

Building a Globally Competitive Environment for Medium, Small and Micro Enterprises

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Given the poor performance of the organised manufacturing sector, micro, small and medium sector can play a critical role in development. India needs to facilitate the emergence of a vibrant system so that the sector can thrive in a competitive global environment and create employment opportunities. Given the link between innovation and international competitiveness, a related challenge is to integrate, as explicitly as possible, innovation system concerns into the trade and investment policy framework.

A little more than two decades ago, more precisely with the new industrial policy of July 1991, the state seems to have almost taken its hands off the industrial steering wheel. Market forces were expected to help evolve a regionally balanced, technology dynamic and internationally competitive industrial sector for the country for employment generation, output expansion and foreign exchange earnings. The remarkable performance of certain sectors like software which was attributed to the “benign state neglect” (Arora et.al 2001)¹ provided the empirical support for such a strategy apart from the consensus from the developed bloc on the role of service sector in rapid economic growth.

This strategy has not succeeded in delivering the expected outcomes. While the country managed to increase its share of manufacturing in GDP from about 9 per cent in 1950-51 to 16 per cent in 1991, its share has remained almost flat since then until today. While countries like China forged ahead with a fast growing and internationally competitive manufacturing sector accounting for nearly 35 per cent of the GDP and flooded the world market with its manufactured products, India remained a passive spectator. True, one could locate a few dynamic sectors and a few sub periods of high growth in manufacturing since 1991 but the observed growth was characterised by poor record in employment generation both in terms of quantity (Nagaraj 2000) and quality (Uma et al 2010). In a context where the fastest growing service sector contributes 65 per cent of

¹ For a critical view highlighting the role of the state see Joseph (2002)

the GDP but only about 36 per cent of the employment for achieving inclusive growth, the policy makers have limited options other the industrial sector.

The 12th Five Year plan for the industrial sector aims at increasing manufacturing sector growth to 12 to 14 per cent over the medium term to make it the engine of growth for the economy and enable the manufacturing sector to contribute at least 25 per cent of the GDP by 2025. It also aims at increasing manufacturing job creation of the order of 100 million through increasing the depth of manufacturing by focusing on greater domestic value addition (Government of India un-dated). The plan recognizes that the achievement ambit of these laudable objectives in a globalised context is possible only through enhancing international competitiveness.

If past experience is any indication, the organised manufacturing sector can at best play a peripheral role in helping realise the objectives of the plan. The organised manufacturing sector in the country has been known for its jobless growth (Goldar 2000) inter alia on account of low domestic value addition. Neither are the multinationals of much help in generating employment and value addition as they are often driven by maximising growth and profitability at the global level where employment and value addition in a specific country might be inimical to their own interests. Given this, the key candidate that could help address the three national concerns turns out to be the Micro, Small and Medium Enterprise (MSME). The moot question is how are they placed today to discharge these national mandates?

MSMEs and State's Response

The MSMEs, comprising 26 million units engaged in the manufacture of over 6,000 products, generates 60 million employment 8 per cent of GDP, 45 per cent of manufacture output and 40 per cent of exports during 2006-07(Government of India 2011). Operating under the liberalized and globalised environment they have been faced with de-reservation of products and de-licensing leading to intense competition with the large scale sector from within the country. Further, the removal of tariff barriers under globalization along with different Regional Trading Trade Agreements (RTAs) and Free Trade Agreements (FTAs) that the Country has entered into implied the replacement of the earlier regime of infant industry production with open competition with foreign firms. However, some of the firms operating in select industries have managed to get access to the global market inter alia through their participation in the global production network. To the extent that such integration is governed primarily by the global considerations of MNCs it would have had its adverse effect on the domestic value addition and employment generation.

To what extent can the MSMEs sector withstand the heightened competition unleashed after globalization? The answer does not appear very encouraging because of the growing morbidity and mortality of MSMEs. Provisional figures quoted by the Government of

India (2013) from the data published by the Reserve Bank of India (RBI), show that the total number of sick units stands at 2.5 lakhs in 2013.

The poor health of the MSME sector in general is no revelation for India's policy makers. The state, among other things, considering their potential, for the generation of employment and achieving balanced regional development while contributing to the foreign exchange earnings, had taken a highly proactive role in addressing their concerns. Even when the industrial sector in the country was almost off the policy radar, the State seems to have maintained its keen interest in nurturing the MSMEs – an approach traceable to the days of National Planning Committee (1938-41) according to Tyabji (1980). This is evident from the fact that apart from the Inter-Ministerial Committee (Government of India 2013) that submitted its report in October 2013, six high level Committees were appointed by the Central Government since 1991 to study the varied issues confronted by the small scale sector. (For details please see the Prime Ministers taskforce of MSMEs (2010)). In addition, the National Commission for Enterprises in the Unorganized Sector (NCEUS) was appointed in September 2004 to examine issues specific to the unorganized sector. Over and above, the Prime Minister appointed a taskforce in 2010 which made wide ranging recommendations on all the aspects of concern for the MSMEs. This Task Force also recommended the establishment of Prime Minister's council on MSMEs in the Prime Minister's office. Perhaps, more could not have been done.

Following the recommendations of these committees various institutional interventions were initiated at the instance of the state. Das (2011) argued that persistent initiatives of influential global agencies such as the United Nations Industrial Development Organisation (UNIDO), International Labour Organisation (ILO), United Nations Conference on Trade and Development (UNCTAD), World Bank, Organisation for Economic Co-operation and Development (OECD) and so on, the so-called cluster development programmes were deeply neoliberal in their basic strategies. The numerous policy measures by the state aimed at promoting their competitiveness by addressing the basic concerns relating to technology, finance and marketing. The primary objective of the SSI policies during the 1990s was to impart more vitality and growth-impetus to the sector to enable them to contribute to the economy, particularly in terms of growth of output, employment, and exports. Thus the Government of India introduced the Micro, Small and Medium Enterprises Development Act, 2006. This particular Act made a case for small firms towards external orientation and to be globally competitive. The objective of this policy makes clear that though employment generation continued as the primary objective, SSIs were expected to achieve this objective by attaining competitive strength and economic viability.

The central government of India directly operates a remarkably large system for assistance for the MSMEs in various business and technical aspects throughout the country. One

of the policy initiatives by the GOI announced was to set up a National Manufacturing Competitiveness Council to support SSIs to become competitive. The council was set up to promote interventions relating to technology upgradation, marketing and sales promotion strategy and skill upgradation, focusing on selected modern sectors/clusters having the potential of participating in the global market.

The Ministry of MSMEs set up Technology Resource Centres (TRCs) and Small Industry Services Institutes (SISIs) to help SSIs to upgrade and modernize technology and to provide information on latest technologies. The ministry also has Product-cum-Process Development Centres (PPDCs) to promote R&D, product design and innovation, product and process improvement and development of improved packaging techniques, common facility centre and manpower development and training.

In case of strategies to promote exports, the small-scale sector has been accorded a high priority in India. Apart from the number of incentives and facilities to SSIs, the following schemes are in operation for achieving high growth in exports. The office of Development Commissioner (DC-MSME) since 1985² has a scheme for facilitating participation in international fairs; wherein MSME entrepreneurs are encouraged to display their products. The scheme offers funding for participation in international fairs/exhibitions, study tours abroad, trade delegations, publicity. It is a purely promotional scheme to give exposure to the products of MSMEs which otherwise are not in a position to participate in the exhibitions/ fairs at their own cost.

In order to enhance the competitive strength of the SSIs, Ministry of MSMEs introduced an incentive scheme for their technological upgradation/ quality improvement and environment management. The scheme provides incentives to those small-scale/ ancillary undertaking who have acquired ISO 9000/ ISO 14001/ HACCP certifications.² The scheme envisages one time reimbursement of charges for acquiring these certificates to the extent of 75 per cent of the expenditure.

Whither Innovation?

Ever since the pioneering works of scholars like Ponsler (1961) driven by the Leontief Paradox, the relation between technology and trade has become a fertile field of research. Much of the earlier studies, in the neoclassical framework treated technology as exogenous, and were concerned with the how technology shapes the pattern of trade and human welfare. Subsequent studies, by endogenizing technological change, explored not only how technology affects trade, but also how trade affects the evolution of technology (see Grossman and Helpman 1995 for a survey). It is by now generally recognized that in the globalised world without tariff barriers there is hardly any easy option for the enterprises to survive other than being internationally competitive. In tune

² <http://www.dcmsme.gov.in/schemes/sciso9000.htm> (DC-MSME, 2013).

with the global trend in India there have been a number of studies, mostly focusing on the role of innovation in shaping international trade in manufacturing sector in general (Kumar and Sidharthan 1994, Sidharthan and Nollen 2004) and MSMEs in particular (Bhavani 2002: 2009; Pradhan 2010 among others.)³

In most of these studies technological change is represented by research and development while some of them have also considered the import of technology, both in embodied and disembodied form. Disenchanted with the neoclassical paradigm that places an analytical focus on concepts like scarcity, allocation and exchange (market) in a static context, and considering theories in social sciences as focusing devices, Freeman (1987), Lundvall (1992) and Nelson (1993) made considerable contribution towards evolving the concept of National Innovation System (NIS) building on the work of Frederick List (1841). The concept was enriched by drawing insights from evolutionary economics, structuralists and theories on the economics of knowledge and appreciating the dangers of considering R&D on par with innovation in the manner of GDP growth with development in traditional development economics. Common for these contributions is that they deviated from the linear approach to technological progress (invention-innovation diffusion) and regarded innovation as an interactive and evolutionary process at micro, meso and macro level as a driving force behind growth and development. Thus viewed they went beyond the narrow confines of product and process innovation and considered innovation as a process involving different actors in an evolutionary manner emphasizing the inter-dependence and non-linearity wherein institutions playing the central role (Joseph 2006; Edquist 1997).⁴ The literature was further enriched by the subsequent developments focusing on systems of innovation at regional (Asheim and Gertler 2004), local (Lastres and Cassiolato 2005), sectoral (Malerba 2004) and technological (Carlsson and Stankiewicz 1995) levels. Much of this work has been based on the evidence from developed countries.⁵

The innovation system perspective has emerged as the most widely used approach in innovation studies published during the last two decades (Fagerberg and Sapprasert 2011). Of late this perspective has found acceptance in India's policy circles as well as with multilateral organisations like UNCTAD, OECD, the World Bank and others. The strategy paper prepared by the Office of the Advisor to the Prime Minister (2011) states "while we do need to increase R&D investment and efforts, this view of innovation is based on a myopic perception that restricts it to the confines of formal R&D".

³ For a recent contribution this issue, the interested readers are directed to Innovation and global competitiveness: case of India's manufacturing sector, Innovation and development Vol 3 No.2, Guest edited by N.S. Sidharthan and K. Narayanan (2013) Vol 3. No.2.

⁴ For a growing number of studies on Innovation systems, the readers are referred to www.globelics.org

⁵ For treatment of this issue from the developing country perspective please see Lundvall et al (2009).

To what extent has this been taken into actual policy implementation towards shaping the innovation and competitiveness of MSMEs?

Some evidence

A sound data base on MSMEs, which is a precondition for informed policy making, is yet unavailable in India. Though India has undertaken four censuses thus far on the small scale sector, the data gathered during different surveys is hardly comparable because of the lack of a uniform conceptual frame. More importantly, information on some crucial factors like the use of ICT, import of embodied technology in the form of capital goods is yet to be collected. Surprisingly, for unknown reasons, certain minimum information of relevance at present (whether the unit has a computer) gathered during the third survey has been dropped in the fourth census.

Based on the data obtained from the fourth census of MSMEs we have estimated select indicators of international competitiveness by classifying the industries in terms of their technological intensity as per OECD (2011). We have also gathered information on select indicators of interactive learning although the available data base doesn't permit us to reflect on a wide range of interactions that are important and also the content of observed interactions.

In what follows we shall make a very preliminary attempt at relating different indicators of competitiveness with the four different types on interactions (1) interactions with foreign concerns (2) domestic collaborating companies (3) domestic R&D institution/specialised agency (4) none (see table 1). Needless to say, it is important to incorporate the role of R&D. Unfortunately such information is not gathered during the survey. Earlier studies based on the data obtained from the company level information published by the Centre for Monitoring Indian Economy have highlighted the poor R&D performance of MSMEs. The incidence of R&D (units undertaking R&D) is found to be very low and the R&D intensity (R&D expenditure as a proportion sales) declined in the 2000s as compared to 1990s (Pradhan 2010).

**Table1: International competitiveness and interactive learning by MSMEs,2006-07 (per cent)
Select Indicators**

Industry groups	Indicators of International competitiveness			Interactions with			
	Share of exporting units	Export intensity	Export share	Actors Abroad	Domestic Collaborating company/ unit	Domestic R&D institution/ specialized agency	None
Low-tech	3.07	33.01	59.94	1.77	4.14	5.42	88.67
Medium low	3.11	18.96	18.15	1.93	4.89	8.19	84.99
Medium high	4.12	19.65	15.92	1.96	5.59	8.26	84.20
High-tech	6.92	28.22	5.99	1.94	6.09	10.39	81.57
Total	3.34	26.35	100.00	1.84	4.56	6.53	87.08

Source: Estimate based on the data obtained from the OECD (2011)

From Table 1 we see that the incidence of exports measured in terms of the proportion of firms engaged in exports is at a very low level (3.3 per cent). However, it increases as we move from low technology industries (3.0) to high technology industries (6.9). Export intensity is found to be higher in case of low technology industries and they account for nearly 60 per cent of the total exports. As in the incidence of exports, the incidence of engagement in interactive learning, though could not be captured in its entirety from the data base, is also found to be at a low level. On an average 87 per cent of the firms are not engaged in any of the interactive learning activities.

In this context, a recent study has argued that while India is home to a large number of natural industrial clusters dominated by SMEs, and subcontracting has been systematically promoted through varied policy initiatives, learning, innovation and competence building systems as articulated in the National Innovation System framework is yet to evolve in its real sense (Das and Joseph, 2013). On the whole it appears that the low international competitiveness of India's MSME is linked with the very low levels of R&D coupled with inertia for interactive learning, the key elements of a vibrant innovation system, which in turn stands in the way of building an internationally competitive MSME sector. The key issue is to facilitate the emergence of a vibrant learning, innovation and competitive building system such that India's MSME's are enabled to survive in the current context of heightened international competition and emerge as key sectors in generating value added and employment as envisaged in the 12th Five Year Plan. Given the link between innovation and international competitiveness, a related challenge for the policy-makers is to integrate, as explicitly as possible, the innovation system concerns into the trade and investment policy framework.

References

- Arora, A., V. S Arunachalam, J. Asundi and F. Ronald (2001) 'The Indian Software Services Industry', *Research Policy*, 30 (8): 1267-87.
- Asheim, B. and M. Gertler (2004), 'The geography of innovation: regional innovation systems' in Fagerberg, J, D. Mowery and R. Nelson (eds) *The Oxford Handbook of Innovation*. Oxford University Press Oxford, 291-317.
- Bhavani, T. A. (2002), 'Small-Scale Units in the Era of Globalisation: Problems and Prospects, *Economic and Political Weekly*, July 20.
- _____ (2009), *Globalisation and Indian Small Scale Industries: Technology and Competitiveness* Ane Books Pvt. Ltd., New Delhi.
- Carlsson, B. and R. Stankiewicz, Eds. (1995), *Technological systems and economic performance: the case of factory automation*, Dordrecht, Kluwer Academic Publishers.
- Das Keshab and K J Joseph (2013), 'On learning, innovation and competence building in India's MSMEs: The challenges ahead', in Ana Carolina Arroio and Marrio Scerri (eds) *Innovation in SMEs: The BRICs Experience*, Routledge New Delhi 2013
- Das, Keshab (2011), 'Indian Rural Clusters and Innovation: Challenges for Inclusion', *Economics, Management, and Financial Markets*, 6 (1), pp. 283-301.
- Edquist, C. (1997) 'System of Innovation, Technologies, Institutions and Organisations' Pinter, London.
- Freeman, C. (1987) *Technology Policy and Economic Performance: Lessons from Japan*, Pinter, London.
- Goldar B (2000) 'Employment Growth in Organised Manufacturing', *Economic and Political Weekly*, Vol. 35, No. 14, pp. 1191-1195
- Government of India (2011), 'Towards a more inclusive and innovative India: Creating a road map for a decade of innovation', Strategy Paper, March 2011, Office of the Advisor to the Prime Minister, New Delhi.
- _____ (2011) *Fourth All India Census of Micro, Small and Medium Enterprises*, 2006-07, Development Commissioner, MSME, New Delhi.
- _____ (undated), 'The Manufacturing Plan Strategies for Accelerating Growth of Manufacturing in India in the 12th Five Year Plan and Beyond', Planning Commission, New Delhi.
- _____ (2013), *Recommendations of the Inter-Ministerial Committee for Accelerating Manufacturing in Micro, Small & Medium Enterprises Sector*, Ministry of MSME, New Delhi.
- Grossman G M and Helpman E (1995) 'Technology and Trade', in G. Grossman and K. Rogoff, eds., *Handbook of International Economics*, vol. 3, North-Holland, Amsterdam, 1995, pp. 1279-1337.
- Joseph, K. J. (2002) 'Growth of ICT and ICT for Development: Realities of the Myths of Indian Experience', Discussion paper No. 2002/78, Helsinki: UNU/ WIDER.
- _____ (2006) *Information Technology, Innovation System and Trade Regime in Developing Countries: India and the ASEAN*, Palgrave Macmillan London.
- Kannan and Raveendran (2009): 'Growth sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing' *Economic and Political Weekly*, Vol. 44, No 10, pp.80-92
- Kumar, N., and N.S.Sidharthan. (1994) 'Technology, Firm Size and Export Behaviour in Developing Countries: The Case of Indian Enterprises' *The Journal of Development Studies* 31(2):289-309.
- Lastres and Cassiolato (2005) 'Innovation Systems and Local Productive Arrangements: New Strategies to Promote the Generation, Acquisition and Diffusion of Knowledge' In 'Innovation and Economic Development', a special issue of *Innovation: Management, Policy & Practice*, 7(2).

- List, F (1841). *The National System of Political Economy*, English Edition, Longman, London (1940).
- Lundvall, B.-A, Ed. (1992). *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning*. Pinter, London.
- Malerba, F. (2004), 'Sectoral systems: how and why innovation differs across sectors' in J.
- Fagerberg, D. Mowery and R. Nelson (2004). *The Oxford Handbook of Innovation*, Oxford, OUP, 380-406.
- Kannan, K.P. and G. Raveendran, G (2009). 'Growth sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing', *Economic and Political Weekly*, Vol. 44, No 10, pp.80-91.
- Morris, S., R. Basant, K.Das, K. Ramachandran, and A. Koshy. (2001). 'The Growth and Transformation of Small Firms in India', Oxford University Press, New Delhi.
- Nagaraj, R. (2000). 'Organised Manufacturing Employment', *Economic and Political Weekly*, vol.35, No.38, pp. 3445-3448.
- Nelson, R. (Ed) (1993). *National Innovation Systems: A Comparative Analysis*, Oxford University Press.
- OECD (2011). *ISIC Rev.3 Technology Intensity Definition* (OECD, online document). <http://www.oecd.org/dataoecd/43/41/48350231.pdf>
- Posner, M.V. (1961), 'International Trade and Technical Change', *Oxford Economic Papers*, 13 (3), pp.322-41.
- Pradhan, J. P. (2010). 'R&D strategy of small and medium enterprises in India: Trends and determinants', MPRA Paper No.20951.
- _____. (2011a), 'Regional Heterogeneity and Firms' R&D in India.' *Innovation and Development* 1(2):259-282.
- Prime Minister's Task Force (2010). *Report of Prime Minister's Task Force on Micro, Small and Medium Enterprises*, Government of India. New Delhi.
- Sidharthan, N.S., and S.Nollen. (2004). 'MNE Affiliation, Firm Size and Exports Revisited: A Study of Information Technology Firms in India', *The Journal of Development Studies* 40(6):146-168.
- Subrahmanya, M.H. Bala, M. Mathirajan, P. Balachandra, M. N. Srinivasan, and L.Prasad, (2002), *R&D and Technological Innovations in Small Scale Industries*, Allied Publishers Pvt. Ltd., Mumbai.
- Tyabji, Nasir (1980). 'Capitalism in India and the Small-Industries Policy', *Economic and Political Weekly*, October, 25.
- Uma, S, Vinoj Abraham and K J Joseph (2010). 'Impact of Trade Liberalization on Employment: The Experience of India's Manufacturing Industries', *Indian Journal of Labour Economics, Issue 4*,

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