in the domain of reproduction.

When the process of self-reproduction is blocked by the regime of capital accumulation in the neoliberal era in the sphere of production, and traditional trade unions which were institutionalized in the experience of Welfare State and Fordist regime cannot relate to the crisis emerging from shop floor experience of labour process and crisis of workers’ self-reproduction, the workers’ struggle in the arena of production may lead to occasional violent forms. This has roots in changing class-relations, and erosion of effectiveness of old institutions and progressive legal and social protections. This is a bitter form of class struggle in the heart of main assembly points of GPNs in the developing world, be it Maruti Suzuki in 2011 and 2012, Hyundai in 2009 in India or Honda in 2010 in China.

In this context it is very important to understand various dimensions of workers’ power to influence the capitalist accumulation. Eric Olin Wright (2000) distinguishes between two sources of bargaining power of workers capable of disrupting capitalist production—*structural* and *associational power*. Workers possess structural power on the basis of their location in the productive process and their capacity to disrupt it. It is thus determined by the type and importance of the commodity produced and the governance structure of the production chain. The role of Powertrain workers, who produce engines for different Maruti Suzuki models, became crucial in the Maruti struggle because of their structural power in the production chain. Similarly, the Rico strike in 2009 was extremely impactful because of the specific location and the governance of the global auto production network. Thus in terms of structural power of workers, now in the global production networks, workers of specific important locations or workers making important parts for production chain can have more disruptive capacity which is often beyond their imaginations. Associational power is the unified expression of different forms of powers generating from the formation of collective organization of workers. The trade union is an expression of associational power. The local workers from various villages enjoy social collectivity which imparts a structural power to them in their struggles. Silver (2003) further elaborates Wright by describing two kinds of structural powers—marketplace bargaining power and workplace bargaining power. Marketplace bargaining power results from tight labour markets due to relatively high level of employment and the ability of labourers to leave the job and survive on some other sources of income; whereas workplace bargaining power arises from ‘the strategic location of a particular group of workers within a key industrial sector’. The interrelation of these two powers vis-à-vis the strategies of capital determines the trajectories of working class movement and its capacity to sustain its agency in the



dynamics of GPNs. Thus, it is important to identify the sources of the structural power of workers in a specific spatial-temporal context of GPN, to mobilize it through associational power and to utilize it to shape the dynamics in favour of labour.

## 12. Concluding Remarks

The discussions based on the evidences of labour condition in these two industries closely connected to global production networks highlight some important points. First, the GPN framework seems to be a useful framework in terms of capturing the spatial-economic and institutional dimensions of contemporary globalised automobile and garment production and the complex interdependence of firms of different tiers, their relational or captive linkages, power relations and governance in clusters like Gurgaon-Manesar or beyond. Because of huge reserve army of labour on a global level and particularly in the context of developing countries, capital is far more mobile than before *vis-à-vis* labour, and this makes the bargaining power of labour weaker and makes workers vulnerable in both the north and the south. We see that employment that is generated here is mostly contractual, casual and insecure in nature. Cheap labour with minimum rights to social & economic security has been perceived as a necessary precondition for attracting capital investment. The traditional institutions of Welfare State that gave certain social and workplace protection to workers seem to be undermined in the contemporary globalised production regime under Neoliberal State. Second, the intensity of work has increased manifold on the shop floor and to maintain the “just-in-time” production flow, the despotic control over labour process has been a generalized affair. The claims of new work regime of lean and flexible production in terms of re-association of conceptualization and execution, workers’ autonomy, multiskilling under the name of “Post-Fordism” and end of Fordist-Taylorist production regime seems to be more of an ideological campaign from our experience with the workers. Modularization of parts has made it possible for large scale mass production even of the component where many elements of Fordism dominate in adapted form, and a more refined Taylorism seems to be in place. As we discussed earlier, the general tendency is of deskilling for the majority of the workers even in the arena of modernized production. Third, the right of the workers to form a union and the other rights related to permanency, overtime, similar payment for similar work, collective bargaining, etc., are in a generalized state of denial in most parts of the industry. Due to the wide range of possible combinations of cheap labour and modernized technology in the labour process, strong internal segmentation of working class and contractualisation and informalisation of work has been evident. It has weakened the traditional forms of trade unions based on associational power of relatively homogenized permanent workforce. But, due to the increasing homogenization of the working condition in the shop floor, a new objective of “unity” between permanent and contract workers grounded in labour process to increase their associational power seems to be developing in an embryonic form, as for example, the workers’ struggle at Maruti’s Manesar Plant.

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