

**Telecom Sector Financing in India: Case Study of Bombay
Communications Limited (BCL)¹**

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1- Name of the company disguised on request

1. Industry Overview

1.1 Background

The Indian Telecommunications network is the third largest in the world and the second largest among the emerging economies of Asia. Today, it is the fastest growing market in the world. The telecommunication sector continued to register significant success during the year and has emerged as one of the key sectors responsible for India's resurgent India's economic growth.

What Is Included Under Telecommunication Industry

The telecommunication sector includes all the components that are listed under the umbrella term of information and communication technology. Information and Communications Technology (ICT) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICT's are often spoken of in a particular context, such as ICT's in education, health care, or libraries. The Organization for Economic Co-operation and Development's (OECD) definition makes a distinction between the manufacturing and service dimensions of the ICT. In 1998 OECD member countries agreed to define the ICT sector as a combination of manufacturing and services industries that capture, transmit and display data and information electronically. The important factor in this broad definition is that, as it breaks the traditional dichotomy between manufacturing and services, activities producing and distributing ICT products can be found everywhere in the economy. Due to the broad nature of telecommunication industry it becomes essential to focus on a particular aspect of ICT.

2. Industry Growth

This rapid growth has been possible due to various proactive and positive decisions of the Government and contribution of both by the public and the private sector. The rapid strides in the telecom sector have been facilitated by liberal policies of the Government that provide easy market access for telecom equipment and a fair regulatory framework for offering telecom services to the Indian consumers at affordable prices.

India's teledensity has improved from under 4% in March 2001 to around 71% by the end of March 2011. Cellular telephony has emerged as the fastest growing segment in the Indian telecom industry. The mobile subscriber base (GSM and CDMA combined) has grown from under 2 m at the end of FY00 to touch 812 m at the end of March 2011 (average annual growth of nearly 73% during this eleven year period). Tariff reduction and decline in handset costs has helped the segment to gain in scale. The cellular segment is playing an important role in the industry by making itself available in the rural and semi urban areas where teledensity is the lowest. The fixed line segment has actually seen a decline in the subscriber base. It has declined to 34.73 m subscribers in March 2011 from 36.96 m in March 2010. The decline was mainly due to substitution of landlines with mobile phones. As far as broadband connections (≥ 256 kbps) are concerned, India currently has a subscriber base of 11.9 m. It has grown at an average annual growth rate of 45% since 2008. The auction for broadband wireless license and spectrum was carried out. Once the operators complete their network rollouts, this will further boost the broadband penetration in the country.

3. Segment wise Status

3.1 Wireline Services

With increasing penetration of the wireless services, the wireline services in the country are becoming stagnant. On the other hand, Broadband demand has picked up and promises to stabilise fixed line growth.

3.2 GSM Sector

In terms of the Global System for Mobile Communication (GSM) subscriber base this now places India third after China and Russia. China had 401.7 million GSM subscribers.

3.3 CDMA Services

CDMA technology was introduced in India as a limited mobility solution. The introduction of CDMA services has created competition, lowered tariffs and offered many citizens access to communication services for the first time.

3.4 Internet Services

Internet services were launched in India on August 15, 1995. In November 1998 the government opened up the sector to private operators. A liberal licensing regime was put in place to increase Internet penetration across the country. The growth of IP telephony or grey market is also a serious concern.

Government loses revenue, while unlicensed operation by certain operators violates the law and depletes licensed operators market share. New services like IP-TV and IP-Telephony are becoming popular with the demand likely to increase in coming years. The scope of services under existing ISP license conditions is unclear.

3.5 Manufacture of Telecom Equipment

Rising demand for a wide range of telecom equipment, particularly in the area of mobile telecommunication, has provided excellent opportunities to domestic and foreign investors in the manufacturing sector. The last two years saw many renowned telecom companies setting up their manufacturing base in India. Ericsson has set up GSM Radio Base Station Manufacturing facility in Jaipur. Elcoteq has set up handset manufacturing facilities in Bangalore. Nokia set up its manufacturing plant in Chennai. LG Electronics set up plant of manufacturing GSM mobile phones near Pune. The Government has already set up Telecom Equipment and Services Export Promotion Forum and Telecom Testing and Security Certification Centre (TETC). A large number of companies like Alcatel, Cisco have also shown interest in setting up their R&D centers in India. With above initiatives India is expected to be a manufacturing hub for the telecom equipment.

4. Regulatory Framework

The Telecom Regulatory Authority of India (TRAI) was set up in March 1997 as a regulator for Telecom sector. The TRAI's functions are recommendatory, regulatory and tariff setting in telecom sector.

Telecom Disputes Settlement and Appellate Tribunal (TDSAT) came into existence in May, 2000. TDSAT has been empowered to adjudicate any dispute –

- between a licensor and a licensee
- between two or more service providers
- between a service provider and a group of consumers
- hear and dispose of appeal against any direction, decision or order of TRAI

Tariffs for telecommunication services have evolved from a regime where tariffs were determined by Telecom Regulatory Authority of India to a regime where tariffs are largely under forbearance. TRAI intervenes by regulating the tariffs for only those services, the markets of which are not competitive.

Universal Service Obligation Fund (USOF) exclusively for meeting the Universal Service Obligation was established in April, 2002. Indian Telegraph Act has been amended in October 2006 to provide support for all telegraph services including mobile and broadband to bridge the digital divide. With the introduction of the Unified Access Licensing Regime, operators can offer telecom access services to consumers in a technology neutral manner, subject to fulfilling certain conditions. Introduction of this regime has also broken the legal/regulatory impasse between the cellular and basic service providers. Issuance of Intra-Circle Merger and Acquisition Guidelines provide investors an opportunity to take stakes in existing telecom operations.

The case focuses on the financing of telecom sector by banks in India and looks into the risks that banks faced when the telecom sector was at a nascent stage in the country.

5. The Indian Telecom Sector: Structural Changes after Liberalization

Development and provision of world class telecommunications infrastructure is the sine qua non for rapid economic and social development. Indian telecommunication network has been in operation since 1851. The Indian Telegraph Act of 1885 established the Government of India's monopoly in the sector and together with this act of 1933, provided the legal framework for the regulation of Indian telecom industry. Post liberalisation, the Government of India commenced a program to reorganize telecom industry. Department of Post and Telegraph has now been renamed as two separate departments that is Department of Telecommunications (DOT) and Department of Posts. DOT was brought under Ministry of Communications to oversee maintenance and development of telecom services. MTNL was incorporated in 1986 to takeover existing telecom networks in Delhi and Mumbai. Telecom Commission was established in 1986 under Ministry of Communications to make policy decisions.

However in 1993, India had a relatively low teledensity ratio of 0.89 per 100 people compared to world average of 11 per hundred. The teledensity for some other developing countries in the region was 2 for China, 1.3 for Pakistan, 1.5 for Indonesia and 3.8 for Thailand. In 1994, National Telecom Policy was announced with an objective to provide availability of phone on demand, provision for world class services to ensure India's emergence as a major export base of telecom equipment and services. In the light of above policy, in order to expand and modernize telecom services throughout the country and considering the very significant capital costs associated with this expansion, the Government of India decided to have private sector participation to develop telecom services. It was decided to award licenses based on competitive bidding process to Cellular Mobile Telecom Services (CMTS) and Fixed Line Telecom Services (FTS) in various circles. Very small aperture Terminals (VSATS), Internet Service Providers (ISP), Global Mobile Personal Communications by satellite (GMPCS) was also opened for private sector participation. It was decided by DOT at that time to allow only one private operator in each circle to compete directly with DOT on the fixed line network. The DOT was to continue to be a monopoly provider of long distance services. Commercial operation started in four metro areas of Delhi, Mumbai, Kolkata and Chennai. DOT divided the country into 20 cellular telecom circles categorizing them into A, B and C circles based on geographical and demographic size.

6. Background

BCL is a new company, established in 1996, that has been awarded licenses for providing cellular telephone services to the two telecom circles that is Gujarat and Maharashtra. The company proposes to operate a Global Systems for Mobile communications (GSM) digital

cellular network. The company has paid the license fee aggregating Rs. 313.8 crores for the first year. Already some key activities in the project implementation such as purchase of office cum mobile switching centre space in Maharashtra, Gujarat and Goa have been completed. The company is in the process of leasing of sites for locating the equipment and microwave towers. It has spent Rs. 467.2 crores including license fee. The project cost is estimated to be Rs 1802 crores (For break up see cost of project, given later) that is to be incurred upto 1999.

For funding the rupee component of Rs 525 crores, the company has approached the National Bank of India.

The company has requested for non recourse cash flow funding. The present exposure of National Bank of India is Rs. 1690 crores and non fund based exposure is Rs. 1204 crores with total exposure of Rs. 2209 crores to various group companies of sponsors. The conduct of accounts is satisfactory. There is additional room for Rs. 521 crores as per RBI guidelines.

7. Project Promoters

Bombay Communication Ltd (BCL) has been promoted by Bombay Company (BOMCO) and T & T C (Leading International Telecom Company) to establish and operate a cellular telephone network in circles of Gujarat and Maharashtra. 51% of equity is held by BOMCO and 49% by T &TC. BOMCO is a leading business house of India with presence in range of industries including aluminium, textiles, fibre, cement, sponge iron, industrial chemicals and gases, fertilizers, tyres etc. It has an international presence and has successfully set up greenfield projects in core sectors like cement, fertilizers and sponge iron etc. T&TC is one of the largest telephone companies of the world with turnover exceeding USD 79 billion. It offers a full range of long distance and international communication services. There were newspaper reports that the company is in some financial trouble and the change in management is on cards.

8. Technology

The Government of India's policy mandated that licenses issued for cellular services would require the implementation of digital cellular networks using GSM standard. There are a number of alternate standards in analog (NMT, TACS, AMPS) and in digital (GSM, DCS 1800, PCS AND PDC) depending on radio frequency spectrum used. GSM is an operating standard for cellular telephony and has gained acceptance particularly in Europe and Asia and is now being used for 130 lacs subscribers through 120 operators in 70 countries. The circle (operating area) is divided into cells which has a radio base station which is linked to mobile switch (an exchange for mobile phone calls). When a call is made, it is transmitted to the nearest radio base station. It travels via microwave or underground cable to mobile switch. This is directed by mobile switch to another radio base station or a public network (DOT) from where it is transmitted to the receiver. Mobile switch tracks position as mobile owner moves from one radio base station cell to another. A call out of cellular network has to pass through Public Switch Telephone network (PSTN) which is owned and managed by DOT.

BCL is using the well proven and accepted GSM technology in its system. BCL has entered into a supply contract with Ericsson Radio systems. BCL has also entered into an installation training and services contract with Ericsson Telephone Corporation of India an affiliate of Ericsson Sweden which has a preeminent reputation as a leading Global supplier GSM equipment. BCL also proposes to enter into a support services agreement with T &TC Wireless Services Inc (TWS) for need based technical or operational support on an ongoing

basis. However technological changes are fast and locking operational details for 10 -15 years may prove difficult. Also threat from substitute services like Voice over Internet Telephony is looming large.

9. Commercial Aspects

BCL has concluded the equipment supply and installation contracts for USD 76.8 million with Ericsson Radio Systems. Ericsson will be supplying equipment over a period of 3 years. BCL has received 3 mobile switching centres (MSC) and Base Station Controllers (BSC) for Pune, Gandhinagar and Goa. BCL has finalized the license agreement for billing and customer care system software from SEMA, UK. The fact that telecom services industry does not require any raw material in the traditional sense makes it high value addition and high profit industry once the capital costs are recovered.

According to DOT’s demand projection, the growth in telephone connections in Gujarat and Maharashtra will be highest. Handset prices are coming down and internationally cellular markets grow exponentially, once critical point is reached. Gujarat, Maharashtra and Goa are widely accepted as most industrialized states in India. The two circles represent 14% of India’s population. In particular, Goa, Maharashtra and Gujarat rank as second, fourth and fifth most wealthy states. BCL has arrived at cellular market potential from economic, demographic and demand data based on the following primary sources:

1. MARG and Monitors bottoms up analysis of potential commercial and individual subscribers involving a sample population.
2. A market study by Pro Data partners Ltd. Of UK was commissioned by BCL to evaluate cellular services market in Gujarat and Maharashtra.
3. Analysis of cellular penetration rates in other regions as well as international markets.
4. Telephone demand statistics from DOT regarding existing lines and demand for telephone services in cities in India.

Based on this BCL expected to capture 50% of the market share.

The penetration rates assumed by BCL, per hundred subscribers, assuming 50% of market share

	1996	1997	1998	1999	2000
Gujarat	0.01	0.08	0.15	0.22	0.31
Maharashtra	0.01	0.04	0.08	0.13	0.23
Ind. estimate by JP Morgan	0.04	0.08	0.12	0.18	0.24

Considering Gujarat and Maharashtra (excluding Mumbai) are two highest revenue earners for DOT with potential for growth above national average, the penetration rates by BCL can be considered as reasonable. INFAC (an independent agency) has projected cellular demand of 1, 50, 000 and 80, 000 in Gujarat and Maharashtra which is lower than the subscriber base assumed by BCL which have assumed 279, 645 and 264,965 respectively. INFAC’s assessment is based on number of cars while BCL’s assessment seems to be more detailed. As DOT had a policy of allowing maximum 2 players in each circle BCL’s competition is expected to be Fasel in Gujarat and TCL in Maharashtra.

10. Pricing

The airtime charges to be levied were Rs. 1.40 per 10 second usage. Cell phone operators were allowed to charge double this rate during peak hours, which was capped at Four Hours per day. BCL will charge access installation security deposit etc. Based on T& TC experience

bucket rates for corporate customers will be charged. BCL has developed a detailed marketing strategy based on experience gained by TWS which includes increasing consumer awareness, directing efforts to target markets of individual, business and government users, branding and customer price plans.

11. Government Regulations:

1. The Government decided to allot only two cellular licenses for each circle. The license have an initial ten year term and extendable by five years.
2. Performance bank guarantee of Rs. 20 crores per circle. Financial bank Guarantee of Rs. 50 crores per circle for the first year and an amount equal to license fee for the second year.
3. An escrow account where all operational revenues will be paid. DOT will have a lien of 30% subject to maximum of quarters levy plus any other amount due payable during following quarter.
4. The equity holding of the foreign partner should not fall below 10% for the first three years. The equity of the Indian promoter should not fall below 10% of the total equity of the company or the equity held at the time of bidding, during the first three years.
5. The penalty for delay in commencement of services shall be Rs. 5 lacs/week subject to a maximum of Rs. 1 crores. The license will be terminated if the delay is longer than 20 weeks.
6. DOT may terminate the agreement by giving notice of 30 days for failure to provide the service within the time specified or for failure to perform any other obligation including payment of license fee. DOT may revoke the license giving notice of 60 days if it deems such action is in public interest. However Government has announced formation of Telecom Regulatory Authority of India (TRAI for consumer protection.

12. Financial Details

1. For Maharashtra a total of Rs. 1658 crores is payable in ten installments (Rs. 151 crores in the first five years and Rs. 181 crores in subsequent years) For Gujarat circle a total of Rs. 7794 crores is payable in ten equal installments (Rs. 163 crores annually and Rs. 196 crores in subsequent years). (Please look at the cash losses in cost of project). Net funding requirements in the first four years were estimated to be Rs. 1802 crores to be funded by Debt Equity ratio 1.25: 1. Rupee component of loan sought was Rs. 525 crores. For balance international lenders were underwriting it.
2. The project feasibility report was prepared by Union Bank of Switzerland which is a reputed institution.
3. The company did not have loan facilities from any bank at that time (1996). As per requirements of DOT the company has furnished financial/performance guarantees as follows:

Bank	Rs. In crores		
	Financial Guarantee	Performance Guarantee	Total
Standard Chartered	50	20	70
BOA	35	10	45
Deutsche Bank	15	10	25
Total	100	40	140

4. The union budget in 1997 allowed 50% of the project cost to be funded through ECB's in telecom projects; the requirement for rupee term loan was reduced from Rs. 525 crores to Rs. 91.7 crores. Consequently two major foreign banks have underwritten the entire foreign currency loan and a substantial portion of Rupee term loan. Now the demand for rupee term loan was only Rs. 30.8 crores.

5. The project cost has been estimated on the basis of the net fund operations of the 4 years after which the project is expected to generate sufficient internal cash flows to meet the ongoing capital expenditure and license fees payments. The project costs include funding of capital expenditure for the first four years, funding of debt service reserve in the fourth year and escrow account reserve and funding of cash losses.

13.1 Cost of Project

	(Rs. In lacs)
1. Land and Building	2557
2. Plant and Machinery	66700
3. Provision for contingencies	4889
4. Pre Operative Expenses	42040
5. Prelim Expenses	1663
6. Working Capital Margin	1041
7. Escrow Account reserve	12150
8. Debt Service Reserve	11840
9. Net Cash Losses	36030
10. Total	178910

13.2 Means of Finance

	(Rs. In lacs)
1. Equity	81320
2. Rupee Term Loan	9170
3. Foreign Currency Loan	88420
4. Total	178910

Ericsson has provided BCL with a bridge loan of 85% of the first year equipment supplied for a six month period. Political Insurance guarantee from worth Rs. 2385 crores is raised from leading European Financial institutions.

6. DOT has not agreed for transferability /assigns ability of license on the grounds that it violates tender conditions, so license at the time of appraisal is not a lendable asset. License fee is through bidding and there were grossly different perceptions, so even if it is financial asset, future businesses that may accrue is debatable. However projected net cash generation need to meet the license fee component of the relevant year.

14. Financial Projections

The following details are given:

	Rs. In lacs				
	1997	1998	1999	2000	2001
Av. Subscribers	32600	97200	165235	242850	335861
Av. Revenue per subscriber / minute	10.66	10.65	12.06	12.06	12.06
Minutes of usage / subscriber	270	270	256	243	231
Revenue	13192	39067	73625	102852	135451
Total Op. Expenses	12210	16619	23691	32265	40963
Op. PBIT	982	22448	49664	70587	94488
Other Investment	0	534	1142	2063	2321
PAT	-12852	660	17669	28894	43222
PAT %		1.69	23.99	28.09	31.91

The following assumptions have been taken

- a) The subscriber base has been estimated by the company based on the projections made by Prodata Partners and its own internal study. The growth rates assumed are comparable to those in other countries. The growth rates assumed are 2.12 % pa for Gujarat and 2.57% pa for Maharashtra with a churn percentage of 15%.
- b) The revenue includes outbound calls, inbound calls, access revenue, features revenue and interconnect expenses. The average tariff amounts to Rs. 10.66 per minute with an increase of 12% every 3 years. The tariff in metros are lower than this, but the company is of the view that tariff in circles have to be higher than metros in view of the license fees paid. MOU has been estimated at 270 in base case. This appears slightly optimistic.

15. Key Ratios and Sensitivity Analysis

Project D/E: 1.25

TOL/TNW: 1.51

Gross Average DSCR: 3.36

Terms of Repayment: 9 years.

The project is sensitive to reduction in factors influencing revenues namely minutes of usage, subscriber base and tariffs. The impact is on the Project cost and also the debt service coverage ratio

	Minimum DSCR	Average DSCR	Increase in Project cost (Rs. Crores)
Decrease in revenue by 10%	1.44	2.42	164
Decrease in revenue by 20%	1.02	1.68	342
Decrease in revenue by 25%	0.82	1.42	425

Opinion Reports and Network Rollout

Opinion reports have been sought from Duff and Phelps and Dun and Bradstreet which are satisfactory. BCL has based its rollout plan with a focus on areas with large urban population, high population density, high level of industrial development, large potential of users of telecommunication services and having a strategic location near major road /railway thorough fares. BCL has acquired more than 73 base stations that are currently operational and has an additional 107 in various stages of completion.

Security Package

Company has proposed the following security package

- a) Assignment of license as and when permitted by DOT.
- b) Pledge of the shares by the sponsors
- c) A lien on all fixed assets and Project accounts
- d) Assignment of insurance policies
- e) Assignment of all material contracts

16. Terms and Conditions

1. The loans have to be repaid in 12 backended semi annual installments commencing from June 30, 2000
2. The interest rate will be BPLR+2.5%
3. BCL will maintain a DSRA funded with balance equal to all principal repayments under the facilities and accrued interest thereon which will be due and payable over the next 6 months.
4. The maximum funded D/E will be 1.25

5. DSCR will be tested periodically and will not be less than 1.1 in year 2000, 1.2 in 2001 and 2.0 in the successive years.
6. Debt to EBIDTA should not be greater than 6 in 200, 4.5 in 2001 and 3 in successive years.
7. Maximum Debt is limited to USD 350 million.

Minimum Airtime revenue test: Actual Airtime revenue for the most recently completed quarter times four will exceed the minimum required percentage of base projected. Airtime revenue for the preceding 12 months perusal to the following grid

September 30, 98	Rs. 153.7 crores
Dec, 1998	Rs 247.0 crores
March 99	Rs. 332.40 crores
June 99	Rs. 388.2 crores
Dec 1999	Rs. 499.9 crores

The appraisal note is being presented to Central Credit Committee of National Bank of India for approval in 1997.

Issues to be discussed

1. If you were to appraise this project, what would be the major aspects you would look into as a lender? Are you satisfied by the assumptions therein?
2. What, according to you would be the risks involved in financing this project? How do you think these risks can be mitigated?

Telecom Sector Financing in India Case Study of Bombay Communications Limited (BCL) (B)

1. The Credit committee approved the sanction. Three tranches of loan were syndicated –Rupee tranche (Rs 91.5 crores) Foreign Currency Loan (USD 173 million) and Political Insurance Loan worth USD 65 million.
2. Although till 1999, BCL has been meeting interest obligations, the project like other cellular projects is not doing well. Several studies undertaken particularly by a leading private sector bank have pointed out that with existing regulatory and license fee structure, the industry itself may not be viable. The generally high license fee committed by operations at the time of bidding of licenses and the rosy demand projections were based on the experience of other countries and have since failed to materialize.
3. License fee and demand projections made by BCL are highest as they had licenses for two of the most prosperous states of the country.
4. However, there is a wide gap between the business plan projections and actual achievements under most of the critical heads. At the end of financial year in 1999, Average subscribers, Minutes of Usage, Airtime Traffic/minute and total revenue recorded negative variances of 47%, 57% and 82% respectively. In place of net profit of Rs. 43.12crores at the end of Year 4, net losses of Rs. 333 crores has been incurred. Foreign currency loan which had a latter drawdown schedule than Rupee Term Loans have been put under a drawstop. Debt/equity stands at 0.84 against 1.20 projected.
5. The company's license fee arrears amounted to Rs. 370.44 crores. DOT had demanded 20% of license fee to be paid immediately. Instead of paying up the license fee BCL and a few other operators filed a suit against DOT, but the court decided in favor of DOT and the financial guarantee was encashed. All the cellular operators paid arrears to DOT.
6. However a new telecom policy envisages a fixed entry fee and a revenue sharing agreement
7. However one of the issues of immediate concern to the lenders has been the event of default arising from BCL's failure to attain the performance level under performance milestone based covenants like the MAR test. In it a shortfall of Rs. 166.79 crores in actual airtime revenue has been recorded. The company has now informed that the sponsors would not be able to cure this default leading to a doubt about the interest of the sponsors in the project.
8. For the last 8 months, BCL has been advising lenders that once the license fee imbroglio is amicable sorted out, the company will submit a revised business plan, which according to company official is now ready. To implement this, the company has now put forward a standstill agreement, whereby the lenders would agree to a standstill period, to begin with upto September 1999, during which lenders would not declare neither any amount

drawn under the loan as payable nor enforce the default rights. The borrower would make all scheduled interest and principal installment payments to the lender as a part of the bargain and would give them at the beginning and end of the standstill period a cash budget showing it has adequate cash commitments available to carry business. However license fee dues will not be included in the cash statement.

The National Bank of India's credit committee has called for a fresh meeting to take a view on the borrowers' proposal.