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A STUDY ON THE INFRASTURAL FINANCIAL LENDING

PROJECT REPORT ON :
A STUDY ON THE INFRASTRUCTIRAL FINANCIAL LENDING.
SUBMITTED BY:
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T.Y. ACCOUNTING AND FINANCE (SEMESTER VI)

SUBMITTED TO:
University of Mumbai

PROJECT GUIDE:
MR. MANOJ. K . MISHRA
ACADEMIC YEAR 2019-2020

DECLARATION

I, SHUBH . VISHNU . PATEL from Thakur College of Science and Commerce , student of T.Y.B.Com [ACCOUNTING AND FINANCE(SEM VI)], hereby submit my project report on "A STUDY ON THE INFRASTRUCTURAL FINANCIAL LENDINGS.

I, also declare that this project which is partial fulfillment of the requirement for the degree of T.Y.B.Com(ACCOUNTING AND FINANCE) offered by University Of Mumbai is the result of my own efforts with the help of experts.

SHUBH . VISHNU. PATEL.

Date:

Place:

CERTIFICATE

This is to certify that the project entitled is successfully done by SHUBH . VISHNU . PATEL during the Third Year, Sixth Semester of through THAKUR COLLEGE OF SCIENCE AND COMMERCE, Kandivali (E), Mumbai-400101.

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Date:
Place:

INTERNAL EXAMINER: EXTERNAL EXAMINER:

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Lastly , I would like to thank each and every person who directly or indirectly helped me in the completion of the project especially my Parents and Peers who supported.

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INDEX

CHAPTER 1

INTRODUCTION

INTRODUCTION:

Domestic banks are expanding their footprints among India's largest companies as foreign competitors reposition their business strategies in India and around the world.A report released today by Greenwich Associates, Indian Corporate Banking: Local Banks on the Rise, shows that growing numbers of the largest Indian companies are turning to local banks like HDFC, State Bank of India and ICICI Bank, which now rival the market's top foreign banks in terms of market penetration in this prized segment.Standard Chartered, HSBC and Citi traditionally have been the dominant providers of banking services such as credit, treasury management, trade finance and investment banking to large Indian companies. However, rising capital and compliance requirements have caused these banks to grow more selective in whom to serve, across Asia, including India. "At the very same time, domestic banks have been closing the quality gap and winning not only spots on Indian companies' bank lists, but also coveted 'lead relationship' roles," says Greenwich Associates consultant Gaurav Arora. Amid these changes, HDFC has climbed to the top of the market in terms of penetration among the largest Indian companies (those with annual revenues of at least USD 500 million) and has achieved this largely on the basis of its industry-leading domestic cash management network. State Bank of India has secured the third spot in the market on the strength of its lending and international trade finance businesses. ICICI also places in the market's top tier, after HSBC and Citi, leveraging a diverse franchise with strengths in cash management, trade finance and FX. "Just behind these industry leaders is a large group of Indian banks, regional players like DBS Bank, and global banks like Deutsche Bank and Bank of America Merrill Lynch that see India as an important market in Asia," says Greenwich Associates consultant Paul Tan. "The global banks continue to dominate key spaces, like regional/global liquidity management, treasury FX and the capital markets businesses. In the flow businesses, we see the leading Indian banks (and the next tier of up-and-coming local competitors) starting to dominate the domestic banking landscape."

Corporate banking across the globe is passing through a turbulent phase, and Indian corporate banking industry is no exception. Corporate lending margins are reducing, borrowing is shifting towards capital markets, corporate clients are demanding greater and better digital experiences, fintechs are turning formidable rivals by offering cutting-edge alternatives and frauds are

becoming commonplace. And all of this has come together to force the Indian corporate banking industry to fundamentally re-imagine the way it operates, reveals a BCG-SWIFT Report. Saurabh Tripathi, Senior Partner and Director at BCG and the co-author of the report, says, “Corporate banks will have to re-design their products and processes by putting the customer at centre of the design. Digitization in corporate banking industry has been largely ignored over the years whereas the customers now expect far more digital readiness from the banks." Recent happenings that have had massive repercussions include growing corporate NPAs, bans on LOUs/ MOUs and increasing cyber and fraud risks, even as sophisticated digital customers are increasingly demanding better customized experiences at every point of the journey. Since corporate clients in India are not satisfied with the current offerings from their bankers urgent and immediate action by banks is called for. What form should that take? This BCG-SWIFT report lays down seven key themes which are very critical in India:

1. Offer industry specific solutions: Different sectors have very different product requirements – banks will need to shift from classical sales push to advisory models centered on client needs and experience

2. Reboot corporate RM model: Next-Gen RM model requires an overhaul in mindset towards advisory relationships and business deepening, and equipping RMs with technology.

3. Unlock full potential of pricing: Moving from a cost-plus to a market based pricing model can help banks improve realization significantly.

4. Digitize end-to-end corporate customer journeys: Digitization of customer journeys can result in massive reduction in turnaround times, coupled with cost reduction and improvement in operational risk

5. Fully exploit power of analytics: Leveraging analytics across the entire spectrum of wholesale banking use cases, including planning, sales, risk, pricing, servicing and loyalty management

6. Innovative ways of doing credit: Leveraging digital, analytics and automated tools for underwriting and early warning systems can result in faster decision making, quicker default detection and lower cost of monitoring.

7. Organization enablement against security breaches: Banks need to establish clear policies and processes, and focus on integrating security and compliance into how people think.

The execution of this agenda can deliver multi-fold value to banks – in the form of 30-40% increase in revenues and 15-20% reduction in costs, resulting in 0.5%-0.7% improvement in ROA, says report. Tripathi added, "Similarly, the banking relationships and products have mostly been transactional whereas the customers expect banks to be trusted business partners who can offer them customized services. Banks will need to reorient their frontline relationship managers from deal based business to flow based business for deepening their business relationships. Next generation corporate banking will be industry specialized, digital and cost effective". Modern banking in India originated in the last decade of the 18th century. Among the first banks were the Bank of Hindustan, which was established in 1770 and liquidated in 1829–32; and the General Bank of India, established in 1786 but failed in 1791. The largest and the oldest bank which is still in existence is the State Bank of India (S.B.I). It originated and started working as the Bank of Calcutta in mid-June 1806. In 1809, it was renamed as the Bank of Bengal. This was one of the three banks founded by a presidency government, the other two were the Bank of Bombay in 1840 and the Bank of Madras in 1843. The three banks were merged in 1921 to form the Imperial Bank of India, which upon India's independence, became the State Bank of India in 1955. For many years the presidency banks had acted as quasi-central banks, as did their successors, until the Reserve Bank of India was established in 1935, under the Reserve Bank of India Act, 1934. In 1960, the State Banks of India was given control of eight state-associated banks under the State Bank of India (Subsidiary Banks) Act, 1959. These are now called its associate banks. In 1969 the Indian government nationalised 14 major private banks; one of the big banks was Bank of India. In 1980, 6 more private banks were nationalised. These nationalised banks are the majority of lenders in the Indian economy. They dominate the banking sector because of their large size and widespread networks. The Indian banking sector is broadly classified into scheduled and non-scheduled banks. The scheduled banks are those included under the 2nd Schedule of the Reserve Bank of India Act, 1934. The scheduled banks are further classified into: nationalised banks; State Bank of India and its associates; Regional Rural Banks (RRBs); foreign banks; and other Indian private sector banks. The term commercial banks refers to both scheduled and non-scheduled commercial banks regulated under the Banking Regulation Act, 1949. Generally the supply, product range and reach of banking in

India is fairly mature-even though reach in rural India and to the poor still remains a challenge. The government has developed initiatives to address this through the State Bank of India expanding its branch network and through the National Bank for Agriculture and Rural Development (NABARD) with facilities like microfinance

The Vedas (2000–1400 BCE) are the earliest Indian texts to mention the concept of usury, with the word kusidin translated as "usurer". The Sutras (700–100 BCE) and the Jatakas (600–400 BCE) also mention usury. Texts of this period also condemned usury: Vasishtha forbade Brahmin and Kshatriya varnas from participating in usury. By the 2nd century CE, usury became more acceptable. The Manusmriti considered usury an acceptable means of acquiring wealth or leading a livelihood. It also considered money lending above a certain rate and different ceiling rates for different castes a grave sin.[The Jatakas, Dharmashastras and Kautilya also mention the existence of loan deeds, called rnapatra, rnapanna, or rnalekhaya. Later during the Mauryan period (321–185 BCE), an instrument called adesha was in use, which was an order on a banker directing him to pay the sum on the note to a third person, which corresponds to the definition of a modern bill of exchange. The considerable use of these instruments has been recorded[citation needed]. In large towns, merchants also gave letters of credit to one another.

Medieval era

The use of loan deeds continued into the Mughal era and were called dastawez. Two types of loans deeds have been recorded. The dastawez-e-indultalab was payable on demand and dastawez-e-miadi was payable after a stipulated time. The use of payment orders by royal treasuries, called barattes, have been also recorded. There are also records of Indian bankers using issuing bills of exchange on foreign countries. The evolution of hundis, a type of credit instrument, also occurred during this period and remain in use.

Colonial era

During the period of British rule merchants established the Union Bank of Calcutta in 1929, first as a private joint stock association, then partnership. Its proprietors were the owners of the earlier Commercial Bank and the Calcutta Bank, who by mutual consent created Union Bank to replace these two banks. In 1840 it established an agency at Singapore, and closed the one at Mirzapore that it had opened in the previous year. Also in 1840 the Bank revealed that it had been the

subject of a fraud by the bank's accountant. Union Bank was incorporated in 1845 but failed in 1848, having been insolvent for some time and having used new money from depositors to pay its dividends. The Allahabad Bank, established in 1865 and still functioning today, is the oldest Joint Stock bank in India, it was not the first though. That honour belongs to the Bank of Upper India, which was established in 1863 and survived until 1913, when it failed, with some of its assets and liabilities being transferred to the Alliance Bank of Simla. Foreign banks too started to appear, particularly in Calcutta, in the 1860s. Grindlays Bank opened its first branch in Calcutta in 1864. The Comptoir d'Escompte de Paris opened a branch in Calcutta in 1860, and another in Bombay in 1862; branches followed in Madras and Pondicherry, then a French possession. HSBC established itself in Bengal in 1869. Calcutta was the most active trading port in India, mainly due to the trade of the British Empire, and so became a banking centre. The first entirely Indian joint stock bank was the Oudh Commercial Bank, established in 1881 in Faizabad. It failed in 1958. The next was the Punjab National Bank, established in Lahore in 1894, which has survived to the present and is now one of the largest banks in India.

Around the turn of the 20th Century, the Indian economy was passing through a relative period of stability. Around five decades had elapsed since the Indian rebellion, and the social, industrial and other infrastructure had improved. Indians had established small banks, most of which served particular ethnic and religious communities. The presidency banks dominated banking in India but there were also some exchange banks and a number of Indian joint stock banks. All these banks operated in different segments of the economy. The exchange banks, mostly owned by Europeans, concentrated on financing foreign trade. Indian joint stock banks were generally under capitalised and lacked the experience and maturity to compete with the presidency and exchange banks. This segmentation let Lord Curzon to observe, "In respect of banking it seems we are behind the times. We are like some old fashioned sailing ship, divided by solid wooden bulkheads into separate and cumbersome compartments." The period between 1906 and 1911 saw the establishment of banks inspired by the Swadeshi movement. The Swadeshi movement inspired local businessmen and political figures to found banks of and for the Indian community. A number of banks established then have survived to the present such as Catholic Syrian Bank, The South Indian Bank, Bank of India, Corporation Bank, Indian Bank, Bank of Baroda, Canara Bank and Central Bank of India

The fervour of Swadeshi movement led to the establishment of many private banks in Dakshina Kannada and Udupi district, which were unified earlier and known by the name South Canara (South Kanara) district. Four nationalised banks started in this district and also a leading private sector bank. Hence undivided Dakshina Kannada district is known as "Cradle of Indian Banking". The inaugural officeholder was the Britisher Sir Osborne Smith(1 April 1935), while C. D. Deshmukh(11 August 1943) was the first Indian governor. On December 12, 2018,Shaktikanta Das, who was the finance secretary with the Government of India, begins his journey as the new RBI Governor, taking charge from Urjit R Patel. During the First World War (1914–1918) through the end of the Second World War (1939–1945), and two years thereafter until the independence of India were challenging for Indian banking. The years of the First World War were turbulent, and it took its toll with banks simply collapsing despite the Indian economy gaining indirect boost due to war-related economic activities . During 1938–46, bank branch offices trebled to 3,469 and deposits quadrupled to ₹962 crore. Nevertheless, the partition of India in 1947 adversely impacted the economies of Punjab and West Bengal, paralysing banking activities for months. India's independence marked the end of a regime of the Laissez-faire for the Indian banking. The Government of India initiated measures to play an active role in the economic life of the nation, and the Industrial Policy Resolution adopted by the government in 1948 envisaged a mixed economy. This resulted in greater involvement of the state in different segments of the economy including banking and finance.

The Reserve Bank of India, India's central banking authority, was established in April 1935, but was nationalized on 1 January 1949 under the terms of the Reserve Bank of India (Transfer to Public Ownership) Act, 1948 (RBI, 2005b).

In 1949, the Banking Regulation Act was enacted, which empowered the Reserve Bank of India (RBI) to regulate, control, and inspect the banks in India. The Banking Regulation Act also provided that no new bank or branch of an existing bank could be opened without a license from the RBI, and no two banks could have common directors.

Nationalisation in 1969 and 1980:

Despite the provisions, control and regulations of the Reserve Bank of India, banks in India except the State Bank of India (SBI), remain owned and operated by private persons. By the

1960s, the Indian banking industry had become an important tool to facilitate the development of the Indian economy. At the same time, it had emerged as a large employer, and a debate had ensued about the nationalization of the banking industry. Indira Gandhi, the then Prime Minister of India, expressed the intention of the Government of India in the annual conference of the All India Congress Meeting in a paper entitled Stray thoughts on Bank Nationalization.

Thereafter, the Government of India issued the Banking Companies (Acquisition and Transfer of Undertakings) Ordinance, 1969 and nationalized the 14 largest commercial banks with effect from the midnight of 19 July 1969. These banks contained 85 percent of bank deposits in the country.[22] Within two weeks of the issue of the ordinance, the Parliament passed the Banking Companies (Acquisition and Transfer of Undertaking) Bill,[24] and it received presidential approval on 9 August 1969.

The following banks were nationalized in 1969:

Allahabad Bank

Bank of Baroda

Bank of India

Bank of Maharashtra

Central Bank of India

Canara Bank

Dena Bank (Now Bank of Baroda)

Indian Bank

Indian Overseas Bank

Punjab National Bank

Syndicate Bank

UCO Bank

Union Bank

United Bank of India

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Later on, in the year 1993, the government merged New Bank of India with Punjab National Bank.[25] It was the only merger between nationalised banks and resulted in the reduction of the number of nationalised banks from 20 to 19. Until the 1990s, the nationalized banks grew at a pace of around 4%, closer to the average growth rate of the Indian economy.[citation needed]

Liberalisation in the 1990s

This section does not cite any sources. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. In the early 1990s, the then government embarked on a policy of liberalisation, licensing a small number of private banks. These came to be known as New Generation tech-savvy banks, and included Global Trust Bank (the first of such new generation banks to be set up), which later amalgamated with Oriental Bank of Commerce, IndusInd Bank, UTI Bank (since renamed Axis Bank), ICICI Bank and HDFC Bank. This move, along with the rapid growth in the economy of India, revitalised the banking sector in India, which has seen rapid growth with strong contribution from all the three sectors of banks, namely, government banks, private banks and foreign banks. The next stage for the Indian banking has been set up, with proposed relaxation of norms for foreign direct investment. All foreign investors in banks may be given voting rights that could exceed the present cap of 10% at present. It has gone up to 74% with some restrictions. The new policy shook the Banking sector in India completely. Bankers, till this time, were used to the 4–6–4 method (borrow at 4%; lend at 6%; go home at 4) of functioning. The new wave ushered in a modern outlook and tech-savvy methods of working for traditional banks. All this led to the retail boom in India. People demanded more from their banks and received more. By 2010, the supply, product range and reach of banking in India was generally fairly mature-even though reach in rural India still remains a challenge for the private sector and foreign banks. In quality of assets and capital adequacy, Indian banks are considered to have clean, strong and transparent balance sheets relative to other banks in comparable economies in its region. The Reserve Bank of India is an autonomous body, with minimal pressure from the government. With the growth in the Indian economy expected to be strong for quite some time-especially in its services sector-the demand for banking services, especially retail banking, mortgages and investment services are expected to be strong. One may also expect M&As, takeovers, and asset sales. In March 2006, the Reserve Bank of India allowed Warburg Pincus to increase its stake in Kotak Mahindra Bank

(a private sector bank) to 10%. This was the first time an investor was allowed to hold more than 5% in a private sector bank since the RBI announced norms in 2005 that any stake exceeding 5% in the private sector banks would need to be vetted by them.

In recent years critics have charged that the non-government owned banks are too aggressive in their loan recovery efforts in connection with housing, vehicle and personal loans. There are press reports that the banks' loan recovery efforts have driven defaulting borrowers to suicide.

By 2013 the Indian Banking Industry employed 1,175,149 employees and had a total of 109,814 branches in India and 171 branches abroad and manages an aggregate deposit of ₹67,504.54 billion (US$950 billion or €870 billion) and bank credit of ₹52,604.59 billion (US$740 billion or €680 billion). The net profit of the banks operating in India was ₹1,027.51 billion (US$14 billion or €13 billion) against a turnover of ₹9,148.59 billion (US$130 billion or €120 billion) for the financial year 2012–13.

Pradhan Mantri Jan - Dhan Yojana (Accounts Opened As on 12.01.2015).png

Pradhan Mantri Jan Dhan Yojana (Hindi: प्रधानमंत्री जन धन योजना, English: Prime Minister's People Money Scheme) is a scheme for comprehensive financial inclusion launched by the Prime Minister of India, Narendra Modi, in 2014.[30] Run by Department of Financial Services, Ministry of Finance, on the inauguration day, 1.5 Crore (15 million) bank accounts were opened under this scheme.[31][32] By 15 July 2015, 16.92 crore accounts were opened, with around ₹20,288.37 crore (US$2.8 billion) were deposited under the scheme,[33] which also has an option for opening new bank accounts with zero balance.

Payment Bank

Payments bank is a new model of banks conceptualized by the Reserve Bank of India (RBI). These banks can accept a restricted deposit, which is currently limited to ₹1 lakh per customer. These banks may not issue loans or credit cards, but may offer both current and savings accounts. Payments banks may issue ATM and debit cards, and offer net-banking and mobile-banking. The banks will be licensed as payments banks under Section 22 of the Banking Regulation Act, 1949, and will be registered as public limited company under the Companies Act, 2013. Information Technology has had a great impact on the Indian banking system. The

use of computers led to the introduction of online banking in India. The use of computers in the banking sector increased many fold after the economic liberalisation of 1991 as the country's banking sector has been exposed to the world's market. Indian banks were finding it difficult to compete with the international banks in customer service without the use of information technology. In 1984 was formed the Committee on Mechanisation in the Banking Industry (1984) whose chairman was Dr. C Rangarajan, Deputy Governor, Reserve Bank of India. The major recommendations of this committee were introducing MICR technology in all the banks in the metropolises in India. This provided for the use of standardised cheque forms and encoders.

In 1988, the RBI set up the Committee on Computerisation in Banks (1988) headed by Dr. C Rangarajan. It emphasised that settlement operation must be computerised in the clearing houses of RBI in Bhubaneshwar, Guwahati, Jaipur, Patna and Thiruvananthapuram. It further stated that there should be National Clearing of inter-city cheques at Kolkata, Mumbai, Delhi, Chennai and MICR should be made operational. It also focused on computerisation of branches and increasing connectivity among branches through computers. It also suggested modalities for implementing on-line banking. The committee submitted its reports in 1989 and computerisation began from 1993 with the settlement between IBA and bank employees' associations.[38]

In 1994, the Committee on Technology Issues relating to Payment systems, Cheque Clearing and Securities Settlement in the Banking Industry (1994) was set up under Chairman W S Saraf. It emphasised Electronic Funds Transfer (EFT) system, with the BANKNET communications network as its carrier. It also said that MICR clearing should be set up in all branches of all those banks with more than 100 branches. In 1995, the Committee for proposing Legislation on Electronic Funds Transfer and other Electronic Payments (1995) again emphasised EFT system. In July 2016, Deputy Governor Rama Gandhi of the Central Bank of India "urged banks to work to develop applications for digital currencies and distributed ledgers."

Automatic teller machine growth

The total number of automated teller machines (ATMs) installed in India by various banks as of 2018 was 2,38,000.The new private sector banks in India have the most ATMs, followed by off-site ATMs belonging to SBI and its subsidiaries and then by nationalised banks and foreign banks, while on-site is highest for the nationalised banks of India.

Branches and ATMs of Scheduled Commercial Banks as of end December 2014

Bank type	Number of branches	On-site ATMs	Off-site ATMs	Total ATMs
Nationalised banks	33,627	38,606	22,265	60,871
State Bank of India	13,661	28,926	22,827	51,753
Old private sector banks	4,511	4,761	4,624	9,385
New private sector banks	1,685	12,546	26,839	39,385
Foreign banks	242	295	854	1,149
TOTAL	53,726	85,000	77,409	1,62,543

Cheque truncation initiative

In 2008 the Reserve Bank of India introduced a system to allow cheque truncation—the conversion of checks from physical form to electronic form when sending to the paying bank—in India, the cheque truncation system as it was known was first rolled out in the National Capital Region and then rolled out nationally.

Expansion of banking infrastructure

Physical as well as virtual expansion of banking through mobile banking, internet banking, tele banking, bio-metric and mobile ATMs etc. is taking place since last decade and has gained momentum in last few years. A huge data breach on debit cards issued by various Indian banks was reported in October 2016. It was estimated 3.2 million debit cards were compromised. Major Indian banks- SBI, HDFC Bank, ICICI, YES Bank and Axis Bank were among the worst hit. Many users reported unauthorised use of their cards in locations in China. This resulted in one of the India's biggest card replacement drive in banking history. The biggest Indian bank State Bank of India announced the blocking and replacement of almost 600,000 debit cards.

WHAT IS INFRASTRUTURAL LENDING ?

A credit facility extended by lenders (i.e. banks and select AIFIs) to a borrower for exposure in the following infrastructure sub-sectors will qualify as 'infrastructure lending': Source: RBI. Includes supporting terminal infrastructure such as loading/unloading terminals, stations and buildings. India needs large investments in infrastructure for accelerating inclusive growth aimed at poverty alleviation and improvement in quality of life. Given the fiscal constraints that leave little room for expanding public investment at the scale required, Public-Private Partnership (PPP) has emerged as the principal vehicle for attracting private investment in infrastructure.

However, much of the private capital required for PPP projects has to be raised from domestic financial institutions that do not have the capacity or instruments to provide long-tenure debt for projects having a long payback period. While financial sector reform is a long-drawn process, this essay demonstrates how a well-designed intervention can help in bypassing the extant constraints without compromising on the integrity and prudence associated with debt financing.

By setting up a government-owned financial institution with a mandate to provide about 30 percent of the project debt, a large volume of long-term debt was mobilised while leaving the remaining 70 percent to be financed by the normal banking system. This was perhaps, a first-of-its-kind financial institution which not only lent long-term funds, but also gave a strong signal to the banking system to participate proactively in the financing of infrastructure projects. As a result, private investments aggregating about US$114 billion have been facilitated without any dilution in the prudential norms of banking. This essay explains the evolution and success of this initiative.

Infrastructure deficit

Until recently, India’s infrastructure was widely regarded as inadequate and inefficient. The power sector suffered from a peaking deficit of 14 percent and an energy shortage of 11 percent. Only 17 percent of the total length of 70,548 kilometers comprising the National Highways network was of four-lane standards, with 53 percent being two-lane and the remaining 17 percent being single-lane highways. Railways were plagued with old technology, saturated routes, low payload-to-tare ratio of 2.5 and slow average speed of 22 kilometers per hour (kmph) for freight and 50 kmph for passenger trains. A similar situation prevailed in other sectors like ports and

airports where congestion and inefficiency were all-pervasive. For several decades prior to the 1990s, India experienced a low and stable growth rate of three to four percent per annum, famously termed as the "Hindu rate of growth." Following the economic liberalisation coupled with dismantling of the licensing regime in the early 1990s, the economy recorded a high trajectory of growth ranging between seven to nine per cent throughout the decade of 1990.

With this acceleration in growth rate, the pressures on a deficient infrastructure increased manifold, especially since the growth story of the 1990s was largely led by the manufacturing and services sectors while infrastructure development proceeded at a slower pace. As a result, infrastructure came to be regarded as a major constraint in sustaining the growth process and in attracting investment or doing business in India. In the past, infrastructure projects were typically financed from the limited resources of the public sector, which was characterised by inadequate capacity addition and poor quality of service. Following the economic liberalisation of the 1990s, private investment began to flow in infrastructure with mobile telephony taking the lead. In power generation, private investment was initially aided by various forms of government guarantees, which were soon discarded as they came to be viewed as an unsustainable form of support for private sector projects. Other sectors, such as highways, railways, airports and ports witnessed piecemeal attempts at reforms which led to marginal outcomes. Initial reforms predictably failed to mobilise private investment at the scale envisaged. The total investment in infrastructure during the Tenth Five Year Plan (2002-07) was thus limited to about US$240 billion, of which only 22 percent came from private investment. Moreover, the total investment in infrastructure constituted only about five percent of GDP, as compared to nine to 11 percent witnessed in the East Asian economies. As a result, there was a growing realisation of the pressing need to accelerate the flow of private capital in infrastructure.

Paradigm shift

In order to mobilise private investment at the pace and scale necessary, the Government initiated concerted measures to create an enabling policy and regulatory framework for attracting private capital in infrastructure projects. A comprehensive architecture was, therefore, brought into effect for promoting Public Private Partnership (PPP) in sectors like power, highways, ports, airports and railways. The objective of this paradigm shift was to double the investment in infrastructure from about US$240 billion in the Tenth Five Year Plan (2002-07) to US$ 500

billion during the Eleventh Five Year Plan (2007-12), with greater emphasis on private participation. The new architecture for promoting PPPs included several measures beginning from the constitution of the apex Committee on Infrastructure under the chairmanship of the Prime Minister. A streamlined mechanism for speedy appraisal and approval of PPP projects was also institutionalised. For projects which were economically justified but commercially unviable, the government introduced a scheme for providing capital grants of upto 40 percent of project costs by way of viability gap funding.

A prominent feature of the PPP architecture was the adoption of model documents such as model concession agreements, model RFQ, model RFP and other bidding documents. The objective was to secure optimal sharing of risks and rewards while ensuring bankability of the projects coupled with efficient delivery of services at economic costs to be determined through a fair, transparent and competitive process of selection. It is noteworthy that in a study (Infrascope 2011) commissioned by the Asian Development Bank (ADB), the Economic Intelligence Unit (EIU) of the Economist (UK) has commended this PPP architecture while rating it among the best, by international standards. The above initiatives, especially the standardisation of documents and processes, helped in a rapid roll out of PPP projects that caused India to be recognised as the largest recipient of PPP investments during 2008-12, as reported by PPIAF. According to the data published by the erstwhile Planning Commission, the total investment in infrastructure over the Eleventh Plan period (2007-12) aggregated US$480 billion, which constituted seven per cent of GDP as compared to five percent during the Tenth Plan (2002-07). In particular, private investment increased from about 22 percent of the total investment in infrastructure during 2002-07 to about 37 percent during 2007-12, which implied a three-fold increase in absolute terms.

Challenges of debt financing

One of the main challenges in scaling up private investment was the mobilisation of debt financing for meeting the ambitious targets set by the Government. Since PPP projects are usually financed on a 30:70 ratio of equity and debt, mobilisation of the requisite debt resources seemed a herculean task. Moreover, infrastructure projects typically bear a long period of

gestation, which needs to be supported by debt of a longer tenure. Inadequate availability of long-term debt from domestic financial institutions, therefore, posed an added challenge for sustainable financing of PPP projects. Unlike the developed world, where long-term debt can be mobilised from the capital markets, the bond market in India did not present such an option as it was characterised by lack of liquidity and depth. Listed corporate debt formed only two percent of GDP, which was significantly lower as compared to other emerging economies, such as Malaysia, Korea and China. Further, quasi-government entities like banks, public sector oil companies and government sponsored financial institutions have remained the principal issuers in the corporate debt market, leaving virtually no appetite for new infrastructure projects that are perceived as risk-prone. As a result, there was little possibility of relying on the bond market for financing infrastructure projects. Insurance and pension funds, which are also a source of long-tenure debt in the developed economies, offered a limited window in India, primarily due to various regulatory requirements associated with risk mitigation. As a result, these funds were not available for the Special Purpose Vehicles typically used for implementing infrastructure projects. Moreover, insurance and pension funds in India were heavily invested in government securities which were difficult to displace. Foreign debt, a comparatively cheaper option as compared to domestic borrowings, provided a limited elbow room for infrastructure companies, given the limits imposed by the Central Bank on external commercial borrowings with a view to preventing excessive capital inflows in order to maintain macro-economic stability. In the above scenario, commercial banks and non-banking financial institutions became the principal source of debt funds for infrastructure projects. However, the banks faced their own constraints arising from the nature of their asset base, which primarily consists of short to medium term deposits. This implied a potential asset-liability mismatch in lending for the long term. Moreover, banks also lacked the experience and capacity to undertake limited recourse financing of infrastructure projects that typically do not provide much collateral security. Since the security for such debt primarily comprises the expected revenue streams of the respective projects, commercial banks were unlikely to show much appetite for such lending. Given the various constraints, there was an urgent need to evolve and introduce an intervention that would enable mobilisation of long-term debt for PPP projects in different infrastructure sectors. Government intervention had also become necessary since the available sources of finance offered a limited scope for expansion.

Without such an initiative, there was every possibility of a significant shortfall in the projected investment for infrastructure.

Innovative financing vehicle

To kick-start the process of private participation in infrastructure, the Government decided to create a new financing vehicle that would overcome the extant constraints. This new vehicle was meant to address the various regulatory and other restrictions; raise long-tenure funds from the market at economic costs and on the scale required; and on-lend to PPP projects while keeping the intermediation costs at the bare minimum. In order to meet the above challenges, it was necessary to address several issues. Firstly, for mobilising funds on such a large scale, the proposed institution would have required a substantial contribution of equity, especially as the new entity would not have any net-worth of its own. Secondly, security of the on-lent debt had to be ensured through some form of a back-to-back arrangement that carried government support. Thirdly, the new entity had to be enabled to tap into insurance and pension funds besides raising external debt, including from multilateral development banks like the World Bank and the Asian Development Bank. Thus an innovative vehicle, fully owned by the Government, was created with a mandate to provide long-term debt to PPP projects. It was called the India Infrastructure Finance Company Limited (IIFCL) and incorporated in 2006 as a non-banking finance company. To ensure that IIFCL delivered on its mandate, a detailed framework was set out to guide its functioning in mobilisation of resources, selection of projects, mode of lending and the approval processes. IIFCL was allowed to raise funds from domestic and overseas markets on the strength of sovereign guarantees. This helped to keep the borrowing costs low. Moreover, such borrowings did not have to meet the net-worth and equity requirements as their repayment was backed by a sovereign guarantee. This arrangement was similar to the one followed by the World Bank, which raises market borrowings on the strength of callable capital from its shareholders, without actual subscription of such capital. IIFCL was tasked to provide financial assistance through multiple modes, viz. debt financing, subordinate debt and refinancing. Further, the exposure of IIFCL in any project was limited to 20 percent of the project costs, which translated to about 30 percent of project debt, assuming a debt equity ratio of 70:30. The guidelines also provided that upto one-half of IIFCL lending could be in the form of subordinated debt, which could serve as quasi-equity. PPP projects in India typically carry a compulsory buy-back

arrangement which requires the Government to take over a project in the event of termination, primarily because such projects cannot be abandoned due to the public service that they provide. The buy-back arrangement requires the Government to repay the lenders, which in turn implied that lending by IIFCL would be secure. In order to keep the intermediation costs low, IIFCL was visualised as a lean organisation. Therefore, all lending by IIFCL was to be undertaken through a consortium of lenders. Since 70 per cent of the debt was to be provided by commercial banks, the task of project appraisal and risk assessment was left to the banks while IIFCL lending was based on the premise that the principal lenders, especially the lead bank, would undertake the requisite due diligence. This allowed IIFCL to remain a lean institution with a clear focus and low costs. Since many infrastructure projects required substantial imports, especially in case of power generation projects, IIFCL incorporated a subsidiary at London in 2008, to be known as IIFC (UK) Ltd in order to provide foreign currency loans to Indian infrastructure projects that were privately financed.

An important aspect of IIFCL lending was the longer tenure of its loans, which helped in extending the average maturity of the project debt and also encouraged the commercial banks to follow suit. Thus, IIFCL has become an important instrument in extending the average tenure of debt for infrastructure projects, making them more bankable and financially viable.

Robust outcomes

Up to March 2015, IIFCL has raised about US$6.5 billion from the domestic markets through a mix of instruments comprising taxable bonds, tax-free bonds and long-term loans from Life Insurance Corporation and National Small Savings Fund. It has also established a strong relationship with bilateral and multilateral institutions like ADB, World Bank and KfW who have committed lines of long-term credit to the extent of US$1.9 billion, US$195 million and Euro 50 million respectively. IIFCL has also entered into an agreement with the European Investment Bank for a loan of Euro 200 million. In that same time frame, IIFCL had approved 342 projects that would mobilise private investment of US$110 billion, of which IIFCL share would be about US$12 billion. It has so far disbursed US$7.6 billion to the aforesaid projects. A major chunk of loans has been sanctioned for the road sector (47 percent), followed by the power sector (40 percent). Till March 2015, IIFC (UK) has accorded cumulative sanctions of US$3.5 billion, of which disbursements of about US$1.4 billion have since been made. IIFCL has so far

contributed to the development of more than 19,000 km of highways, creation of generating capacity of more than 40,000 MW of power, addition of about 50 million tons of port capacity, development of several urban infrastructure projects, including metro rail projects, and the development of Delhi and Mumbai International Airports which handle bulk of the air traffic in the country, besides several other projects.

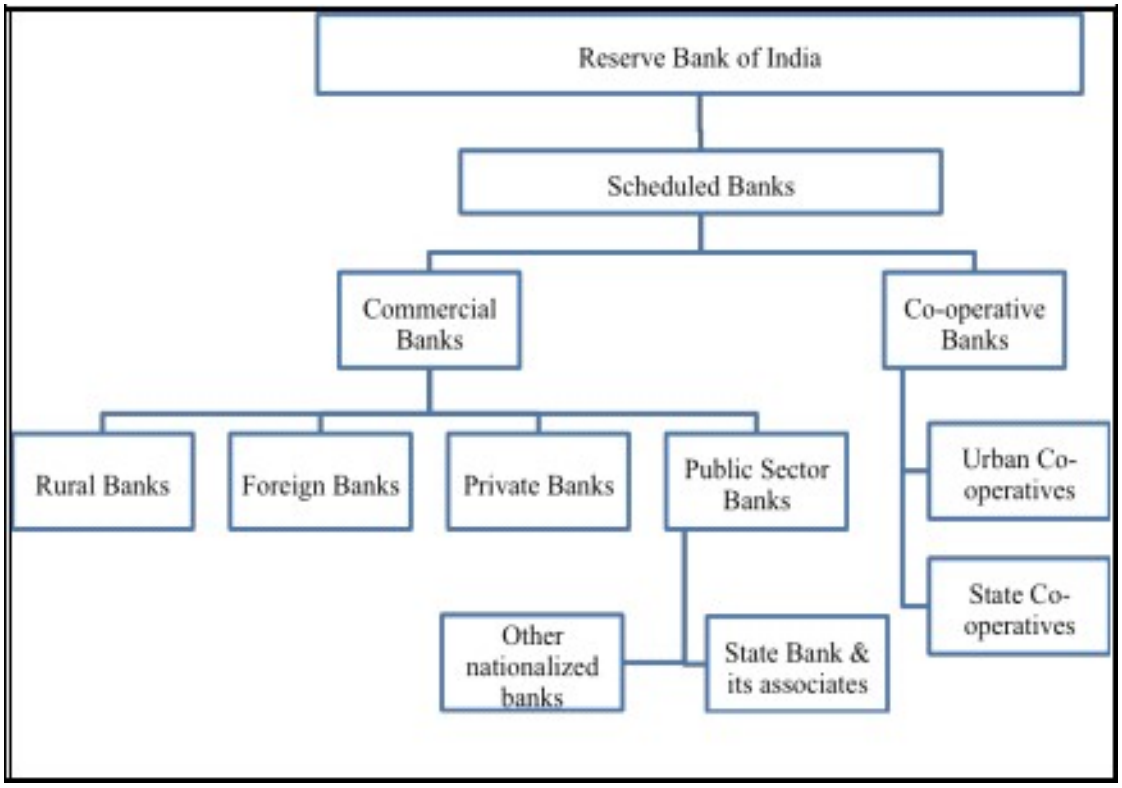
The above initiatives have also spurred a rapid growth in infrastructure lending by banks, which increased from a level of about US$1.4 billion in 2000 to about US$173 billion in 2013, accounting for about 13 percent of the total lending by banks in India. The term loans extended by banks also constituted more than half of the debt financing for infrastructure sector. It is noteworthy that during this period, bank loans for infrastructure projects grew at a compound annual grown rate of about 40 percent.

Learnings from the initiative

The success of this initiative has demonstrated how an innovative arrangement helped in leveraging limited public resources for providing the much needed long-tenure debt for PPP projects on an unprecedented scale and at economic costs. IIFCL was perhaps, the first-of-its-kind Government-owned institution which borrowed extensively from the market without exposing the public exchequer to unmanageable risks. The guarantee exposure of the Government was strictly confined to the limits specified under the Fiscal Responsibility and Budget Management Act, 2003 while extension of sovereign guarantee for IIFCL borrowings was justified since the PPP projects it supported were meant to provide services that were hitherto provided by the Government. During this entire process, the banks were encouraged to lend in a commercially prudent manner without any Government exposure or interference. Thus, the prudential norms normally applicable to lending by banks were not compromised. Yet, by combining IIFCL debt with the debt raised by project sponsors from other financial institutions, a mutually reinforcing arrangement was brought about. This initiative should be regarded as a resounding success as it played a catalytic role in enabling a three-fold jump in the flow of private capital to infrastructure projects which not only helped in doubling the total investment in infrastructure between the two Five Year Plans but also increased its share in GDP from five per

cent to seven per cent. In effect, this initiative was one of the principal contributors to India being recognised as the highest recipient of PPP investments.

1.1) Structure



During the early stages of industrialization, the ratio of fixed capital to working capital were relatively low and most industrialists found their needs were met from the support of merchant capital. In the earliest stages of proto-industrialization this took the form of the 'putting-out' system, in which merchants would supply raw materials and tools (the working capital) and collect articles for sale on completion.

During the late eighteenth and into the early nineteenth century, it became more efficient for at least some production processes to be coordinated under one roof, thereby easing the costs of distributing raw materials to domestic manufacturers, facilitating control of the work- force, and permitting economies of scale. As the scale of production increased, so too did the demand for industrial capital. Initially investment was largely financed informally from internal sources, including family, friends, partnerships, and by ploughing back profits. However, there is also evidence of a growing reliance on external supplies of capital.

Capital markets were essentially regional in the first instance, drawing, for example, on the talents of local scriveners (money lenders) and attorneys who would act as intermediaries between borrowers and lenders overseeing mortgage contracts and transactions of bills of exchange. After 1750 there was also an expansion in the number of country banks. These provided an important service as interest-bearing repositories for local savings, which could then be recycled to discount bills of exchange and provide short-term loans. In some cases they were also able to issue notes. Country banks thus served a valuable function as intermediaries at a local level between creditors and borrowers, and between regional interests and London. Interestingly, the relationship between country banks and businesses was often very close, many banks having been established by industrialists. Manufacturers typically formed banks as a means of meeting their own needs by being able to draw on deposits, but also to make profitable use of any surplus income by offering it as loans. The brewing, textiles and metals industries were particularly closely associated with the development of banks, the pattern of their trade being most likely to generate surplus loanable funds.

* **Sources of Finance**

Short Term	Medium Term	Long Term
Bank Credit	Issue of Shares	Issue of Shares
Trade Credit	Issue of Debentures	Issue of Debentures
Installment Credit	Loans from Banks and other financial institutions	Loans from financial institutions
Customer Advances	Public Deposits (for existing concerns)	Ploughing back of profits (for existing concerns)
	Ploughing back of profits (for existing concerns)	

***Industrial Finance in India**

After Independence, starting with the establishment of the Industrial Finance Corporation of India in 1948, a number of developmental banks have been set up at all-India and regional levels for accelerating the development of large, medium and small-scale industries by providing financial and various other developmental assistance required.

At present there are four institutions – the Industrial Finance Corporation of India (IFCI), Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India – at the national level. At the regional level there are 18 State Industrial Development Investment Corporations (SIDCs/SIICs). For providing exclusive assistance to the small industries, there are the National Small Industries Corporations at the national level and small industries development corporations in the States. Apart from these development banks, institutions like commercial banks, industrial corporative, Unit Trust of India (UTI), Life Insurance Corporation (LIC) and investment companies finance industries in India.

*Project Finance

Project finance is the long term financing of infrastructure and industrial projects based upon the projected cash flows of the project rather than the balance sheets of the project sponsors. Project finance has a particular nature. The deal cycle is typically very long, and can involve many financiers. The initial costs of big projects are typically very high, while the benefits can only be reaped in the longer term. Since all kinds of risks may arise-financial, technical, environmental, political etc project finance has evolved to be a very complex financing method.

Project finance is comprised of a mix of equity and debt; typically 30-40% of the project is funded through equity contribution, while 60-70% is funded through debt. Project sponsors typically contribute the equity and "own" the project, while debt finance can take two forms; loans and bonds.

Project loans are made by commercial banks, with each lender agreeing that loans will be repaid only from the revenues generated by the successful, completed project. Loans normally contain loan covenants or agreements between the lender and the borrower. It contains guidelines about what the borrower should or should not do, such as providing regular reports and adequate insurance, etc. larger, more risky projects often require syndicated loans. These loans are provided by a group of financial institution called a bank consortium or a syndicate. The bank

coordinating the consortium and the syndicated loan is called the arranger, and can be different from the banks providing the debt.

Projects can also be financed through project bonds. In this case, investment banks underwrite project bonds by buying the newly issued bonds at a guaranteed price, and then reselling them to institutional investors. Like project loans, project bonds rely solely on the success and revenues generated by the project for repayment; these terms and others are outlined in a bond covenant. Bonds can also be derived from project loans through the process of securitization, where the future income from the syndicated loan is used as collateral for the issue of new bonds.

***Challenges in financing large-scale projects**

Projects like power plants, toll roads or airports share a number of characteristics that make their financing particularly challenging.

First, they require large indivisible investments in a single-purpose asset. In most industrial sectors where projects finance is used, such as oil and gas and petrochemicals, over 50% of the total value of projects consists of investment exceeding $ 1 billion.

Second, projects usually undergo two main phases (construction and operation) characterized by quite different risks and cash flow patterns. Construction primarily involves technological and environmental risks while the operations are exposed to market risk (fluctuations in the prices of inputs or outputs) and political risk, among other factors. Most of the capital expenditures are concentrated in the initial construction phase; with revenues starting to accrue only after the project has become operational.

Third, the success of large projects depends on the joint effort of several related parties (from the construction company to the input supplier, from the host government to the off-taker) so that coordination failures, conflicts of interest and free riding of any project participant can have significant costs.

*** Key Characteristics of project financing structures**

In project finance, any party involved in the project uses several long-term contracts such as construction, supply, and off-take and concession agreements, along with a variety of joint-ownership structures, to align incentives and deter opportunistic behavior. The project company operates at the centre of an extensive network of contractual relationship, which attempt to allocate a variety of project risks to those parties best suited to allocate a variety of project risk to those parties best suited to appraise and control them: for example, construction risk is borne by the contractor and the risk of insufficient demand for the project output by the off-taker

Project finance aims to strike a balance between the need for sharing the risk of sizeable investments among multiple investors and, at the same time, the importance of effectively monitoring managerial actions and ensuring a coordinated effort by all project-related parties.

Large-scale projects might be too big for any single company to finance on their own. On the other hand widely fragmented equity or debt financing in the capital markets would help to diversify risks among a larger investor base but might make it difficult o control managerial discretion in the allocation of free cash flows, avoiding wasteful expenditures. In project finance, the small number of "sponsors" holds a syndicate of a limited number of banks usually provides equity and debt. Concentrated debt and equity ownership enhances project monitoring by capital providers and makes it easier to enforce project specific governance rules for the purpose of avoiding conflicts of interest or sub-optimal investments.

The use of non-recourse debt in project finance further contributes to limiting managerial discretion by tying project revenues to large debt repayment, which reduces the amount of free cash flows. Moreover, non-recourse debt and separate incorporation of the project company make it possible to achieve much higher leverage ratios than sponsors could otherwise sustain on their own balance sheets. Non-recourse debt can generally be de-consolidated and therefore does not increase the sponsors on-balance sheet leverage or cost of funding. From the perspective of the sponsors, non-recourse debt can also reduce the potential for risk contamination. In fact, even if the project were to fail, this would not jeopardize the financial integrity of the sponsors' core businesses.

One drawback of non-recourse debt, however, is that is exposes lenders to project-specific risks that are difficult to diversify. In order to cope with the asset specificity of credit risk in project finance, lenders are making increasing use of innovative risk-sharing structures, alternative sources of credit protection and new capital market instruments to broaden the investor base.

Hybrid structures between project and corporate finance are being developed, where lenders do not have recourse to the sponsors, but the risks specific to individual projects are diversified away by financing a portfolio of assets as oppose to single ventures. Public-private partnerships are becoming more and more common as hybrid structures, with private financier taking on construction and operating risks while host governments cover market risks.

There is also increasing interest in various forms of credit protection these include explicit or implicit political risk guarantees, credit derivatives and new insurance products against macroeconomic risks such as currency devaluations. Likewise, the use of 'real options' in project finance has been growing across various industries. Examples include: refineries changing the mix of outputs among heating oil, diesel, unleaded gasoline and petrochemicals depending on their individual sale prices; real estate developers focusing on multipurpose buildings that can be easily reconfigured to benefit from changes in real estate prices.

Finally, in order to share the risk of project financing among a larger pool of participants, banks have recently started to securitize project loans, thereby creating a new asset class for institutional investors.

Collateralized debt obligations as well as open-ended funds have been launched to attract higher liquidity to project finance.

* **Advantages of Project Finance**

1. **Non-recourse**. The typical project financing involves a loan to enable the sponsor to construct a project where the loan is completely "non-recourse" to the sponsor, i.e., the sponsor has no obligation to make payments on the project loan if revenues generated by the project are insufficient to cover the principal and interest payments on the loan..

2. **Maximize Leverage**. In a project financing, the sponsor typically seeks to finance the costs of development and construction of the project on a highly leveraged basis. Frequently, such costs are financed using 80 to 100 percent debt. High leverage in a non-recourse project financing permits a sponsor to put less in funds at risk, permits a sponsor to finance the project without diluting its equity investment in the project and, in certain circumstances, also may permit reductions in the cost of capital by substituting lower-cost, tax-deductible interest for higher-cost, taxable returns on equity.

3. **Off-Balance-Sheet Treatment**. Depending upon the structure of a project financing, the project sponsor may not be required to report any of the project debt on its balance sheet because such debt is non-recourse or of limited recourse to the sponsor. Off-balance-sheet treatment can have the added practical benefit of helping the sponsor comply with covenants and restrictions relating to borrowing funds contained in other indentures and credit agreements to which the sponsor is a party.

4. **Maximize Tax Benefits**. Project financings should be structured to maximize tax benefits and to assure that all available tax benefits are used by the sponsor or transferred, to the extent permissible, to another party through a partnership, lease or other vehicle.

Disadvantages Of Project Finance

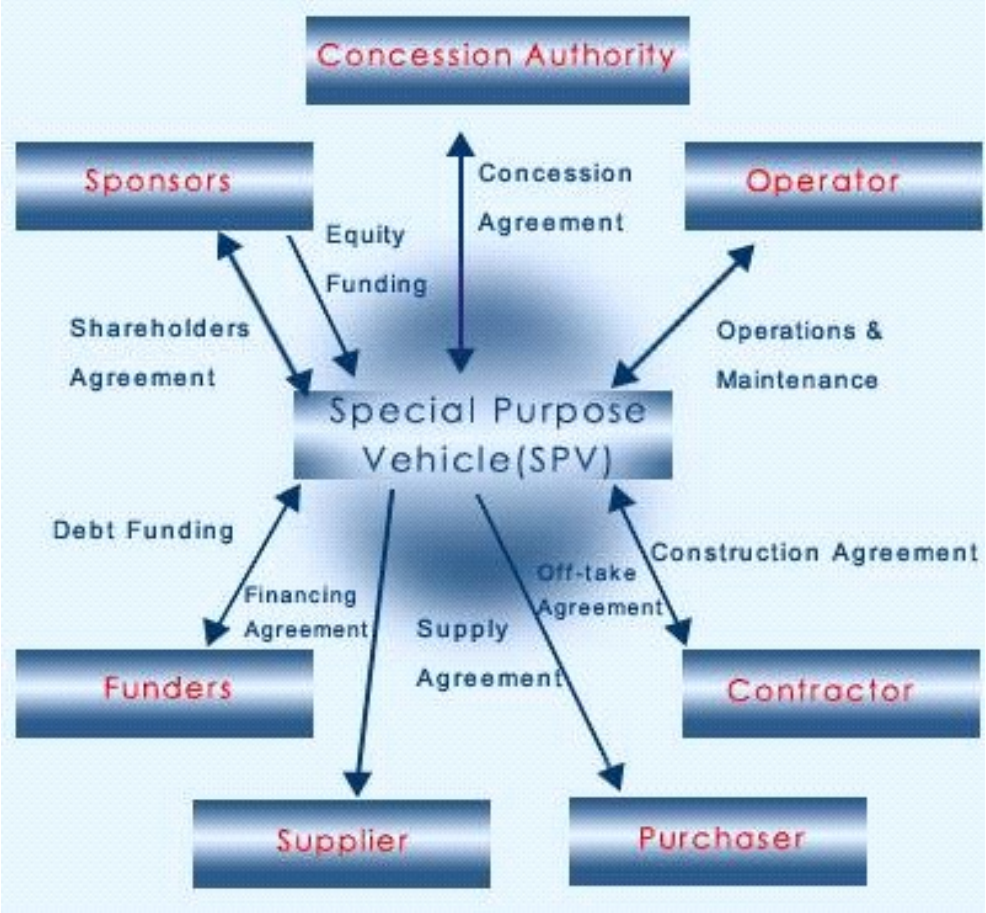
Project financings are extremely complex. It may take a much longer period of time to structure, negotiate and document a project financing than a traditional financing, and the legal fees and related costs associated with a project financing can be very high. Because the risks assumed by lenders may be greater.

Huge Third-Party Costs: The project finance structures are very complex which result in huge third-party up-front investments or dead-weight costs in various legal processes, which are required for designing and preparing the project ownership structure, loan documentation, and other contractual requirements. The financial advisors, selected to help structure the financing, normally charge advisory fees to the order of 50 to 100 basis points. These costs are incurred at the project development stage because of which these are not recoverable if the project fails to take off Also, at times, the feasibility studies may be conducted only to satisfy the other related parties which can increase the development costs.

Time-Consuming Process: Structuring a project-finance deal, involving many parties, takes considerable time as compared to structuring a corporate-finance or a traditional finance deal. Whereas in traditional finance, the deal is finalized only by the internal team involving only a handful of people, in case of project-finance, the process of structuring the deal is unduly delayed because of the involvement of independent players each one trying to safeguard his/her personal interest. This incremental delay not only affects the project's viability measures like NPV, IRR, etc., but it may also result in missed opportunities.

Stringent Covenants: One of the biggest disadvantages of project finance is the application of stringent covenants imposed by a number of parties involved to safeguard their interests. The covenants which affect the parties to a great extent are reduced flexibility in managerial decision making, and disclosure requirements. The reduced flexibility is an outcome of the extensive set of operating and reporting requirements imposed on borrowers by the lenders. These provisions restrict the sponsor's ability to modify the design, admit new partners, dispose of assets, or respond to a large number of contingencies that invariably arise over the project's life. As a result the firms are forced to delay their response to the lender's ever-changing demands and meeting environmental concerns.

* **Project Finance Structure**



Parties Involved In Project Financing

Project Company:

The project company is the legal entity that will own, develop, construct, operate and maintain the project. It is generally an SPV created in the project host country and therefore subject to the laws of that country. Its equity owners will control the SPV.

Sponsor:

The project sponsor is the entity that manages the project. The sponsor generally becomes equity owner of the SPV and will receive any profit either via equity ownership or management contracts/fees. The sponsor generally brings in management, operational, technical experience to the project. The sponsor may be required to provide guarantees to cover certain liabilities or risks of the project.

Borrowers:

The borrowing entity may or may not be the SPV. This depends upon the structure of the financing and of the operation of the project. A project may in fact have several "borrowers", for example the construction company, suppliers of raw materials to the project and purchasers of the project's production.

Financial advisor:

The project sponsor may retain the services of a commercial or merchant bank to provide financial advisory services to the sponsor. The financial advisor theoretically will be familiar with the project host country and be able to advice on local legal requirements and transaction structures to ensure that the loan documentation and financial structure are properly assembled. Financial consultants can also advise on how to arrange the financing of the project, taking into account streaming cash flows, creation of shell offshore companies, tax avoidance, currency speculation, desirable locales for the project and capital required. They also provide help with accounting issues relating to expected cost of the project, interest rates, inflation rates, and the financial advisor can assist in the preparation of the information memorandum regarding the proposed project.

Lenders/Funders:

Projects are usually of large size and require a huge amount of capital. A single lender cannot provide the required capital and hence syndication takes place. This is beneficial in more ways than one. It not only makes it possible to arrange for the huge capital requirement but also helps in spreading the risk and mitigating it for the lenders of the project. A syndicate of banks may be chosen from as wide range of countries as possible to discourage the host government from taking action to expropriate or otherwise interfere with the project and thus jeopardize its economic relations with those countries. The lenders are usually made up of: -

The arranger: this is the bank that arranges the syndication. It is also called a lead bank. The bank typically negotiates the term sheet with the borrower as well as the credit and security documentation.

The managers: the managing bank is typically a title meant to distinguish the bank from mere participants. This bank may take a large portion of the loan and syndicate it, thus assuming some of the underwriting risk. Managers can therefore broaden the geographic scope of the syndication.

The facility agent: exists to administer the administrative details of the loan on behalf of the syndicate. The facility agent is not responsible for the credit decisions of the lenders in entering into the transaction. The agent bank is responsible for the mechanistic aspects of the loan such as coordinating drawdown, payments and communications between the parties to the finance documentation. Such as serving notices and disseminating information. They also monitor covenant compliance.

Account bank: The bank, through which all project cash flows pass and monitored, collected and disbursed.

Insurance bank: It undertakes negotiations in connection with project insurances, to ensure that the lender's position is fully covered in terms of project insurance.

Security trustee: where there are different groups of lenders or other creditors interested in the security, the co-ordination of their interests will call for the appointment of an independent trust company as security trustee.

Technical advisor:

Technical experts advise the project sponsor and lenders have limited knowledge. Such experts typically prepare reports such as feasibility reports, cost-benefit reports, etc. They may also monitor the progress of the project and may also act as the arbiter in case of disagreements between sponsors and lenders.

Lawyers:

The international nature and complexity of project financing necessitates the retention of experienced and competent law firms. Project finance lawyers provide advice on all aspects of a project, including law and regulations, permits, organization of project entities, negotiating and drafting of project construction, operation, sale and contracts.

Investors:

These may be lenders or project sponsors who do not expect to have an active management role as the project goes on stream. In the case of lenders, they are putting equity alongside their debt as a way to obtain an enhanced return on their investment.

Construction Company:

Since most project financings are infrastructural, the contractor is typically one of the key players in the construction period. Construction can be either of the EPC, "Turnkey or BOT" in nature. It is important that the construction company selected has a track record of successful project management and completion. There may be consortia of constructors who may be employed if the project is of a significant magnitude or if there is political interference.

Regulatory agencies:

Project naturally is subject to local laws and regulations. These may include environmental, zoning permits and taxes. Publicly owned projects also will be subject to various procurement and public contract laws. It is important to ensure that the project has received all the requisite permission and licenses before committing financial resources.

Export credit agencies:

Export credit agencies (ECA) promote trade or other interests of an organizing country. They are generally nationalistic in purpose and nationalistic and political in operation funding bilateral agencies generally comes from organizing governments. Government supported export financing includes pre-export working capital, short term export receivables financing and long term

financing. They play an important role in infrastructure and other projects in emerging market by simulating international trade.

Multilateral agencies/development banks:

Multilateral agencies are the ones, which promote collaborations between companies on a global scale. This usually happens between companies situated in different countries. These agencies also provide support and funding for socially uplifting infrastructure projects. World bank, international finance corporation and regional development banks like African development banks; Asian development bank, etc. are examples of such agencies.

Host government:

The host government is the government of the country in which the project is located. The host government is typically involved as an issuer of permits, licenses, authorizations and concessions. It also might grant foreign exchange availability, subsidies, support through off-takes and tax concessions. In some projects, the host government may be the owner of the project. It may also be involved as an off-take purchaser or as a supplier of raw materials or fuel.

Construction contractors:

These include engineers and contractors responsible for designing and building the project. Any or all of these parties may be contractually part of the financing.

Supplier:

Suppliers provide raw materials or other inputs to the project, since supply arrangements is a key to project success, project sponsors and lenders are concerned with the underlying economic feasibility of supply arrangements and the supplier's ability to perform the contracts.

Purchasers:

In large infrastructure projects, the project company will seek in advance to conclude long-term agreements to sell the goods or services being produced by the project. These agreements are known as off-take

agreements. The output purchasers provide a crucial element of credit support for the underlying financing by seeking to stabilize the acquisition of raw materials over time and protect itself from market volatility. Such support can be seen as a credit enhancement to make the project more attractive to the financing banks.

Leasing companies:

If capital allowances are available for the writing-down of plant and machinery or more financial leasing companies. Their role will be to lease out assets to the project company in return for a rental stream. In addition to the tax advantages are the financial ones of keeping the assets off the project company's balance sheet.

Insurers:

The sheer scale of many projects and the potential for incurring all sorts of liabilities dictates the necessity of arranging appropriate insurance arrangements. Insurers therefore play a crucial role in most projects. If there is an adverse incident affecting the project then the sponsor and the lenders will look to insurers to cover them against unforeseen losses.

* **Sources of finance**

Just as financial instruments range from debt to equity and hybrids such as mezzanine finance, project finance can raise capital from a range of sources. Raising finance depends upon the nature and the structure of the project. Lender and investor interest will vary depending on the goals and risks related to the financing. In assembling project financing, all available financing sources should be evaluated. Following are some sources of capital used in project financing:

Equity: equity is often raised in the stock markets and from specialized funds. Equity is generally more expensive than debt financing. Equity can be raised in the domestic capital markets as well as in the international capital markets.

Developmental loan: a developmental loan is debt financing provided during a project's developmental period to a sponsor with insufficient resources. Developmental lenders, who

fund the project sponsor at very risky stage of the project, desire some equity rewards for the risk taken, hence, it is not unusual for developmental lender to secure rights to provide permanent financing for the project as part of the development financing agreement.

Subordinated loan: subordinated loans, also called mezzanine financing or quasi-equity, are senior to equity capital but junior to senior debt and secured debt. Subordinated debt usually has the advantage of being fixed rate, long term, unsecured and may be considered as equity by senior lenders for purposes of calculating debt to equity ratio. They are usually used to cover over-runs during the construction stage.

Senior debt: commercial banks and institutional lenders are an obvious choice for financing needs of a project. Senior debt of project finance usually constitutes the largest portion of the financing. These loans usually form at least 50% of the capital needs. The prime reason is that it is cheaper than equity financing. They fall into two categories secured and unsecured loans. Secured loans are loans where the assets securing the loan have value as collateral. Such assets are marketable and can readily be converted into cash. Unsecured loans basically depend on the borrower's general creditworthiness, as opposed to perfected security arrangement.

Syndicated loan: a syndicated loan is a loan that is provided to the borrower by two or more banks and is governed by a single loan agreement. The loan is arranged and structured by a 'lead arranger' and is managed by an 'agent bank'. The best part about a syndicated loan is that the funding can be gathered from the international lending market, which means such a lending can be used for projects which need enormous amounts of capital.

World Bank group financing sources: multilateral institutions such as the World Bank provide finds to infrastructure development projects worldwide. The scope and extent of involvement of such institutions in financing project is very limited. World banks provide funding through its (a) loan program; (b) guarantee program and (c) indirect support for projects.

Bonds: in recent years the use of the bond markets as a vehicle for obtaining debt funs. Has increased. Bond financing is similar to commercial loan structure, except that the lenders are investors purchasing the borrower's bonds in a private placement or through the public debt market.

Investment funds: investment funds mobilize private sector funds for investment in infrastructure projects. E.g. asset funds or income funds, investment management companies, venture capital provider and money market funds.

Institutional lenders: these include life insurance companies, pension plans, profit-sharing plans and charitable foundations. These entities can be a substantial source of funding.

Host government: the host government can also be a direct or indirect source of financing. This is more evident in the emerging markets where the governments are usually eager to fund and support infrastructure projects. They provide indirect support through tax incentives.

Risks involved in Project Financing

Construction Phase

An infrastructure project has a long gestation period during which many risk events may occur leading to time and cost overrun and thereby impacting the project's initial estimate of cash flow patterns and its overall viability. The main risks during this phase are-

Completion risk

Completion risk refers to the uncertainty related to timely completion of the project within the budgeted costs. The completion risk may arise due to a number of factors like non-availability of critical inputs including supporting infrastructure like land. For a toll road project, for example, permission to have right of way may be delayed due to litigation or non-clearance by the permitting authorities in time.

Cost overrun risk

A project's viability depends on the realization of projected costs of critical inputs. These assumptions may go terribly wrong for a long gestation project. For example, the price of steel and cement may increase the cost of construction substantially. The construction company unwilling to bear the increased cost may refuse to complete the construction activities unless the project sponsor agrees to bear the burden to a mutually agreed extent.

Funding risk

In a public-private participation project, the ability of state to provide funding as per originally agreed schedule might be jeopardized due to unexpected shock to the state's budget. A privately sponsored project may also face uncertainty if the sponsor is unable to raise fund in time or at the projected cost.

Operating Phase:

The risk profile of an infrastructure project undergoes significant changes when a project comes to fruition and cash flows start. The main risks during this phase of a project life cycle are

Performance risk

If a project does not meet the planned performance level, the actual cash flows may be inadequate to service the debt and /or meet the expected return on equity capital deployed. For example, an airport project may not be able to meet the turnaround time for aircrafts or number of passengers it can handle.

Market or off-take risk

The main market risk for an infrastructure project relates to lower than projected demand or off-take of the project's product /services. A toll road or bridge project may fail to attract the required number of users to make the project viable. When the entire demand comes from a monopoly purchaser, as in the case of water supply project for a municipality or a power project for a state monopoly distributor, a minimum guaranteed off-take could mitigate this risk. The other types of market risks are fairly common for any investment project, which are interest rate risk, exchange rate risk and price risk. Since infrastructure projects have high capital intensity, high leverage and long gestation period interest cost forms a significant component of the overall cost and proper measurement and mitigation of this risk is of paramount importance for a project's long-term viability. Exchange rate risk becomes important for projects, which have substantial foreign currency loan component.

Payment risk

This risk arises when the purchaser of a project's output is a monopoly and more often than not, a state monopoly. Because an infrastructure project is often considered as an essential utility, non-payment cannot be considered as a reason for discontinuation of supply of the product /service.

Risk common in both construction and operational phases

These are the risks associated with the sponsors or the borrowers themselves. The question is whether they have sufficient resources to manage the construction and operation of the project and to efficiently resolve any problems, which may arise. Of course, credit risk is also important for the sponsor's completion guarantees. To minimize those risks, the financiers need to satisfy themselves that the participants in the project have the necessary human resources experience in past projects of this nature and are financially strong.

Technical risk

This is the risk of technical difficulties in construction and operation of the project's plant and equipment, including latent defects. Financiers usually minimize this risk by preferring tried and tested technologies to new unproven technologies. Technical risk is also minimized before lending takes place by obtaining experts reports as to the proposed technology. Technical risks are managed during the loan period by requiring a maintenance retention account to be maintained to receive a proportion of cash flows to cover future maintenance expenditure.

Currency risk

Currency risks include the risks that: (a) depreciation in loan currencies may increase the costs of construction where significant construction items are sourced offshore; or (b) depreciation in the revenue

currencies may cause a cash-flow problem in the operating phase. Mechanisms for minimizing resource include: (a) matching the currencies of the sales contracts with the currencies of supply contracts as far as possible; (b) denominating the loan in the most relevant foreign currency; and (c) requiring suitable foreign currency hedging contracts to be entered into.

Regulatory / approval risk:

These are risks that government licenses and approvals required to construct or operate the project will not be issued (or will only be issued subject to onerous conditions), or that the project will be subject to excessive taxation, royalty payments, or rigid requirements as to local supply or distribution. Such risks may be reduced by obtaining legal opinions confirming compliance with applicable laws and ensuring that any necessary approvals are a condition precedent to the drawdown of funds.

Political risk:

This is danger of political or financial instability in the host country caused by events such as insurrections, strikes, suspension of foreign caused by events such as insurrections, strikes suspension of foreign exchange, creeping expropriation and outright nationalization. It also includes the risk that a government may be able to avoid it contractual obligations through sovereign immunity doctrines. Common mechanisms to minimizing political risk include: (a) requiring host country agreements and assurances that project will not be interfered with; (b) obtaining legal opinions as to the applicable laws and the enforceability of contracts with government entities; (c) requiring political risk insurance to be obtained from bodies which provide such insurance (traditionally government agencies); (d) involving financiers from a number of different countries, national export credit agencies and multilateral lending institutions such as a development bank; and (e) establishing accounts in stable countries for the receipt of sale proceeds from purchasers.

Inflation risk:

This risk represents the possibility that the actual inflation rate will exceed the risk projected during the development of the feasibility study. Inflation risk may be mitigated by including an actual index, based on inflation, in the contract's pricing formula, or by entering into long-term supply contracts with predetermined prices (these contracts increase the counterparty credit risk). To the extent that the risk cannot be controlled by the private sector, the public sector may decide to retain the risk, reducing the cost of the project.

Input and throughput risk

For non-extractive projects in which the viability of the project depends on the supply of sufficient natural resources (e.g. water, power generation and gas pipeline), the input and throughput risk is critical.

Force Majeure:

Force Majeure (FM) shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined below:

Non - Political Event

Act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionizing radiation, fire or explosion;

Strikes or boycotts (other than those involving the Concessionaire, Contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project Highway for a continuous period of 24 (twenty four) hours and an aggregate period exceeding 7 (seven) days in an Accounting Year

Any failure or delay of a Contractor but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Contractor;

Any judgment or order of any court of competent jurisdiction or statutory authority made against the Concessionaire in any proceedings for reasons other than (i) failure of the Concessionaire to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority;

The discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or

Any event or circumstances of a nature analogous to any of the foregoing.

Indirect Political Event

An act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;

Industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty four) hours and exceeding an aggregate period of 7 (seven) days in an Accounting Year;

Any civil commotion, boycott or political agitation which prevents collection of Fee by the Concessionaire for an aggregate period exceeding 7 (seven) days in an Accounting Year;

Any failure or delay of a Contractor to the extent caused by any Indirect Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Contractor;

Any Indirect Political Event that causes a Non-Political Event; or

Any event or circumstances of a nature analogous to any of the foregoing

Political Event

Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Article 41 and its effect, in financial terms, exceeds the sum specified in Clause 41.1;

Compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Concessionaire or of the Contractors;

Unlawful or unauthorized or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, license, permit, authorization, no objection certificate, consent, approval or exemption required by the Concessionaire or any of the Contractors to perform their respective obligations

Under this Agreement and the Project Agreements; provided that such delay, modification, denial, refusal or revocation did not result from the Concessionaire's or any Contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, license, authorization, no objection certificate, exemption, consent, approval or permit;

Any failure or delay of a Contractor but only to the extent caused by another Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Contractor; or

Any event of a nature analogous to any of the foregoing.

CHAPTER 2: REVIEW OF LITERATURE.

2. REVIEW OF LITERATURE.

The term "infrastructure" was evolved during the Second World War by military strategists to indicate wide ranging elements of war logistics. Thereafter, economists introduced the term into the literature of development economics. Though the concept of infrastructure has been extensively used in the literature on economic development, yet it has not been explicitly defined in a precise and generally acceptable manner.

The American Heritage Dictionary defines the term "infrastructure as the basic facilities and installations needed for the Sanctioning of a community on society, such as transportation and communications systems, water and power lines, public institutions including schools, post offices and prisons."

The Oxford Dictionary defines infrastructure as "basic structural foundation of a society or enterprise.

According to Article 301 of the Constitution Infrastructure refers to "the facilities that facilitate the trade and removal of impediments that facilitate the trade, commerce and intercourse".

According to A.N. Agarwal, "The term Infrastructure is an umbrella term for several activities, which include public works like railways, roads, major irrigation works etc. as also public utilities like power, telecommunications, tap water supply, sanitation and

sewerage etc."

A number of inter-changeable terms such as 'Social Overhead', 'Economic Overheads', 'Overhead Capital', 'Basic Economic Facilities' etc. have been used to denote services which one generally with infrastructure.

The concept of overhead, which is often used as synonymous with the concept of infrastructure, was probably used for the first time by H.W. Singer who identified it with certain kinds of investment which are regarded necessary for development but which by themselves are not directly productive. To quote him, "Any economic system requires a certain number of installations or capital formation which is not itself directly productive, which is in the nature of an overhead cost.. .there are certain overhead installations which must be present to enable production to take place, but which do not themselves directly result in the production of useable goods." (H.W.Singer, 1951)

As examples of such installations Singer mentioned a good educational system, health services, housing, transport, power and irrigation. Singer thus identifies two of the basic characteristics of

infrastructural facilities. First, they are not directly productive, that is, they do not produce an output for consumption. Second, they are in the nature of overhead installations or costs which are necessary for continuation of directly productive activities.

Among the earlier authors Nurkse also elaborated the concept of infrastructure in his celebrated book 'Problems of Capital Formation in Under-developed Countries'. Nurkse has used the word

'Social Overhead Capital', which, according to him, "form an essential basis for small scale private investments in miscellaneous industries." (Nurkse R, 1955)

In later contribution, Nurkse elaborated this concept further and evolved certain criteria according to which the various items are to be classified as overhead capital. To quote him: "Overhead investment aims at providing the services- transport, power, water supply- which are basic for any productive activity, cannot be imported from abroad, require large and costly installations and in the history of western economies outside England, have usually called for public assistance or public enterprise. Typically, overhead investments take a considerable time to reach maturity in growing economy." (NurkseR., 1961) The above quotations from Nurkse highlight several characteristics of infrastructure, viz., these are basic for any productive activity, cannot be imported, require large & costly installations, call for public assistance, have long maturity period, lumpiness and high operational capital intensity, & generate external economies.

In Rostow's scheme of stages of economic growth, the economy has to have certain conditions before it is ready for takeoff. One of the pre-conditions for takeoff is the building up of social overhead capital. To quote him- "Technically this pre-conditioning embraces a buildup of transport sufficient to begin to make the markets of the economy interact quickly and efficiently and to make domestic raw material available at tolerable economic cost, an initial minimum quantum of power resources and other overhead capital." (Rostow W. W., 1962)

Hirschman has used the concept of social overhead capital in a more general sense. He has defined it as "comprising those basic services without which primary, secondary and tertiary activities cannot function". (Hirschman, A.O., 1958) In this wider sense the term includes all public services from health to transportation, communication, power and water supply as well as such agricultural overhead capital as irrigation and drainage system. He has, however, also given a narrow or more restricted concept of infrastructure or what he calls the "hardcore" of overhead capital in which he includes transportation and power.

According to Rosenstein Rodan, the services of overhead capital are "indirectly productive and become available only after long gestation periods. Its most important products are investment opportunities created in other industries... Social overhead capital comprises all those basic

industries like power, transport or communications which must precede the more quick yielding directly productive investments and which constitute the framework or infrastructure and the overhead costs of the economy as a whole. Its installations are characterized by a sizeable initial lump and low variable costs". (Rosenstein Rodan, P.N.)

Infrastructure has been viewed by V. K.R. V. Rao as an essential instrument imparting elasticity to the supply factor. (Rao, V.K.R.V.1968) He had emphasised this point particularly in the context of under-developed countries where it is not demand constraint but the low elasticity of supply, restricted mainly by an acute lack of infrastructure facilities, which acts as a bottleneck to growth. Even if there is increase in demand because of rise in incomes, the producers are not able to match the supplies because of lack of basic facilities.

According to Dr. V.K.R.V. Rao, "The link between infrastructure and development is not a once for all affair. It is a continuous process; and progress in development has to be preceded, accompanied and followed by progress in infrastructure, if we are to fulfill our declared objectives of a self-accelerating process of economic development."(Dutt and Sundaram, Indian Economy)

A number of research studies have been undertaken in the recent past on various aspects of infrastructure and its effects on development {Barry (1994), Bond Gary (1994), Chandavarkar (1994), Jamal-ud-din (1994), Kohh (1994 and 1995), CMIE (1995), CII (1995), Jha (1995), GDI (1996) and Nayak (1999)}. Some studies are devoted to the estimation of productivity of infrastructure investments while others are attempts to fmd a nexus between growth and investments on infrastructure. Though a positive and significant relationship between growth and investment on infrastructure has been established using time series data, scholars have failed to have a consensus view on the causality between these two factors. Whether increased infrastructure causes growth or growth causes increased infrastructure is yet to be fully established. However, a strong correlation exists between per capita GDP and availability of certain services such as telecommunications, power, roads, and access to safe drinking water etc. With the rise in per capita GDP, composition of infrastructure changes significantly. Basic infrastructure such as water and irrigation are more important in less developed countries whereas power and telecommunication play a vital role in highly developed countries. As the economy progresses, the share of agricultural infrastructure shrinks and other infrastructure take

their place for speedy development of industrial and service sectors. It would be appropriate to discuss the role of infrastructure in the process of economic development. Development of infrastructure is the sine quo non of Economic Development as adequate infrastructure can help in accelerating economic growth. For exdevelopment of agriculture and industries depends upon the development of power and electricity generation, transport and communications. Improved infrastructure also yields large benefits in terms of improving the lot of the poor and the population in general and helping in poverty reduction. For instance, construction of

infrastructure would increase labour demand and their incomes. Also major expansion in the availability of safe water would considerably improve health among the poor. Efficient infrastructure not only add to the incremental added value from the infrastructure sector itself, besides increasing the additional output from blocked assets, it also increases employment, add to the international competitiveness of an economic activity leading to expanded exports, reduce input costs, and increase savings and investment levels. Alternatively, the effect of inadequate infrastructure is to raise the costs for industry, either directly or by creating greater uncertainties, which adds larger cost or time contingency margins. Empirical studies quantifying the link between infrastructure and economic growth are as under- Studies linking aggregate infrastructure spending to the growth of GDP show very high returns in both time series and cross-section analysis with implied rates of returns computed at 60% for the US, 77% for Taiwan, China ,63% for a cross section of developing countries. (WDR, 1994) Rao has summarized this relationship between infrastructure and various factors of production in the following words:

"The function of infrastructure is to release latent productivity in the factors of production singly and in coordination and bring about not only and increase in the output of individual factors and units of production but also a mutually additive effects through coordination in inputs, outputs, and space and time and thus maximize the overall rate of economic growth" (V.K.R.V. Rao)

One of the most significant contributions that infrastructure makes to economic development is, through its impact, on the availability and supply elasticity of factors of production and on the size of the market.

Infrastructure indirectly affects the supply of entrepreneurs by creating favourable investment climate and thus inducing the entrepreneurs to come forward and participate in directly productive activities. Therefore, development economists emphasise the role of transport and communication facilities in economic development.

Transport and Communication have a multi-dimensional role to play and they affect the economy in more than one ways. As Youngson remarks: "The more closely one examines the impact of transport improvement, the more clearly the one realizes how pervasive this impact is, in what a multiple ways transport system helps to determine the scope and direction of economic development and how important are transport improvements in creating new opportunities and new incentives." (Youngson, 1967)

Transport and communication facilities help greatly in widening the size of the market.' This network increases the geographical area which a producer can serve. Apart from the widening of the market a network of communication also plays an important part in familiarizing the investor or producer with the market conditions. Therefore, a cheap and extensive network of communications is the greatest blessing which any country can have from the economic point of view. (Lewis, 1966)

The development of transport and communication network, on the other hand, increases the accessibility to distant natural resources and helps in their extraction and utilization for productive purposes without which these resources will remain dormant and unutilized.

Expansion of transport network has often been guided by the considerations of taking the raw materials to the centres of production. (Gadgil, 1971)

CHAPTER 3:

RESEARCH METHODOLOGY

3. RESEARCH METHODOLGY

OBJECTIVES OF THE STUDY:

- To assess the credit worthiness of firms that approaches Union Bank of India for credit for financing infrastructure projects. This would entail undertaking of the following procedures:

    - Analysis of projected financial statements
    - Analysis of projected Balance Sheet's

- Analysis of projected Cash Flow Statements
- Examination of projected Profitability statements
- Examination of projected financial statements

- To assess the suitability of the company for disbursement of credit. This would involve the following actions:

  - Use of credit rating charts
  - Evaluation of management risk.
  - Evaluation of financial risk.
  - Evaluation of market-industry risk.
  - Evaluation of the facility.
  - Evaluation of compliance of sanction terms.
  - Calculation of credit rating.

- Determination of interest rate: This would entail the following sequence of actions.

  - Collect data regarding financial health evaluation.
  - Noting down of credit rating.

- Referencing the banks' interest rate guidelines circular.
- Choosing the interest rate from the circular on the basis of financial health and credit rate.

DATA COLLECTION AND SAMPLES

The data collection method means the various sources from where the data has been collected by the researcher. There are several methods of collection of data especially in survey and descriptive researches. As during data collection for descriptive research the primary data is collected from the respondents through direct communications or personal interviews.

For the purpose of research , the primary data was collected through a close ended structured questionnaire which was designed by pre hand and an online survey was done using google forms. Online survey was the most feasible form as the data was to be collected from varied population in short period of time. The data collected was an opinioned data i.e like opinion of the survey taker is based on their own as per their experiences . Survey was answered by varied group of people who are directly and indirectly connecting themselves in an online food ordering applications. Closed ended questionnaire is the most feasible method of data collection as a fixed set of questions is prepared and surveyed. Therefore, uniform observation is obtained from the survey.

For the purpose secondary data collection, the researcher has used various forms such as various research magazines, articles , websites , research journals , compendiums, etc related to the topic . Due to unavailability and shortage of time no books were studied in the physical form. The secondary sources were mostly used for designing review of literature for the project . Being a descriptive research more secondary data was used for the study.

The data collected can be of two types : metric data and non-metric data. Metric data means the data collected through some scales. The metric data can be classified further as discrete and continuous data . Non-metric data means the data jointly collected through nominal scales, binary scales and ordinal scales.

TYPE OF STUDY

There are various type of study for doing a research , to name some descriptive study , exploratory study, historical study , empirical study , qualitative study , quantitative study , etc. For the purpose of this research, the research has used Descriptive study. Descriptive study is a method used to describe the characteristic of the population that is being studied . The descriptive study is mostly used to get the answer for the question "what" rather than answer for "why". The reason for selecting descriptive research is because it gives special focus on specific types of questions, methods and outcomes of the data. The best part about Descriptive study is that it can study Qualitative and Quantitative aspects i.e there is no need to study the qualitative and quantitative aspects separately. Therefore , it can involve the tables and graphs and numbers or the physical quality of the study . Descriptive study is usually used by anthropologists , psychologists and social scientists.

SAMPLING DESIGNS

The sampling designs are mainly classified into two types: Probability and Non-probability sampling. Probability sampling is then divided into simple random sampling , stratified sampling , systematic sampling and cluster sampling. Random sampling method means where we select a group of project to study a large group.Each individual is on chance and each member has an equal chance of being included in sample. The main goal random sampling is to get a sample which is representative of the larger population. The importance of the random sampling is to draw conclusion from the result of the study . However in random sampling the object may not necessarily have an equal chance of being chosen. Random sampling helps to eliminate bias by giving all the individual an equal chance to be chosen .

For the purpose of this research , I have used " Probability Random Sampling" method . The reason for selecting the random sampling method is that my sample size is small a fixed set of questions were asked to everyone , hence there is uniformity in the data collected . Therefore , random sampling is used as there will be no bias result obtained from the data , which is the most important aspect of random sampling. The sample population for the research is population using online food delivery applications .

RESEARCH TOOLS USED:

Research tools are anything which helps in collection of information of particular research such as observation forms, interview schedules, questionnaire and the interview guides. Hence for testing the information collected research or statistical data are used. These various types of research tools used to test the data in different ways .These statistical tools are usually applied on the tabulated data. These tools can be of two types: parametric tests and non-parametric tests. For applying parametric tests, the information should be distributed in the tabular format whereas for applying non-parametric test, no such formats are required. It can be applied on any type of data of even or uneven distribution . The parametric test are usually applied on the metric data only whereas the non-parametric test is applied on the non-metric data.

LIMITATION OF THE STUDY:

Limitation of a research project arise when there are uncontrollable variables which are harder to be brought in control. This reduces the accuracy and credibility of results. However for this study only 38 responses were taken into consideration from different age group of people .

- The period of research was very short and hence more the researcher were unable to gather more responses .
- The research sample size was limited.
- The scope of discussion was limited as a very in depth study was needed in every field of science . This helps in finding accurate solution.

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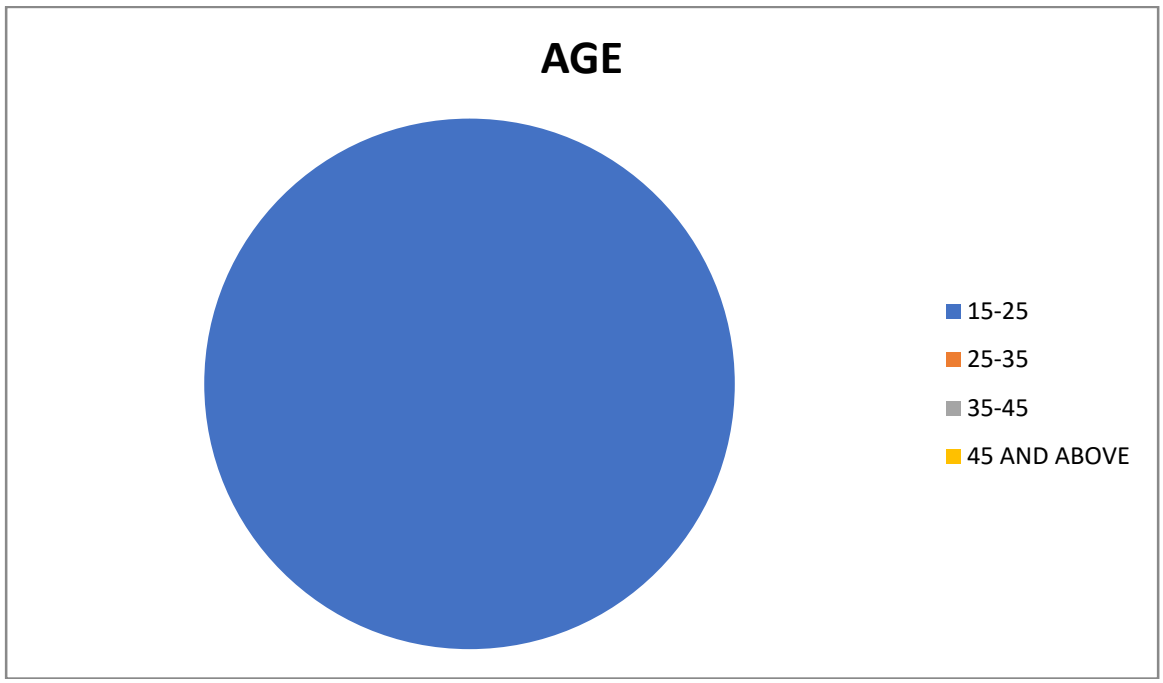
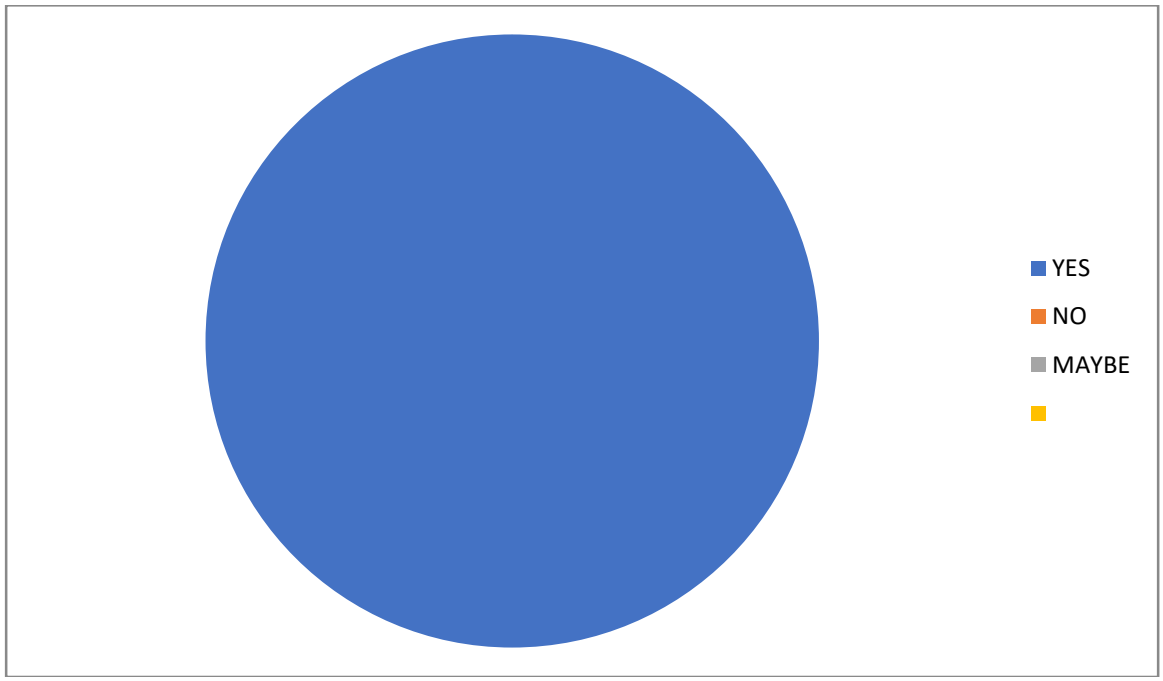
CHAPTER 4

DATA ANALYSIS

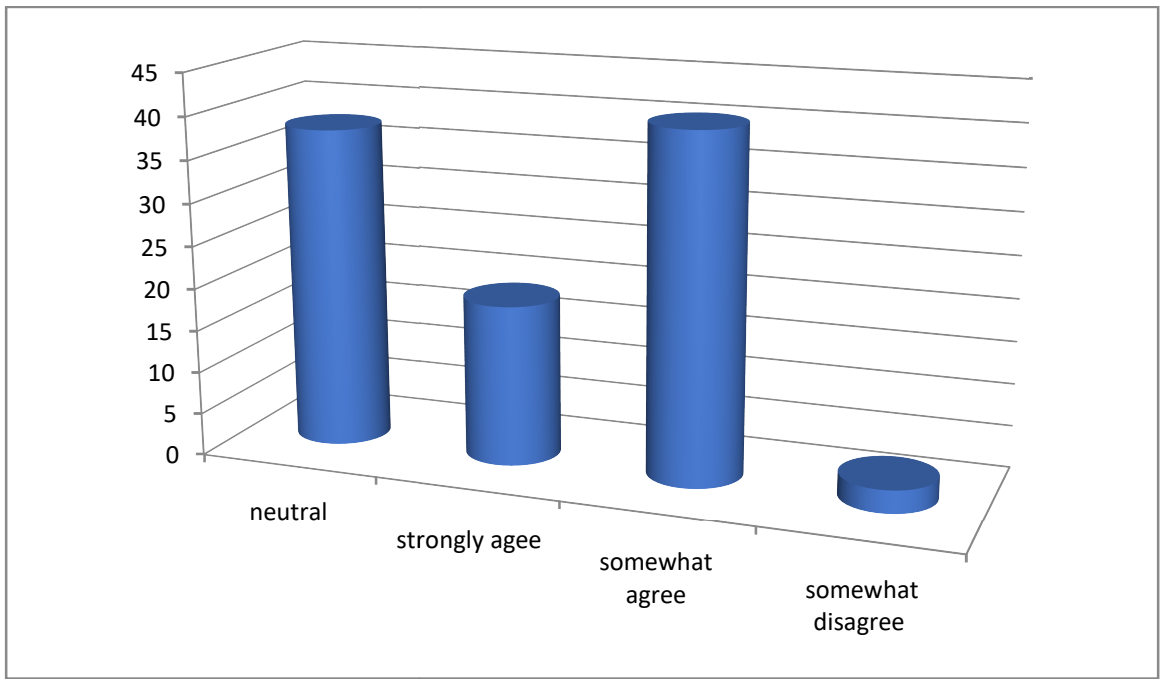
Q.1) What is your Age ?



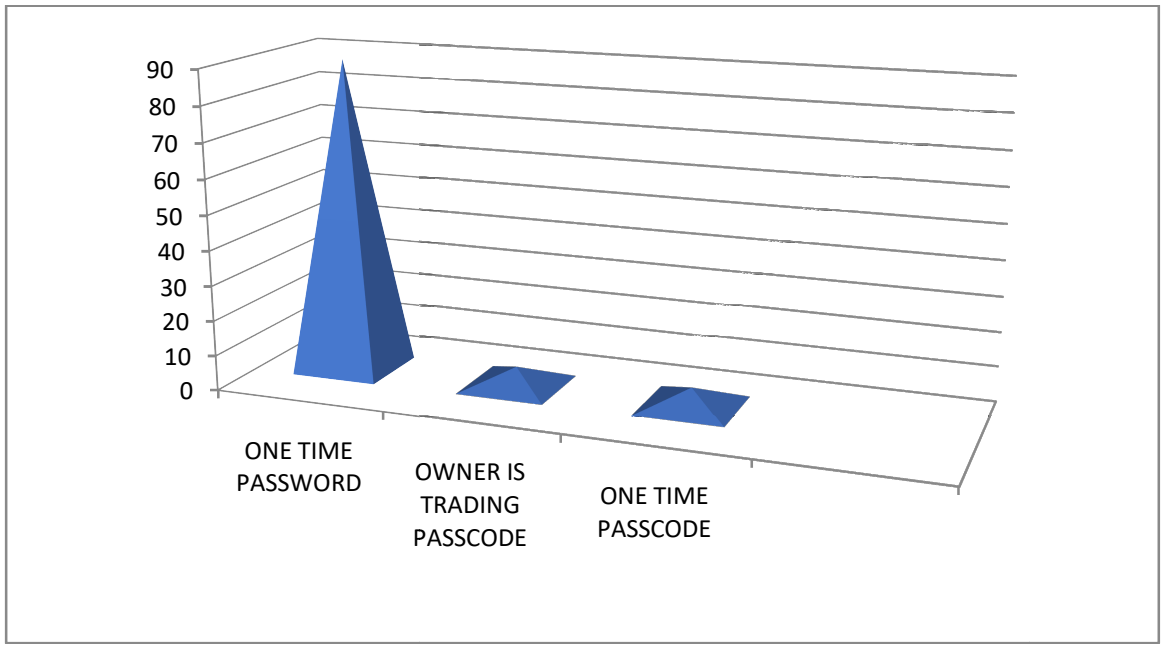
2. Do you use bank account?



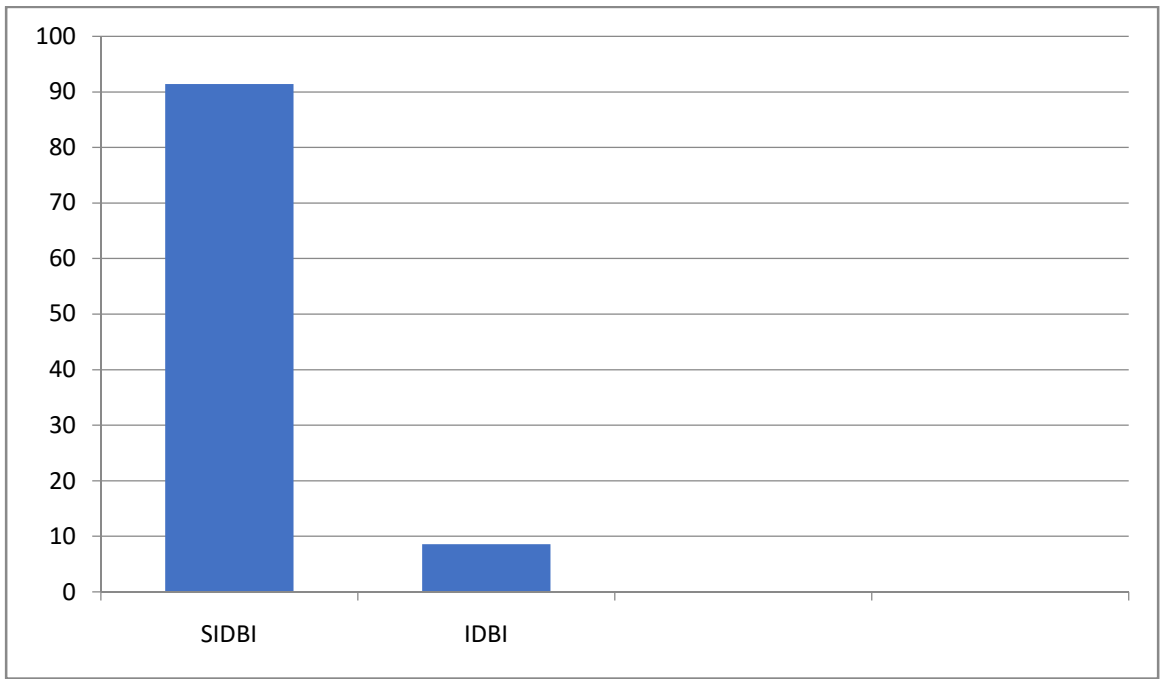
3. Do you think bank should use project finance to fund the infrastructure ?



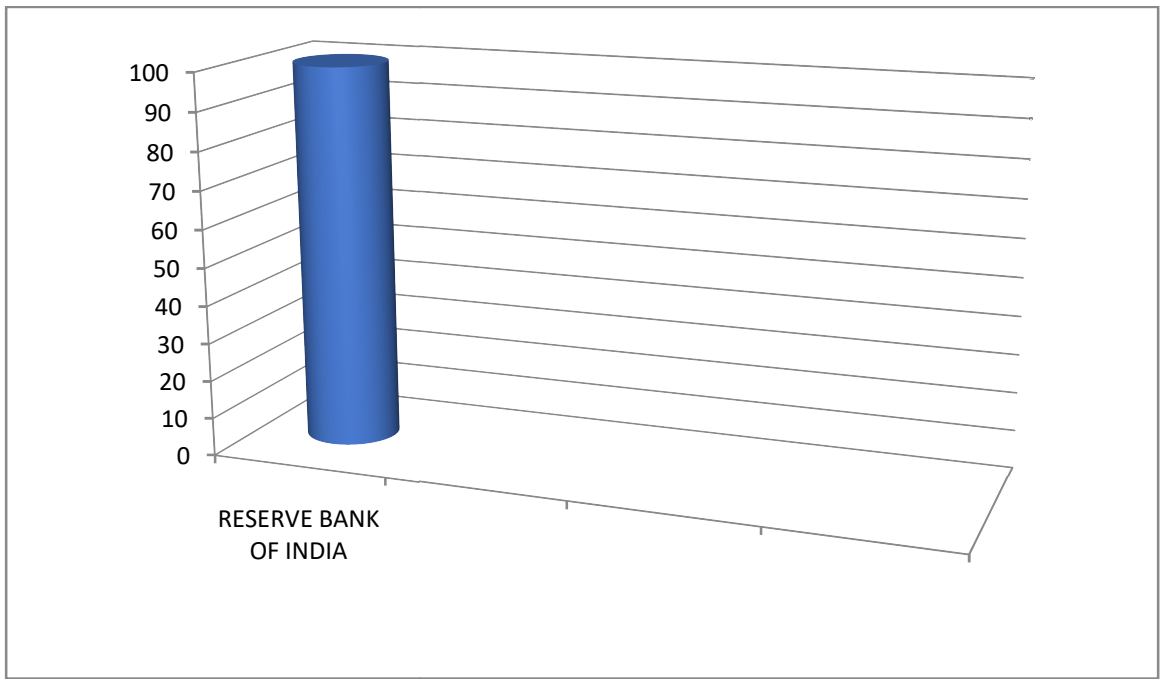
4.) What is OTP in online transaction?



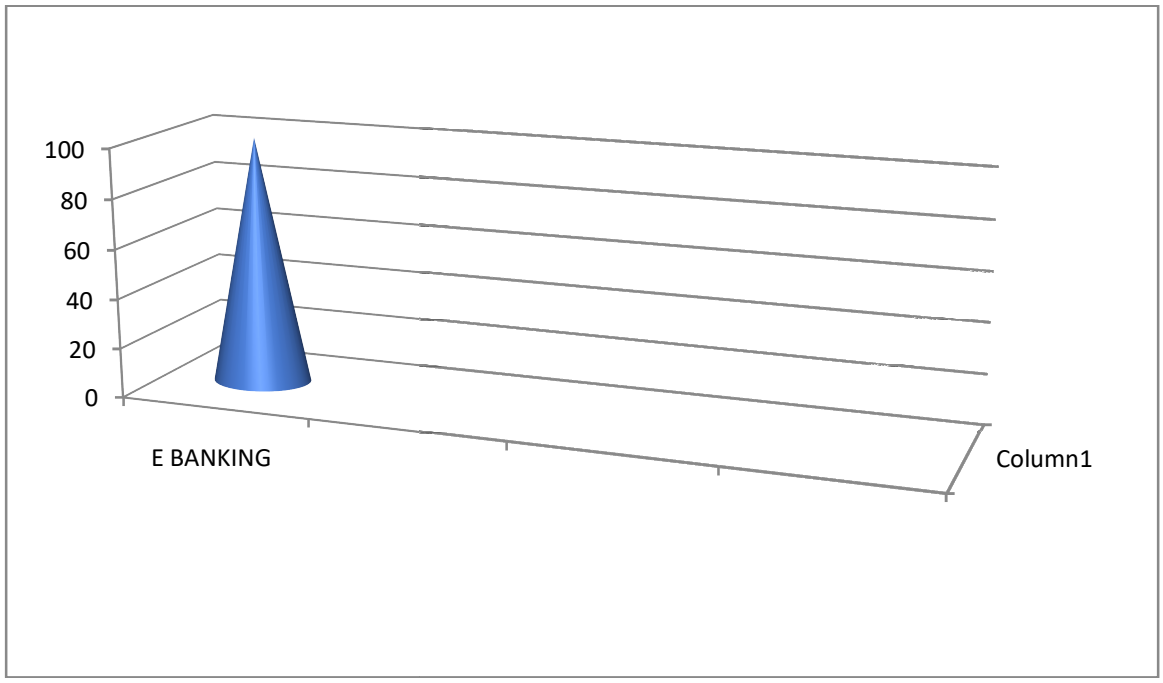
5.) Which one of the following has not yet started commercial banking ?



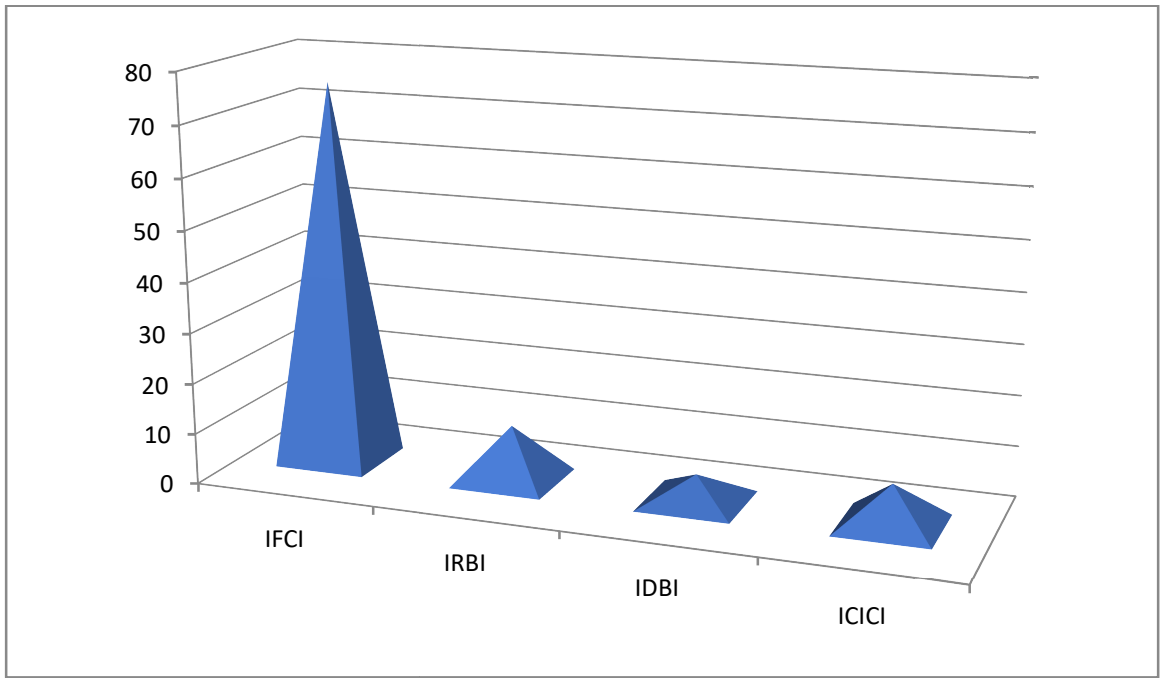
6.) RBI is _____?



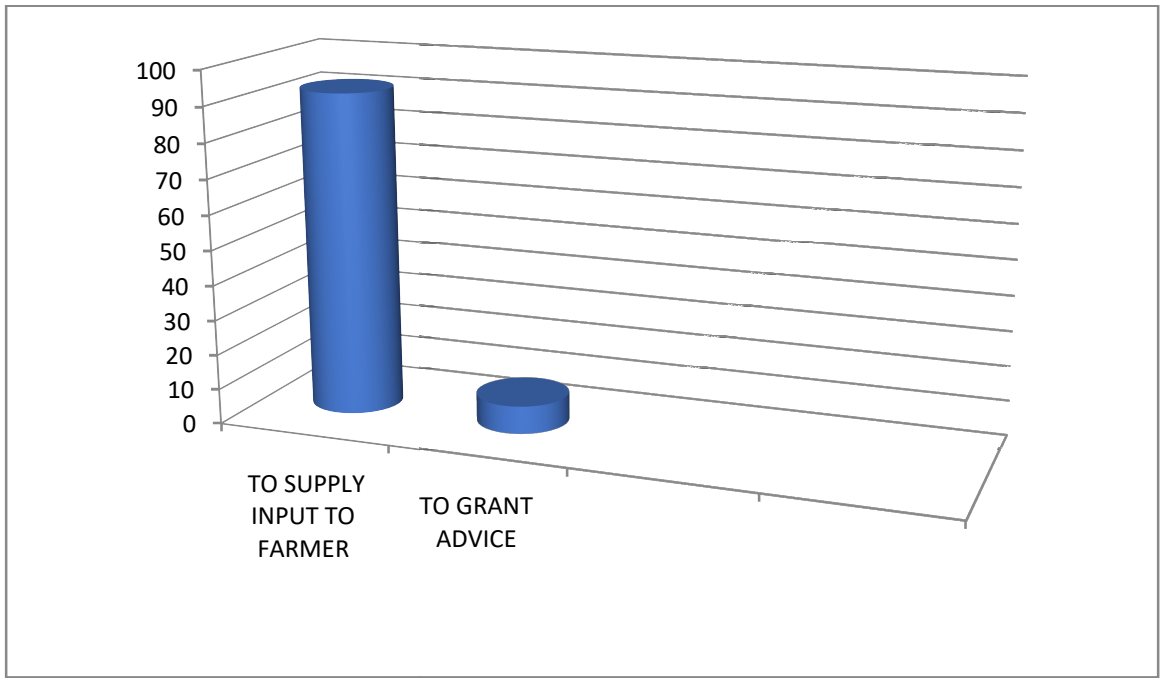
7.) E-Banking is synonymous with ?



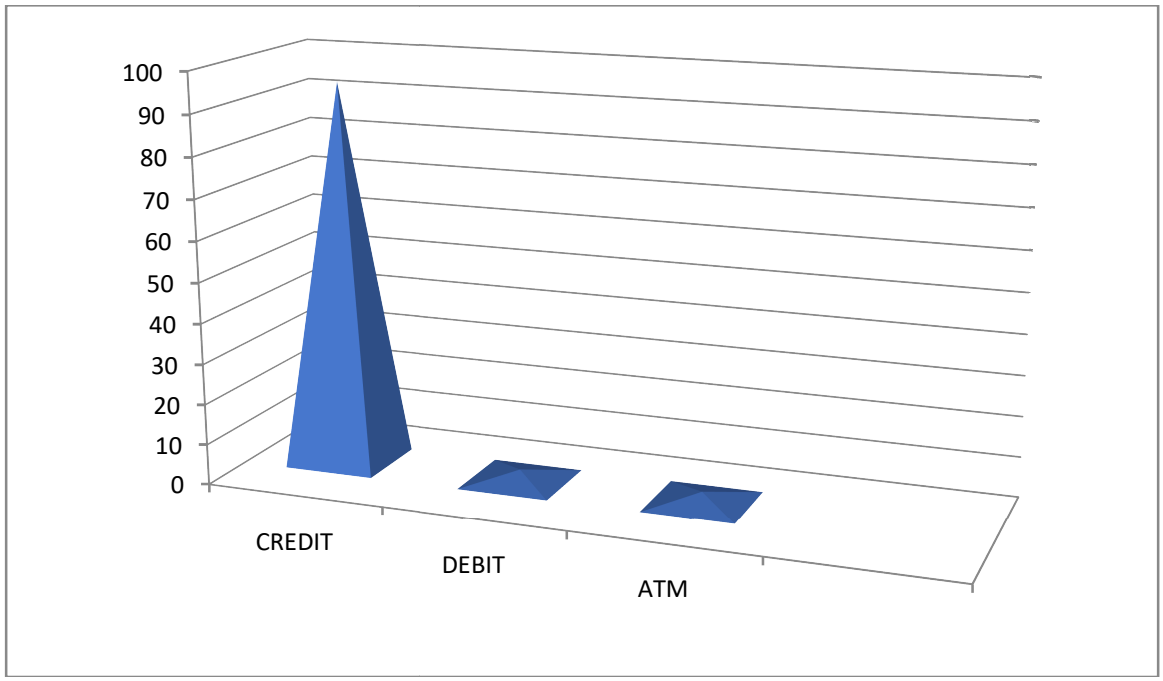
8.) The first financial institution of India?



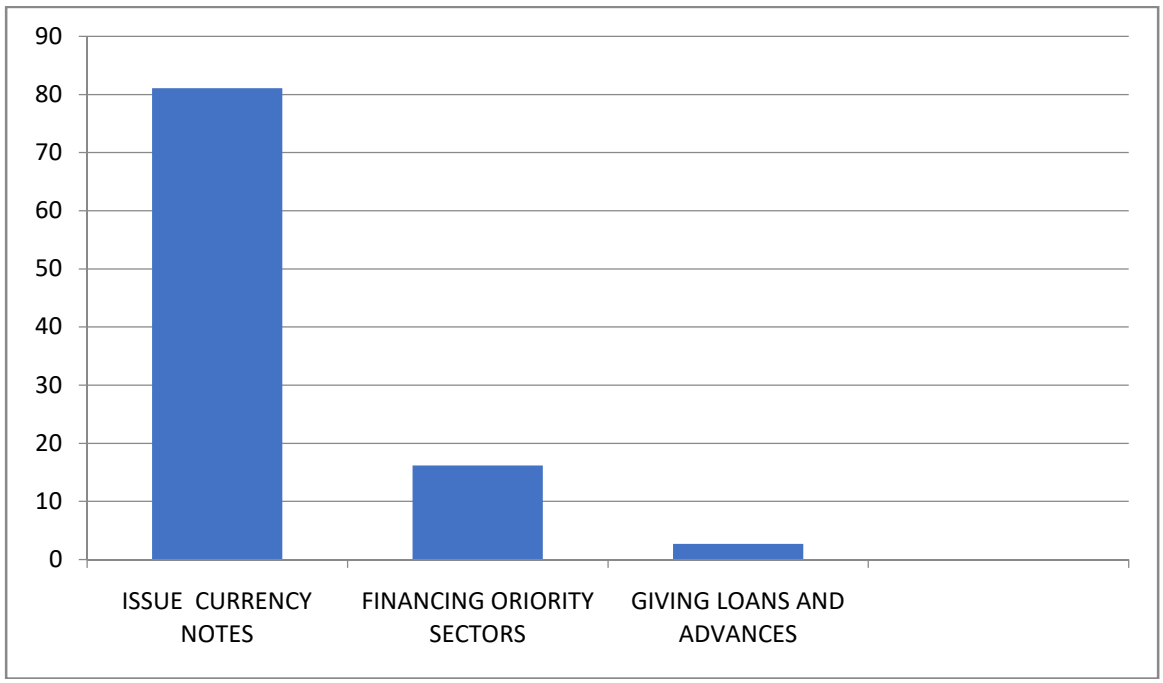
9.) Which of the following is not the function of bank ?



10.) A _____ card is basically a payment mechanism which allows the holder of the card tp make purchases without any immediate cash payment .



11.) The commercial bank do not perform one function out of the following ?



CHAPTER 5

CONCLUSION

The study conclusions contain the information you will use for deciding whether to proceed business. The major categories this section should include are:

Identify and describe alternative business scenarios and models.

Compare and contrast the alternatives based on their business viability.

Compare and contrast the alternatives based on the goals of the producer group.

Outline criteria for decision making among alternatives.

After the feasibility study has been completed and presented, a carefully study and analysis the conclusions and underlying assumptions.