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Towards a synergy of policy in India: Education and Manufacturing

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Abstract
There has been several policy initiatives, both in education and manufacturing sector, since independence; coupled with ideological shift; PSU driven to PPP as the template for growth. The National Manufacturing Policy (2011) has been a welcome change to setup manufacturing hubs with a view to generating high employment & propelling our export footprint. The RTE Act, 2009 has been an equally salutary policy move to ensure universal access to primary education. The recent initiatives like Make-In-India and Ease of Doing Business are a logical continuum to the free market spirit that dots our policy space. The paper brings out the major trends in our education and manufacturing policy and highlights the short falls in quality of education, research and skill creation which affect our keen desire to be a global manufacturing hub like China. It underscores the importance of adequate allocation to education and research, improving the climate to bring in more FDI and long term investment in manufacturing by reputed global manufacturing hubs and establishing the right synergy between the states and the centre in concurrent subjects like Education and Manufacturing. The critical dimension of quality which is at the heart of TFP model of Solow to bring economies of scale need to be realized in order to achieve our dream to be a major Asian power without alienating the traditionally marginally segments.

Keywords: MNP, PSU, PPP, MAKE-IN-INDIA, FDI

Introduction

Post-independence, India choose the path of Fabian Socialism for fostering industrial development, culminating into the Industrial Policy Resolution 1956 and the Mahalanobis growth strategy based on Harrod-Domar model. The Kothari Commission (1966) provided a framework for bolstering science & technology, education in India and called for a substantial hike in allocation to education; 6% of GDP. India abdicated the myopic socialist path and prudently opted for free market economics as the spring well to attract private sector involvement and initiative in several sectors which were earlier denied to them. The education policy 1986 and 1992, underscored the importance of increasing equity and access in education. The RTE Act 2009 has been a watershed policy move as it has made primary education a fundamental right for every Indian citizen. Concurrently the private sector has also show a distinct predilection in the higher education sector; particularly in technical disciplines like Engineering, Computer Science and Management which have high employment potential. The various Commissions like Birla-Ambani, Sam Pitroda and Narayan Murthy (2000-2012) have essentially drawn the attention of the government to the imperative need for greater private sector involvement, foreign university participation, public private partnership and dilution in the asphyxiating control of the UGC. The National Manufacturing Policy, 2011 has made a decisive break from the commanding heights of PSUs by promoting PPP as the new template of industrial policy for increasing share of manufacturing in GDP to 25% and provides 10 million employment opportunities every year. The NDA government has come to power with its clarion call to bolster the growth through initiatives like Make in India, Skill India, Digital India nd Smart City etc. While these announcements have found reverberation, both within India and globally, discerning analysts feel that there is a lack of synergy between major policy announcement like Make in India and our education policy, leading to a lack of momentum in our growth and employment generation trajectory. This paper attempts to bring out *(a) the changing contours of our education and manufacturing policy over the years (b) their impact on quality education, research, skill creation & manufacturing momentum (c) issues and concerns and (d) the way forward to synergize the major policy initiatives.*

Education and manufacturing policy over the years

Educational policy

The British policy on education in India was basically to encourage English education; with a view to create a clerical cadre to buttress British imperialism. The Kothari Commission (1966) flagged the importance to improve productivity; treat science as a basic component in education and improve research in science and technology. The NPE (1986) sought greater role in reinforcing integrative character of research, advanced study and international aspects of education and cultural development. Subsequently the NPE (1992) tried to facilitate inter regional mobility by providing equal access to every Indian. In R&D, S&T special measures are to be taken to establish network arrangement between different institutions in the country to pool their resources.

Post 2009, the RTE Act has ensured universal access to primary education as a fundamental right. However, the higher education sector has been marked by greater private sector engagement. Several committees have buttressed such a market oriented approach to education. Ambani-Birla (2000) envisioned the creation of a knowledge based economic and society, and championed the principle of use pay policy supported by loan schemes and financial grants for economically backward section. Government should support

and partially fund centres of higher learning, provide financial guarantee to student loan, ensure uniformity in content and quality and education development planning. The Sam Pitroda Knowledge Commission (2009) recommended expansion of the number of universities to 1500 in the country. The commission also recommended the establishment of 50 national universities by government or by private sponsoring bodies to be set up by society or trust or section 25 companies. The commission preference was for private universities and establishment of an independent regulatory authority for higher education as independent regulatory authority for higher education (IRAHE). The Narayan Murthy Report (2012) focuses quality deficiency, quantity mismatch and funding gaps and recommended a PPP approach by having centres of excellence.

Manufacturing as the Leitmotif of Growth

It was Nicholas Kaldor (1957) who underlined the importance of manufacturing by affirming that "the more the output of the manufacturing sector grows, the greater is the increase of production in the system as a whole". His growth model postulated P = a + b g; where P referred to productivity, a = 1, b = 0.5, & g was growth in manufacturing. Simply put, the model averred that 1% increase in manufacturing would increase productivity by 1.5%. Thanks to this model, there has been a significant shift in the composition of exports to manufacturing products (30% - 80%) from the South, decrease in the per capita income gap between the South and the North and significant increase in inflow of FDI to the EMEs from 1980s.

Industrial Policy Resolution of 1956

Industrial Policy Resolution (1956) set the objective of establishing a socialistic pattern of society. It provided more powers to the governmental machinery. It laid down three categories of industries which were more sharply defined. These categories were:

- **Schedule A:** Those industries which were to be an exclusive responsibility of the state.
- **Schedule B:** Those which were to be progressively state-owned and in which the state would generally set up new enterprises, but in which private enterprise would be expected only to supplement the effort of the state; and
- **Schedule C:** All the remaining industries and their future development would, in general be left to the initiative and enterprise of the private sector.

National Manufacturing Policy 2011

It is a watershed policy for India in which the policy aims to increase the share of manufacturing in the country's GDP from the current 16% to 25% by 2022, create 100 million additional jobs in the next decade. It envisages establishment of National Investment and Manufacturing Zones (NIMZ) equipped with world-class infrastructure that would be autonomous and self-regulated developed in partnership with the private sector.

Impact on Manufacturing and Employment Generation

The Industrial Policy Resolution (1956) sadly did not allow the private sector dynamism to run its course in our manufacturing; industries and the public sector undertakings became cesspools of inefficiency by calling them as "temples of modern India". The growth momentum is considerably less, compared to the service sector which has been our shining template during the last decade. The following table brings out the trends.

Table 1: Trends of Growth: Major Sectors

Parameter	2012-13	2013-14	2014-15	2015-16	Average Growth
GDP	5.6	6.6	7.2	7.6	6.75
Export	-1.8	4.7	-1.3	-17.6	-
Manufacturing	6.2	5.6	5.5	9.5	6.7
Services	8.0	7.8	10.3	9.2	8.8
Agriculture	1.2	4.2	-0.2	1.1	1.6

Source: Economic Survey

Besides, manufacturing has not been able to generate the kind of employment normally expected. Its share in GDP remains very low as the following table would show.

Table 2: Sectorial Contribution to Employment & GDP

Sector	1999-2000		2014-2015	
	Employment	Share in GDP	Employment	Share in GDP
Agriculture & Allied Services	60	23.2	52.9	17
Manufacturing	11	15	10.7	15
Construction	5.3	11.8	12	11
Services	23.7	50	24.4	57
Total	100	100	100	100

Source: Economic Survey

It would thus be seen that through services have been our shining stars, their contribution to employment generation is rather wafer thin.

Impact on Quality Education, Research, Skill Base

Impact on Quality of Primary Education

The tripod of India's education policy is Equity, Access and

Excellence. The Annual Survey of Educational Research (ASER) Report 2014, while acknowledging that near universal access to primary education has been achieved transcending caste, religion and gender in India, it flags the myriad concerns that afflict the primary schools run by the government in different states and all India in terms of infrastructure and outcomes. Table below brings out both the infrastructural and academic deficit that bedevils this critical sector.

Table 3: Infrastructure deficits: trends

Parameter	All India	
	2010	2014
Play Ground	62.2	65.0
Library Books Available	62.6	78.1
Drinking Water	72.2	75.6
Girls Toilet	32.9	55.7
Computer Available	15.8	19.6

Source: ASER Report 2014

Table 4: Outcome Deficits

1	Only 58% of children enrolled in classes 3 to 5 can read a class-1 text
2	Less than half (47%) are able to do a simple two-digit subtraction
3	Only 37% of children enrolled in class 4 or 5 can read fluently
4	Less than half (45%) are able to divide 20 by 5
5	Reading and Maths skills of class 4 pupils in India's top schools are below the international average

Source: ASER Report 2014

Impact on Quality in Higher Education

Despite the significant numerical increase in college enrolment through private sector interventions since 2001, the quality of research, patents granted and highly cited articles remain very poor compared to the global standards as the following tables will bring out.

Table 5: Quality of Research Institution, Industry Collaboration & Patents

Country	Quality of Research Institutions	Industry Collaboration	PCT Patents Granted/ (Million)	Highly Cited Articles
USA	5.8	5.6	137.9	3137
China	4.2	4.4	6.5	980
India	4.4	3.8	1.2	191

Source: YuXie Chunni Zhang et al at National Academy of Sciences, 2014

Impact on Skilling

The Skill India 2014 report brings out that if we continue at the current pace, we would have a skill gap of 75-80% across industry sectors. A National Skill Development Coordination Board was established in 2008 with a target of skilling 700 million people by 2022. However, the success of these efforts without active involvement of various stakeholders has been quite dismal. The Economist (May, 2015) brings out that Mr. Modi has set a dizzying target to provide vocational training to 500 million people by 2022. However, the Skill India Report 2016 brings out only 2.5% are having vocational training as against 68% in UK and 75% Germany. It also brings out how salary levels are less than 2 lakh for 65% of those joining in various sectors. Most disturbingly 93% of the employment is in the low skill unorganized sector.

Importance of Factor Productivity

It was Robert Solow, the Nobel Laureate, who underscored the importance of total factor productivity through his celebrated equation $Q = A \times K^{\alpha} L^{\beta}$ where A is scale of production & level of technology, K & L are factors of production and α and β are factor productivity. The remarkable GDP growth in China after 1979 was significantly contributed by the factor efficiency of labour (42%) as compared to 18% prior to liberalization as the following table would show.

Table 6: Sources of Growth in China (%)

Parameter	1953-1978	1979-2011
Output Growth	5.8	9.3
Contribution of K	65	45
Contribution of L	17	13
Contribution of Productivity	18	42

Source: Hu & Khan, 1997

The importance of factor productivity has also been endorsed by Prof. Rodrik, based on empirical studies of countries which have stolen a march over others.

Issues and Concerns

As brought out in the foregoing, without factor productivity improvement the value addition being contemplated through indigenous employment in National Manufacturing Zones would not be realized. These concerns veer around (a) allocational inadequacy for education & research, (b) institutional bottlenecks & (c) structural snafus.

(a) Inadequacy of Allocation in Education & Research

The following table brings out the trends both in school and higher education.

Table 7: Trends in Central Spending on Education (Rs. Cr.)

Parameter	2014-15	2015-16	2016-17	% increase
School Education	45722	42186	43554	+3
Higher Education	23152	25399	28840	+14
Total	68874	67585	72394	+7

Source: India's Budget Document 2016-2017

It would be seen that the overall allocation is around 3% of GDP and shows no real increase in the present year's budget. This is much lower than both public allocation by developed and EMEs which is of the order of 6%. Besides investment in R&D is 0.8% of GDP as against 3-5% by most developed & EMEs, who have a significant value addition in their products.

(b) Institutional Bottlenecks

The two institutions that we have inherited from the British viz. judiciary and the bureaucracy are presently bedeviled by interminable delay and lack of accountability. Our poor Ease of Doing Business ranking (130) by the World Bank is largely due to an extremely dilatory judicial system which frustrates contract enforcement and prolonged default recovery. The following table brings out the main areas which dips our ranking in Ease of Doing Business by the World Bank.

Table 8: Ease of Doing Business: Global Comparison

Parameter	Singapore	USA	Taiwan	India
Rank	1	7	11	130
Starting a Business	10	49	22	155
Construction Permit	1	33	6	183
Getting Electricity	6	44	2	138
Getting Credit	19	2	59	42
Trading Across Borders	41	34	65	133
Enforcing Contracts	1	21	16	178
Resolving Insolvency	27	5	21	136

Source: World Bank Report

(c) Structural Constraints

After creation of the PRIs in 1993, it was expected that grass root democracy will flourish with a bottom up approach. Advanced countries like Germany & USA have adopted fully empowered (financially and administratively) local bodies, which are mandated to provide quality primary education, health and sanitation service. Close to 95% students go to publicly run schools, in USA and Germany. In sharp contrast, the ASER Report brings out how there is a drift away from government schools to privately run outfits in India with commercial orientation. This is quite clearly abdication of responsibility by democratically elected government in so vital an area like primary education, which is a major merit good.

The other structural snafu is the constant bickering between the Centre and the States who have different political orientation. What is distressing is that even in issues like creating a NCTC, which will bring problem of terrorism under a coordinated umbrella, or a GST which will create a seamless national common market, political expediency has taken precedence over sound economic logic.

Way Forward

The youth of India is in the cusp of a hope that a new political regime in India will bolster India's manufacturing muscle. There is rhetoric aplenty to buttress their aspiration. However, lately the tendency to saffronise citadels of learning, queer the development agenda and puts India into an unquiet disequilibrium. The dominant ideology viz. market fundamentalism seems to unite most of the political parties. However, they seem to pay scant attention to the increasing tendency to commercialize places of learning which puts the poor and the middle class into serious economic distress. Behind the veil of free primary education lurks an apathetic government who pays lip service to the criticality of providing quality education at the grass root level and it scant priority for social sector in budget allocation. As Prof. Dreze "*Sending rockets to Mars and running bullet trains but remaining a third world country as far as social services like education is concerned seem to be an odd view*". There is a definite need to empower and embolden the PRIs financially and administratively, if we are looking at a long term synergy between value addition in education and self-reliant India through manufacturing hubs. It's also time we close the chasms in terms of digital empowerment, skill quotient that afflict our country. Prof. Stiglitz rightly observes that unfettered markets will "*lead to more monopoly power, more abuses of the financial sector, more unbalanced trade relations*". It is only through synergy in our policies, making government accountable to all people, more reflective of their interests that our 'tryst with destiny' will really blossom.

References

1. Agarwal P. Higher Education-I-From Kothari Commission to Pitroda Commission. Economic and Political Weekly, 2007.
2. ASER Survey Report, 2014
3. Atkinson AB. Inequality- What can be done?" President and Fellows of Harvard College, 2015.
4. Bahl R. Super Economics-America, India, China & the Future of the World. Penguin Books India Pvt. Ltd., Gurgaon, Haryana, 2015.
5. Banerjee A, Duflo E. Poor Economics- Rethinking Poverty & the ways to end it. Random House India, 2013.
6. Basu K. An Economist in the Real World- The art of Policymaking in India, Penguin Books India Pt. Ltd, Gurgaon, Haryana, 2016.
7. Bhagwati J, Panagariya A. India's Tryst with Destiny Harper Collins Publishers, UP, 2012.
8. Bose S. Transforming India: Challenges to the World's Largest Democracy, Pan Macmillan India, 2013.
9. Chandler C, Zainulbhai A. Reimagining India-Unlocking the Potential of Asia's next Super Power. McKinsey & Company, Inc. New York, 2013.
10. Deaton A. The Great Escape- health, Wealth, and the origins of Inequality. Princeton University Press, New Jersey, 2015.
11. Dreze J, Sen A. An Uncertain Glory India and its Contradictions. Penguin Books India Pvt. Ltd, Panchsheel Park, New Delhi, 2013.
12. Government of India. Economic Survey, Oxford University Press, New Delhi, 2015-2016.
13. Harvey D. Seventeen Contradictions and the end of Capitalism. Oxford University Press, New Work, 2014.
14. Human Development Report. Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience-UNDP, India's Budget Document, 2015-2016.
15. Nilekani N, Shah V. Rebooting India- Realizing a Billion Aspirations. Penguin Books India Pt. Ltd, Gurgaon, Haryana, 2015.
16. Ninan TN. The Turn of the Tortoise: The Challenge and Promise of India's Future. Penguin Books Ltd, 2015.
17. Pitroda S, Chanoff D. Dreaming Big- My Journey to Connect India. Penguin Books India Pt. Ltd, Gurgaon, Haryana, 2015.

18. Rawls J. A Theory of Justice. President & Fellows of Harvard College, USA, 1971.
19. Rodrick D. Economics Rules- The Rights and Wrongs of the Dismal Science. Norton WW, Company, Inc, New York, 2015.
20. Sandel MJ. What Money Can't Buy-The Moral Limits of Markets? Penguin Books Ltd. England, 2012.
21. Stiglitz JE. The Great Divide. Penguin Random House, UK, 2015.