



## Emerging Trends in Infrastructure Development in India

### KEYWORDS

entrepreneurial intention, personality traits, entrepreneurial education.

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### ABSTRACT

India's rise in recent years is a most prominent development in the world economy. India has re-emerged as one of the fastest growing economies in the world. India's growth, particularly in manufacturing and services, has boosted the sentiments, both within country and abroad. With an upsurge in investment and robust macroeconomic fundamentals, the future outlook for India is distinctly upbeat. According to many commentators, India could unleash its full potentials, provided it improves the infrastructure facilities, which are at present not sufficient to meet the growing demand of the economy. Failing to improve the country's infrastructure will slow down India's growth process. Therefore, Indian government's first priority is rising to the challenge of maintaining and managing high growth through investment in infrastructure sector, among others. The provision of quality and efficient infrastructure services is essential to realize the full potential of the growth impulses surging through the economy. India, while stepping up public investment in infrastructure, has been actively engaged in involving private sector to meet the growing demand. The demand for infrastructure investment during the 11th Five Year Plan (2007-2011) has been estimated to be US\$ 492.5 billion (Planning Commission, 2007). To meet this growing demand, Government of India has planned to raise the investment in infrastructure from the present 4.7 percent of GDP to around 7.5 to 8 percent of GDP in the 11th Five Year Plan. In general, efforts towards infrastructure development is continued to focus on the key areas of physical and social infrastructure.

Infrastructure output growth for the first month of the new financial year has come in at a healthy 6.7 per cent as compared to 6 per cent for the same month of previous year. The growth rate for April is higher than the average monthly rates reported for the previous 3 months, but lower than 8.7 per cent reported for March 2006. The new economic policies aimed at stepping up economic growth, improving market efficiency and competitiveness, and integrating the Indian economy with global markets have already placed a heavy demand on all types of urban infrastructure services. The resulting bottlenecks are beginning to pose serious impediments to enhancing productivity. Urban infrastructure includes water supply and sanitation which are important basic needs for improvement of the quality of life and enhancement of the productive efficiency of citizens. There has been a steady increase in the urban population on account of rapid industrialization, natural growth and migration from rural areas. This has prompted the working out of alternative ways of meeting the increasing transport demand given the constraints of land and capital, and the need to control energy consumption, pollution and accidents. The general picture which emerges from the above review is that not only has the demand for infrastructure facilities and services continued to outpace supply but also the quality of existing supply is poor. The visible signs of shortfalls in capacity and inefficiencies include increasingly congested roads, power failures, long-waiting lists for installation of telephones and shortages of drinking water. The widening gap between demand and supply of infrastructure also raises questions concerning the sustainability of economic growth in future.

### INTRODUCTION

Infrastructure is generally defined as the physical framework of facilities through which goods and services are provided to the public. The infrastructure sector covers a wide spectrum of services such as transportation (including roadways, railways, airways and water transportation), power generation, transmission and distribution, telecommunication, port handling facilities, water supply, sewage disposal, irrigation, medical, educational and other primary services. Some of these services have a direct impact on the working of a business enterprise, while others are more important from a societal point of view. It contributes to economic development by increasing productivity and by providing amenities that enhance the quality of life. The availability of adequate infrastructure facilities is imperative for the overall economic development of a country. Infrastructure adequacy helps determine success in diversifying production, expanding trade, coping with population growth, reducing poverty and improving environmental conditions. The relationship between each of the infrastructure sectors and the environment is complex. Infrastructure has got both the positive and negative effects on the individuals, society, economy and the natural environment. A good infrastructure in the form of improved transport can increase the productivity of worker through better management of time spent by them on nonproductive activities. Improvements in water supply and sanitation also can have positive impact on the health of the workers, thereby increasing their productivity. A better infrastructure in various forms helps the poor earning more for their livelihood and thus leading to reduction in poverty and inequality.

### EMERGING TRENDS

The emerging trends in the Indian organized retail sector would help the economic growth in India. There is a fantastic rise in the Indian organized retail sector in a very short period of time between 2001 and 2006. Eventually, out of the shadows of the unorganized retail sector, India has a chance of tremendous economic growth, both in India and abroad. The emerging trends in the Indian organized retail sector are also adding up to the development of the Indian organized retail sector. The relaxation by the government on regulatory controls on foreign direct investments has added to the process of the growth of the Indian organized retail sector. The infrastructure of the retail sector will evolve radically in the recent future. The emergence of shopping malls is increasing at a steady pace in the metros and there are further plans of expansion which would lead to 150 new ones coming up in India by 2008. As the count of super markets is going up much faster than rate of growth in retail sector, it is taking the lions share in food trade. The growth of the Indian organized retail sector is anticipated to be heavier than the growth of the gross domestic product. Alterations in people's lifestyle, growth in income levels, and encouraging conventions of demography are proving favorable for the new emerging trends in the Indian organized retail sector. The success of this retail sector would also lie in the degree of penetration into the lower income strata to tap the possible customers in the lowest levels of society. The demands of the buyers would also be enhanced by more access to credit facilities. With the arrival of the Transnational Companies (TNC), the Indian retail sector will undergo a transformation. At present the Foreign Direct

Investments (FDI) is not encouraged in the Indian organized retail sector but once the TNC'S get in they inevitably try to oust their Indian counterparts. This would be challenging to the retail sector in India. The trends to follow in the future:

The Indian Organized retail sector will grow up to 10% of total retailing by 2010.

No one single format can be assumed as there is a huge difference in cultures regionally.

The most encouraging format now would be the hyper marts.

The hyper mart format would be further encouraged with the entry of the TNCs.

### IMPORTANCE OF INFRASTRUCTURE

The importance of infrastructure for sustained economic development is well recognized. High transactions costs arising from inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts. Physical infrastructure covering transportation, power and communication through its backward and forward linkages facilitates growth; social infrastructure including water supply, sanitation, sewage disposal, education and health, which are in the nature of primary services, has a direct impact on the quality of life. The visible signs of shortfalls in capacity and inefficiencies include increasingly congested roads, power failures, long-waiting lists for installation of telephones and shortage of drinking water illustrate the widening gap between demand and supply of infrastructure and also raises questions concerning the sustainability of economic growth in future.

### INFRASTRUCTURE INDIA:-

Infrastructure in India generally refers to the elementary supporting factors responsible for the entire frame of India. The infrastructure definition says that anything that forms the core of the functioning of any country is infrastructure. India being the seventh-largest country in the world has maintained an infrastructure management that has enabled India to reach new heights.

### INDIAN INFRASTRUCTURE REPORT

Indian infrastructure report suggests a fairly good state of infrastructure planning in India. The infrastructure building and engineering in certain spheres like power, telecommunications, information technology, transport etc. needs more infrastructure resource solutions. Indian infrastructure companies manage the infrastructure requirement in these areas. The infrastructure companies in India also look after the infrastructure construction and development. India also has many infrastructure finance companies that provide funding and financing for infrastructure development projects in India. One of them is Infrastructure Development Finance Corporation or the India Infrastructure Finance Company Limited.

### Infrastructure Management Services

Coming to infrastructure management services, these include services from:

- Infrastructure Architect - He helps in design
- ning the basic blocks of infrastructure utilities
- Infrastructure Analyst - His job is to analyze the infrastructure business works in India.
- Infrastructure Advisory - He advises about the infrastructure solutions to a particular problem and also evaluates and reports the risk involved in any particular infrastructure development.

Infrastructure Bank - It provides the infrastructure finance and asset management for infrastructure assets in India.

The Indian infrastructure sector involves prolonged infrastructure research for the infrastructure technologies to be

updated. For the infrastructure optimization and reaching a level of a standardized infrastructure outsourcing the bottlenecks in the system need to be smoothened. The infrastructure requirements list the need for technology designed for the infrastructure today. These are being provided through coordination among the developed countries like USA, UK etc. and the Government of India.

### EDUCATION IN INDIA:

Education in India is mainly provided by the public sector, with control and funding coming from three levels: federal, state, and local. Child education is compulsory. The Nalanda University was the oldest university-system of education in the world. Western education became ingrained into Indian society with the establishment of the British Raj. Thus India lost its native educational system. Education in India falls under the control of both the Union Government and the states, with some responsibilities lying with the Union and the states having autonomy for others. The various articles of the Indian Constitution provide for education as a fundamental right. Most universities in India are Union or State Government controlled. India has made a huge progress in terms of increasing primary education attendance rate and expanding literacy to approximately two thirds of the population. India's improved education system is often cited as one of the main contributors to the economic rise of India. Much of the progress in education has been credited to various private institutions. The private education market in India is estimated to be worth \$40 billion in 2008 and will increase to \$80 billion by 2014.

### INFRASTRUCTURE INVESTMENT PATTERN

Sectoral analysis of infrastructure investment reveals that there has been a significant change in the pattern of investment. There has been an increase in the share of investment in the communication sector. Investment in electricity, gas and water had tended to increase from an average of about 2.5 percent of GDP. There has been a trend of massive expenditure on telephones. It is expected that in the coming decades, the Asia-Pacific Region is likely to spend more on telephones and power than anywhere else in the world. The capital investment needed to finance this development is estimated to run into trillions of dollars.

### PARTICIPATION OF PUBLIC-PRIVATE SECTOR

The bulk of infrastructure investment in India has been in the public sector, which has overall accounted for about 75 percent of total investment. The public sector has been the dominant investor in infrastructure in the second half of the 20<sup>th</sup> century. The private sector investment in infrastructure has generally been in the range of 1.0 to 1.6 percent as a proportion of GDP. It is mainly in 'other transport' that the private sector has so far been active: this is primarily in the investment in the road cargo industry and in bus transport. The railways and communication sectors have been totally owned by the Government whereas there has been some marginal participation of the private sector in power. The public sector supplies more than 90 percent of the investment in power, water supply and sanitation, railways, roads, telecommunication etc. The private sector is only marginal player in each of these areas at present. Currently, private sector participation is being actively pursued in the provision of power, telecommunications and for a segment of roads. Discussion has already begun on private participation in urban infrastructure but arrangements enabling such participation are still to be made.

### REQUIREMENTS OF INFRASTRUCTURE INVESTMENT

Infrastructure investment as a proportion of the total gross domestic investment (GDI) in India comprised about 22 percent to 24 percent. This ratio had the tendency to increase towards the latter part of the decade. A similar pattern on infrastructure investment was also observed during the same period in the first growing East and South East Asian countries. Their gross domestic investment rates increased to over

30 percent of GDP, rates of infrastructure investment rose correspondingly to levels of 7 to 8 percent of GDP.

### PRIVATE FINANCING OF INFRASTRUCTURE

There has been a worldwide trend of massive investment in infrastructure and it is likely to increase at a faster rate in the coming future. Therefore, the capital requirement for this rapid growth of investment would be unmanageable on the part of the public authorities in different countries of the developing world. This will force particularly the Asian governments to rely increasingly on private capital. Private capital is finding its way into infrastructure through privatization of existing utilities as well as through construction of new projects on a build-operate transfer (BOT) basis allowing the contractors to build the project and then to make money by keeping a fixed share of revenues the projects generate. Private finance for infrastructure can be tapped from the commercial banks, stock markets or bond markets. But the experience suggests that the appetite of commercial banks for infrastructure projects is limited. In fact, it is the capital markets which have emerged as the major source of private finance for infrastructure. The most obvious problems for infrastructure projects are political. In many countries, infrastructure facilities are subsidized. Investors will put in financial capital only if they can be sure that a government will in return commits its political will to the tricky business of phasing out subsidies.

### COMMERCIALIZATION OF INFRASTRUCTURE

The need of the hour in the present phase of economic development is the commercialization of infrastructure projects. Investment must be made on those infrastructure projects which can recover its invested resources through a system

of user charges. The services of investment projects should no more to be continued as a free good. Such user charges should bear a direct relation to the specific benefits that the facility provides the user. Commercialization would involve giving service providers, whether in the public or private, well-defined budgets based on revenues from users, and managerial and financial autonomy, while at the same time, holding them accountable for their performance. The efficacy of commercialization, however, would be contingent upon the ability to segregate payers and non-payers and prevent any incidence of free riding.

### CONCLUSION

Almost all of infrastructure investment was earlier made by the public sector in India. Government funds were allocated to different levels of government and infrastructure entities essentially through the plan process. These funds were allocated in the form of grants to different levels of government, or as equity or debt contributions to public sector entities such as public sector corporations including specialized financial intermediaries such as Housing and Urban Development Corporation (HUDCO), State Electricity Boards, various authorities, departmental undertakings and the like. A major fiscal change that has taken place over the last decade is that there is now no positive balance of current revenue (BCR) to allocate for investment for any purpose. All most all the incremental growth in infrastructure investment will have to come from the private sector. Since private investment in infrastructure is inevitable, and if we want it to be made on sustainable basis, it is necessary to reduce both the perception and the reality of risk.

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