Trinity College
Trinity College Digital Repository

Senior Theses and Projects | Student Works

4-1-2013

India's Boom Towns: Socio-Economic Consequences of Information-Technology Led Development in Chennai and Bangalore

Ananya Sahay
Trinity College, Ananya.Sahay@trincoll.edu

Follow this and additional works at: http://digitalrepository.trincoll.edu/theses

Recommended Citation
Sahay, Ananya, "India's Boom Towns: Socio-Economic Consequences of Information-Technology Led Development in Chennai and Bangalore". Senior Theses, Trinity College, Hartford, CT 2013.
Trinity College Digital Repository, http://digitalrepository.trincoll.edu/theses/291

Trinity College, Connecticut. U.S.A

INDIA'S BOOM TOWNS: Socio-Economic Consequences of Information Technology-Led Development in Chennai and Bangalore

Analysis post 1991 Liberalization Reforms in India

Ananya Sahay '13
B.A. International Studies
April 30, 2013
Advisor: Dean Xiangming Chen

ACKNOWLEDGEMENT

I wish to recognize the opportunity given to me by Trinity College, Connecticut to study in such an academically stimulating environment, where I have grown immensely. I am thankful to all my professors, especially Professor Vijay Prashad, who has had a powerful impact on my intellect and philosophy on life. I am indebted to the International Studies Department that has played a major role in broadening my distinctive perceptions of the world by helping me recognize the growing and interdependent challenges of the developed, developing, and underdeveloped worlds, and has given me courage to probe unknown and unchartered territories. I would like to express my appreciation to Professor Zayde Antrim, whose class on Islamic Cities in the Middle East bolstered my interest in exploring cities through the socio-economic-cultural-spatial lens. Her assessment of my work greatly helped me refine my writing and analytical styles. I wish to thank Professor Janet Bauer for coordinating senior International Studies majors in undertaking this journey of discovery. I would like to thank the Institutional Review Board (IRB) at Trinity College for granting me approval to conduct my research. I would also like to extend my gratitude to all the Information Technology (IT) professionals who took time to impart their understanding of the global lifestyles they have adopted. I also appreciate the "blue-collared" workers that I was able to interview who provided an essential view of the work they engage in and how the boom has affected them. In formulating this thesis, I am specifically grateful to the Center of Urban and Global Studies (CUGS) at Trinity College for awarding me a grant to conduct my research in Chennai and Bangalore over winter break, which was essential for me to grasp the extent of globalization in the local context of these two cities. As my thesis advisor, Dean Chen has been instrumental in assisting me to develop a focused exploration of the socio-economic consequences of the IT-triggered boom in the two cities.
I am tremendously blessed to have my pillars of strength with me at all times; my parents, Avinash Sahay and Aparajita Shubhra for inculcating values of hard work and discipline in me; my siblings, Apratim Sahay and Apoorva Sahay, and my cousins Ashesh Prasann and Abhilash Prasann for their constructive criticism of my work, and for their unwavering support throughout this journey. I am particularly thankful to my friends at Trinity—Ayiti-Carmel Maharaj-Best, Monica Rodriguez Roldan, Thuy Le, Mon Mon Myo Thant—all of whom have provided an invaluable amount of direction and motivation to help materialize this thesis. Last but not least, I am comforted to have an extended companionship of my friends across seven oceans in India who, through their vibrant energy even from a distance, have helped me revitalize myself in moments of weakness. They are recent additions to the young, urban working India, and by recounting their professional and social experiences, they have helped me frame an opinion about the global working environment and the massive changes that have been constantly occurring in India - my home country.

ABSTRACT

The multitude of economic activity that encompasses the globalized world today provides a development channel for many countries; one such activity is the functioning of the Information Technology (IT) sector in India-particularly in Chennai and Bangalore. However, a significant downside in terms of displacement of people, rapid urban renewal and spatial inequality, streamlined educational opportunities arise because such a growth pattern is narrowly confined to a highly specialized sector. My focus lies in unearthing the critical facts of this monadic growth and in probing myriad socio-economic factors that affect these two cities in diverse ways. Some such elements include, but are not limited to, the rising power of the middle class in terms of newly acquired wealth—that influences areas they choose to live; social outlets they choose to visit; new sources of employment that are now available to them; and vocational skill sets they develop through training at technical institutes. This requires looking at the IT valley of India through a local-micro lens that detects catalysts that aid an understanding of the road to development that engulfs Bangalore and Chennai today on a global-macro level.

TABLE OF CONTENTS

Introduction.....5

The Drawback Before the Tsunami: A Brief History 12

Methodology 20

Configurations of a Global City 22

Façade of the Local v/s. Global Debate in the Socio-Spatial Realm.....36

Conclusion 44

Bibliography 49

INTRODUCTION

Development is a process of progress and movement; in the 21st century, it has taken a new turn using tools of interconnectivity and interdependence between known and unknown territories, and fostering a relationship between state and corporate actors. The notion of globalization is triggered by these very tools, and is increasingly affecting countries across the world. Economic, social and cultural forces are slowly fusing physical borders to produce an evolving "global city." This thesis explores how the IT-triggered boom in Bangalore and Chennai has assisted in changing the image of these two south Indian cities into that of "global cities." An exploratory analysis of forces of globalization will be undertaken, including, but not limited to entrance of foreign firms; current employment scenario; efforts of the state and national governments—all within a socio-spatial setting of the two cities—to understand the dynamics of the power structure and changing notions of identity.

At the national level, India has experienced a growing disparity of wealth and power especially in the last three decades; where technology and science has preceded over agriculture as the next growth mechanism, thereby bringing about significant changes in the way the country functions and prospers today. As a result of implementation of these changes, state policies were altered to lead to "India shining"—a term coined by the Bharatiya Janata Party (BJP), one of the leading political parties of India—to signify unparalleled levels of economic freedom that India has witnessed in the last two decades. However, this freedom doesn't imply self-autonomy in its entirety. It entails an embedded presence of external sources that incorporates strategized means to

bring about evolution through development and expansion in the country. In practice, it signifies an intermingling of global pressures with local forces that serve as a catalyst in creating and impacting economic and social changes in working units and lifestyles.

Post-independence, India had a series of parameters that Jawaharlal Nehru, then Prime Minister, deemed important to tailor growth in the country that would concentrate on one sector of the economy. Hence, a particular emphasis was given on making a switch for India from being an agrarian society to an industrialized one (Stremlau 158). This transition involved a series of steps taken towards remodeling the state to suit the rapidly evolving world economy. Due to a rising political turbulence in the country, the move wasn't able to reach the point that was initially aimed towards; which meant that India could not integrate itself to the global economy as satisfactorily as it had planned to. As the 1980s approached, India took a sharp swerve towards its downfall—stemming from the large fiscal imbalance that it encountered, along with an overestimation of its currency. During this time, government debt rose from 35% in 1980-82 to 53% in 1990-91, which meant that the national government was close to encountering a default, and needed to take drastic steps to overcome this crisis. The IMF had to intervene and lent nearly $1.2 billion to India on a binding condition that the national government had to undertake several structural changes in the way it had been previously functioning. (Cerra & Saxena 403) As a result, trade reforms were implemented, import licensing was lifted - both of which facilitated a relatively freer inflow and outflow of goods and services to and fro the country. The most critical impact, however, was felt through opening up of the economy—involving an influx of foreign investment in the country. It translated into

a much needed, long-standing step in transforming India into the global economy that it is today.

After the reforms were implemented, the tertiary or service sector of the Indian economy accelerated a new type of growth that continues to drive the country even today. The foundation that was devised in the previous four decades—through establishments of educational institutes and encouragement of software proficiency—was integral to the development of this sector. India possessed a readily available pool of talent and resources, but not the kind of capital that would be required to inaugurate the process of expansion. An external boost came in the form of foreign firms that were beginning to see the potential and lucrative opportunities that the country presented. Given that India had a whole range of ideas, people, and intellect to offer, why else would foreign companies lean specifically towards India? The answer needs a background story. In the 1970s and 1980s, India saw heavy political turbulence, economic instability and inability to adequately provide for its citizens (Soni 11). Subsequently, these two decades saw a big wave of skilled and semi-skilled Indians leave the motherland for superior opportunities that America presented for advancement of their careers - something India, at that point in time, could only dream of.

As these well-educated and trained Indians left to augment their personal learning curve, they took with them the intellect that India had strategically designed to develop; as a result, India began to experience a severe brain drain. Towards the end of the 1980s, the country was in, quite possibly, the worst financial position it had ever experienced. Its recovery was two-fold, financially through the International Monetary Fund (IMF), and semi-externally, through the Indians who had left the country in the past. The latter were

renamed as Non-Resident Indians (NRIs). The NRIs, by making full utilization of the resources that America had to offer, had climbed to the highest rung of the social ladder, and could now offer capital and expertise back to the country. In California's Silicon Valley, there was a surge of Indian origin-led "high-technology start-ups, (adding) up to 637 in total, or 8% in total" (Upadhya 5143). They served as an integral reason for India's recognition as an exploitable reservoir of high-tech skills readily available at a comparatively cheaper rate. In actuality, they were able to persuade senior partners to not look at India as the ancient land of elephants and mystics, and instead, view it in the shining light that it had bestowed upon itself—one that highlighted premier resources and operated on validating its strengths. Through this, the much-needed capital emerged in the picture in the form of venture capital that provided financing for the software industry in the country. In essence, there was a deep interest of the NRI business class and its involvement in the "US-IVCA (US-Indian Venture Capital Association), an association of US-based venture capitalists interested in US-India cross-border investments. Its membership consists of venture capital firms, service providers, corporate investors and business professionals," and its aim was to "foster US-India venture capital collaboration, investments, and entrepreneurship" (Upadhya 5145). This is where the development of the IT sector came underway, as India began to be approached by foreign investors to expand their operations because of the pool of untapped talent and potential it had managed to develop from those Indians who had stayed on in the country when most left. In this way, India was perhaps one of the first developing countries that relied on its knowledge base not only to expand its own network, but also to lure foreign investors.

As foreign firms continued to reach borders of the subcontinent, they brought with them integral inputs—"advice on strategy, technology, management, and human resources" (Upadhya 5145)—to a deprived country that absorbed these external ingredients swiftly. Rapid movement of resources and talent to and fro India and a foreign country (in most cases, western powers like the U.S. and European countries) has seemingly suggested that borders—which previously existed in full dominance until three-four decades ago—are perhaps losing their rigid structure and reshaping the world that we live in today. Globalization—the ubiquitous beast that provides concrete substance in modeling the nuts and bolts of a complex series of previously unexplored networks—is best observed in the social, financial, cultural and spatial realm while remaining in the local context. It involves a restructuring of policies, functional efficiency, and standard ethics of local companies. The domestic IT companies like Tata Consultancy Services (TCS), Wipro etc., are now required to respond to the pressures of going global. As a result, they are in the process of "reshaping their culture, organization and image" through the revamp of their office buildings—complete with "cold-steel and glass high-rises, with professionally designed interiors, central air-conditioning, open floor plans divided into grids of cubicles with individual work stations, and courteous, well-heeled receptionists tend to erase anything that resembles the local or the India" (Upadhya 5147)—to model corporate headquarters of their foreign counterparts. In essence, "the flow of transnational capital into Indian software industry appears to be producing significant changes in its culture and structure, a development that is evident particularly in a new type of corporate structure known as 'cross-border' firm" (Upadhya 5145).

A new side of India is thus seen—one that has been able to grasp the essence of being global through the socio-spatial-economic indicators in a local sense, each of which have a section dedicated to them in the remainder of this thesis. Specifically, the two cities have integrated the fast-moving corporate "global" culture with their own, taking two very different sides of a coin and attempting to merge them together. Since local people are being extensively hired to assist in the operations of the high-tech firms, domestic employment has been on the rise, leading to accumulation of new wealth that the country has not witnessed before. In order to gain access to this additional source of earning, the cities have witnessed large-scale migration from rural areas, where people adopt to the changing needs of the urban areas, and fall under the 'blue-collared workers' category. What are some of the resulting consequences in rural settings? Goldman argues, "rural communities have been thrown into the center of world-city making and how the process of dispossession reshapes the state" (Goldman 556). The thesis will delve into issues that revolve around the newly generated wealth, and explore how it has been pumped into the local economy in the form of modern social spaces (malls, pubs, etc.) in the two cities. A closer, and perhaps more introspective look helps understand the changing culture that comes from the "global city" image that the two cities are trying so hard to adhere to.

Urban transformations have created an environment where government role is essential, which means that both state and national government agencies are required to take sturdy steps to keep up with the evolving times. Several government agencies have shot up as a result - key examples being "the Bangalore Development Authority, the Karnataka Urban Infrastructure Development and Finance Corporation" (Goldman 238).

The “global city” thus, needs a close interaction of public and private actors to ensure a thriving local economy. In essence, globalization in the 21st century calls for a flattening of the world as Friedman suggests, where “outsourcing” and “offshoring” help in cutting costs for a firm. A focused look will be on the impact of these two processes on the economic and social scene in the Southern urban environment of Chennai and Bangalore.

Subsequently, the thesis will be divided into three main chapters, the first one dealing with the pre-1991 economic climate in India and providing a historical context to the reforms. The second chapter focuses on the advent of globalization in the country, particularly its outcomes on the employment scenario in Chennai and Bangalore. The third chapter examines the effects of globalization through an urban lens that observes the interaction of state and local policies on the built environment of the two cities of Chennai and Bangalore. In a way, it discusses the socio-spatial changes that residents of the two cities have been a witness to in the last two decades. The conclusion analyzes the IT sector in how it serves as a bridge between state policy, globalization and the urban built environment.

THE DRAWBACK BEFORE THE TSUNAMI: A BRIEF HISTORY

The national setting of the country since Independence in 1947 until the arrival of twenty first century modern India is of key essence in the unraveling of the IT-triggered boom that manifested itself not until the early-mid 1990s. The story would help highlight the transition of India from a local (closed) economy to a global (open) one that was, among other things, made possible through a national restructuring of the political system. The focus point, therefore, is a coincidence of timing of political and economic change in the country, and consequently in IT centers of India, namely Bangalore and Chennai. In other words, formulation and impact of state policies serves as a vehicle of socio-economic change in India's growth, and subsequently, in that of the two cities.

Soon after gaining independence in 1947, the movers and shakers of a young and malleable India wanted to establish a system that would optimize untapped resources and diverse talents that the country's land and people presented. One of the main strategies that assisted this idea was a massive project that involved a transformation of the Indian higher education system. Policy framers had a plan of action to move forward, which involved drawing onto natural resources (oil, coal, aluminum) that the country had to offer, and using advanced techniques of science and engineering in doing so. Subsequently, it was an undisputable maneuver that particular emphasis should be laid on development of science and technology to draft the future of the country that would aid it in its road to development. In the early to mid-1950s, this occurred in the form of setting up of educational institutes in vicinity of areas across the country that had sizeable reserves of natural resources, that is, places like Hyderabad, Kanpur, Chennai, etc. These

were named Indian Institutes of Technology (IIT), and came under the jurisdiction of the Institutes of Technology Act (The Institutes of Technology Act, 1961), which helped to lay down a structure of how the IITs would function and diversify their educational composition to include a variety of engineering options for the young minds of the country. Because of the wide range of subjects in engineering and sciences that the IITs offered, they were able to draw in the best talent that was available in India in the form of both students and professors. The standard of education that a student receives through the intense curriculum of the IITs is extremely high, and has often been compared to that received at the premiere California Institute of Technology and Massachusetts Institute of Technology in the U.S.A. This would later be an important criteria for companies like Oracle, Cisco, IBM, and others who have their bases set up in Chennai and Bangalore to recruit fresh graduates from the IITS, thereby ensuring that the best professionals-to-be would be a part of their hiring (Sharma 192).

On one hand, the education system was gaining momentum in leaps and bounds, while on the other the political atmosphere of the country was experiencing a series of twists and turns. This is where the story behind the upheaval is integral to the arrival of foreign investors in later years—a switch from the local to the global. Jawaharlal Nehru, the first Prime Minister of independent India envisioned a modern India, one that would adopt latest technology and advancements to enter a "global" arena (French 40). As the nation's political leader, he and his team were instrumental in shaping policy that was integral in further developing the country that was still in its nascent stage. After Nehru death in 1964, his daughter Indira Gandhi, who was a close bystander in her father's politics, stepped in to become the second and only woman Prime Minister of India till

date in 1966 ("Indira Gandhi 'greatest woman'"). With some of the severe measures she implemented, the decade in which she ruled transformed the political, economic, and social atmosphere of India. The agricultural sector was in a terrible state, and because of widespread famines across the country; India was compelled to import food grains from other countries. Mrs. Gandhi recognized the dependence as unhealthy and wanted India to be self-reliant in its own right. The Five-Year Growth Plans were implanted during her regime, along with the popular Green Revolution that brought about radical improvements in certain sectors of the economy like energy, industry, oil, agriculture, etc. of the country. Another significant alteration was undertaken in the form of nationalization of private banks, which was also seen through encouragement of the public sector and implementation of licensing. Mrs. Gandhi also wanted to reduce foreign dependence on aid and therefore established a foreign reserves quota that gave the country enough support in times of need. Despite these positive accomplishments, Mrs. Gandhi's time as leader of the ruling party in India saw a series of policy changes that revealed her socialist side, and made her unpopular in her second round as Prime Minister. As a result of the unfavorable political and frugal circumstances in the country, several accomplished men and women looked outside the country for better opportunities and sources to earn a living; like that in the Gulf and the U.S. Mrs. Gandhi's regime came to an end with her assassination after she ordered a sectarian blow against the Sikh community in Punjab in October 1984 (French 35).

The nation was in complete chaos after her death, and her son, Rajiv Gandhi succeeded her as the next Prime Minister of India in 1984. There was a significant change in the way Rajiv handled politics; while his mother, Indira, prioritized self-reliance, Rajiv

was quick to realize the urgency of India's requirement of an external growth catalysts. One of the first things that Rajiv did was to help revive the failing economy by opening it up through initializing export mechanism, energy revival and focusing on technological advancements. In his earlier years when he had distanced himself from politics, he was interested in "electronics and technology" (Sharma 123). Consequently, his administration was critical in developing a liberalized outlook for India, and was witness to a "politician-technocrat nexus influenced policy making and investment in computers, electronics, telecom, biotechnology and alternative sources of energy" (Sharma 168). But before any significant impacts of the transformations could be felt, Rajiv suffered the wrath of Liberation Tigers of Tamil Eelam - a group that advocated secession and creation of a new state for Tamilian people, who are the inhabitants of the state of Tamil Nadu [of which Chennai is the capital city] (Hansell), and was killed by a member of the audience where he was about to give a speech outside of the southern city of Chennai.

By 1991, India was in deep fiscal trouble because of a severe balance of payment crisis seen in the late 1980s. The latter was because of the wide gap that existed between domestic petroleum exports and external petroleum imports, giving rise in the current account deficit. Another factor that elevated India's already deteriorating fiscal position came in the form of a rapid rise in the world's oil prices because of an external crisis in the Middle East [the Gulf War that was being fought between the U.S. and Iraq against the latter's invasion of Kuwait.] India too wasn't able to supply the required amount of domestic oil from its own reserves, and thus heavily depended on imports to fund its local consumers (Cerra and Saxena 403). In order to solve its escalating problems, India relied heavily on external assistance by "borrowing on commercial terms and the remittances of

nonresident workers (Non-Resident Indians)" (Cerra and Saxena 402). Subsequently, fiscal deficit in 1990-91 was a whopping 9.4 per cent of the Gross Domestic Product (GDP)—a measure of the total value of goods and services of a country in a particular period of time—but was significantly reduced to seven per cent through implementation of the reforms.

The situation further worsened in 1991 when India only had about two weeks' of foreign exchange remaining in its reserves. It needed help, which is when the International Monetary Fund (IMF) had to intervene by giving $2 billion to India after the latter pledged "47 tons of gold to the Bank of England as collateral" (The Economist July 2011). While this financial assistance came from the outside, it deemed it necessary for India to take urgent steps to repair the appalling economic mess it was in by initiating a set of policy reforms that would serve as an immediate cure for the sick state. As this requirement was set, the country was still in dire need of a miracle, and it came in the form of the then newly appointed Finance Minister, Manmohan Singh (current Prime Minister of India) who was supported by P. V. Narsimha Rao's (successor of Rajiv Gandhi) government. Singh undertook the nearly impossible task of reviving a failing state, and drafted policy measures that were to completely transform India's physical and interior appearance. He and his cabinet understood that there needed to be a fundamental shift in the way things were being carried out; one key change comprised the devaluation of the Indian rupee that had previously caused further severity in the balance of payments problem. After this fiscal change was incorporated, additional changes of the "license raj—a creaking edifice of central planning held together by miles of red tape" (The Economist June 2004) were required to be undertaken in order to reorganize the structure

of the nation. This came in the form of revamping the public sector—monopolies were restricted, and a reversed preferential treatment was given towards the private sector now. To encourage the latter to take massive strides in the way it operated, the government lifted licenses and reduced tariffs (The Economist July 2011), all of which made the country an attractive base for private investment. India was now opened up to foreign capital since it got rid of quotas and significantly lowered import duties and other limitations that had previously inhibited an open capital market.

The liberalization reforms that were undertaken triggered the first wave of globalization in India, which indicated that since the restrictions were now removed, the country was able and willing to host foreign investors within its sub continental borders. An instrumental reason for this was also the fact that India had an extensive network of software engineers and talented professionals who had been educated in the best colleges in the country. By the early 1980s, the "IITs, BITS Pilani, IISC"—all top colleges located in critical areas of India—"had undergraduate, graduate and post-doctoral programs in computer science" (Sharma 192) paving the entrance of the highly technical Masters in Computer Application that ensured that graduates had access to the most advanced degree of professional learning of computer-related programs. As a result, when the foreign investors looked Eastward toward the Indian subcontinent, they not only had a favorable economic atmosphere to make profits, but also access to the pinnacle of software through these graduates. An important mention in this sketch of India's advent in the global scene is the return of Non Resident Indians (NRIs) who had left the country in the 1970s because of political and economic turbulence that was in existence during that time. When this group grasped extensive effects of the restructured Indian economic

framework, they recognized the country's potential in being a harbinger of a comprehensive "global" India. Afterward, they were integral to encouraging their own employers to regard India as a land of opportunities and many succeeded in their consequent arrival of foreign companies in India. As a result, NRIs and foreign companies began providing venture capital to India's alluring businesses and instantly earned great profits. Because of the success of an additional source of initial funding, a committee called the Indian Private Equity and Venture Capital was established that facilitated development through a series of innovation and utilization of technology. It also served as a platform where the investor could interact with his or her potential clients and thereby conduct change mechanisms in the service industry.

In essence, it is imperative to understand the difference between the developmental strategies undertaken right after independence until 1980 and that of late 1980s until the 1990s decade. The former was "highly interventionist, consisted of import protection, complex industrial licensing requirements, financial repression, and substantial public ownership of the heavy industry" (Cerra and Saxena 400). The latter, on the other hand, pivoted around the idea of opening up the domestic economy to allow for a steady inflow of assistance in the form of aid, advancements and technology. It identified the problem areas from the previous decades of policy-making and focused its own on facilitating an interaction with the external world, thereby setting the ball of globalization rolling. This wide toss of having supplementary alternatives to determine the course of development served as one of the most crucial turning points in India's economic, social and political history (Cerra and Saxena 403). It became a primary reason for entrance of foreign firms in the country that was eager to tap the potential that

was presented by India's young, but highly capable manpower. This is exactly the turning point in independent India's quivering history that actually resonated with the youth of the country.

METHODOLOGY

The research that I carried out was specifically tailored to the south Indian cities of Bangalore and Chennai because these two cities were the epicenter of the IT-triggered boom for three specific reasons; namely, geographic location, availability of necessary technological equipment, and readily available manpower. Chennai is a coastal city in the very southern part of India, and is the capital city of the state of Tamil Nadu, and was formerly an important British administrative unit. Bangalore, too, enjoys a similar sort of British lineage; physically, it lies at almost the same altitude as Chennai, but is located further inland of the country. It is the capital city of the state of Karnataka. Both cities have undergone a name change in order to claim back the original mythological names associated with these two cities from those adopted by the colonial rulers. Chennai was formerly known as Madras until 1996, and Bangalore was renamed as Bengaluru in 2006. I choose to use the name Chennai while talking about the city because when I moved to this city, it had already undergone the name change, and so I had not experienced living in old Madras. For me, Chennai signifies the new urban value associated with it. Bangalore, on the other hand, only recently went through this name change, and so while I was growing up, I had already been used to associating this city as Bangalore, which is why it is hard for me to refer to it as Bengaluru now. Throughout the thesis, I use Chennai instead of Madras, and Bangalore instead of Bengaluru because of the reasons mentioned above.

Both cities had highly developed telecom lines that were yet to be seen in the rest of the country. This was one of the sole reasons that foreign companies were able to tap

the cities' potential in moving forward with the kind of investment they made in these two cities. The central aim in undertaking this research was to grasp a sense of the impact of the IT-boom on the socio-economic level. For this purpose, I interviewed fifteen people, ten males and five females - all of whom were engaged in some capacity to the IT-sector in the two cities. The questions that were asked were divided in three parts: demographics (age, gender); educational background (level of education attained); and social life (outlets for interaction with friends and colleagues, area they lived in). The next group of people (five in total) that were interviewed came under the category of "blue-collared" workers. Some of the questions that I hoped to gain were whether they were currently employed or not, and whether they have any time at all to engage in social activities. Lastly, I interviewed a local government authority at the Town Planning Office in the city of Chennai who was able to provide sufficient information on the local government's role and interaction in supplying the necessary utilities to the community, and if there were any kinds of public housing provided to the local poor. The main intention was to also gain an idea of what the future of the city of Chennai would look like after the implementation of policies that would structure growth specifically in the IT-field.

I also visited the two prominent IT parks in the Chennai and Bangalore - Tidel Park and Electronic City respectively. To physically be able to witness the rapidly changing work environments in the two cities was incredible because I was actually able to experience the global forces that have caused rapid changes in the urban built environments of these two cities.

CONFIGURATIONS OF A GLOBAL CITY

The cities of Chennai and Bangalore as previously introduced are the primary centers of the IT boom in India. Geographic location, their capacity to have a structured system of highly technical equipment and skills are both integrated reasons for their gradual accession to the hub of software and IT related activity in India. This chapter incorporates a discussion of what is means to be "global" and how and why these cities have succeeded in attaining this portrayal specifically through the lens of the IT-boom; therefore this chapter revolves around the social and economic being of the quintessential IT worker. As these two cities enjoy a rapid influx of foreign and domestic firms, there is an interesting mix of the global vs. local—in terms of a changing notion of conforming to the norm yet trying to maintain authenticity. This, subsequently, has led to an indelible mark on the society and urban built environment of the two cities that manifests itself in an interchange of physical appearance in the city, internal composition of workers, and the lifestyle that came along with having a high-end IT professional's salary and status in society.

It may be useful to trace the route that a typical software/IT professional takes to enter the hugely competitive industry, and understand how he or she is engulfed by a dilemma of working in a so-called "global" firm while living in a local setting. First, the worker must acquire the necessary set of skills and knowledge to enter the pool of competitive applicants to meet the required demands of the IT companies. To do so, he/she must have graduated from one of the highly technical institutes, which basically are the IITs-initially founded by Jawaharlal Nehru in the early 1950s. While providing

outstanding levels of technical background and knowledge, the IITs rank high in furnishing students with a well-rounded technical education with ample attention to the development of quantitative, analytical and research skills among its students. These institutes are labeled as "machines" that churn out best engineers with a thorough meticulously drilled background. Hence, IIT graduates serve as ideal candidates for not only the leading domestic IT firms like Wipro, TCS, Infosys, HCL Technology, Mahindra Satyam, etc. but also the finest international IT firms like Accenture, Capgemini, Deloitte Touche Tohmatsu, IBM, etc. that have ventured across borders to reach Chennai and Bangalore's advantageous nucleus of skills and resources (Companies in Electronic City). The IITs are thus, in great demand by the country's brightest minds, but in order to continue to maintain a reputation of producing the best they are compelled to devise a system that would ensure that they admit the crème de la crème. This occurs in the form of rigorously designed entrance exams, namely the IIT Joint Engineering Exam that has a pass rate of only about two percent, which makes it harder than getting into Harvard University that is approximately ten percent (Farber). Therefore, this system works in two ways; while students want access to the best quality of teaching, the institutes want to admit only the best kind of students so that they already have top minds to train and mold into a competitive candidate to the "global" IT companies.

Conversely, while the IITs prepare the ideal candidates, it is key to understand why only such a small proportion of people are able to actually get through, as this will set the tone of the socio-economic consequences of the IT-triggered boom. Even though the student puts in so much work, and sometimes may even take a gap year to focus on studying for the IIT-JEE. India is a country of nearly 1.26 billion people (2012 World

Population Sheet), so using simple economic theory of demand and supply, the former is found to be exceptionally high. Supply of good educational institutes is, however, statistically speaking too little in correspondence to the number of people who take the test. There are only sixteen IITs spread across the country, while the numbers of people who take the test exceed more than 500,000. There are roughly 50 applicants for each spot in the top-tier IITs in India (Madhumati). This implies that being smart is not nearly enough to secure a spot, since there will be 50 others who have the same score as you in the exam. After years of rote learning, and applying theoretical and practical skills to study for the exam, it all comes down to the fact that luck plays a significant role in acceptance to a college. Therefore, it comes as no surprise that global IT companies want to set up their bases in India because even though IIT graduates are limited in number, there is a gigantic proportion of identically competitive candidates from other engineering schools who have a similar background knowledge and skill set, and would be able to perform just as well. This attests to the fact that Chennai and Bangalore are able to enter the global arena of competency and recognition with local knowledge that its people have been able to acquire over the years. The big four domestic IT recruiters are Tata Consultancy Services, Wipro, Infosys and Cognizant and hire the best and brightest of the IITs and other top engineering schools—who in turn comprise more than 2.2 million employees in this sector (Madhumati).

The heavy influx of foreign firms has been instrumental in shaping the way local IT foreign-based companies that have established offices in the technology wonder that is a combination of Chennai and Bangalore (Chidambaram 16). Such companies have a distinct direct advantage of setting up strategic bases in the country—cheap, well-

qualified, easy available labor. The initial strategy involved a migration of skill, whereby a certain group of highly-trained workers, or "techno coolies" were sent to foreign countries and exploited in terms of low wages and long hours (Fuller 124). Conversely, today the software industry in India is gradually growing into a massive entity, and developing in a higher market base seen by the "rising proportion of offshore software exports, because more work for foreign clients by Indian software companies is now done 'offshore' in India, rather than 'on-site' at the clients' office" (Fuller 124). Foreign IT companies have all found enormous recruitment bases in cities like Bangalore, Chennai; and as such, there exists a significant proportion of local people who are able to market themselves to suit the rising global employment opportunities. In turn, they qualify for the well-earned and deserved high wages from the recruiters, which enables them to fit within the upper middle class of society.

A vital consequence of lucrative employment prospects presented through the IT sector is on the mindset of society in how it affects them and influences the choices they make. From the common man and woman's perspective, engineering is seen as a key to unlock a myriad of potential opportunities that lies in front of him or her. These opportunities come in the form of a well-rounded education that not only supplies a solid technical background, but also emphasizes a wide exposure to the mastery of skills in diverse areas of the same field. All admitted students are also presented with a uniform training and access to opportunities as everyone else. The learning door is open to all, and distinctions are not made on the basis of class, gender or family background. In this way, engineering schools becomes a way to cross barriers that otherwise exist in open society, which greatly impact the student's social and cultural intellect, paving the road to further

development. As such IITs, among other engineering schools functions as "an ecosystem that nurtures confidence, problem-solving and team building skills" (Madhumati). In this way, it can be inferred that students concentrate on acquiring a better sense of what they know as opposed to whom they know. After going to an IIT, a student is seen to have acquired a global advantage that becomes a threshold for his or her bright future. Subsequently, the lower and middle classes of Indian society views engineering schools as a bridge to gain access to the same resources that the rich have, and a sure way of ensuring a decent livelihood after graduation, which is supported by the highly specialized IT sector.

So far, I have discussed the process of getting in to the firm, given that the qualified candidate has the necessary set of skills and knowledge to work in a highly competitive and demanding work environment of the IT firm. But what happens when the candidate becomes an employee? What are the underlying factors that allow for this transition to take place and how does it manifest itself in the work place? More than 200 out of Fortune 500 companies ("The Sectoral List") outsource their IT needs to India, which shows how integral this sector is to not only the local economy in terms of providing employment opportunities, but also to the global economy overall because of the dependence on the Indian subcontinent to complete the required task, and do it efficiently and in the best possible way. The biggest impact on off shoring came from the Y2K crisis that gripped all computer systems around the world at the brink of the millennium-none of the earlier editions of the system needed to be fixed to in place, and were in immediate need of a miracle (Celeste 2). This came in the form of Indian software engineers who were firstly, highly skilled and capable to work within the

extremely sensitive time frame, and secondly, who were willing to work for a fraction of the cost that European and American engineers would demand. For instance, Infosys-a local booming IT firm, agreed to change the date of computer systems and fixing bugs in all systems for only $15 per hour for its workers, while the global wage rate was $30 per hour for the same job (Goldman 246). In a way, the Y2K crisis "created the possibility of a whole new form of collaboration and horizontal value creation: outsourcing (Friedman 108)." Through this fast-paced and time sensitive incident, that is, work that required to be completed by midnight, Friedman traces back to midnight on August 15, 1947 when India gained Independence from British rule. Both these instances have midnight as a symbolic time that signals a start of a new journey, the former encapsulating political freedom, and the latter initiating economy freedom (Friedman 105).

As a result of this import of technical solvers to their problems, America has inaugurated a 'global clock' (Bass 58)-one that is ticking throughout the day and night in a different part of the world, thereby ensuring a constant flow of work and meeting deadlines. With the twelve-hour time difference between say, California and Bangalore, it is seen that the former is able to efficiently outsource not only its IT needs but also its nightshift in the assurance that the Indian IT worker will have finished the required job by the time the American worker would start his or her day (Baas 60).

India hasn't been able to fully utilize its natural resources as competently as it has been able to harness its brainpower. It established the best educational institutes and trained its youth in medicine, science and technology (Friedman105). As a result, its strength lies in exploiting the best minds of the country, and therefore served as a large source of employment for a range of sectors. Along with having smart people work on

complex cases, employers had another reason to fix their gaze on India—English lingual skills. Roughly 300 million people possess a good working knowledge of English, making them a highly desirable pool of potential employees of transnational companies. One of the most recent sources of rapid economic development is the IT-led boom in south Indian cities of Chennai and Bangalore that has a stimulating effect on the economic and cultural lifestyles of the employees in the IT sector that is evidenced by a growing middle class in these two cities. Employees engaged in the IT sector are well paid by local standards because of their global employers who are required to maintain a certain level of wage rate. As a result of high wages, by the local standards, demands have changed. Increasingly, the society is becoming highly consumerist—a trend that wasn't as prominent earlier. The availability of branded luxurious items are increasingly becoming the norm now, and given their high prices, are only afforded by the well-paid IT professionals. This swerve in the outlook of individuals shows the movement of global values that replace traditional saving patterns with consumerism.

Observing the recent phenomenon through a cultural lens, some distinctions can be drawn; a society that is built on a caste system somehow loses its authenticity in the IT industry because of the way hierarchy of power is structured. In the traditional system, the family where a person was born in determined his or her status for the rest of his or her life, allowing little or no movement at all across the social ladder. Contrastingly, in the IT industry, an individual is valued based on his or her performance and hard work therefore; it provides everyone with an equal opportunity to climb the success ladder. Inevitably, an IT professional finds loyalty towards a system that ensures a fast-paced work environment that lays an emphasis on individual effort rather than a pre-determined

structure of belonging. In essence, the industry shows how a "unified, singular idea of how India ought to be run individuals advance strictly according to the merit, and class, case, and gender do not matter" (Radhakrishnan 150).

Another way that the IT sector has brought about uniformity in its functioning is by crossing lingual barriers. India is a gigantic country that is broken down into twenty-eight states and seven union territories, each of which has an extremely diverse identity, language and circumstances (States of India). After gaining Independence from foreign rule, India needed to create a sense of homogeneity that would help generate feelings of nationalism (Anderson 22). This came in the form of a language, Hindi, that would be spoken all over the country as the national language ("History of the Hindi Language"). However, states in the south refused to accept Hindi as the language of independent India because this language was primarily spoken in the northern parts of the country. The IT sector, because of its multidimensional nature has attracted the best and the brightest from all parts of the country, resulting in an influx of diverse cultures and backgrounds. While they The IT-sector, in a way, has helped erase rigid lingual barriers, in that now a south-Indian is able to converse in Hindi with his or her north-Indian counterpart; and vice-versa. Hindi, being one of the most prominent official languages in the country, is now gaining a widespread usage that the policy makers had envisioned back during the time when the Constitution was framed in 1950.

Looking at this infusion of the so-called "global values" from an individual point of view, it is intriguing to discover the way young IT professionals manage their love life. On work-related trips abroad, after spending time outside the office and finding common interests, jump on to have affairs with colleagues, which may be short-lived but are good

for that period of time. Approaching it from the long-term point of view, most male IT workers tend to have a preference for a wife who isn't involved with the long-grueling hours of the IT industry, one who is able to maintain domestic balance, and essentially be a home maker. Women in this field, on the other hand, prefer to find husbands who are involved in the same industry so that their schedules to be have free time to spend at home are consistent (Fuller 106). However, they do not spend much time looking for a potential husband, because of the belief that their friends and family would find the best-suited match for them. It is intriguing to note the distinction between "modern love" that encompasses flexibility and convenience, and "traditional love" that emphasizes reliance on external sources. An interesting dichotomy of global versus local is seen to be in play here, where an average worker engages in both forms; one that follows a more independent stream, whilst the other focuses on a communal effort.

When I visited Bangalore and Chennai last winter break, my research led me to discover interesting notions of identity that were definitely triggered by the boom, and is currently gaining momentum by the pervasive presence of globalization. I met with a few IT professionals who were in the 24-28 age group during their lunch hour one afternoon, and was curious to know the sort of social options they explored after long working hours at the office. Some preferred to hit the sack the minute they get back home because "looking at a computer screen for twelve straight hours can be extremely strenuous." (Interviewee 1). I sympathize with them; the fast paced working environments of a global firm must entail a series of on-going projects that exhibit themselves in different time zones, and would require constant supervision and direction. I followed up with the kind of activities they engage in on weekends. They all grin broadly and unanimously agree

that pubs are the most sought after night places to socialize after a draining week at the office, and invited me to one such weekend night. Purple Haze, Dublin, Athena, A Pinch of Jazz-are all popular pubs in Bangalore, and we decided to go to a recently opened one called Tolt in Indira Nagar on a Friday night. The scene inside was almost exactly like one that I had seen in New York where I spent the majority of my summer last year doing an internship. There were skimpily clad youngsters chatting non-stop, whiffs of perfume mixed with smoke coming from the upper level of the nightclub, high chairs lined up at the bar, drinks like Flaming Ferrari, Long Island Iced Tea were prominently displayed on the menu. I decided on a Cosmopolitan—a blend of vodka with cranberry and a twist of orange—that perfectly matched the atmosphere in the club. After interacting with the many young people at the bar, I wasn't surprised to see an overwhelming majority of them worked for the big names in Electronic City, which is one of the biggest IT parks in the city. As conversation flowed, it was interesting to notice that most of the topics discussed revolved around stress from work, love life, pollution, and pressures of the city-life-pretty similar to what the young people deal with here in the U.S. I was astonished to see the similarities in the ways young urban India and young urban America socialized.

One of the most remarkable consequences that made a huge impact on me was the involvement and perception of the local community of the pub culture. Initially, in the early decades following Independence of India, only the elite - who represented a minor section in the society then, were seen to use alcohol, music, dance, etc. while socializing. They had access to Western society through art, cinema, books, and were heavily influenced by the latter, so they attempted to sculpt their social behavior on this external

model of fraternizing. The rest of Indian society, however, like the political atmosphere during that time, shunned anything foreign and focused on self-reliance to supplement their social identity. However, in the Twenty First century, it seemed that young urban India had gotten rid of the thoughts and values that their parents and grandparents' generations echoed. This new, emerging India was seen to actively participate in the form of socializing that was brought by the forces of globalization. They had a liberated sense of what it means to be part of young India, and had no qualms in implementing their thoughts to actions, which, among other things, involved drinking a couple of beers after a hard day's work at the office (Interviewee 2 and Interviewee 3).

However, it is necessary to point out two integral things in this episode: the deep division in society between what is traditional and what is modern; and the unconsciousness of what comprises inherently Indian morals in the first place. The ubiquitous presence of pubs and nightclubs in the Bangalore and Chennai has angered a certain section of people on the basis of not being consistent with what is considered to be "Indian." This official name of this group is *Shree Ram Sena* that officially translates into 'The Army of Lord Ram,' whose principle "objective is to organize—consolidate the Hindu society and to serve—protect the Hindu Dharma" (Shree Ram Sena 2012). In an effort to protect the continuously changing identity of the quintessential Hindu Indian, members of this group have carried out acts of violence against men and especially, women in pubs and nightclubs in the states of Karnataka [of which Bangalore is the capital], and Tamil Nadu [of which Chennai is the capital] (The Times of India 2006). The rest of the society condemns these acts and does not believe that the group and its ideologies represent the majority opinion. This is striking, because post-Independence;

the concept of self-sustenance was salient to the psyche of an Indian, whereas in today's urban India, notions of a collective identity-shaped by the various influences is asserting itself as being a global Indian. In essence, the arrival of globalization through foreign firms has given rise to a new breed of a young, urban, global Indian—who in fact, has facilitated the interaction of ideas and beliefs to shape his or her mindset in a way that he or she is unable to even recognize what it entails to be an Indian in the traditional sense of the word.

As a fellow Indian, I find it intriguing to discover how Indians deal with the confluence of local and global values, and sometimes don't even realize the authenticity of either set. I left India for undergraduate studies in the U.S. at the adolescent age of seventeen. Leaving home at such a young age left me extremely vulnerable, not really understanding what was Indian and what wasn't. Today, when I go back home to Chennai during breaks, this confusion is even more apparent in society. In my opinion, this uncertainty and perplexity is perhaps, one of the most crucial elements in an evolving identity that is molded and rejuvenated by the economic, cultural, political, social and transnational forces that have developed a porous nature. It is eye opening to actually observe the way young urban India socializes, which was in almost every respect similar to how the youth in the U.S. do, and to be able to witness the shift of traditional values to modern ones.

After gaining a gradual yet solid recognition as a "global center for leading edge IT industries," Bangalore undertakes a majority of "software related activity, and has even been dubbed the "silicon valley of Asia" (Saxesian 172). It is rather intriguing to learn and trace the story of local within the global; to know how a working professional

in the booming IT industry in both Chennai or Bangalore persists to adapt himself or herself to the demands of a "global" working environment yet, somehow retains the authenticity of being an Indian by preserving traditional morals. In a way, urban city living in these two metropolises exhibits a sense of local within the global, wherein an amalgamation of the four processes take place that are best summarized by the following quote: "Take a cup of leftism. Stir in dashes of caring and fun. Blend with performance-obsessed managing. Garnish with middle-class values. Result: a success cocktail" (Baas 64).

While this transition is social values is taking place in a communal procedure, the physical structure of the two cities is also changing to represent a global image. Judge a book by its cover and external images do matter in a world that supports a distinct identity, yet maintains uniformity in some way; this fact is widely seen in the way offices are structured in Bangalore and Chennai. Due to expanding markets in India, there is a need to comply with the international standards to ensure consistency. Therefore, it is not surprising to see a highly segmented technological park located in the cities—comprising all the top-notch office buildings of the local and foreign IT companies. Local offices are modeled based on the headquarters, that is, with a fully equipped glass building on the exterior, and well-defined work stations—Technology Consulting, Programming and Consultation, Operations, Risk Management, Strategy, etc.—signifying a clear division of expertise. Hours are long, and when the rule of diminishing marginal utility kicks in—wherein productivity of a worker declines per hour that he or she spends working at the office, employers apprehend a need for recreational outlets to ensure a better working efficiency for their employees. For instance, in one of the main offices of Infosys in

Electronic City, a recently established IT park in the outskirts of Bangalore, a whole new range of amenities have been introduced for the employees. Such facilities include "a swimming pool where workers can dive; restaurants that cater every type of foods from pizza to curries; fitness areas equipped with the latest slimming-down and toning-up technologies, and table tennis tables, [giving] the impression of a fancy resort" (Baas 63).

The availability of such a diverse selection of things-to-do during the workday shows the far-reaching effect of globalization—a process that standardizes recreational opportunities across borders. All buildings have parallel exteriors, "housed in cold steels and glass high-rises with professionally designed exteriors, central air-conditioning, open floor plans divided intro grids of cubicles with individual work stations, and courteous, well-heeled receptionists—tend to erase anything that resembles the local or India" (Upadhya 5184). This urban built environment in terms of branding a new style of the workplace with a set standard of exteriors and interiors such that it matches the international norms shows the trend of importing foreign culture—laying the foundation for an India that is dusted with vast imprints of globalization.

FAÇADE OF THE LOCAL V/S. GLOBAL DEBATE IN THE SOCIO-SPATIAL REALM

With the advent of globalization in the IT-boom drivers of India, we have seen the socio-economic impacts and how it affects the functioning of daily life in the two cities. A significant turning point comes with the socio-spatial effects that entail where and how people live and how these criteria lead to the systematic techniques of these things. Urban living, thus, is a synergy of how work interacts with residential areas (Ong 6). The IT triggered boom has seen a variety of transformations occurring within the urban built environment, but one of its greatest impacts is the transnationalism that is embedded in its very functioning. In a way, people's identity is being questioned, and turned into a direction that triggers the notion of belonging in a "global city" but through a local lens. One of the biggest tangible impressions that the IT boom has had is on the infrastructural developments of Bangalore and Chennai, which affects relationships between urban elite and rural poor, between local government authorities and global corporate companies, and highlights the defining feature of the wealth and power game.

Entrance of foreign firms has certainly helped give the country a certain "global" edge, which entails a cross over of ideas and working cultures. Success of the IT boom in Chennai and Bangalore can be attributed to an interaction of global and local actors to ensure a smooth functioning of the industry. It is helpful to understand what or who falls under the global and local criteria; the former entails a mix of national and international firms that lend their transnational image to the city, while the latter encompasses political leaders who facilitate policymaking at the local level. Thus, a tale of two cities circles

around this interaction that facilitates the shape of the urban built environment is beginning to take in Bangalore and Chennai.

First, outward appearance of the cities has witnessed an expansion that is worth mentioning; the IT parks themselves are a physically constructed space, mainly located in the outer sections of the city. For example, Tidel Park in Chennai is one of Asia's largest and India's single largest IT park is located in *Taramani*—a densely populated area that is located further from the inner city ("Chennai's Tidel Park to be ready by 2000"). In Bangalore, Electronic City is a similar IT industrial park that is located in *Aneluka taluk*, a district on the outskirts of Bangalore ("IT Infrastructure"). Several hundred companies have set up bases there and would need to find a situational impact on the community, which they have succeeded in. As a result of the rapid urbanization that the city has seen, land has been a contested issue because supply is too sparse to accommodate the increasingly high demand of the corporate and state actors. It is often the case that they get meet this demand by urbanizing the rural land by offering little compensation that is often inadequately matched with the actual needs and money that the poor people require.

So a pressing question must be asked in order to comprehend the background behind changes in the urban built environment, what role does the state assume in this sort of physical expansion of the city? A law drafted in British colonized 19th century India is still in practice today clearly states that the government can easily avail the necessary land required for general betterment of the country, b3ut "it must offer a fair market price" (Goldman 244) in doing so. By implementing this law, government authorities are able to gain access to large masses of land from farmers or landlords at a price that is determined by the former—often significantly less than what the appropriate price would have been.

Rural policies have also experienced a major transformation; while the two-three decades post independence saw investment in the rural areas and a reform in agricultural production in the name of Green Revolution, which positively impacted India's agrarian economy. Policies entailed subsidizes in agriculture that allowed a "national food surplus and some of the 70 per cent of the nation's population engaged in rural work employed and compensated." However, post 1991, the national economic and political structure was solely focused on opening up of the economy through liberalization reforms specifically for deregulation and removal of industrial and import licensing to encourage foreign investors to fully utilize the resources that India had to offer. Therefore, the government's central aim was towards the corporatization of India, and not on agricultural expansion of the state, as a result, its "policies have shifted from rural subsidies and social welfare in general" (Goldman 244).

This newly acquired land helps to support the continued expansionary methods of the government. In a sense, it can be inferred that the local government policy makers work well with the corporate actors because of the former's support to the latter's growing needs of physically constructed spaces for the proliferating impacts of the IT-triggered boom in the two cities. Because people in the semi-urban/rural areas have had their land taken away from them (sometimes forcefully), with very little assistance from the local government authorities in improving agricultural productivity, they are left with no means of a livelihood. This means that they are forced to migrate to the cities (of Bangalore and Chennai), and contribute in some way or the other to the local economy. However, they do not possess the required expertise, education and English-speaking lingual backgrounds to qualify for the professional demands of a "white-collared worker"

(one who has expertise in the administrative and working office zones) in a fast-paced work environment in Bangalore and Chennai. Subsequently, rural workers use limited resources and skills that they have to offer to find a way to earn a living in the big city. These workers and the kind of work they end up doing falls under the "informal economy" – one that does not a function in a systematic and recognized way, yet employs a large number of people. However, due to the political leverage in the urban city structure, this form of small to medium enterprises seldom gain momentum to capture the market fully. This informal economy entails activities like manufacturing of fabric, tires and other automobile parts, silk processing, plastic recycling, etc. (Goldman 244).

As the workers engage in this kind of work, the question of where they live should be asked to understand the role of the local government. Since the government does not really help the transition of rural workers, it suffices to pronounce that the latter need to look for temporary housing solutions themselves with the limited means and influence they have in the city. As a result, Bangalore and Chennai have seen an increasingly rapid development of "slums" that are essentially a form of housing for the very poor, lower classes who are unable to afford housing in the better and more developed parts of the city. Due to negligence from the local government authorities, slum-dwellers experience the brunt of a terrible social welfare system, and get virtually zero or very little utilities like water, electricity. Consequently, slums become a breeding ground for germs, diseases that lead to unhygienic living conditions. In Bangalore, nearly 1/5th of the urban area comes under the "slums" category, while in Chennai, this number is almost exactly the same, making it among the top five metropolitans in India that is home to a significant number of its urban population ("Walk Through India"). Despite this

significant percentage of slum dwellers living in the city, they have been unrecognized by the policymakers that make up a significant proportion of the urban population. This brings forth the notion of an identity crisis for rural migrant workers who have had to make an exhaustive transition from rural and semi-urban living out of necessity, and are not even given a suitable position in urban society. Their mere presence is looked down upon, and even hidden –by barricading view from outside through big walls—when a big political or social figure is visiting the city because of the apparent lack of modernity in their dismal lifestyles. This occurs in the name of "demotion of any visible manifestations of poverty such as the frequent clean-up programs in which squatter settlements are demolished in order to preserve the quality of life of the so-called a modern sector" (Dittrich 238). Therefore, it can be inferred that "governmental policies have shifted away from social welfare provisions in general," (Goldman 244) and are directed more towards encouragement to advancements in the private sector.

It is noteworthy to grasp the far-fetched vision that the local governments have in order to modernize their city. First, they want to continue the expansion of the "global city" literally by using the newly acquired land (through largely unjust means) from rural citizens. The government funds projects that would bring about notable adjustments in the physical appearance of the city that it represents. An example would be the "billion [Indian] Rupees 'mega-city project' which focuses on modernizing Bangalore by urban renewal and urban design" (Dittrich 50). The urban, highly developed dual cities have witnessed a colossal increase in infrastructural developments, evidently witnessed by the newly constructed highways, roadways and bridges throughout the city. In Bangalore, the prominent ones include, but are not limited to the "Bangalore-Mysore Industrial Corridor

the IT corridor, and the Bangalore International Airport" (Goldman 240), all of which have reshaped the city to fit the so-called "global" image that it is quickly associating itself with. The above named structures facilitate a relatively easier movement of people, goods, and services that ensure that work is being done and deadlines are being met at a faster rate. Chennai, too, has seen a similar road of expansion with newer and better models of infrastructural developments. The common highlighting factor in bringing about a "global" dimension to both of the respective cities is the standardization that they are experiencing. Bridges are built on a similar ground—of reducing travel time—shows that by the end of the transformation of the two IT centers of south India, very little difference would be found in the new physical image of the "global" city when compared to say, San Francisco, or New York.

Since we are on the subject of physical transformations of the city, the way they resemble their counterparts in America and Europe may be integral to understanding the remodeling of the "global city." The IT parks in both cities comprise tall buildings, skyscrapers in essence, and a range of social outlets. As discussed in the previous chapter, the physical structure 9cold, steel-rimmed, glass-plated buildings) of the IT parks are built in accordance with prevailing architectural models that the corporate American and European cities possess. But the question remains, how do these "global cities" gain this image? The answer comes in the form of the rural denizens who were forced out of their homes through unsolicited means, and had little choice but to find work in the urban city as migrant workers. Not having had the necessary skill set, they have nothing but manual labor to offer, and the city greedily relies on this untapped potential to further expand its concrete territorial expansion of the urban built environment.

By hiring this form of labor, the "global" city witnesses a well-designed and pristine image that it so desires. Since squalor is associated with the rural migrant workers and the slums they live in, to whom does this pristine image really belong to? In three overly simplified words: the urban elite. The latter constitutes those groups of people who are employed in the IT industry—Bangalore's pride and honor, along with other public enterprises. They are the ones who earn high salaries and enjoy a high standard of living—much like that of their "global" counterparts in America and Europe. They are the ones who have experienced a complete modification of their spending patterns and increasingly consumerist tastes. Consequently, they are able to furnish themselves with a modern, high-rise apartment located in the center of the city one that is designed by renowned foreign architects, thereby lending the "global image" reputation that the city has garnered for itself. What is also worth mentioning is that many of those who are considered "urban elite" today, in fact, are children of parents and grandparents who came from these rural areas with limited means. Their parents and grandparents were the ones who worked small menial jobs during the day, and studied under street lamps at night, which helped them get through engineering schools-thereby paving their way to progress and advancement.

Bangalore, in essence, has become a city of multiple spatial divisions because of the series of structures that envelop the city. Vast stretches of land have malls, apartments, condos, office buildings-none of which had previously existed and now do because of the changing local demands. Of the interviews that I conducted over winter break while doing research for my thesis, out of the fifteen young professionals that I got to speak with, almost all of them said they had an apartment in the 'downtown' area. This implies

the city center, which is "characterized by the dualism of indigenous urban settlement areas and the former British cantonment, where the modern Central Business and Administration are located nowadays" (Dittrich 51). While one part of the city showcases its recently acquired glamorized appearance thanks to globalization and its permeable threads that have infused within the routes of the physical structure of the city, the other exposes the harsh realities of urban living via slums and low-income housing projects.

Dittrich sums up this intermingling of socio-spatial differences succinctly by dividing them in three separate categories; first, developed neighborhoods have a master plan of mainly "globally integrated corporate economies," second, "domestic market-oriented corporate economies (large public sector undertakings with their own townships, and private sector companies)" that occupy a major chunk of urban developed land, and third, "localized economic coalitions" that sprout up without a systematic procedure (Dittrich 52). Therefore, the disparity between the physical appearance of the IT-boom and the slums that have sprouted from the uneven stimulus of growth is, in a way, similar to India's own polarity between its rich and its poor.

CONCLUSION

The thesis highlights the socio-economic consequences of the IT-led boom in the cities of Chennai and Bangalore in a way that brings about a contrasting image of this development. On one hand, beneficial impacts are evidently seen through the provision of lucrative employment opportunities to the masses. The IT sector allows people from the lower and middle class to dream—to be able to use the array of resources and knowledge to alleviate poverty. Once a person is able to get a job in this highly specialized sector by undergoing intense training and education, he or she becomes his or her family's key to open doors for other family members to acquire wealth, power and elevated status in society. Therefore, it is almost seen as a rainbow of hope for the marginalized sections of society who know that hard work and performance can make a complete rotation of their lives.

In a sense, it shows people that climbing the social ladder is certainly possible if one puts in the required effort and time in his or her work. The IT sector, then becomes a way to ward off societal evils like the deep-rooted caste system in India that dictates a person's socio-economic life because of the family he or she was born in. This system highlights the severe hardship in crossing barriers to break previously determined notions. In a sense, the IT sector is a bridge that closes the socio-economic gap among various sections of society because it helps maintain uniformity and consistency within its workforce. Therefore, a transition between an existing societal identity and "global" identity is witnessed because the latter is able to integrate a variety of factors within its vast realm.

The IT sector also brings forth the shortcomings of the supply of good-quality, specialized educational institutes in India. It emphasizes the growing need of establishment of institutes that would assist in training and educating the extremely large pool of raw talent that is eagerly waiting to be harnessed. In a sense, it brings forth the idea that India has so much to offer in terms of bright, young minds, but all of whom require a formal training to be able to gain a global competitive edge. The former fact - of India possessing talented people - indicates one of the main reasons that the country did not plunge into heavy recession during the Sub-Prime Crisis of 2008 when a significantly large proportion of the rest of the world did. India had a vastly abundant supply of labor that was engaged in a variety of sectors spreading from agriculture to manufacturing to services, and was therefore, able to sustain itself even during the direst times. Through the rising labor needs of the IT sector, it can be inferred that it is essential for India to furnish a supply of the best technical educational institutes to keep its local economy thriving and integrated to the global one.

A mixed impact of the IT sector is witnessed on the socio-spatial level as well. On one side, it helps the low-middle class families to send their kids to become engineers, who in turn pull the rest of their family into this whirlpool of power, wealth and talent. Given the sheer size of the population of India, this pull gives rise to an increasingly widening middle class, which is one of the chief reasons for the country's fast-paced growth. However, the government's role in the IT sector's territorial, political, economic, cultural and spatial expansion has greatly shed light on the growing disparity between the two extremes- upper and lower classes in the urban cities. The interaction between the state and corporate actors keep the poor poorer since the latter lack the necessary skills to

belong to the "white collared" worker's category, while the rich become richer because of the encouragement they receive from both the corporate and state actors.

One of the largest consequences of the IT boom is the jagged level of spatial development in the two cities of Chennai and Bangalore. While one part of the city witnesses a superior façade in terms of a complete restructuring of the urban built environment through high-rise buildings, infrastructural amenities, superior roads, bridges and highways; the other part undergoes a completely opposite change in the form of slums. Slums provide a lens to scrutinize both socio-spatial, and socio-economic problems attached to them. For one, they are home to migrant rural workers who lack the necessary skills and background to gain access to the highly professional demands of the fast-paced working environment. Secondly, they are a growing concern of the visible disparity that exists in the local economies. However, in my opinion, I think approximately next couple of decades will see a gradual disappearance of these slums because the growing influence of economic catalysts of growth and development. This means that very soon, a time will come when work, as an entity by itself, will require a new set of skills and knowledge. Therefore, in order to enter that competitive edge, slum-dwellers and all those who constitute the labor force, must adopt Darwin's theory of "survival of the fittest" and aim to achieve an unprecedented set of innovative skills that would set them apart, and ensure that they remain in the reservoir of expertise. Access to resources to gain skills and knowledge would be made possible because of the slow decline in importance of the caste system, when "global" India would consistently stress on hard work and performance to break social barriers and maintain uniformity. Consequently, the "blue-collared" workers would have the opportunity to navigate

through the market with their newly trained backgrounds. In this way, manual labor would be replaced with intellectually skilled labor force. There is, thus, a promising future even for the lower classes of people who would, through the pressures of an integration of globalization with the local forces, be able to succeed in the competitive environment of urban India.

As notions of identity are being put under the churning wheel of globalization within the realm of the urban built environment and the socio-economic consequences of a singularly specialized sector, my own socio-cultural impression of India's future is constantly changing. After reading numerous books on the history of India while growing up in the motherland, I have come to realize that the country is slow in understanding rudimentary needs of its people, as a result of which, the implementation of policies to help restore the economy is also gradual. What India is an expert in however, is to make executive decisions in times of pressing need. Indian history shows us that in absolute crisis, the political leaders were able to devise a plan to strategically help lift the country out of it.

The most concrete example that completely changed the way the country functions today is the crisis that it went through back in 1991. The central bank of India had reached a point where it would not be able to sustain itself because of factors like currency overvaluation, declining credit reserves and extremely low foreign exchange reserves. The IMF became its savior by agreeing to loan funds to avoid a bailout on the condition that the economic system of the country needed urgent and comprehensive change. The Indian government took accelerated steps in rectifying its situation and pulled its economy out of the doldrums of the impending crisis. This helps understand the

psyche of India—things get done *only* when required the most. As the famous proverb goes, "necessity is the mother of invention," India solely relies on situation of dire straits to take stringent policy measures to emerge from impending doom.

While the country is witness to a growing disparity between the rich and the poor, and an increased disconnected population as a result, it hasn't quite reached its tipping point yet. When that does happen, I am hopeful that India would be able to recuperate itself and dust off the deleterious forces that were pulling it down in the first place, and merge itself to the rapidly growing global economy that is in existence in the world today. It has a strong, cheap and massive labor force that is steadily gaining momentum in acquiring the set of necessary skills. For the last three-four decades, India has been slowly building its human capital that is young and malleable, and this growing base will serve as a catalyst that will ensure development in the long run. Although China is set to officially overtake the U.S. by 2020 in terms of GDP, its population would be growing old by then because of the implementation of the single-child policy. On the other hand, the number of people between the ages of 18-35 would be outrageously high in India, all of whom have rich potential to contribute to its growth, thereby helping India be at par with China. Consequently, the next three decades will be an interesting scene to watch the battle between a communist nation and the largest democratic republic in the world to integrate itself to a highly comprehensive global economy.

BIBLIOGRAPHY

I used sources that would first, provide a history of the economic and political atmosphere of India in order to gauge an understanding of the background tale to the boom. The second set of sources revolved around the social consequences of the boom in Chennai and Bangalore, and how it affected the local economy in altering it a global one. The third set of sources that were utilized focused on the socio-spatial effects of the IT-boom, which came in the form of changes in the physical appearance of the two cities, the urban landscape and the people it affected as a result of these changes. In alphabetical order, the sources that I used are listed below:

"2012 World Population Data Sheet." Population Reference Bureau, n.d. Web. 08 Feb. 2013. <http://www.prb.org/pdf12/2012-population-data-sheet_eng.pdf>.

Anderson, Benedict. *Imagined Communities.* New York: Verso, 1991. Print.

Benjamin, Solomon. "Occupancy Urbanism: Radicalizing Politics and Economy Beyond Policy and Programs." *International Journal of Urban and Regional Research.* 32.3 (2008): 719-722. Print.

"Can India Work? - India's Economic Reforms." *The Economist* 10 July 2004: n. pag. Web. 15 Feb. 2013. <http://www.economist.com/node/2747415>.

Celeste, Richard. "Y2K and the Rise of India as a Global Player: India's Commitment to Education Important to Its Growth." *Global Executive Forum* (2005). Web. 27 Jan. 2013.

Cerra, Valerie, and Sweta, Chahman Saxena. "What Caused the 1991 Currency Crisis in India?" *International Monetary Fund (IMF) Staff Papers* 49.3 (2002): 395-425. Web. 28 Feb. 2013. <http://www.uoit.ca/sas/Macroeconomic Issues/What1991CrisisIndia.pdf>.

Chidambaram, Palaniappan. "Foreign Investors: Why Should They Choose India?" *Economic Developments in India: Monthly Update*. Ed. Raj Rapila and Uma Kapila. Vol. 1: Academic Foundation (2005). 13-24. Print

"Cops Probing Mangalore Pub Case: CM." *The Times of India* [Bangalore] 26 Jan. 2009. Web. 26 Feb. 2013.

Corbridge, Stuart. "The Political Economy of Development in India Since Independence." Development Studies Institute London School of Economics, n.d. Web. 18 Mar. 2013. <http://eprints.lse.ac.uk/20381/1/The_political_economy_of_development_in_India_since_independence_(author_final).pdf>.

Corporation of Chennai. N.p., n.d. Web. 08 Mar. 2013. <http://www.chennaicorporation.gov.in/departments/town-

planning/townPlaning.htm>.
Dittrich, Christoph. "Bangalore: Globalization and Fragmentation in India's High-tech Capital." *ASIEN* 103. (2007): 45-58. Print.
"ECity Bangalore." *Electronic City Companies*. N.p., n.d. Web. 26 Feb. 2013. <http://www.electronic-city.in/companies/>.
Farber, Dan. "GE CEO Jeff Immelt: India, Globalization and the Economics of Scarcity." Editorial. *ZD Net* 6 July 2008. Web. 18 Feb. 2013.
Friedman, Thomas L. "Outsourcing and Offshoring." *The World Is Flat: A Brief History of the Twenty-first Century.* New York: Farrar, Status and Giroux, 2005. Print.
Fuller, C.J., and Haripriya Narasimhan. "Information Technology Professionals and the New-Rich Middle Class in Chennai (Madras)." *Modern Asian Studies* 41.1 (2007): 121-50. *JSTOR.* Web. 3 Jan. 2013.
Goldman, Michael. "Speculative Urbanism and the Making of the Next World City." *International Journal of Urban and Regional Research* 35.3 (2011): 555-81. Print.
Hansell, Jay. "Sri Lanka- Living with Terror." *Frontline World*, May 2002. Web. 09 Mar. 2013. <http://www.pbs.org/frontlineworld/stories/srilanka/thestory.html>.
"History of the Hindi Language." *Hindi Society*. N.p., 17 Nov. 2009. Web. 05 Mar. 2013. <http://www.hindisociety.com/ArticleHindiHistory.htm>.
"Indira Gandhi 'greatest Woman'" *BBC News*. BBC, 1 Dec. 1999. Web. 12 Mar. 2013. <http://news.bbc.co.uk/2/hi/543743.stm>.
"IT Boom! Office Buildings! India! - SkyscraperCity." *SkyscraperCity RSS*. N.p., n.d. Web. 10 Apr. 2013. <http://www.skyscrapercity.com/showthread.php?t=276307>.
Madhumati, N. "The Big IIT Dream." Editorial. *The Hindu.* 24 Mar. 2013. Web. 12 Mar. 2013
"Major Slum Areas in Top Ten Cities of India." *NextGEN Gallery RSS*. N.p., n.d. Web. 12 Mar. 2013. <http://www.walkthroughindia.com/lifestyle/major-slum-areas-in-top-indian-cities/>.
"Not Shutting Japan Office: Infosys." *The Times Of India*. N.p., 18 Mar. 2011. Web. 19 Mar. 2013. <http://articles.timesofindia.indiatimes.com/2011-03-18/software-services/29144652_1_infosys-coo-office-employees>.
"One More Push." *The Economist* (2011): n. pag. 21 July 2011. Web. 20 Mar. 2013. <http://www.economist.com/node/18988536>.
Radhakrishnan, Smitha. "Rethinking Knowledge for Development: Transnational Knowledge Professionals and the "New" India." *Theory and Society* 36.2 (2007): 141-59. *JSTOR*. Web. 3 Jan. 2013.
Roy, Ananya and Aihwa Ong. *Worlding Cities: Asian Experiment and the Art of Being Global*. West Sussex: Wiley-Blackwell, 2011. Print.
Saxenian Annalee, Sangal Rajiv, Akshar Bharatti, and Vineet Chaitanya. "The Bangalore Boom: From Brain Drain to Brain Circulation." *IT Experience in India: Bridging the Digital Divide*. Ed. Kenneth Keniston and Deepak Kumar. New Delhi: SAGE Publications, 2004. Print.
"The Institutes of Technology Act, 1961." Indian Institute of Technology, Powai, Bombay, n.d. Web. 10 Mar. 2013. <http://paa2008.princeton.edu/papers/80806>.
"The Sectoral List." *Fortune 500 India* 3.3 (2012): 207-14. Print.
Sharma, Dinesh C. *The Long Revolution: The Birth and Growth of India's IT Industry*. Noida: Harper Collins India, 2009. Print.

"Shri Ram Sena | Official Website." *Shri Ram Sena | Official Website*. N.p., n.d. Web. 02 Apr. 2013. <http://sriramasena.org/index1.html>.

Soni, Jeetendra D. "Brain Drain to Brain Circulation: In Indian Context." N.p., n.d. Web. 01 Apr. 2013. <http://paa2008.princeton.edu/papers/80806>.

Stremlau, John. "Dateline Bangalore: Third World Technopolis." *Foreign Policy* 102 (1996): 152-68. *JSTOR*. Web. 3 Jan. 2013.

Upadhya, Carol. "A New Transnational Capitalist Class? Capital Flows, Business Networks and Entrepreneurs in the Indian Software Industry." *Economic and Political Weekly* 39.48 (2004): 5141-151. *JSTOR*. 04 Dec. 2004. Web. 20 Feb. 2013. <http://www.jstor.org/stable/10.2307/4415838>.

"Wipro Plans to Hire 20,000 next Fiscal." *The Hindu Business Line*. N.p., n.d. Web. 05 Apr. 2013. <http://www.thehindubusinessline.com/industry-and-economy/info-tech/wipro-plans-to-hire-20000-next-fiscal/article1568261.ece>.