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Editorial

The “International Journal of Development Studies and Research” is the flagship journal of VL Media Solutions' Social Science Research division. Papers from Economics, Political Sciences, History, Geography and Media Studies are being accepted for publication in the journal. We are currently receiving a variety of research papers from authors from various institutions both within and outside the country. The selected papers are published in the journal after a comprehensive analysis. So far, the house has published the journal quarterly without any break. This has benefited our contributors as well as the end users of the journal. Mr. Tiwari, the journal's publisher, deserves a lot of credit for this and his contribution towards promoting high-quality research is praiseworthy.

I want to acknowledge my fellow reviewers and the journal's editorial board for their important contributions.

Prof.Gh. Mohammad Bhat

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New Education Policy, Technology integration and the digital divide: Issues and Concerns

Simin Akhter Naqvi*, Shirin Akhter**

Introduction

In the face of prevalent educational challenges, the right to education act, enacted in 2009, made education a fundamental right to make sure all children eligible for receiving an education are able to do so even if they do not have the means. The right to education act not only made it obligatory for the government to provide free and compulsory elementary education to all children in a neighbourhood School (within 1 km), without having to incur payment of fees, but also made provisions for free provisioning of textbooks uniforms, stationery, mid-day meals and special educational material for children with disabilities.

The act also laid down norms and Standards relating to Pupil teacher ratio classrooms separate toilets for boys and girls and drinking water facilities for all, In order to ensure minimum standards of both education and attendance. Not only this RTE, 2009 also prohibits all kinds of corporal punishment, mental harassment and discrimination based on gender, caste, religion and class, thus making a move towards zero tolerance against discrimination in education delivery. The new education policy, 2020 turns out to be contrary in spirit to the mandate of the Right to Education Act 2009 in this sense. In pushing for privatization of education and technological integration, NEP 2020 openly discriminates against all children from marginalised sections and lower and lower middle-income families who lack the means to afford quality private education.

Likewise, the Open Book Examination model, under the 'blended mode' of teaching-learning, proposed in the NEP, imposes undue technological and financial hardship on students on the less privileged side of the digital divide. The CUCET or centralized university common entrance test also makes it harder for students from backward states and vernacular educational training to secure admissions in universities even in their own states, as they now have to face an unfair higher level of competition from students

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from socio-economically stronger states and/or students with better access to quality English/Hindi medium education.

Section I: New Education Policy, 2020

The New Education Policy, passed by the parliament in 2020, came through without any significant discussion or debate with any teachers' or students' bodies, people, who ironically, are the major stake holders in the education system. Not just that, the ongoing pandemic was used as an excuse to implement, institutionalize and legitimize the use of digital technology in unfair proportions, seeking to make the 'blended mode' of online-offline teaching-learning an accepted norm. Goes without saying, the policy comes laden with problems and deserves criticism on many fronts, including likely dilution of the constitutional provisions of Right to Education, which made education a fundamental right.

The proposed fee hike that would result would further side-line those already on the fringes of education system, effectively pushing out children from weaker backgrounds and ensuring that education becomes accessible only to a privileged few. Further, there are problems with the proposed structure itself. The policy dilutes the quality of courses being offered, the introduction of skill enhancement and vocational courses on a mass scale would have been a welcome step had they been introduced separately. However, it becomes pointless when such courses are introduced as non-specific papers in discipline specific courses.

For instance, the revised credit system proposed by the university of Delhi, in attempting to adapt its teaching module to the NEP prescriptions, talks of two four-year frameworks, framework one, with $48+44=92$ credits and framework two, with $44+40=84$ credits for the first two years. This uneven distribution of credits, concentrating credits in the first two years of the undergraduate program, would make a time equivalent two-year course with more credits, offered by other universities, more desirable for students looking to truncate/migrate after the diploma stage, without any academic reason to do so, introducing undue ambiguity in the system, reducing the idea of varsity switching to a ridiculous circus. Further given the credit distribution $84(48+44)+80(40+40)$ (Total 164) in framework two, as opposed to $92(48+44)+92(48+44)$ (Total 184) in framework one, awards a disproportionately greater weight to the first two years, relatively raising the incentive to exit (truncate/migrate) post second year, as compared to framework two, again with implications for both, workload and the segmented differential impact it is likely to have on students from different sections of society; both frameworks, considerably raising the private cost and time it takes to complete an undergraduate degree, albeit only in differing degrees!

Converting the three-year undergraduate program to a four-year course will also have its own implications. Besides the obvious financial costs, it imposes on the students, it also offers the option of dropping out of the system after initial one/two years. It is not difficult for anybody who has even a basic understanding of socio-economic structure of India to understand that such a policy design will inevitably entail more women students

and students from SC/ST/OBC Muslim and other economically weaker communities to drop out of the education system. Such exits from the formal education will embolden the already clearly segmented job markets.

Section II: Financial Autonomy and Economic Exclusion

Another point of contention is ‘autonomy’, being granted to more than 60 higher educational institutions (including five central and 21 state universities) by the government, against which an unprecedented number of teachers and students have been out on the streets. It is an attack, not only on the poor’s ability to send their children to college, but also on the democratic social character of higher education. The ‘autonomy’ we are being ‘granted’ is a misnomer, to begin with. While academic institutions actually do need a great deal of academic autonomy (that is, the freedom to design curricula, syllabus, examination patterns, entrance and cut-offs), the proposed 70:30 formula of funding in name of granting autonomy is actually an attempt to ‘privatise’ the costs of education, where academic institutions will be required to generate 30% of all costs. This would come primarily from three sources – fee hikes, the introduction of ‘marketable’ self-financing courses and a cut-down on employees’ wages and benefits.

A higher-education funding authority (HEFA) is also being set up for the purpose of making it possible for institutions to borrow from what the government calls, ‘a not-for-profit agency with an initial capital base of ₹1000 Crore’, announced in the Union Budget 2016-17, for building ‘world-class infrastructure’, subject to the institutions’ ‘ability to repay’ the debt, obviously, again by hiking fees, firing non-permanent staff, cutting down on benefits and contractualization of non-permanent non-teaching positions.

Advocates of the policy also propose that those who cannot afford to pay the increased fees can borrow and thus get into what Noam Chomsky calls, the higher education ‘debt-trap’, where students who take heavy loans to fund their education effectively lose the ability to put education to societal use, while having to focus on landing a well-paying job to repay the debt. Thus, they end up spending the socially most-productive years of their lives in servicing corporate interests instead of questioning the status quo. Fee hikes thus serve as a disciplinary technique to silence dissent and condition people to adapt to a general consumerist milieu.

It is not difficult to understand how private corporations lending and sponsoring higher education and research would also come to determine ‘what is researched’ and more importantly, ‘what is not’, thereby taking away intellectual freedom, and thus, the democratic social space for critical questioning. Rollback of public budgets from higher education not only take away from the poor working masses their right to ‘democratically’ access affordable education but will also severely curtail the very idea of academic autonomy and intellectual freedom. Any attack on higher education and research thus needs to be seen as an attack on democracy itself.

Section III: NEP and Social Justice

Another casualty of these proposed changes will be social justice, direct attacks on which are also being coordinated and carefully manoeuvred with the attempted privatisation of higher education. The recent order to implement a 13-point departmental roster instead of the 200-point institutional one significantly reduces the total number of posts going to reserved categories and thus weakens the existing policy for affirmative action and social justice. With roster-violations and second tranche posts lying vacant in most colleges, and almost half of all teaching positions in the university filled on an ad-hoc basis, any attempt to privatise or grant ‘financial autonomy’ are all set to hurt the interests of the deprived and marginalised sections even further, making their socio-economic position weaker still.

It is of crucial importance to see the connection between the attempted privatisation of higher education and its impact on social justice and looking at some data can definitely help us here. Nearly 1.25 billion people are officially poor and live below the ‘one dollar a day’ poverty line (nearly 77% below the universal ‘two dollar a day’ standard). With the ‘average Indian’ earning as little as ₹10,000 per month (or ₹1.2 lakh annually), it is no coincidence that as many as 60% of the poor continue to reside in the states of Bihar, Jharkhand, Orissa, Madhya Pradesh, Chattisgarh, Uttar Pradesh and Uttarakhand, whereas nearly 85% of all Dalits and tribal people live below the poverty line. According to the findings and recommendations of Mandal Commission (1979-1990-2007) and the Sachar Committee (2006) reports, deprivation of education explains the predicament of all marginalised sections to a great extent – and improved access to education through direct provisioning and/or reservations in jobs can significantly ensure increased inter-generational social mobility to those born ‘poor’.

Section IV: Tech’ integration and the ‘Digital Divide’

Yet another problem that we see with the NEP, 2020 is that of blended mode of education. The pandemic induced shift to online education has brought to fore the problems associated with it. Starting from internet connectivity issues and frequent power breakdowns in places where we do have these facilities to a complete lack of access to power and internet in places, augmented by inability to purchase computers and mobile phones, many problems surfaced. We, as teachers, saw many sufferings as a result of online teaching. Students were seen struggling to join the lectures and the study material was difficult to access. Introducing 40% online education will be detrimental for the students from weaker sections of the society.

Not surprisingly, Dalits, Muslims, tribal people, OBCs and women constitute a vast majority of the ‘poor’ in India and exhibit significantly worse educational attainment rates and workforce participation ratios and job-concentration figures compared to their privileged counterparts. They are also the ones most likely to get most severely hit by policies like these. With discriminatory social systems like caste, patriarchy and communal social exclusion working to their disadvantage, any notion of a democratic or pro-people state cannot overlook the plight or predicament of these deprived groups.

Implementation of digital modes of teaching also has a direct bearing on workload and thus job-losses for existing non-permanent faculty in universities. Higher pupil-teacher ratios, possible under the digital mode would result in reduced requirement of teachers while CBCS or a choice-based credit system would entail fluctuating workload from semester to semester, making the nature of employment of non-permanent faculty even more precarious and tentative. Given the already high and constitutionally untenable percentages of adhoc and contractual faculty in universities across the country, digitalization of the teaching-learning process would only ensure further increase in these figures, resulting in dilution of both, quality of teaching and quality of employment.

Conclusions

The whole idea of a welfare state rests on the state's ability to ensure access to healthcare, education, nutrition and dignified work for all, and to allow those born poor to work their way up through education and gainful employment. Technological integration, examination reforms or autonomy, the ultimate test of merit of any proposed changes in the existing education policy in an economically poor and socio-educationally backward country like India, is its ability to make quality employable education more accessible, affordable and inclusive for the masses. Any proposed reform that fails to do so or ensures the contrary not only obstructs the constitutionally mandated delivery of education as a fundamental right but also seeks to widen existing socio-economic gaps and differentials, thus weakening the very foundations of the body politic of the nation's democratic existence. The NEP, 2020, and attendant reforms proposed thereby raise a plethora of concerns in the context and need to be analysed and implemented with due caution before too much damage is done.

References

- Bardhan, Pranab (1994): *The Political Economy of Development in India*, 4th ed, New Delhi, Oxford University Press, 1994, p. 51.
- Chakravarty R. (2008): "Feminism and contemporary Women Writers: Re-thinking Subjectivity", Routledge, New Delhi.
- Deshpande, A. (2011): "The Grammar of Caste", Oxford University Press, New Delhi.
- Kabeer, Naila (2000); "Social Exclusion, poverty and discrimination: Towards an analytical framework", *IDS bulletin*, 31(4)
- Khanna Shantanu (2012): "Gender wage discrimination in India: Glass ceiling or sticky floor?", CDE, working paper, <http://www.cdeds.org/pdf/work214.pdf>
- Kundu A., Shariff A. and Ghosh P.K. (2007): "Indexing Human Development in India: Indicators, Scaling and composition" in Abusaleh Shariff and M. Krishnaraj ed. 'State, Markets and Inequalities', Orient Longman, New Delhi.
- Madheswaran, S. & Khasnobis, B.G (2007): "Gender Discrimination in the Labour Market:

Evidence from the NSS”, WIDER research project on ‘Gender wage Gap and its Impact on poverty: Evidence from India’.

Razzack, Azra and Gumber A. (2007): “A case for empowerment of Muslims” in Abusaleh Shariff and M. Krishnaraj ed. ‘State, Markets and Inequalities’, Orient Longman, New Delhi.

Rehman M. ed. (2018): “Rise of Saffron Power: Reflections on Indian Politics”, New Delhi: Routledge India.

Rehman M. ed. (2016): “Communalism in Postcolonial India: Changing contours”, New Delhi: Routledge India. Reilly, B. and Dutta, P.V. (2005): “The Gender Pay Gap and Trade Liberalization: Evidence for India”, Poverty Research Unit at Sussex Working Paper, 3

Shariff, A (1995): “Socio-Economic and demographic differentials between Hindus and Muslims in India” Economic and Political Weekly Vol. 30, No. 46 (Nov. 18, 1995), pp. 2947-2953

Reports Consulted

Economic Survey, 2011-12, Ministry of Finance, GOI

‘India Social Development Report 2012: Minorities at the margins’, Council for social development, ed. Zoya Hasan and Mushirul Hasan, 2013

‘India Human Development Report, Towards Social Inclusion’, Institute of Applied Manpower Research, Planning Commission, Government of India, 2011

‘Poverty and Social Exclusion in India’, Oxford for World-Bank, 2011

Report of the High Level Committee on Social, Economic and Educational Status of the Muslim Community of India headed by Justice Rajindar Sachar (Retd.), 2006

Report on Conditions of Work and promotion of livelihoods in the unorganised sector, National Commission for enterprises in the unorganised sector, headed by Arjun Sengupta, Academic Foundation for GOI, 2008

Report of the National commission for religious and linguistic minorities, 2007, GOI

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Manufacturing Sector Employment in India: A review of literature

Shirin Akhter*, Simin Akhter Naqvi**

Introduction

The Indian manufacturing sector, since independence, has come a long way, having traversed from building industrial foundations in 1950's and early 1960's, to the license-permit Raj prevailing through mid-60s to early-80s, followed by a phase of liberalization in the 1990's having come to the present phase of globalisation characterized by a continued confident opening up of the economy, despite having been faced with one crisis after another. India's economic growth in last three decades has been led by the growth of service sector. GDP growth during the first decade of the present century (1999-2000 to 2011-12) averaged 7.3 percent per annum. Recently, this process has slowed down substantially, falling to 4% in 2019-20, against 4.2 percent estimated earlier. However, it remains service-led, with the sector averaging at 6.9 percent (Economic Survey, 2019-20).

India has a large amount of surplus low-skilled labour in agriculture (Subramanian and Felman, 2019) and this must be moved to productive employment in non-agricultural activities if faster and sustainable growth is to be achieved. The experience of various countries of the world has demonstrated how only an expanding manufacturing sector can absorb this surplus labour (Dreze and Sen, 2013). Many economists point out that shifts in demand, both domestic and global, have changed the composition of the production basket, with wage goods comprising as much as 49% of all demand, which means growth of traditional manufacturing depending on technology intensive exports can no longer absorb surplus agricultural labour which exists in most developing countries, including India (Todaro and Smith, 2009). Another argument is that technological change in the

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factory sector of manufacturing has reduced the labour intensity of production over time and therefore this sector has increasingly limited capacity to absorb the large size of surplus labour available. The fact that most segments of industry are running at low rates of capacity utilization due to both demand and supply side constraints aggravates the problem (Chand Sarat C., 2022). Empirically, structural change of this kind is associated with successful transformation of the economy from traditional to modern. Development, besides many other things also means labour reallocation from agricultural to manufacturing in early stages of development and from agriculture and manufacturing to services sector in the later stages. Some economists argue that due to technological advancements, some services have actually taken on the characteristics of manufacturing (R. Nagaraj, 2017). This has become possible due to advances in digital technology in computation, information, and communication technology. Given the pattern of technological changes, newer technology needs lower labour intensity and creates an ever increasing demand for capital and skill intensity in manufacturing. Manufacturing needs a number of ancillary and feeder services as inputs and industrial firms outsource most of these services from service enterprises. This means a large part of employment previously counted as manufacturing or industrial employment is now included as employment in services. We, therefore need to be more careful in interpreting industrial employment data, particularly since manufacturing and service sectors have strong backward and forward linkages, especially in a developing economy; linkages that propel the economy.

Dualism in the Indian Manufacturing Sector

Looking at India's development experience in recent times, it can be observed that India's economy has been and remains, dualistic in nature. Dualism refers to the formal/organized sector coexisting with a large unorganized sector. The formal sector is defined by the Factories Act as all those manufacturing units which cover all factories employing 10 or more workers when using power, or 20 or more workers without using power. Remaining manufacturing units are designated as informal/unorganized units. The unorganized sector is further divided into two sub categories, Own Account Manufacturing Enterprises (OAME) and Establishments. While the former are household units making use of family labour, the later employ at least one wage (hired) worker. The unorganized sector, in particular the household sector, accounts for a disproportionately large share of employment but a very small share of value added in manufacturing. It is quite clear that existence of dualism over the years has had significant implications on the welfare of this majority class employed with this sector. Notably, the value added per worker in the unorganized sector has been significantly lower than that in the organized sector, leading to inequalities of income and wealth. There is a pertinent need for putting in place economic and social welfare measures for this section of workers as it is the most vulnerable section of workers in the society.

The economy has witnessed a rapidly rising population and the much awaited demographic dividend has not yet been reaped in terms of productivity growth. For demographic dividend to materialise, the number of employed people needs to rise at a faster pace as compared to the rate of growth of overall population, so that the dependency

ratio falls and the savings-investment rate rises. In contrast, the dependency ratio in India has actually risen from 2.6 in 1983 to 2.7 in 1999-2000 and to 2.8 in 2011-12 (Bloom, David E., 2011).

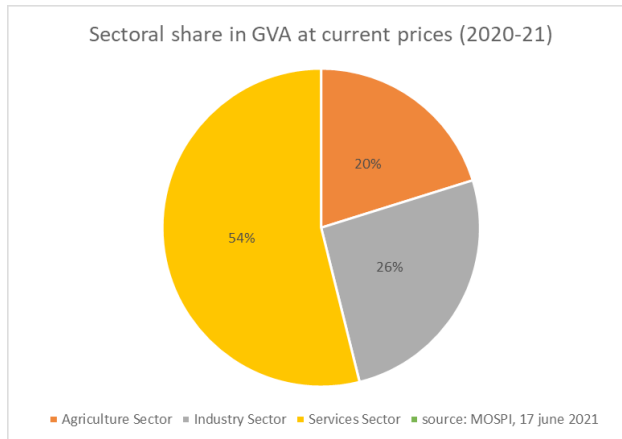
Human capital formation is an integral component of economic growth, especially because of the endogenous nature of investments in human capital. Public expenditure on health in India is only 1.3 percent of GDP while other countries spend several times more, this results in large out-of-pocket expenses by individuals and often is major reason behind households falling into poverty traps. Similarly, on the education front, right to education has emphasized only on student enrolment and not on quality of education. Quality of education in public schools has deteriorated over the years. Proper training of youth after their education is possible only with a joint collaboration of industry and government this is not an endeavour that could be successfully taken up by poor people living in poor economies. Moreover, estimates of women's contribution to output, not available as amply, need to be generated and made integral to the productivity debate. With a growing degree of feminization of the workforce, a better understanding of the gender distribution of work and wages and wage shares can help us devise more effective policies to help realize the demographic dividend better (*ibid*).

Structural Change in India's Economy

Manufacturing sector has a significant role to play in the structural transformation of an economy (Lewis, 1954). Post 1990s, the manufacturing sector has no longer been an important driver of economic growth as it once was (Szirmai, 2015). As shown in figure 1 the sectoral share of industrial sector in Gross Valued Added (GVA) of India is 26 percent. According to Ghose (2020) 'analysis of past experiences of economic development yields four important stylised facts about the structure of low-income economies and its evolution in the course of development':

- At low levels of per capita income, a very large part of the working population is engaged in agriculture, a small part is engaged in services and an even smaller part is engaged in manufacturing.
- At low levels of per capita income, output per worker is lowest in agriculture and highest in services.
- As growth occurs and per capita income rises, the employment share of agriculture steadily declines the employment share of manufacturing moves along an inverted U-shaped trajectory and the employment share of services steadily increases.
- As growth occurred, labour productivity increased in all economic sectors but at different rates. It always increased more rapidly in manufacturing than in services

Figure 1: Sectoral share in Gross Valued Added



Clearly, unlike the expectations of the development discourses of 1950s and 1960s, workforce transformation from agriculture to non-agriculture and in particular to organized modern activities has been exceedingly slow and remains a major policy challenge. Although India's gross domestic product (GDP) growth rate since independence has consistently increased decade by decade, industry (including manufacturing and construction) accounts for only 25 per cent of GDP (in 1950, it was 8 per cent). In 2017, the manufacturing sector contributed only about 16 per cent in the GDP, stagnating since economic reforms began in 1991 (Mehrotra, 2020).

Recently it has become clear that developing countries are not able to raise share of manufacturing sector in either value added or employment (Rodrik, 2016). The shift in workforce from agriculture to the informal sector, mostly in construction or petty services such retail of domestic work (Basole et al., 2018) is a case in point. Analysts are more or less unanimous in the opinion that the organized manufacturing sector in India witnessed a long period of 'jobless growth' beginning, late 1980s (Nath, 2014). Various labour-intensive industries such as textiles and food products witnessed negative employment leading to large-scale retrenchment of workers. Between 1995-96 and 2001-02, 13 per cent of the workforce lost their jobs. Examining trends in working age population growth and employment growth for men and women in rural and urban areas in the period between 2011-12 and 2017-18, it is seen that working age population grew by 115.5 million but the labour force grew only by 7.7 million and the workforce actually shrank by 11.3 million (Table 1). Indicating a significant fall in the labour force

participation rate¹ (LFPR) as well as workforce participation rate² (WPR), and a sharp rise in the unemployment rate (Nath & Basole, 2020).

Table 1: India's Labour Market Since 2011-12 (Millions)				
		2011-12	2017-18	2018-19
1	Working age population	853.4	968.9	986.3
2	Labour force	475	482.7	495.7
3	Employed	464.6	453.3	466.7
4	Unemployed [(2)-(3)]	10.4	29.4	29
5	Outside labour force [(1)-(2)]	378.4	486.2	490.7
<i>(Percent)</i>				
1	Labour Force Participation Rate	55.7	49.8	50.3
2	Workforce Participation Rate	54.4	46.8	47.3
3	Unemployment Rate	2.2	6.1	5.8
<i>Source: Azim Premji University, Report: State of Working India, 2020</i>				

Traditional models of structural transformation lay importance on surplus labour shifting from traditional agricultural sector to modern manufacturing sector, hence it is crucial to understand the role of manufacturing sector in the growth of the economy and to find out how employment may be generated at a faster rate in this major sector of the economy. Developing countries like India continue to try to work on manufacturing-led structural change, emphasising the need for a more nuanced understanding of what works and what does not work, at the policy level (Haraguchi N, 2018). In the process of transition from being an agriculture based economy to being a modern economy, India witnessed a decoupling of growth in GVA and employment which is a cause of concern. While this disconnect can partially be explained by the rising capital intensity of production, it can also be attributed to the fact that India has been unable to exploit its labour advantage to grow labour intensive industries (Kapoor, 2018).

Table 2 shows the share of manufacturing in value added and employment in India since the early 1980s. As can be seen, the sector has failed to expand by either measure. The share of employment of manufacturing sector has increased marginally during these

¹ Workforce Participation Rate (WPR): WPR is defined as the percentage of employed persons in the total working age population (individuals aged 15 years and above). It is usually considered a better indicator of conditions in the labour market compared to the Unemployment Rate (UR) as UR can also fall without an increase in employment due to individuals dropping out of the labour force. WPR is calculated for both the Usual Status i.e. considering the 365 days period preceding the survey, and the Current Weekly Status i.e. considering the 7 days period preceding the survey.

² Unemployment Rate (UR): UR is defined as the percentage of unemployed persons in the labour force (labour force includes those employed and those unemployed but looking for or available for work).

34 years of period and even there is slight decline in its share in the GDP of the country.

Table 2: Share of Manufacturing (Organized and Un-organized) in Employment and Value Added in India (1983-2015)

Year	Employment	Value-added
1983	10.6	17.3
1987	12.2	16.8
1993	10.6	16.5
1999	11	15.8
2004	12.3	16.4
2011	12.6	16.1
2017	12.1	14.9

Source: Based on data in National Sample Survey Employment–Unemployment Surveys, various years; World Development Indicators, various years

Employment in the unorganized manufacturing sector has increased at a slower pace as compared to the organized sector (Thomas, 2018). A recent paper (Basole & Narayan, 2020) with focus on the performance of the organized manufacturing sector in India for the last 34 years period (1982-83 to 2016-17) shows some interesting trends in the sector. The study is motivated by two questions. One, which periods in the recent past have seen a relatively better performance of the organized manufacturing sector? Second, which particular industries have performed relatively better in terms of growth and in job creation? Based on ASI data analysis of 55 industries in manufacturing sector the study derives the following main conclusions; manufacturing growth in employment in during these 34 years is much weaker compared to the growth of output, this means a large increase in labour productivity in this major industrial sector. The study shows that after a small initial fall in absolute employment till 1986, there was an increase till the mid 1990's. But there is a drastic fall in the employment in organized sector between 1995 and 2002. However, after 2006, employment in this sector grew again, mainly because of increase in the contract jobs in the sector. On the basis of this we can say that growth elasticity of employment has been low in manufacturing sector. Further, the higher capital intensity of production is one of the reasons for the disconnect observed between employment and GVA growth as it has meant that fewer additional workers have been added to the manufacturing sector. There is a rising capital intensity in the manufacturing sector in relatively more labour-intensive as well as in the relatively more capital-intensive industries. This is expected to increase the labour productivity. According to this study between 1983 and 2017, the labour productivity in India's manufacturing sector went up by six times. However, the major benefit of this increase, in terms of changing share of factor income is appropriated by the capital owners of this sector.

On average the real wage rate increased at the rate of 1.4% per annum in real terms, while productivity rose by 5.5% per annum in real terms during this period. This indicates a major shift in the distribution of factors income in favour of capital. The growing

divergence between productivity and wages implied a falling share of labour in value added. This fall in the share of wages in gross value added in organized manufacturing sector is seen in both real as well as nominal terms. Further, decline in real wage share is steeper than the nominal decline due to the fact that the CPI shows divergence from the WPI over time (Basole & Narayan, 2020). Studies show that the capital intensity of production across the manufacturing sector has been rising over time (Kapoor, 2018). This means that capital-labour ratio has increased in capital-intensive as well as labour-intensive industries (Sen & Das, 2015). This points to a greater contribution of within industry factors. The increase has been particularly steep since 2004-05. The higher capital intensity of production is one of the reasons for the disconnect observed between employment and GVA growth as it indicates that fewer additional workers have been added to the manufacturing sector. Even within the organized sector, there has been a dramatic increase in the share of informal and contract workers (that is, those who are excluded from the core labour laws) as per the most recent estimate, close to 60 per cent of workers in the organized sector are informal workers, and in the organized factory sector alone, the share of casual workers has increased from about 13 to 35 per cent between 1993-4 and 2011-12 (Jha, 2016).

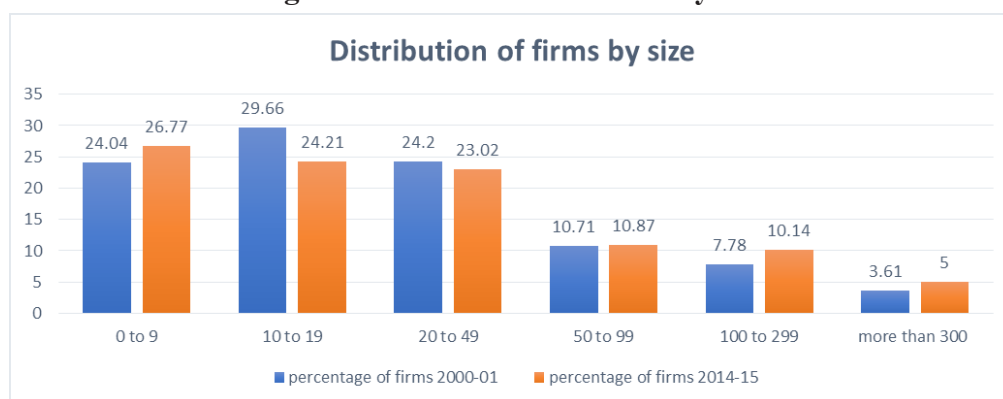
On the basis of ASI data a rising trend has been observed in the share of contract workers in India's organized manufacturing sector (Basole & Narayan, 2020). To be noted here is the fact that the un-organized sector is already employing almost all the workers on the contract basis. This trend of rising contractualization of jobs in organized sector shows that state has given its approval to this form of employment even though labour laws prohibit the large firms from employing contract workers above a certain limit and in specific categories of jobs. Despite so many concessions being given to the capital, return on Capital Employed (ROCE) for the manufacturing sector has declined substantially during the period from 2011-12 to 2015-16. From 8.1 per cent in 2011-12, the peak of the capex boom period, the ROCE of manufacturing sector fell to 3.8 per cent in 2015-16. The fall was seen across all manufacturing industries, with the worst sufferers being metals, textiles, steel and automobiles. Falling returns and low-capacity utilization levels show lack of incentive for manufacturers to invest in capacity creation (Thomas, J.J., 2017).

Since after independence, the policy framework in India has supported small and medium enterprises (SMEs) as the policy makers believed that small scale enterprises would use labour-intensive methods of production, thereby generating faster employment. The Small-Scale Reservation Policy (1967), which reserved production of some goods for small-scale units,³ was the milestone of India's manufacturing policy for 60 years. However, between 1997 and 2007, 600 out of more than 1,000 items were de-reserved as it was argued that small firms making reserved products opposed growing or upgrading their technology as they would have to stop making those products if their investment grew beyond the permissible limits for small-scale industry.

3 These were originally defined as firms with up to Rs 500,000 in fixed assets and fewer than 50 employees.

In their study Basole and Narayan, 2020 (figure 1) present the distribution of firms by size for the years 2000-01 and 2014-15. They divide firms into six bins, 0-9; 10-19; 20-49; 50-99; 100-299 and 300+ workers. In 2014-15, small firms (i.e., those hiring less than 50 workers) accounted for over 50% of total firms in manufacturing sector. The large firms i.e., those hiring more than 100 workers accounted for a smaller share of the distribution. The share of mid-sized firms (50-99 workers) was also not found to be significant. Thus, there is no ‘missing middle’ in the sense of a bimodal distribution (Kapoor, 2018). Importantly, the firm size distribution has not altered over the last fifteen years. From this it is evident that the proliferation of small firms is a phenomenon which has persisted over time. It shows the significance of ancillary industries in the manufacturing sector and importance of informal sector, as most of these small industries are the part of unorganized sector, which contributes a significant portion of employment in India.

Figure 1: Distribution of firms by size



Source: Basole and Narayan, 2020

Table 4 and figure 2 show the total employment and distribution of employment across firms of different sizes. We find that the share of small enterprises in total manufacturing employment has been smaller than that of large enterprises in the last decade. More significantly, the share of small enterprises in total employment has fallen over this period, while that of large firms has risen. It is evident from this data that the trend growth rate of employment in small firms is significantly lower than that in larger firms (Table 5). Importantly, net changes in employment and growth rates tend to hide a considerable amount of job creation and destruction. Although conventional wisdom on firm dynamics says that most job creation comes from small enterprises, recent literature has shown that job destruction is equally important in their case and this perhaps explains why these enterprises hardly grow over time (Li & Rama, 2012). Thus, the general claim that SMEs are the main creators of jobs in net terms is questionable. The study also examines the distribution of wages of production workers across firms of different sizes and trends in growth of employment by size bins in Tables 3 & 4. The study finds that

smaller firms are able to increase their wages at fast rate and as higher the size of the firms and in these firms more is the growth of wages of the workers. It shows the higher productivity of labour in this sector. On the other hand there is an increase in the contract workers share in the total workers.

10-19 workers	20-49 workers	50-99 workers	100-299 workers	300 & above
1.22	2.69	3.49	4.92	5.68
<i>Source: ASI unit data (several years)</i>				

Table 4: Average Annual Worker Wages (in Rs.)

Size Bin	2000-01	2014-15
10-19 workers	25105.04	86423
20-49 workers	27122.61	95029.56
50-99 workers	28952.32	101577.1
100-299 workers	35589.92	111724
300+ workers	61022.92	152626.7

Source: ASI unit data (several years)

Employment Elasticity in Organized manufacturing

A study (Alivelu, Michele, & Nobuya, 2015) has analyzed the ‘employment elasticity’ of different sub-sectors during the period of 1990- 2017. This study shows the pattern of employment creation in different periods and for different sectors; and to understand the trends of growth in employment of the manufacturing sector. Based on the data availability of the different industries in the organized manufacturing sector, this study analyzes the performance of 17 industries in organized manufacturing sector in India. Then these sub-sectors are further categorized into low, medium, and high technology industries.

Table 5: Low, Medium and High Technology Industries

Technology	Industries
Low	Food and beverages, tobacco products, textiles, apparel, wood products, paper and paper products and manufacture of furniture
Medium	Leather, rubber and plastic products, coke and refined petroleum, non-metallic mineral products, basic metals and fabricated metals
High	Chemicals and chemical products, machinery and equipment, electrical machinery and apparatus, transport equipment, medical and precision apparatus, motor vehicles

Source : UNIDO Classification, 2016

The study shows that:

- a. Out of the seven industries in the low-technology group, the average annual growth rate of TFP of tobacco, furniture and wearing apparel were negative between 1980-81 and 2008-09. For all low-technology industries except textiles, the average annual growth rate of capital-labour ratio increased in the post-reform period. On the other hand, the average annual growth rate of labour productivity decreased for all industries during the post-reform period with the exception of textiles.
- b. The average annual growth rate of labour productivity registered an increase in all industries during the post-reform period. On the average annual growth rate of labour productivity registered an increase in all industries during the post-reform period. On the other hand, the average annual growth rate of capital labour ratio of all industries, except coke and refined petroleum registered a decline in the post-reform period.
- c. Among the high-technology industries, the average annual growth rate of labour productivity increased for all industries, except for chemicals and chemical products in the post-reform period. Of the five industries in this category, the average annual growth rate of capital-labour ratio registered a decline in three industries in the post-reform period. The increase appears to be steeper over the latter half of the decade.

Small size units are dominating Indian Manufacturing

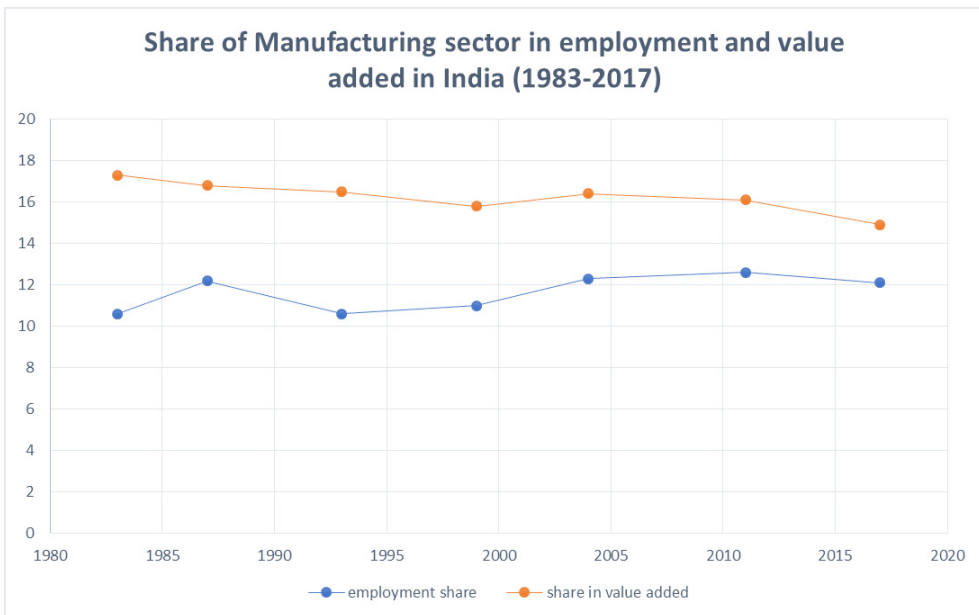
Several unusual characteristics of India's pattern of development appear to be symptomatic of deeper structural distortions in the economy, potentially explaining why India's manufacturing is lagging. These features include relatively high capital intensity in the organized sector and an extraordinarily large share of overall manufacturing employment in micro-enterprises, most of which are in the informal sector. Perhaps the most dominant characteristic of India's manufacturing sector is the extraordinarily small scale of establishments relative to any OECD or major emerging country when measured in terms of employment and output. About 87% of manufacturing employment is in micro-enterprises of less than 10 employees, a smallness of scale that is unmatched, with the closest comparator being Korea, where less than half of employment is in micro-enterprises.

The recent growth in the economy in the second decade of 21st century it has been clear from the data that growth has benefited industries which depend more on capital and professional employees in preference to unskilled/low professional employees. This fact blended with the increasing capital intensity of production over the decade partly explains the contribution of the manufacturing sector to employment generation.

Although, rising capital intensity is an indicator of technological transformation, as countries use more capital-intensive techniques as they get richer, it has been shown that India uses more capital-intensive techniques of production in manufacturing than countries at similar level of development and similar factor endowments (Hasan et al. 2013). It is normally understood that India's rigid labour regulations and employment protection legislation has reduced the incentive of firms to hire workers on permanent contracts and pushed them towards more capital-intensive modes of production.

Capital intensity is defined as the ratio of real fixed capital to total persons engaged. Capital is measured by fixed capital as reported in ASI. This represents the depreciated value of fixed assets owned by the factory on the closing day of the accounting year. It is deflated using WPI for machinery and equipment. Total persons engaged includes workers (both directly employed and employed through contractors), employees other than workers (supervisory, managerial, and other employees) and unpaid family members/ proprietor etc. The rising capital intensity of production in India's manufacturing sector since 1980 is well established in the literature (Hasan, Robert, & Jandoc, 2012) (Das & Kalita, 2010). Fig. 3 indicates that the average capital intensity of production has risen over the last decade too.

Fig 3. Capital Intensity of Production



Importantly, this study classifies industries on the basis of their capital intensity, and it shows that this ratio has increased not just in capital intensive but also labour-intensive industries. Rising capital intensity of production, especially in labour intensive industries, is a cause of concern as it raises doubts about the capacity of the manufacturing sector to absorb labour. The rising capital intensity is reflective of technological transformation, as countries use more capital-intensive techniques as they get richer, it has been shown that India uses more capital-intensive techniques of production in manufacturing than countries at similar level of development and similar factor endowments (Hasan, et al. 2012).

The structure of employment in India has also changed over time. If we compare the two periods of last 28 years between 1993-02 and 2002- 12 then employment growth shows a decline in the second period. The agriculture still employs 48 percent of total persons employed in 2011 and is the largest employer, its share in GDP is just around 14 percent. On the contrary, services which employ just 29 percent of total persons employed, its share in GDP has reached almost 57 percent. In construction, though the share in employment increased more than three times, its share in GDP increased marginally from around 6.6% to around 8% only indicating low labor productivity growth.

Table 6: Growth rate of GDP and Employment -Broad Sectors

Broad Sector/Year	1993-94 to 2011-12		1993-94 to 2002-03		2003-04 to 2011-12	
	GDP	Empt.	GDP	Empt	GDP	Empt
Agriculture, Hunting, Forestry and Fishing	2.10	0.69	4.18	-1.12	3.08	-0.17
Mining and Quarrying	4.50	- 0.51	4.08	0.87	4.30	0.15
Manufacturing	6.55	2.23	8.51	1.23	7.48	1.75
Electricity, Gas and Water Supply	5.62	-1.03	6.61	2.84	6.09	0.80

Source: (Aggarwal, 2016)

Though the shares seem to have changed uniformly, growth in GDP and employment during the two sub periods (Table 6) is not uniform. GDP growth in the second sub-period is faster at 7.93% as compared to 5.69% in the first period of 1993-94 to 2002-03. The growth in GDP is led by services and manufacturing in the first period but the spurt is due to construction services and manufacturing in the second period. Growth in employment, however, has taken a different path. Not only the growth in employment in the second period of 2003-04 to 2011-12 is slower at 1%, it is completely construction sector drive. It is because of this phenomenon that economists have defined this phase as a 'jobless' growth phase as manufacturing and services both failed to absorb the labor which was displaced by agriculture (Aggarwal, 2016). Therefore, the concern of the Indian policy makers is twofold; how to increase the share of manufacturing in GDP and how to

create jobs such that increasingly displaced persons from agriculture (and the addition to labor force) are absorbed in better quality jobs. The same is necessary also because a very large number of recently created jobs in India are in the 'informal' sector and are largely low-skill, low-wage, and low-productivity jobs.

According to the NSSO survey on Unincorporated Non-agricultural Enterprises (excluding construction) total employment in unregistered manufacturing increased from 34.8 million in November 2010 to 36.04 million in 2015-16, a meagre increase of 1.24 million in five years. The rise has been higher in OAMEs to the tune of 1.84 million. Perhaps the more important fact is employment declined in establishments that are relatively larger in size within the unregistered segment and employ one to ten hired workers, have employed 0.67 million less workers during the same period. Therefore, the rise in employment in the organized manufacturing sector was primarily driven by contractualisation and in the unorganized segment, employment increase was accompanied by fragmentation of productive activities. The situation has further worsened because of demonetisation and introduction of GST, causing suffocating effects on the unorganized segment of the economy that employs 92.8 per cent of India's workforce. (Roy, 2021)

In fact, the labour cost is not the only factor that gives competitive advantage to a firm, but it is also the most general component that a producer factors in apart from other common determinants that are more specific. Rise in contractualization in the organized manufacturing is simply a response to such needs. Producers are increasingly relying on tiny enterprises in the informal segment where wages can be pushed below the value of labour power thus garnering super profits. But such strategy of depressing wages could not be unique for any particular country. Changes and adopting the new four Labour Codes, 2020 in hope of reducing the cost of labour is the part of this strategy which these developing countries are adopting and compromising with the labour rights. But this race to bottom will not benefit these countries in the long run as it will widen the gap between labour and capital income further. As a result, the effective demand will get depressed which can finally contract the demand and market in these countries.

Conclusions

Slow pace of structural change means slow pace of advancement in employment conditions. Structural change in India, primarily the shift towards service led growth, has been an exception to the rule, if one looks at developing countries in general. Labour movement has been occurring mostly from agriculture to construction and services and not to manufacturing. Indeed, manufacturing has simply not been a part of the story. This explains why the pace of labour reallocation from agriculture to non-agriculture has been rather slow. Rising capital intensity of production, especially in labour intensive industries, is one of the challenges for raising the labour absorption in the manufacturing sector as we move towards formalization of jobs. The employment benefits of services-led growth are far too inadequate to translate growth into development. This is a serious cause of concern as it raises doubts about the capacity of the manufacturing sector to absorb labour, particularly in the post-pandemic scenario where most segments of industrial

manufacturing are running low capacities.

The demand for industrial labour has also taken a hit post-pandemic. If one looks at recent trends in global demand, one realizes a considerable shift towards capital intensive commodities. Within clothes and shoes, for instance, which comprise a very significant portion of India's exports to the rest of the world, after wage goods and food, that we mostly produce for sale in the domestic markets, one sees a rise in demand for synthetic garments and non-leather shoes, as opposed to cotton garments and leather shoes that have been our mainstay in global markets for decades (Union Budget, 2016-17). Both, clothes and shoes also happen to be segments exhibiting higher female workforce participation than the average and a relatively lower capital labour ratio. Looking at generation of farm incomes too, one realizes a marked shift away from farm to non-farm, with farm-incomes no longer the primary source of income for people in the rural economy, post 2011 (Sharma, A., 2015) (Acharya and Mehrorta, 2020). A number of workers from agriculture have been found to have changed employment to work as construction workers and/or take up professions like electricians, plumbers, and carpenters (Ramesh Chand and others, 2015). Consequently there has been a relative de-feminization of the rural workforce, pulling the overall female workforce participation rates further down. It would help if policy makers could recognize the degree and distribution of the same and identify segments like synthetic clothes and PU shoes within sectors that can be engaged with and pushed to attain higher female workforce participation along with higher levels of employment and lower capital intensity. This would not only help generate more employment and foster greater inclusion but would also go a long way in strengthening and expanding our manufacturing base, based on where comparative advantage lies.

References (Chicago style)

- Acharya, S., & Mehrotra, S. (2020), The Agricultural Market Reforms: Is there a Trade-off between Efficiency and Equality? Institute of Human Development working paper.
- Bhaduri, Amit (2012), Productivity and Production Relations: The Case of Indian Agriculture, in Amit Bhaduri, 'Employment and Development', Oxford University Press
- Bloom, David E., and J. Finlay (2009), "Demographic change and economic growth in Asia." Asian Economic Policy Review 4:45-64.
- Chand, R., R. Saxena and S. Rana (2015), Estimates and Analysis of Farm Income in India: 1983-84 to 2011-12, Economic and Political Weekly, Vol. 50, No.22, May 30, pp. 139-145.
- C. Saratchand (2022), International Finance and the Contractionary Macroeconomics of Union Budget 2022-23, Newslick, New Delhi (<https://www.newslick.in/international-finance-and-contractionary-macroeconomics-union-budget-2022-23>)
- Dev, M. (2018), Transformation of Indian Agriculture? Growth, Inclusiveness and Sustainability. Working paper 2018-026, Indira Gandhi Institute of Development Research, Mumbai. <http://www.igidr.ac.in/pdf/publication/WP-2018-026.pdf>.
- Dreze, J., and Sen, A. (2013), An uncertain glory: India and its contradictions, New Delhi, Penguin

- R. Nagaraj (2017), Economic Reforms and Manufacturing sector Growth, in Economic and Political Weekly, 14 Jan 2017
- Roy, SD. (2017). Economic Reforms and Agricultural Growth in India, vol.52, special article, 4th. Economic & Political Weekly
- Sharma, Anil K., (2015), Transformation in Indian Agriculture, Allied Sectors, and Rural India: Is there less krishi in Bharat?, NCAER
- Todaro, M. P. and Smith, S. C., (2009), Economic development. Boston, Pearson Addison Wesley.