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Innovation and Learning in Dynamic City
Regions in Bangalore, India
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Innovation and IT in India
(Bangalore Case Study)

By
Deepak Kr. Sareen
National Expert Researcher
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INTRODUCTION

Bangalore is the capital and principal administrative, cultural, commercial and high tech industrial city of Karnataka – a state in Southern India. It covers nearly 2190 square kilometres and is now India’s fifth largest city in terms of population. According to the local news and historical reference, a mud fort was built in 1537 by Kempe Gowda with 3 little towns of Balepet, Cottonpet and Chickpet therein. Kempe Gowda’s son erected four watch towers to mark the boundaries of Bangalore.

Nearly first three hundred years of Bangalore witnessed a very slow economic growth. The local economy was predominantly oriented to agriculture and silk culture. The city infrastructure was haphazard.

It was only after 1831 when the British took over the administration of the Mysore Kingdom that Bangalore bloomed with modern facilities like the railways, telegraphs, postal and police departments. That was the turning point in the history of Bangalore as an important industrial city.

The city of Bangalore got a further boost when in 1881, the British returned the city to the Wodeyars. Diwans like Mirza Ismail and Sir Vishweshwarayya were the pioneers to help Bangalore attain its modern outlook.
### Bangalore

#### Demographics

#### Population Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>764000</td>
</tr>
<tr>
<td>1955</td>
<td>947000</td>
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<tr>
<td>1960</td>
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<td>1616000</td>
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<td>4036000</td>
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<td>1995</td>
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<td>2000</td>
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<tr>
<td>2010</td>
<td>7469000</td>
</tr>
<tr>
<td>2015</td>
<td>8391000</td>
</tr>
</tbody>
</table>

In 1537, a few families were there in Bangalore. Thereafter with the growth of importance of Bangalore as a modern city and a centre of trading and economic activities, the population started growing. However, it was only after Independence of India in 1947, when Bangalore became the Capital city of Karnataka State, and the Central Govt. started setting up the Govt. industries such as aviation industries, telephone industry, machine and watch industries, electronic industries, research centres like DRDO, ISRO, Satellite Centre etc., there was a spurt in growth of population curve in this city.

People started migrating from neighbouring states in search of jobs, training and studies. According to the Monthly Review of the Karnataka Economy (April 2004) the population of Bangalore was in the region of 6.2 million.

#### Topography Effect

Situated at an altitude of 920 metres above the sea level and on an east west ridge on the Karnataka plateau, Bangalore enjoys a pleasant and equable climate throughout the year. Temperatures vary below 33c in summer and 14c in winter. Its tree lined streets and abundant greenery have led to it being called “the Garden city” of India. The topography of Bangalore and its resultant comfortable climate are one of the distinct factors influencing local and foreign high tech investors in selecting Bangalore as the place of their IT product, and software development and research centres.

#### Environment & Lifestyle

Along with its salubrious climate its warm and courteous people with a cosmopolitan outlook, Bangalore offers that foreign tech investors want in terms of environment and life style to which they are used for years in their home country. Bangalore offers everything one can
expect from a world city in terms of everyday conveniences as well as the overall quality of life.

This once quaint little cantonment town has undergone a remarkable metamorphosis and has emerged as the fastest growing city in Asia.

The city is teeming with restaurants, pubs, clubs, health spas, amusement parks, supermarkets, theatres, cinemas, shopping malls, discotheques, and “necessities” of a modern day cosmopolitan lifestyle.

A plenty of world class housing, some of the finest schools, colleges, and institutions of higher learning are located here. The city boasts of fine well stocked libraries, art galleries and museums. In addition, there are classical music concerts, dance performances, folk festivals, dramas, craft exhibitions throughout the year.

There are excellent golf course, race courses, bowling alleys, gyms, yoga centers, riding clubs, swimming pools, tennis, badminton and billiards clubs etc.

The list of world class facilities and amenities is increasing day by day in tune with the need of the hour.

Besides, other factors such as political stability, no pollution level, no crime rate, no workers’ strike syndrome are favourable so far as Bangalore is concerned.

The interview and interactions with IT companies (both Indian and Foreign) in Bangalore reveal that all these parameters might have the lowest billing in terms of weightage, but that does not mean that they have played any less crucial role in determination of Bangalore for foreign investment in the IT high tech areas.

According to them, Bangalore city region has constantly been in a flux and creating more and more facilities for after office pastime and leisure so that the IT professionals can re-wind and de-stress themselves so as to equip them mentally and physically for the next day for finding solutions to intricate business problems.
Infrastructure
Main IT Clusters

The main IT clusters are:

- Software Technology Parks of India (STPI), Bangalore;
- International Tech Park Ltd. (ITPL), Bangalore
- Electronic City

Software Technology Parks of India, Bangalore

STPI – Bangalore was started in 1991 with Rs. 2.5 crore investment by the Ministry of IT (formerly known as Department of Electronics). Today, the investment in the Network Operation Centre is in excess of Rs. 40 crores as this is due to greater level acceptance by the customers of STPI. It has a microwave network with 140 radios providing services to about 400 customer projects.

Nortel, one of the major telecom equipment suppliers in the world, – has located their hub in the STPI – Bangalore since 1997, and presently, the relationship enjoyed is unique, and the network services rendered are of premium quality.

The Network Operations Center has an area of 8000 sq. ft. There is implementation of every technology one can think of – France Relay, ATM, ISDN, VSAT, FIBRE, Microwave and others.

The entire STPI system is run on intranet based process meeting ISO 9001 standards. On the internet, STPI maintains a very healthy quality of service.

Today, STPI, Bangalore counts among the premier and oldest ISPs in the country. Notably, since STPI-Bangalore was the first center where internet was brought up. Bangalore has the distinction of being the first city of communication service in India.

Depending upon the growing demand of the IT industry, the bandwidth operated from STPI has been increased from time to time. They have more than 18 carriers to multiple countries across the world.

In tune with the IT industry requirement, STPI-Bangalore has established a large Earth Station facility and VSAT Hub of ERNET.

In August 2000, a cyber Park – Technology Incubation Centre was set up in Bangalore to promote the growth of the IT sector.

International Tech Park, Bangalore

The International Tech Park, Bangalore, offers a superb business advantage to corporates seeking a foothold in India. The futuristic park has been built to exacting international standards supported by the state of the art infrastructure. Amidst a refreshing and aesthetically
appealing environment, the park offers a one stop solutions integrating office, production, commercial, residential and recreational needs in a single location.

This park has been built to suit the requirements of international high-tech companies in the field of information technology, software development, electronics, telecommunication, research and development financial services and other non-polluting high tech industries.

**Electronics City** is an industrial park spread over 330 acres exclusively meant for electronics industries. It houses more than a hundred industries, including IT industry, leaders such as Motorola, Infosys, Siemens, ITI, Wipro etc.

It provides incubation facilities and datacom services. Electronics Trade and Technology Development Center provides quality human resources.

This area is maintained by Keonics which provides all the necessary infrastructure.

In addition there are more than 80 private IT parks in Bangalore and other cities of Karnataka.

Besides, there are a number of privately operated world class business centres such as under in Bangalore city region:

- **DBS Business Centre, Bangalore**
  This centre is the finest choice for all multi-nationals coming into Bangalore and is the largest business centre in Asia – with choice of private or open offices, executive suites and conference facilities. It is centrally air conditioned and with generator back. All communication (including voice mail and DID) and support infrastructure is available.

- **Globelink Executive Centre, Koramangala**
  This Centre includes the professional INSTA-Office at Koramangala, Cabins, Communication facilities etc.

In addition, other Business Centres includes Glenridge Executive Centre, ABC Services – Executive Centre, Brauners Buisness Centre, PAN ASIA Business Services, St. Marks Business Centre, D.J. Business Centre, Golden Square Business Centre etc.

In tune with the requirement of the industry, trade and commerce, the Govt. of Karnataka has embarked on a massive infrastructure expansion programme aimed at providing industry with world class facilities at competitive prices. Some of the major projects on the fast track of implementation are:

- Bangalore International Airport at Devanahalli
- Bangalore Mysore Expressway
- Bangalore Mass Rapid Transit system
- Upgradation of Minor Airports
- Upgradation of existing roads and laying of new ones on BOT/BOOT basis.
- Special Economic Zone at Hassan.
**FDI Flow**

Given below is a list of sources of FDI flow to Karnataka through multinational companies who have already set up their respective software and services and system development centres:

- USA
- Japan
- UK
- Germany
- France
- Holland
- Sweden
- China

**Leading Global IT Operators from Bangalore**

Bangalore IT clusters have become popular and are home to an array of IT multinational majors such as:

**INTEGRATED CHIP DESIGN**

- Texas Instrument
- Siemens
- AMD
- Philip
- Analog Services
- National Semi-Conductors
- Intel

**COMMUNICATION SOFTWARE**

- Lucent Technologies
- Nortel
- Siemens
- Motorola
- Cisco Systems
- Kyocera
- Sony

**SYSTEM SOFTWARES**

- Microsoft
- Oracle
- Novell
- Sun Microsystem
- Digital / Compaq
• Hewlett & Packard
• Network Associates

**R & D CENTRES**

• Google
• Yahoo
• Textron
• Bose
• Schneider Electric

Besides, Bangalore has emerged as the best place for back office operations. In the case of the ITES segment, the following firms are quite known:

• 24/7 Customer.com
• I Seva
• ICIC One services
• Hinduja TMT
• 1 Back Office
• CLiz
• M Source

In the case of the **BPO sector**, the following names are well known:

• Sykes
• Axa Business Service
• Ernst & Young
• Swiss Shared Services
• Siemens Shares Services
• DSL Software
• Accenture
• G S Services (goldman Sachs)

In the captive support sector, the following names are worth mentioning:

• Dell
• Global –e-Business
• HSBC
• GE Capital
• Phoenix Global (Metalife)
• Fidelity

In the case of the technology support sector, the following companies are operating from these clusters:

• Digital Global Soft
• First Ring
During the interactive discussions with ICT units in Bangalore it reveals that based on IT industry needs, the city infrastructure and IT cluster facilities are being expanded regularly to encourage Indian IT industries to invest more and more in Bangalore and promote FDI flow from overseas. IT stakeholders, Central, State Govt. as well as local Municipal authorities assess the demand and supply situation of the infrastructure, plan and create additional facilities to meet the market needs. This has also trail blazing effects in neighbouring city regions such as:

- Hassan
- Hubli and Dharwad
- Raichur
- Mysore
- Tumkur
- Mangalore
- Belgaun
- Manipal

Where additional infrastructure is being created to take the pressure and momentum of dynamic growth in Bangalore dynamic city region.

**Creation of Employment opportunities**

With more and more IT companies setting up their software and services development centres, Bangalore has become the undisputed IT nerve centre of ASIA. In fact, Bangalore is fuelling the new phenomenon of “Reverse brain drain” with IT professionals flocking here from all the world.

According to data available, the total number of IT companies in Bangalore during 2004-05 was 1200, and 1,15,000 professionals were on the roll.

**Software Exports from Karnataka**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>Rs. 12350 crore</td>
</tr>
<tr>
<td>2003-04</td>
<td>Rs. 18100 crore (US$ 4,022 million)</td>
</tr>
<tr>
<td>2004-05</td>
<td>Rs. 27600 crore (US$ 6,272 million)</td>
</tr>
</tbody>
</table>

The export growth during 2004-05 over 2003-04 figures was 52%.

**Continentwise Exports during 2004-05**

- America - 63%
- Europe - 23%
- Asia - 5%
- Japan - 4%
- Rest of the world - 5%

**Segmentwise Exports during 2004-05**
- Enterprise application – 52%
- Technology Software – 33%
- ITES / BPO - 13%
- Others - 2%

**Export of ITES / BPO Sector**
- 2003-04 - Rs. 2237 crores (US$ 497 million)
- 2004-05 - Rs. 3500 crores (US$ 795 million)

The export growth recorded during 2004-05 over the previous year was 57%.

Over 40% of the Bangalore’s software exports are in the high technology areas: IT access networks, optical networks, video broadcasting, Bluetooth, WAP, 3-G, Wireless applications, VOIP, ATM Switches, SDH etc.

**Learning and Educational Support Institutions and Infrastructure**

Bangalore’s pre-eminent position on the industrial and business map of India is based on several factors. Karnataka state is rich in natural resources, and known for its salubrious topography effect. It has a strong resource base of highly educated people, backed by an extensive educational infrastructure comprising world-renowned schools, colleges, institutes of higher learning, research and development centres.

The State of Karnataka is widely recognised as an important centre of learning and has
- 12 Universities
- 98 Engineering colleges
- 107 medical colleges
- 916 General colleges
- 184 polytechnics
- 188 ITIs; and
- other training institutions

In addition, Bangalore can boast of premier institutions such as:
- Indian Institute of Management, Bangalore (IIM-B).
- Indian Institute of Science (IISC).
- Indian Institute of Information Technology, Bangalore (IIT-B)
- Institute of Bioinformatics and Applied Biotechnology, Bangalore (IBAB)
- Defence Research & Development Organisation (DRDO)
- ISRO Satellite Centre (ISRO)
- ISRO Telemetry Tracking and Command Network (ISTRAC),
- Indian Institute of Astrophysics.
• Raman Research Institute  
• Centre for Artificial Intelligence and Robotics  
• Centre for Airborne Systems Studies and Analyses  
• Jawaharlal Nehru Centre for Advanced Scientific Research (JNCAR)  
• Microwave Tube Research and Development Centre  
• Bharat Electronics Complex  
• Gas Turbine Research Institute  
• National Institute of Advanced Studies (NIAS)  
• CSIR Centre for Mathematical Modelling and Computer Simulation (CMMACS)

Analysis and talks with IT industries and IT software product and design development centres in Bangalore reveal that all these education and research institutions play a significant role in supplying the high quality of IT, design, research and development oriented manpower, which act as a catalyst in development of innovative systems management in the IT industry in Bangalore in particular and Karnataka in general.

It is understood during the interactive meetings with IT companies in Bangalore, that large IT companies are setting up their own specialised IT training centres for their own IT professionals for requisite skill development to meet the new challenge of the ever changing global ICT market scenario. Besides, foreign language training centres are being set up in Bangalore city region for teaching Japanese, Chinese, French and Spanish languages.

Electronics & Computer Software Export Promotion Council (ESC) under the aegis of the Department of Commerce, Govt. of India, has been operating two schemes known as LRMAFI-J and LRMAFI-G for encouraging Indian IT software and services member exporters of ESC to get their IT professionals / personnel trained in the Japanese or German language as the case may be, under these two language support schemes. Financial assistance is provided to Indian IT member-exporters of ESC for this purpose. Besides, financial assistance is also provided to IT students for learning the Japanese and German languages so that the IT industry does not face any language related market access constraint while making efforts to enter these markets.

Besides, Karnataka has always been at the forefront of industrial growth in India. With its inherent capabilities coupled with its enterprising citizens, Bangalore in particular and Karnataka in general provide the ideal choice for investment opportunities. Some advantages include:

• Superior human resources which includes trained technical manpower in engineering, management and basic sciences;  
• High level of research and development facilities and research institutions located in Karnataka.  
• Favourable climate and habitat.  
• Excellent communication facilities and accessibility provided by broad gauge railways, airport, national highways etc.
Governance System

Karnataka is the first state to announce IT policy in the year 1997. This policy has acted as an important catalyst for the growth of IT industry in the State. As a result, IT industry has got an added boost. The type and nature of business are rapidly expanding. Bangalore is becoming the centre for more and more companies in sophisticated IT products and services. The value addition from IT professionals of Bangalore is getting at the higher end of the spectrum. Thanks to Moore’s Law, the cost of technology is dropping and technology is advancing exponentially. Thus, the prices of the new products are dropping and the same products are becoming more intelligent. The IT usage is becoming more widespread and relevant.

The Millennium BPO Policy of the Govt. of Karnataka was released at the India Business Roundtable in New York, USA on 5th Sept. 2002.

An Information Guide for Establishing IT industries in Karnataka

To assist information technology, industrial promoters in establishing companies in Karnataka, the Deptt. of IT, Govt. of Karnataka has compiled information from various agencies and Govt. departments to develop an IT Brochure – a Guide for Establishing Industries in Karnataka.

This guide includes information about Govt. policies regarding foreign investment; forms for establishing a company; software technology parks schemes for establishing companies; description of how to obtain Govt. permits and licences; venture capital funding mechanisms; labour, Govt. incentives for IT companies; Karnataka Udyog Mitra; Karnataka Information Technology and Biotechnology Services (K-BITS); and a list of agencies to be contacted for establishing a company.

How can one set up an IT company in Karnataka

Karnataka Udyog Mitra will consider the proposal for starting new industries; and will provide escort services for identification of land; getting Govt. clearances, approvals and licences by charging a nominal fee. One the clearance and approvals are obtained, the Karnataka IT and Biotechnology Services (K-BITS) will issue an approval certificate based on which the industry will be set up. After setting up the industry, the company should be registered with the Directorate of IT and Biotechnology (DIT).

Once the new company is registered with the DIT, a Certificate will be issued, and the company will be entitled to concessions and incentives pertaining to entry tax, sales tax, and rebates on the costing land, among others.

Govt. Benefits to investors

The Karnataka Govt. offers special assistance, incentives, and concessions for the IT industries which have investments in fixed assets upto Rs. 100 crores. The explosive growth
of IT in Karnataka has been helped in no small measure by the progressive policies and
investor friendly attitude of the Govt. Some of the benefits which the Govt. offers include

- **Entry tax exemption**

  IT industries will be exempt from payment of Entry Tax on Computer hardware, Computer peripherals and other capital goods including captive power generation sets during the implementation stage which can be extended up to 5 years from the date of commencement of implementation of the project.

- **Power Tariff Concessions**

  - Software industries will be treated as industrial (and not commercial) consumers and electricity tariff applicable to the industrial consumers will be levied on such industries.
  - Software industries, which need electrical power up to 5 KVA, will be permitted to be established without any local restrictions and will be made eligible for all incentives and concessions.
  - As continuous uninterrupted and quality power supply is one of the prime requirements of sustenance and growth of Information Technology industries, these industries will be given priority in the sanctioning and servicing of power. The IT industries will also be exempt from power-cuts without any time limit.
  - Captive power generation sets installed by the Information Technology industry will be eligible for the following incentives:
    - Total exemption from payment of electricity tax without any time limit.

- **Quick Clearances from Pollution Control Board**

  Karnataka State Pollution Control Board has simplified the procedure for seeking clearances under the Air Act and the Water Act for the Software companies that use captive DG Sets.

**Concessions on Company Registration Charges**

IT companies taking up expansion, diversification, and modernisation get concessions on registration charges.

Because of various policy initiatives taken by the Central and local state Govts, Bangalore city region offers a world class infrastructure, availability of niche human resources at internationally competitive wage level, pleasant work culture and environment supported by concentration of high tech IT and R & D Institutions. Besides, the city has a cosmopolitan nature. Due to all these factors, Bangalore city region has seen a major technology boom, and it has emerged as the major IT outsourcing hub in the world.

Bangalore city region is now home to more than 250 high tech companies such as IBM, Texas Instruments, Hewlett Packard, Intel, Motorola, Cisco Systems, Novell, Sony, Nissan, Sharp, British Aerospace, British Telecom, Bosch, Siemens, SAP, Daimler Benz, Bull, Alcatel, Nortel Networks, Pieco, Ericsson etc. including India’s home grown IT giants like
Wipro, Infosys, TCS etc. Consequently, Bangalore is now called the “Silicon Valley” of India.

Because of Govt. investor friendly incentives and attitude, Bangalore city region has grown in diverse industrial activities, and is now a base for 10,000 small, medium and large scale industries. However, it is the IT and software and services industry which has raised its status as the 4th largest technology cluster in the world.

**FDI/Trade Promotion Activities by Department of Information Technology, Govt. of Karnataka**

The Department of IT, Govt. of Karnataka has been undertaking various activities to promote Bangalore as the international high tech IT software and services outsourcing hub, and flow of FDI in the IT sector in the state. Their promotional activities include:

- Organisation of interaction meetings between Indian IT firms and visiting foreign IT delegations to Bangalore;
- Organisation of participation of State of Karnataka in various IT events taking place in the world; and
- Organisation of IT.Com Exhibition in Bangalore, every year which is visited by a large number of foreign buyers from all over the world.

**IT Trade Promotion Activities by Electronics and Computer Software Export Promotion Council (ESC)**

Electronics and Computer software Export Promotion Council (ESC) - an autonomous organisation under the Department of Information Technology, Ministry of Communications and Information Technology, Govt. of India has been undertaking a series of activities to promote India’s export of electronics & computer software and services including ITES/BPO services in India and abroad which include, among others:

- Organisation of an international networking event and exhibition called **INDIASOFT** in February each year in India which is visited by IT buyers/delegates from more than 60 countries in the world;
- Organisation of participation of Indian IT firms in international exhibitions such as CeBIT in Hannover, Outsource World in London, ICCM in USA, WESCON in USA, Outsource World in New York, Embedded Technology Fair in Yokohama, GITEX, Dubai, Communic Asia/Enterprises IT in Singapore, etc. to name a few;
- Organisation of interactive meetings between Indian IT firms and visiting foreign delegates through its offices in **Bangalore**, Chennai, New Delhi etc;
- Inviting IT buyers delegations to India under the MAI programme of the Department of Commerce, Govt. of India to coincide with various Buyer Seller Meets (BSMs) in Bangalore, Chennai, Hyderabad, Mumbai/Pune, and New Delhi/Gurgaon etc; and
- Dissemination of IT market leads and intelligence, enquiries, live contacts of buyers etc. through its monthly bulletin called **“ELSOFTEX”** etc.

This apart, ESC’s Regional office in Bangalore is assisting IT firms in Bangalore in particular and Karnataka in general through its various trade promotional activities.
Benefits of Software Technology Park (STP) Scheme

They include:

- 100% duty free imports
- 100% foreign equity permitted
- 100% corporate Income Tax exemption till 2010
- Excise duty exemption & reimbursement of Central Sales Tax (CST).
- Dedicated Data Communication links
- Single window clearance
- Custom bonding and export certification

Similar benefits are also available for IT software and services units located in SEZs/FTZs/HTPs etc.

Rates for Corporate Taxes in India

Corporations resident in India (whether owned by Indians or non-residents) are taxed on their worldwide income arising from all sources.

Non-resident Corporations are essentially taxed on the income earned from a business connection in India or from other Indian sources. A Corporation is deemed to be resident in India if it is incorporated in India or if its control and management is situated entirely in India.

If a tax treaty exists between India and the country in which the tax payer is resident, the provisions of the treaty or the Act, whichever is more beneficial, will apply to the tax payer.

Foreign Corporations are subject to a basic tax rate of 40% enhanced by a 2.5% surcharge. Further, the tax payable by all the Corporations is enhanced by an education cess at the rate of 2% on the tax payable, inclusive of surcharge.

Liability for Income Tax of non-residents

Non-residents are taxed on the following income:

- Accruing or arising in India
- received in India; and
- deemed to accrue or arise in India through a business connection, through or from an asset or source of income in India, or through the transfer of a capital asset situated in India (including a share in a company incorporated in India or from other specified sources.

Individuals are considered as “non-residents” if they do not meet either of the following criteria:

- They stay in India for 182 days or more during the tax year (1st April to 31st March).
- They stay in India for 60 days or more during the tax year, and have stayed in India for at least 365 days in aggregate during the preceding four tax years.
Expatriate employees of a foreign enterprise are not subject to tax, subject to the satisfaction of the following conditions:

- The enterprise is not engaged in a trade or business in India;
- The employee did not stay in India for more than 90 days (generally extended under tax treaties to 183 days) in a tax year.
- The compensation paid is not liable to be deducted by the employer from his taxable income in India.

India has taxation treaties with a large number of countries for avoidance of double taxation.

**VISA and Registration Requirements**

Foreign nationals can secure visas to enter India in the applicable categories such as under:

<table>
<thead>
<tr>
<th>Nature of Visa</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Visa</td>
<td>Persons intending to take up employment</td>
</tr>
<tr>
<td>Business Visa</td>
<td>Visiting India on business</td>
</tr>
<tr>
<td>Entry Visa</td>
<td>Other purposes not covered elsewhere (including accompanying facilities of foreign nationals)</td>
</tr>
</tbody>
</table>

**Residential Permit**

All foreign nationals are required to register with the local immigration authorities called the Foreign Regional Registration Office (FRRO) within 14 days from their date of arrival, if their visas are valid for longer than 6 months. A foreign national holding a visa valid for 6 months or less who stays in India beyond the period of validity must register within 14 days after 180 days from the date of arrival in India subject to holding a visa for the extended period.

**Work Visas for family members**

Entry visas are issued to accompanying family members of individuals visiting India on business or for employment.

**Inter-Corporate transferee Visa**

These visas are granted to inter-corporate transferees on fulfilment of the criteria prescribed in this connection.

Analysis and discussions with the IT industries in Bangalore city region about the support and co-operation being extended by different Govt. and Non-Govt. agencies in Bangalore in particular and Karnataka in general reveal that the industry is appreciative of the Govt’s industry and investor friendly attitude and co-operation, and they feel that the industry, trade, all stakeholders, Govts, and Non-Govt agencies together have made Bangalore city region as dynamic, and ever-evolving with the need of the hour, and thus, have made it the major IT outsourcing hub in the world.
Access of Venture Capital
Banking and Finance

Banking and Finance plays a vital role in evolution of entrepreneurship, leadership and innovation of an integrated system management in technology oriented industries. Bangalore in particular and Karnataka in general offers strong financial support to entrepreneurs through several state govt institutions like KSIDC, KITVEN AND KSFC and Govt. of India financial institutions such as IDBI, IFCI, SIDBI, NABARD and ICICI. 4 of the country’s major nationalised banks, namely, Corporation Bank, State Bank of Mysore, Canara Bank and Vijaya Bank as well as one of India’s largest private banks, Vysya Bank, have their headquarters in Karnataka. Besides, World’s leading banking corporations like Citibank, Bank of America, Standard Charter Bank, HSBC, Deutsche Bank, Bank Muscat, Nova Scotia and several others have set their branches etc.

Karnataka Information Technology Venture Capital Fund (KITVEN), Bangalore

The primary object of KITVEN is to provide long-term funds to I.T. based units. The investment will be in the range of Rs. 25.00 lakhs to Rs. 150.00 lakhs with 5 to 7 years period. The investment may be in the following form:

1. Preference Shares - Redeemable / Convertible
2. Debentures - Convertible / Non-Convertible
3. Conditional Loans
4. Conventional Loans

The fund will enter into a Partnership Agreement with the promoter specifying the terms and conditions, funding partners etc.

Besides, SIDBI Capital Venture Fund provides Venture Capital to new IT start ups.

Bangalore Stock Exchange

The stock exchange market plays a distinct role in raising capital for the entrepreneurs. Bangalore has its own stock exchange know as the Bangalore Stock Exchange Ltd. It is a self-regulatory organisation located in the “Silicon Valley” of India itself. The Exchange is managed by a Council of Management of members nominated by Securities Exchanged Board of India (SEBI), public representatives, elected members, and Executive Director. The Exchange set up in 1963 now enjoys number 1 position in South India.

Entrepreneurships

Success breeds success. Success stories of home grown IT icons and legends like Wipro, Infosys, etc. and their fastest growth and migration from a SME level to giant multi-national companies, together with a combination of a variety of other local factors of production as well as growth oriented industry friendly enabling Govt. policy framework tend to create a favourable ambience for growth of a new genere of entrepreneurship and leadership in the high tech IT software and services sector in Bangalore and its neighbouring cities whose
indomitable spirit, passion and genius is creativity, integration with the global IT trend and technology, development of matching skill sets, value added IT services verticals which their international customers require now, and will need in future; and orientation of IT service supply model to suit the customers’ requirements.

As a result, Bangalore boasts of having as many as 32 SEI-CMM certified IT companies as against the tally of 63 SEI-CMM certified IT companies all over India and 87 SEI-CMM certified IT companies all over the world.

This genre of new entrepreneurship in the IT sector has been constantly building up their intrinsic strengths by upgrading themselves in terms of technology and expanding their skill sets even by way of mergers and acquisitions of IT companies in India and abroad. Sometimes, such newly acquired skill requirements and services offering verticals are market specific, depending upon the IT opportunities emerging in the specific market / region itself.

All these management related issues and factors have helped them in designing for themselves a new form of innovative integrated systems management which can take care of not only constant human resource development to match with the IT business trend, a new form of work culture and highest productivity oriented employer-employee relationship; recognition of creative talent, and drive for finding solutions on the spot to intricate problems in the IT services sector; Customers’ satisfaction; business development and revenue growth in the company.

Because of this genre of new entrepreneurship and leadership, Bangalore is recognised the world over as the “IT Capital of India.” In 1998, News Week magazine ranked Bangalore among the world’s “Hottest Tech Cities”. Business Week placed Bangalore among the “Global Hot Spots of the 21st Century”.

Further, the United Nation’s Human Development Report-2000 recognises Bangalore as the fourth leading hub of technological innovation, ahead of many cities in USA, Europe, Japan, China and South East Asia.

**Bangalore’s Score / Overall Rank**

**As IT Destination**

A recent research study based on various parameters ranks Bangalore as under:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Total score / overall Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>India’s top tech cities</td>
<td>66.2</td>
</tr>
<tr>
<td>Zonal stack up in India</td>
<td>1</td>
</tr>
<tr>
<td>Manpower availability</td>
<td>1</td>
</tr>
<tr>
<td>Environment &amp; life style</td>
<td>1</td>
</tr>
<tr>
<td>ICT Infrastructure availability and usage</td>
<td>1</td>
</tr>
</tbody>
</table>
Concluding Remarks

In the foregoing paragraphs, I have presented how over a period of 466 years i.e. from 1537 till 2005, a massive metamorphosis has taken place from a primary agro-based economy to a modern high tech economy. It is a radical evolution indeed, and the process of change-over has been facilitated by the far sighted policy initiative taken and the enabling market conditions created in every stage of evolution whether it is creating the right kind of infrastructure and clusters; whether it is setting up the right of schools, general colleges, technical/engineering institutions, ITIs, management schools, R&D research institutions; whether it is focussing the right kind of cultural environment and life style; whether it is evolving a right kind of integrated innovative systems management and enlightened entrepreneurship to encourage creativity, research and development, business and revenue growth generation and at the same, expansion of technology, knowledge and requisite skill spectrum to be at par with the ups and downs of the global economy, the industry, trade, academica and both the Central and State Govts. have worked in tandem. This has made Bangalore not only a dynamic city region per se but a world wide recognised brand name.