

WHY DO BANGALORE AND HYDERABAD ATTRACT IT ENGINEERS AND NOT KOLKATA? ASSESSING POLICY DIFFERENCES

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Abstract

Bangalore is the prime IT hub of India. The IT engineers have great propensity to move to the IT city due to career advantages. Many prefer to settle down there partly due to the favourable government policies towards information technology industry. Many skilled migrants after few years of experiences migrate to the Silicon Valley of India from technological hinterlands like Kolkata. Hyderabad has also posed a great challenge after registering 16 per cent growth and adding 15000 employment in FY 2015-16. The paper is about an overview of the governmental policies in West Bengal, Telengana and Karnataka and also the critical analysis of the policy aspects.

Keywords: Information technology, Bangalore, Hyderabad, Kolkata, mobility

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1. Introduction

Bangalore accounts for Rs. 1 lakh crore or 31% of IT exports of India, compared to 13% in the case of Hyderabad. Pune occupies the second place in IT exports. The IT and IteS industry in Kolkata is suffering from several bottlenecks and still lagging behind despite job creation in this part of India. Bangalore has attracted the investors because of rapid strides Bangalore has made over last two decades by the IT sector aided by the leading industry players, skilled labour, customers and investors (Saxenian, 2001). Entrepreneurship at the micro level has enabled the IT sector to register growth and it needs to be better understood regarding policy making. Although Hyderabad is fast emerging and getting prepared to compete with Bangalore, Kolkata's service industry in IT and IteS is confined to only lower order services minus start up. The paper will assess the policies and critically explain the policy measures adopted in the case of three cities.

2. Objectives

The basic objective of the research is to critically assess the policies regarding IT and IteS industry in three cities like Bangalore, Hyderabad and Kolkata. The engineers are more interested to continue working in south India, despite Kolkata being a less expensive and peaceful city. So what is wrong with this city driving the push factors of out migration from Kolkata? What are the positive or pull factors so far as the policy perspectives are concerned from Bangalore and Hyderabad's point of view? The present study endeavours to throw light on these facts.

3. Methodology

The study solely focusses on the policy related published documents for critical appraisal. Thus, the data and information used here are from secondary sources. The study is based on descriptive analysis. However, during discussion, cross references from other secondary data and informations are also cited in order to substantiate the analysis.

4. The IT Policy of Karnataka

The prime objective of Karnataka is to create an international class startup ecosystem through a process of strategic investment as well as policy intervention to further encourage the strong innovation culture in Bangalore. Biotechnology is one of the key areas of the state for creating

infrastructure, development of skilled labour force and facilitation of dynamic networking for startups to bloom to become fully fledged companies in the long run. Karnataka Startup Policy 2015 – 2020 is a document released of late by the Government, entails various incentives for startups to avail. Providing national and international exposure is one such incentive and as a corollary, the Department of IT, BT and S&T sponsors a substantial amount of the expenditures for several startups to participate in international Biotechnology events e.g. BIODKOREA 2016 in Seoul, South Korea, Japan and BIO International 2016 in San Francisco USA, BIOtech Japan 2016 in Big Sight, for example. These events facilitate the participants to meet, greet and discuss with key industry leaders, academicians plus global innovators¹.

During recent initiatives, the following initiatives are introduced for promotion of IT sector in Karnataka in general and Bangalore in particular. Karnataka Biotechnology and Information Technology Services (KBITS), Directorate of Information Technology & Biotechnology (DIT), Karnataka State Electronics Development Corporation Limited (KEONICS), Science and Technology Wing, Karnataka State Remote Sensing Applications Centre (KRSRAC), Directorate of Information Technology & Biotechnology (DIT) are some of the important bodies formed. Besides, the following scientific institutions have come under the Department of Science and Technology; play crucial role in shaping science and technology of the state:

- Karnataka State Council for Science and Technology (KSCST)
- Karnataka Science and Technology Academy.
- Jawaharlal Nehru Planetarium (JNP)
- Karnataka State Drought Monitoring Cell (KSDMC)
- Karnataka Rajya Vignana Parishat (KRVP)
- Dharwad Regional Science Centre
- Mangalore Pilikula Regional Science Centre

Science and technology has occupied the center stage in their lives.

5. The IT policy of Telangana

Telangana government's new policies regarding promotion of ICT as well as a clutch of

subsidiary policies extending its the TS-iPass Scheme was released in April 2016, that provide time bound clearances and attaches importance on self-certification to IT firms too. The TS-iPASS Scheme 1,691 projects have enabled clearances and ensured hassle free and corruption free procedures for the entrepreneurs. Besides extending the TS-iPASS Scheme, there are other measures to boost Brand Hyderabad, viz. give impetus to electronics manufacturing, promote start-ups and Innovation, promote rural entrepreneurship apart from attracting gaming and animation firms are the new thrust areas in the policies.

Doubling IT exports from Telengana in five years is being targetted, from the current value of Rs.68,232 crore and also to double the current employment of four lakh during similar time-frame. Establishing 3 tier-II cities as IT hubs in another 5 years are ambitious plans of Telengana. While Hyderabad will be the centre of R&D activities and product development, especially ITeS companies, the city will also be given opportunities to establish themselves in tier-II cities like Karimnagar, Warangal, Nizambad etc.

The rural technology component of the IT policy is aimed to achieve inclusivism. The policy is both entrepreneur and people friendly with innovation as the key word. The launch of the new policies was followed by 28 MoUs several institutions entered in to. The significance of the MoUs may be understood by the presence of the technology development centre of Development Bank of Singapore in Hyderabad, with an objective to eventually house about 1,500 employees; an assembly unit to make cell phones, LED TV sets of Max Touch; for an office of Fractal Analytics; and establishing the Value Labs campus in Hyderabad are some of the important steps in this direction. Besides doubling IT exports, establishing 3 tier-II cities as IT hubs in the next 5 years is also a goal. Infosys founder Mr Murthy suggested during the policy launch that the Telengana government benchmark itself with the best international places, like Silicon Valley of the US and Cambridge Science Park (UK), and not just other Indian cities (Ravi Kumar, 2016). This juxtaposes the status of Kolkata, whose sole aim is to compete with other smaller Indian IT destinations other than Bangalore and Hyderabad.

6. IT Policy of West Bengal

West Bengal government's IT department website has clearly discussed on information and communication technology, 2012 and ICT incentive scheme, 2012. The published documents available in the government website has clearly accepted the poor condition of IT industry in the state. The document has mentioned:

“As far as the Electronics System Design and Manufacturing (ESDM) Sector is concerned, the position of West Bengal in an all-India context is not satisfactory, given the relatively poor scenario of the country as a whole.”

Some of the major points in the mission of West Bengal's IT policy are mentioned here:

- The policy documents are aimed at matching steps with three top states of India by turnover and employment in IT, ITeS and Electronic System Design and Manufacturing or ESDM sectors by 2020.
- To create pro-investment climate for augmenting the production of electronic goods in India – ultimately to occupy 15% share of India.
- The top educational and research institutions are to be engaged in embedded software industry, chip design involving very large scale integration technologies.
- A plan is there to work with the central government and other states for mandating standards and certification of electronic produce as well as services apart from strengthening quality assessment infrastructure in the state.

Some of the policy highlights are mentioned below:

- Establishing 26 IT parks and incubation centres one each in every district
- Encouragement of ICT in Tier II and Tier III cities in rural Bengal by increasing incentives.
- Encouraging new hardware units and 15 clusters for small and medium enterprises (SME) in next five years.
- The state will develop design centres in assistance with the premier technology institutions.
- Special emphasis will be placed on gaming and animation.

- More focus on rural IT training and infrastructure.
- More emphasis on venture capital and local creativity and entrepreneurship.
- Encouraging R&D in IT sector by reimbursing for patent filling in SME sectors.

In addition, for leveraging IT in the enhancement of productivity in different sectors some measures are to be taken:

- IT is planned to be integrated with agriculture, animal husbandry, fishery and also SME.
- Subsidy for patent filling for IT in MSME.
- Subsidy for quality enhancement for IT in MSME.

Some of the key initiatives for promoting ICT in Bengal include IT Parks and incubation centres, E – governance, EMC Initiative, Capacity building, Mobile governance, Setting up IIITs, Bengal Global Business Summit 2015 and so on (GoWB, 2016).

7. Pull Factor of Bangalore

The engineers tend to attract towards Bangalore as a result of new opportunities not only in the form of jobs but also for start up as a result of pro-entrepreneur policies as obvious from the government policy measures. The three phases of IT development was quite obvious in the case of Bangalore and Hyderabad, but not in Kolkata.

In the first phase in 1991-92, very few Indian companies were engaged in software exports from India. In the second phase, the concept of the "Offshore Development Work" took shape. The Global Leaders in Hi-Tech areas such as, IC Design, Communication Software and System Software have established a base for operations in India. The third phase caused close links with the start-up companies of Silicon Valley. During the fourth phase many Indian companies were able to own intellectual property within India and earn royalty from global players. Three factors such as the newness of the business model, Internet infrastructure and the government interface brought a positive response from industry, in particular the small and medium enterprise or SME sector, which required this support for their business to grow. For encouraging growth of IT and ITeS industries in north Karnataka, an IT Park at Hubli is established. Karnataka State Electronics Development Corporation Limited has MoU with various organisations for marketing their products and services. To name a few are tender wizard, e-devalaya, drugs

Logistics Smart Card, works management system etc. The scheme is planned to integrate 100 percent Export Oriented Units (EOUs) and Export Processing Zones (EPZs) and also the concept of Science Parks/Technology Parks, taking a cue from other parts of the world. With the presence of STPI, orderly implementation of STP Scheme and the Govt. efforts, in general, the offshore software exports during 1991-92, was only 20-35% has leapfrogged to more than 70% during 2009-10. Mauritius, Sri Lanka, Algeria, Nepal, Indonesia, etc. are taking the assistance of STPI to establish similar technology parks with the analogous concept.

Even though, STPI Centers have sprung across in as many as 52 locations, the major Industry concentration is found at Bengaluru, Chennai, Noida, Hyderabad and Pune, suggesting the technology clustering effect akin to other technology clusters i.e. Silicon Valley, Boston, Dallas, Ireland, Sweden and Tokyo (GovI, 2015). The massive number of IT parks in Bangalore can not be compared to West Bengal, where the parks are still in nascent stage of development.

It is noteworthy that Karnataka is the first Indian state to introduce a startup policy with the cabinet clearing it. The policy mentions about collaboration between R & D institutions and industry, incubators in PG colleges, and technical business incubators in higher educational institutions among others. Karnataka government's premier IT event Bangalore ITE.biz 2015 severed its ties with CeBIT and is independent from December 8-10 with the theme "Fuelling growth through disruptive innovation" (NDTV, 2015).

The following is a comparison of the tech quotient between Hyderabad and Bangalore as noted by Grabhouse (2015):

- **The High Tech Comparison:** Bangalore alone consists of above 35 percentage of all the IT companies in India. Hitec City houses the MNCs such as Google, Oracle, GE, IBM, HP, DELL, Capgemini, Deloitte, Mindtree, HCL, CISCO, Amazon etc.
- **Training the IT Professionals:** Bangalore has some of the most reputed institutes in India. Hyderabad has many Universities and major tech institutes like IIT Hyderabad, Jawaharlal Nehru Technological University and Osmania University etc.

- **Start Ups Vs The Big Fishes:** Bangalore is the Mecca of start-ups. Hundreds of fresh start-up commences journey regularly here in IT industry, which provides the best avenue for IT engineers to make their career here.
- **Outsourcing Vs Insourcing:** Bangalore is the leading exporter in the IT sector. The firms in Hyderabad manages various projects involving both Insourcing and Outsourcing.

8. Why is Kolkata less appealing to engineers?

Mukherjee (2012) views that West Bengal ought to bolster its marketing strategy, slash real estate prices, improve high-speed internet and create a favourable ambience for small & medium businesses (SMBs) to stay alive in the IT space. Bengal has a repository of best IT talent, but West Bengal still need to do more in order to emerge as a top-ranking tech destination. Kolkata has specialized in low end outsourcing businesses. Thus, the need is there to shift focus from low-end BPO jobs to state of the art product development in order to rejuvenate the state into a prime tech destination. There is very little competitive advantage in low-end BPO business offered by Kolkata, since the similar services are being delivered by firms located in the Caribbean and Central America at competitive rates. Hence, Bengal needs to pull top talent from all across the world to thrive in IT and Ites industry. Therefore, Kolkata needs to become a truly cosmopolitan city. International air connectivity options needs to be improved and a better diversity ratio is needed by creating a conducive environment for encouraging women to join the industry. Kolkata holds enough potential to compete with the East European IT hotspots like Bulgaria, Romania or Hungary or even the countries in Central America and the Caribbean provided these issues are resolved.

West Bengal's IT industry has severe shortage of middle level IT managers. Generally young tech IT professionals after five years of work experience normally migrate to Bangalore to improve career prospects. Retaining them, grooming them and giving them leadership roles are vital for ensuring a bright future for Bengal's IT sector. Encouraging SMBs, and not only the major corporate sectors are needed to enter the IT industries of Bengal. In the case of Bangalore, 85% of IT revenues are generated by SMBs whereas in West Bengal only 6-to-7 IT biggies run the show. The government needs to take active role to endorse more entrepreneurial acitivity in the IT space. Improvement of basic infrastructure and bandwidth connectivity throughout the

state will encourage entrepreneurship in the same way as it did in the US and encourage SMBs. The IT sector of Bengal is yet to deliver for the rank and file. Companies need to develop and promote technology in core areas like agriculture, healthcare, energy, education and environment, as it is risky for the companies to depend solely on western projects outsourcing. Hyderabad is a distant second after Bangalore in IT exports, but the Telangana government aims to compete with Bangalore and emerge as the new IT capital of India in a few years. At present Hyderabad has been in a battle for IT supremacy with Bangalore for almost two decades, but accounts for just 13 per cent of India's IT exports juxtaposed by 31 per cent from the Garden City. The country's largest technology incubator for start-ups will soon be launched and has signed up with reknowned law schools and technology institutes in Hyderabad. The city has considerable success as Amazon, Uber and Tata-Boeing are roped in (Team YS, 2015).

9. Concluding remarks

The engineers in information technology migrate to Bangalore and Hyderabad not only from Kolkata, but these cities experience brain gain also in the form of return migration from the developed countries also. Networking, gain from improved knowledge and expertise, capital as well as the rich experience they bring in also benefit the cities of south India to a great extent. On the contrary, the work culture, land problems, apathy of policy makers, lacklustre investment climate, absence of better and updated training facilities in Kolkata have rendered the city its present day hinterland status.

References

- Mukherjee, W. (2012). Bengal's IT future: Kolkata needs to boost marketing strategy & infrastructure, ET Bureau, May 15,
- Retrieved on 25th April, 2016 from http://articles.economictimes.indiatimes.com/2012-05-15/news/31711616_1_smbs-kolkata-tech
- NDTV (2015). Karnataka Becomes the First Indian State to Have a Startup Policy, Indo-Asian News Service , 7 November 2015,
- Retrieved on 26th April, 2016 from <http://gadgets.ndtv.com/internet/news/karnataka-becomes-the-first-indian-state-to-have-a-startup-policy-762641>

- GovI (2015). Software Technology Parks of India, Bengaluru, Ministry of Communications and Information Technology, Govt. of India, Retrieved on 28th April, 2016 from <http://www.soft.net/>
- Grabhouse (2015, January 2). Tech Capital of India: Hyderabad or Bangalore?, , Retrieved on 29th April, 2016 from grabhouse.com/blog/tech-capital-of-india-hyderabad-or-bangalore
- (GoWB, 2016). Department of Information Technology and Electronics, Government of West Bengal, Retrieved on 28th April, 2016 from <http://www.itewb.gov.in/>
- Ravi Kumar, N. (2016). Telangana launches ICT policy, The Hindu, Hyderabad Edition, April 5, Retrieved on 28th April, 2016 from www.thehindu.com/.../telangana-launches-ict-policy/article8435090.ece
- Saxenian, A.L. (2001). Bangalore: The Silicon Valley of Asia?, Center for Research on Economic Development and Policy working paper 91, 6-7.



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