Research Paper Information Technology

A Critical Study of Contribution of Information Technology Companies in Economic Development of Vidarbha Region

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ABSTRACT

Growth of IT Industry in Software Development India has changed the scenario of the country worldwide. The impact of this rapid growth of Offshore Outsourcing in the country, especially in the field of Information Technology has empowered the strength and reputation of India worldwide. Today the situation is totally different for the demand of the country which was there almost a decade back. A decade back, Software Development in India was literally neglected for any types of software or overseas services. But now the situation is totally different today and most of the overseas companies and countries prefer India for most of their IT services and requirements. Right now Vidarbha Region is known for totally different reasons like farmer suicides, and economic backwardness. The reasons range from social to economical to industrial developments. Many authorities are trying their best to revive the situation. It seems that all the measures are temporary and may not really contribute to the sustained development of the region. IT sector is the next in thing in Vidarbha. Before we move further and feel good about this development one must go into details to find out the real contribution of IT companies in the economic development of the region and the nature and extent of this contribution. With this question in mind the researcher has selected the said for this paper.

KEYWORDS | Information Technology, Economic development

Introduction

Information and Communication Technology can be broadly viewed under two sectors, Information Technology and Communication. In India, the growth of both these sectors is very significant in the past two decades. Indian IT industry has built up an enormous confidence for itself in the global markets. IT industry in India comprises of software industry and information technology enabled services (ITES), which also includes business process outsourcing (BPO) industry. India is considered as a pioneer in software development and a favourite destination for IT-enabled services. The Indian software and services exports including ITeS-BPO exports is estimated at US $ 49.7 billion in 2009-10, as compared to US $ 47.1 billion in 2008-09, an increase of 5.5 per cent. The IT services exports is estimated to be US $ 27.3 billion in 2009-10 as compared to US $ 25.8 billion in 2008-09, showing a growth of 5.8 per cent. ITeS-BPO exports is estimated to grow from US $ 11.7 billion in 2008-09 to US $ 12.4 billion in 2009-10, a year-on-year (Y-o-Y) growth of 6 per cent.

Need of Study

State of Maharashtra is technically and technologically highly advanced state of India with encouraging Industrial scenario. Nagpur is treated the second capital of Maharashtra Nagpur has been the centre of commerce in the Vidarbha region since early days and currently is a large trading centre for a number of commodities and services. However, Nagpur's economic importance has gradually declined relative to Mumbai and Pune after the merging of Vidarbha into the Maharashtra as a result of a prolonged period of neglect by the state government. During this period, the state and central government offices were a major source of employment in the city. However, Nagpur is witnessing an economic boom in recent years and attracted Rs. 5,000 crore in investment in 2004.

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Insights from existing literature

INFORMATION TECHNOLOGY AND ECONOMIC DEVELOPMENT

Author: Hwang Eui-Hwan, Director, Technology Standards Division,

Publication details: Published by Ministry of Information and Communication, Republic of Korea on 27 April 1999

The article focuses on the following three issues: relationship between information technology and economy; the influence of information technology on the Korean economy; and Korean Government's policies for promoting the development of information technology, information infrastructure and information industry. The three fundamental changes that the world economy are now facing. First, tariff and non-tariff barriers are falling down under the WTO regime. Second, business activities are being globalized. As a result, cross-border investments are actively taking place. And then, as trade and overseas investment increase, one nation's economic policies and conditions greatly affect those of the other nations.

The Asia Pacific region had made a rapid economic growth in the latter half of the 20th century. But, many countries in the region are facing serious economic crisis. Cyber Korea 21 is Korea's strategy to overcome the current crisis and cope effectively with paradigm shift of the world economy by utilizing information technology.

It can be clearly seen that if Asia Pacific region collect wisdom and experiences to collaborate one another in information technology, infrastructure and industry, this region will become the centre of the world economy and information technology in the 21st century.

Information Technology and Economic Development: An Introduction to the Research Issues

Author: Matti Pohjola

Publication details: The United Nations University, World Institute of development economic research, Working paper no: 153, November-1998

There is substantial evidence that new information technologies in many ways are transforming operations of modern economics. More than half of the employees use computer at work in the most advanced industrial countries. About 10% of value of all private investment in fixed non residential capital is devoted to the computers and peripheral equipments in United States and some other companies. This share goes up to 25 percent when investment in information processing equipment is included. Nevertheless, all spending on information technology, including hardware, software and services, does not amount to more than 3-4 per cent of nominal GDP in these countries. The share is, however, increasing rapidly, indicating that a steady state has not yet been reached.

In its report (UNCSTD 1997) on the implications of information and communication technologies for economic development, the Working Group of the United Nations Commission on Science and Technology for Development Group was unable to reach firm conclusions about many aspects of debate. There is substantial evidence that new technologies are transforming some sectors of some societies. The impact is not, however, as deep or pervasive as the debate about the benefits of the global information society sometimes makes it appear. As yet, the evidence that ICTs will transform the world and bring benefits to all its citizens is inconclusive. The Working Group argues, however that there is sufficient evidence of their potential to indicate that it would be wise for all governments and other stakeholders to take steps needed to access and use these technologies. For this reason, it recommends that each country establish a national ICT strategy aiming at maximizing the benefits of ICT's and minimizing their risks.

Research on information technology and productivity has often raised frustrating concerns with the measures and methods commonly used for productivity assessment. Recently, researchers have developed new data and methodologies, and at the same time have begun to report IT's positive effects on economic performance. The review of existing literature is divided into several section first section covers up the Introduction to these literatures. Section II started with presenting a review of the principal empirical literature that engendered the term "productivity paradox". Looking at the simple relationship between the productivity slowdown of the whole US economy and the rapid growth of computer capital is too general an approach.

Poor data quality for IT outputs and inputs has exacerbated this problem. Due to the development of sounder methodologies and the identification of more reliable and larger datasets, researchers have made some progress with industry-level and firm-level studies.

Objectives of Study

- To understand the concept of "economic development" in Vidarbha context.
- To identify the key IT players and the nature of their activities/operations.
- To identify the nature and extent of their contribution in social community development.

Hypothesis

Ho1: IT sector companies are contributing significantly to economic development of Vidarbha region.

Ho2: Government schemes and initiatives are significantly changing the traditional purview of the IT companies in Vidarbha Region.

Ho3: There is high level of coordination among the IT companies in Vidarbha region

Similarly many more hypotheses were put forward that arised during the course of the study.

Research Methodology

It is a quantitative research aimed at deliberating questions pertaining to economic and social development of Vidarbha region. The data collection was done by using the questionnaire, observation and structured interviews to IT company executives (345 approx) and key personnel (56 approx) mostly through electronic form.

Scope of Study

The proposed study plans to analyse the data for the past one decade. The data collection time frame is from 10 years, starting from year 1996. The study primarily focus on the improvements desired in the functioning and structure of the IT and IT Related Business in the Vidarbha Region with the special emphasis on ITES.

Hypothesis Testing

Hypothesis testing based on data collected from Key Personnel

Ho1: IT sector companies are contributing significantly to economic development of vidarbha region

IT companies are presenting opportunities for the development of skills which have real value in the local economic context of Vidarbha region. Through survey it was observed that the development intensity is at very minimal stages in 70 percent of Vidarbha region as only major districts like Nagpur, Amravati, Gondia and Wardha are economically developing while the other needs an urgent attention. Economic development is often an uneven process. The existence of global inequality bears evidence to the unequal rates of development in different parts of Vidarbha region.

Table 1

Variables identified from Objectives	Demographics	Significant/ Non-Significant
Economic Development	Establishment Year	Non-Significant
	Gender	NA
	Age	NA
	Designation	Non-Significant
	Experience	NA
	Organisation Sector	Significant
	Company Size	Non-Significant
	Company Operated in	Non-Significant
	Annual Turnover	Significant

(NA-Not Applicable)

Thus, it can be depicted from the above table that IT sector companies are contributing to economic development but not too large extent of Vidarbha region and Hypothesis stands rejected.

Ho2: Government schemes and initiatives are significantly changing the traditional purview of the IT companies in Vidarbha Region.

Vidarbha can generate economic growth by fostering IT sector within its smaller districts which are still lacking basic infrastructure, employment opportunities, good sanitation conditions and various other similar problems. To pursue further to the economic growth, Government of India(GOI) along with Government of Maharashtra State (GoM) should establish policies supportive of promoting IT infrastructure and enable its role overall should be minimized so that the influence of the free market and individual self-interest can be fully realized. Nagpur has developed an independent growth engine of consulting in finance and information technology for the international market, but demonstrates little connectivity with other regional industries.

Government schemes and initiatives are though changing

but need to ensure that the environment is conducive to IT Business development across Vidarbha region.

Maharashtra IT/ITES Policy-2009
Objectives

- To ensure growth of the IT sector in an environmentally sustainable and responsible manner.
- To promote the establishment of knowledge / resource centres and incubation centres across the state.
- To position Maharashtra as a rewarding destination for IT investment

Advantage Maharashtra, November 2010 by IBEF
Maharashtra offers a wide range of subsidies, fiscal and policy incentives and assistance for businesses under the "Industrial, Investment and Infrastructure Policy, 2006". The state also has sector-specific policies for IT and ITeS.

Maharashtra has a literacy rate of 76.9 per cent. The state has a large base of skilled and industrial labour, making it an ideal destination for knowledge-based and manufacturing sectors.

The state has 661 engineering colleges with an annual enrolment of over 168,000 students. In addition, there are 681 industrial training institutes (ITIs) and 54 architecture colleges with an annual enrolment of around 1,00,000 and 750, respectively

Advantage Vidarbha, November 2013 by KPMG
Driving IT investments through the State's IT/ ITES policy – 2009 which focuses on tier-II cities.

Maharashtra IT sector is one of the top notch sectors in the state with maximum thrust, development and investment.

In 2010-11, Maharashtra accounted for around 23.2 per cent of the software exports (made by registered units through STPI) of the country.

The Government of Maharashtra is focusing on providing IT-related infrastructure, fiscal incentives to IT units and an institutional framework for the IT sector.

Maharashtra has 37 public IT parks established by MIDC and CIDCO. A total of 451 private IT parks have been approved in the state, out of which 107 are functional.

The prime IT/ITeS cluster are Greater Mumbai, Pune, Tane, and Nashik

SP Infocity Nagpur, Shapoorji Pallonji's SEZ project in MIHAN, has now got its individual permanent power connection activated. With this development, their project now represents the complete package in terms of real estate solutions for IT businesses. Thus, the hypothesis "Government schemes and initiatives are significantly changing the traditional purview of the IT companies in Vidarbha Region" stands accepted.

Ho3: There is high level of coordination among the IT companies in Vidarbha region
1. Vidarbha Computer & Media Dealer's Welfare Association (VCMDWA)
Vidarbha Computer & Media Dealer's Welfare Association is an autonomous body established in year 1991 to restrict unfair practices in the trade as well as to protect the interest of its members. VCMDWA strongly advocates the use of ethical business practices in the IT trade. VCMDWA has over 100 permanent members and hundreds of members from all over Vidarbha. It is a 2nd best Association in the country as per the DQ-ITC survey.

Maximum business in this region is done by VCMDWA Members through different products like HP, IBM, Logitech, AMD, Microsoft, etc.

It conducts a mega event CompEx™ every year since last 20 yrs. This event is not only a talk of town but is known in India among all major Vendors.

This association is very well known for discipline, activities & welfare of the members. We have Raised lot of dealer- vendor issues at different forums & succeeded in resolving them in our favor.

The association holds a mega computer exhibition called Comp-Ex™ in the II Week of January every year where all major IT Hardware & Networking Companies display their amazing range of IT products. Apart from this it also carries welfare activities for the Members.

2. Vidarbha Economic Development Council (VED)
VED holds IT Start-up Meet for Incubation Centre.

This meeting for IT Start-ups was organized by Vidarbha Economic Development Council on 13th May 2012 in the premises of IT Mystix, Ramnagar, Nagpur. The objective of this meeting was to help IT Start-ups to understand and explore the requirements, advantages, constraints, and opportunities, with regard to operating in the Special Economic Zone (SEZ).

The meet was also meant to bring companies together, form a group to secure world class infrastructure at the most reasonable cost, and seek other potential benefits, thereby addressing constraints that each would encounter, at an individual level.

The meeting had an attendance of over 30 participants, which included more than 15 IT Start-ups, Industry experts and renowned speakers. GrowIT.in, an initiative by pManifold to promote the IT /ITES industry in Nagpur, supported VED Council in organizing and conducting the event.

3. TiE Nagpur
TiE Nagpur is premier not-for profit organization dedicated to foster entrepreneurial spirit in Central India. Educating entrepreneurs to excel in entrepreneurship, networking to connect with successful entrepreneurs around the globe and mentoring to master the art of entrepreneurship from the masters, made TiE world's largest organization for development of entrepreneurship. TiE Nagpur since inception has hosted many workshops, seminars, events and programs for the benefit of local entrepreneurs & professionals to understand entrepreneurship in fierce competitive environment.

4. Vidarbha Industries Association (VIA)
The premier organisation for the promotion and development of industry in the region and operating since four decades. It has prime objective of rapid industrialization and recognized as pioneer regional industries association. It encourages industrialists from India and abroad to establish units in Vidarbha. It provides facilities for exchange of information and opinion of interest to the industry.

Apart from these formal organisations there are no other activities which are held informally on regular basis to connect for the IT company employees. News coverage to such events is not seen consistently and thus at prima facie it seems that there is no coordination among IT companies in Vidarbha and need to strengthen it further. Thus, the hypothesis "There is high level of coordination among the IT companies in Vidarbha region" stands rejected.

Summary of Findings
From Key personnel
The root cause of the variation in trend of establishment of the companies can be traced back to the development of I.T. sector in India. Before 1990 this sector was just into introduction phase wherein ambitious entrepreneur have taken advantage of it, 1990-2000 was a decade which witnessed the establishment of 20 I.T. companies, due to high development and high outsourcing of technologies from Silicon valley. 2000-2005 has shown establishment of only 2 companies,

which was a result of Dot-com bubble burst and again robust development in I.T. shown a very good picture resulting into establishment of 23 companies from 2005 till date.

Irregular timings of work, demanding working schedule could be the reason behind such disparity in the numbers of workers in both genders.

The reason behind the declining trend could be, the policy of I.T. companies to hire fresh mind in the organisation after a certain time period, or it could be tendency of the key personnel of switching to a bigger firm after getting enough experience in the regional company.

The key personnel of the organization are always on the higher positions.

Key personnel of the organization usually have more experience.

The reason for variation in the responses on the IT sector describing key personnel's could be different job description of several key personnel; they must have rated the sectors according to their own job profile or the sector for which they work.

There are several factors which are needed to be considered while determining the size of the company, like Market capitalisation, Market share etc. The size of the company depends on that.

It can be seen that maximum companies are run into own premises and rented premises which states that either there is inadequacy of the capital to built the infrastructure for the company or the procedure to set up a company in STPI or SEZ are quite complicated to be followed by entrepreneur hence it is not preferred by promoters.

The turnover is the parameter which depends upon the firm size and the variation in the turnover is in the alignment of firm size.

The companies are in the development phase hence the staff strength is less in this case.

The reason for this could be the policy of the to keep the top management as a close knit-group and not to dilute the management power at the topmost level, and low staff strength as well.

The reason for such increasing number of employees in the middle rung could be the policy of the organization to increase the participation of key personnel in the middle rung, through promotions, new recruitment, referrals etc to empower the think tank of the organization.

The increasing number of the employees at the operational level could be the reason for improved operational efficiency of the company.

Including local employees in the top level gives promoters an upper hand in the area of regional information, local competitors, local vendors etc, consideration of this thought process is clearly seen in the increasing the participation of local key personnel in top level.

Low cost to company, stability of key personnel force, knowledge about regional advantages, as well as disparities and low rate of attrition could be the reason for inclusion of local employees in the middle level management.

Stability of key personnel force and low attrition rate are very much essential for operational efficiency of the organization. Local workforce offers both the characteristics hence organization might have thought of increasing local staff at the operational level.

The variation in the client base could be the outcome of the consultancy abilities, reach of marketing team to the client. Further by taking into consideration the issue of growth of the organizations in Vidarbha, it can be expected that the companies are poised to attract a bigger and better client base in future.

The facilities provided by the companies to the key personnel states that they work for all-round development of their key personnel but still one area is left-out which is child-education, while none of the key persons opted for this option when asked to choose the facilities which are provided to them by their respective organizations.

Companies which does undertake CSR initiatives think of all round development of their region, while other companies might not have understood the importance of doing so.

Companies which supports CSR initiatives supports it through NGO as the number companies supporting CSR is nearly equal to the number of companies supporting to an NGO.

In order have welfare of the organization or region in which the company is operating, promoters may think of sponsoring such social or environmental activity.

Concluding remarks

IT can change how the society communicates, collaborates, lives, works, and plays. However, IT offers little value to the large fraction of the population that is more concerned with day-to-day survival. It is not surprising, therefore, that while India is considered a software superpower, in terms of Internet penetration India is grouped along with Latvia, Thailand and Indonesia as a low penetration country.

The success of IT at the corporate level in India cannot be translated into a panacea that will solve India's myriad economic challenges. Just like copious rainfall can lead to dramatic floods that cause widespread destruction, an obsession with IT and the knowledge economy is not useful in the Indian context. To be truly beneficial, the rain of IT must fall at the right place, in the right quantity, at the right time, and for right purpose. Economic policies of a developing country cannot be based on "herd" behavior, and on what is hot in the international market for that year or decade. Neither does the aggressive pursuit of IT represent the sole, or even an obvious, pathway to a first class economy despite the glowing success of high-profile private companies in the IT realm. Noted economist Paul Krugman, in arguing against the belief that someone who has made a personal fortune will know how to make an entire nation more prosperous, probably phrased it best. "A country," he wrote in an article in the Harvard Business Review, "is not a company!"

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