

Services

Introduction

The contribution of the Services sector to the GDP is not only the largest but also increasing. The Services sector meets the needs of both final consumption and intermediate consumption. Of these two categories, intermediate services, such as transport and communications that are used as inputs in the production of other goods and services, account for a major share. Technological advancements taking place in the field of information and communication technology have played a major role in accelerating the growth of services sector.

Performance of Services Sector in 2006-07

The services sector as a whole registered 10.5, 10.8 and 11.3 per cent

growth, respectively, in the first three quarters of 2006-07 over the corresponding quarters in 2005-06. As seen in the recent years, Trade, Hotel, Transport & Communications services registered the highest rates of growth among the three categories of services. This segment registered 13.1, 13.8, and 13 per cent growth in the first three-quarters of the year, YOY basis. The Financing, Insurance, Real Estate segment registered the second highest growth rate in the first three quarters of 2006-07, again YOY basis. It is the Community, Social & Personal Services segment that has registered relatively lower rates of growth among the three segments (Table S1). One notable feature of the growth pattern services sector has been its acceleration. As can be noticed from the 11th Five-Year Plan approach paper, in order to achieve 8.5

**Table S.1: Growth of Services Sector (YOY%):
GDP Factor Cost (Constant Prices) (per cent)**

Year	Trade, Hotel, Transport & Communication	Financing, Insurance, Real Estate	Community, Social & Personal Services	Total Services	GDP at Factor Cost
2001-02	9.2	7.3	3.9	7.1	5.8
2002-03	9.1	8.0	3.8	7.3	3.8
2003-04	12.0	4.5	5.4	8.2	8.5
2004-05	10.6	9.2	9.2	9.9	7.5
2005-06	11.5	9.7	7.8	10.0	8.4
2006-07 (Q1)	13.1	9.0	7.4	10.5	8.9
2006-07 (Q2)	13.8	9.5	6.9	10.8	9.2
2006-07 (Q3)	13.0	11.6	7.5	11.3	8.6

Source: Central Statistical Organisation

Table S.2: Composition of Services Sector and its Share in GDP
(per cent)

Year	Trade, Hotel, Transport & Communication in Services GDP	Financing, Insurance, Real Estate in Services GDP	Community, Social & Personal Services in Services GDP	Share of Service in GDP
2001-02	45	26	29	50
2002-03	46	26	28	52
2003-04	48	25	27	52
2004-05	48	25	27	53
2005-06	49	25	26	54
2006-07(Q1)	49	26	25	54
2006-07(Q2)	48	26	26	57
2006-07(Q3)	50	25	25	53

Source: Central Statistical Organisation

percent of overall growth in GDP, the services sector should clock a growth rate of 9.4 per cent. Thus, as of now, services sector is performing at a pace that can deliver the overall growth objective. However, the issue

is sustaining this trend in the 11th Plan period.

Within the services sector, the share of Trade, Hotel, Transport & Communications segment has become 50 per-

Table S.3: Growth of Performance Indicators for Services

Indicator	Period	2006-07	2005-06
Tourist Arrivals (numbers)	January -February	9,77,031	8,73,078
Railways Freight (million tonnes)	January	65.74	53.37
Cargo Handled at Major Ports ('000 tonnes)	January	42,183	37,245
Production of Commercial Vehicles (numbers)	January	51,872	36,975
Telephone Connections (millions)	February	202.92	134.34
Broadband Connections (millions)	February	2.21	1.0
Aggregate Deposits (Rs. Crores)	January -February	48,71,856	39,35,606
Bank Credit to Commercial Sector (Rs. Crores)	January -February	39,73,250	31,38,324

Source: NCAER Database on the Economy

cent in the third quarter of the year. The other two segments contribute 25 percent each. The telecommunications sector is growing at unprecedented rates leading to the rise in its share in total services (Table S2).

Services Sector in the Fourth Quarter (January-March) of 2006-07

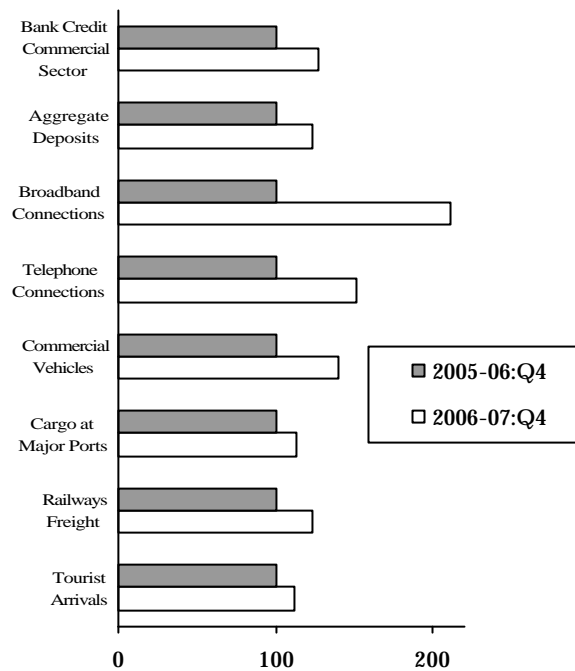
Information on performance of different constituents of services sector during the last quarter of year 2006-07 is given in Table S3. The latest available information relates to the months of January and February. Information on railway freight, cargo handled at ports, commercial vehicle production is relates to the moth of January.

Among all the sectors, the broadband connections have more than doubled between February 2007 and February 2006. Growth in the number of telephone subscribers experienced 51 percent hike during the same period. Production of commercial vehicles was 40 percent higher in January 2007 over January 2006. Bank credit to the commercial sector and growth in bank deposits have increased by about 27 percent and 24 percent respectively. Railway freight was higher by 23 percent in January 2007 as compared to January 2006. Number of tourists arriving during January-February 2007 increased by about 12 percent, the lowest growth among all the indicators we have considered. Thus, the growth momentum in service sector, especially in the information and communications sector is continuing (Figure S1).

Approach to Services Sector Development in the 11th Five Year Plan

The Approach Paper emphasized the need for improving the manner in which government programmes are implemented and the way the government inter-

Fig S.1: Growth of Performance Indicators for Services (% change, Y-o-Y)



acts with the ordinary citizen. Similarly, designing more suitable schemes and reducing corruption and increasing speed and affordability of justice are seen as important means of reducing various divides in the Country. As for the disparities and divides afflicting the Country, the Approach paper highlighted the divide between the rich and the poor, and the divide between those who have access to essential services and those who do not. The second divide is the primary concern as it helps in eradicating the first one effectively. Infrastructure development has been projected as one of the solutions for bridging the divides in the country. The annual GDP growth target of the 11th plan is at 8.5 percent. The approach paper estimated that the primary, secondary and tertiary sectors need to grow at 3.9 percent, 9.9 percent and 9.4 percent respectively per annum in order to achieve 8.5 percent overall growth rate.

There are estimates that there is a potential for creating 40 million new jobs and \$ 200 billion additional annual income by year 2020 in the services sector. Maintaining the labour cost advantage combined with increased share of working age population would propel growth in services sector. As regards individual constituents of the services sector, the approach paper projects the following.

(a) Professional Services: Technological developments that took place in information and communications have greatly facilitated growth in professional services. Important of these are IT services, business process outsourcing, health services, financial, legal and education services. The approach paper attributed the success of these services in India to its talent pool, to its geographical location that provides round the clock working day to American professionals, and growth in telecommunications. The paper stated that 90 percent of the global market potential, estimated about \$300 billion, is yet to be exploited in this segment. For exploiting this potential, it was suggested that India should work closely with WTO to assure access to overseas outsourcing and build quality IT workforce. Particularly, it was stated that standards in education should not be allowed to slacken.

(b) Construction, Housing and Real Estate: This segment employs over 30 million people and has the potential for creating further employment. However, realisation of this potential requires huge investments. Therefore, foreign direct investment in real-estate sector needs to be allowed.

(c) Tourism: The tourism services, direct-

ly and indirectly, accounted for about 6 percent of GDP and over 8 percent of total employment in the Country in 2002-03. There is a potential to generate 27 million new jobs in tourism sector during the 11th Plan period. Realisation of this potential however depends on creation of adequate tourism infrastructure like modernization and expansion of airports, increase in accommodation facilities and improved road connectivity to tourist destinations.

(d) Retail Trade and Organised Retail: The approach paper notes that only 3 percent of the Indian retail market is organised. Organised retailing by setting up supply chains can give better prices to farmers and facilitate growth of agro-processing industries. New technologies can be introduced in agriculture, which in turn can lead to increased productivity and reduced consumer prices. The important issue, in this regard, is the need for a policy consensus on allowing foreign investment to play a larger role in retailing.

(e) Entertainment and Media Services: The 11th Plan expects that entertainment and media services industry to grow at a compound annual growth rate of 19% till 2010 and beyond during the 11th Plan period. Demand for this sector grows faster than income. Moreover, convergence of all forms of media to a common digital form, provides scope for higher growth.

Infrastructure Development Strategies

The 11th Plan reiterates that infrastructure inadequacies are a major factor constraining India's growth. Infrastructure is defined to include road, rail, air and water transport, power generation,

transmission and distribution telecommunication, water supply, irrigation and storage. The 11th plan suggests that investment in infrastructure will need to increase from existing 4.6% of GDP to between 7 and 8% in the 11th Plan period. The required resources need to be generated through private-public partnership (PPP). In this context the Approach Paper notes that an environment needs to be created where PPPs are seen to be a way of attracting private funds into infrastructure projects. The Approach Paper indicates following strategies as regards development of individual infrastructure sectors.

Roads

The extended NHDP programme would be taken up for highway development exclusively on BOT basis. A total investment of Rs.2,20,000 crore is expected to take place. The agenda includes, establishing a network of access controlled expressways across the country for which advance planning would be undertaken during the 11th Plan. Further, priority for ensuring integrated development of road networks, while emphasis on rural roads programme continues.

Railways

The policy agenda for the 11th Plan includes, augmenting capacities to move containers from ports in order to avoid their pile up at ports. Allowing container movement by competing public and private entities, establishment of logistic parks and terminals has been placed on agenda. Further rationalisation of freight structures and increased use of IT-enabled services have also been proposed. PPPs for building and operation of rail infrastructure have been proposed. Modernisation of railways at increased speed is identified as a priority in the 11th Plan. Re-organising the structure

and activities of railways, by corporatising manufacturing and maintenance of rolling stock and leaving the core activities of provision of infrastructure and operation with railways is envisaged during 11th Plan period.

Ports

The 11th Plan would see development in ports and related infrastructure in order to improve their productivity to international standards. Further, the 11th Plan estimates that the Indian Ports will have to handle cargo traffic of about 800 MT by 2012 as compared to 520 MT handled in 2004-05. Therefore, substantial capacity augmentation at major and minor ports is required. During the 11th Plan period, it is proposed to develop a deep-sea port and deepening the drafts of existing ports through capital dredging. Developments are to take place through public private partnerships and captive user participation. Apart from port development, railroad connectivity of ports with the hinterlands would be improved on priority basis.

Airports

During the 11th Plan period, Chennai and Kolkata airports will be developed on the lines of Delhi and Mumbai airports. Greenfield airports similar to the ones coming at Bangalore and Hyderabad would be developed in other selected cities. Besides, Airport Authority of India making use of both in-house capacity and public private partnership would develop 35 non-metro airports.

Electric Power

The approach paper estimated that there is a need for generation of additional 60,000MW of power in the 11th plan period for addressing power shortage and increasing its access. It is stressed that addi-

tional power generating capacity must be done in least cost manner by exploiting hydro and nuclear potentials.

As regards distribution of power, it was emphasized that aggregate technical and commercial (AT&C) losses should be brought down to 15 percent from the existing level of about 40 percent during 11th plan period. It was opined that this would be possible if managements of state electricity boards are professionalised and its operations are de-politicized.

Urban Infrastructure

The mission mode Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched on 3rd December, 2005 for a seven year period beginning 2005-06. The 11th plan is covered under JNURM. The mission envisages providing focussed attention to integrated development of infrastructural services in 63 selected cities. The integration takes place in the form of integrating asset creation and asset management. In addition, ensuring adequate investment of funds to fulfill deficiencies, and scaling up delivery of civic amenities in order to universalize their access in urban areas are the other missions discussed under JNURM.

Telecom and Connectivity

The 11th Plan approach paper envisages that besides providing voice communication there is a need to provide internet connectivity in rural areas. It was mentioned that affordability has improved data access in urban areas. However, it is still low and in rural areas. Therefore, there is a need for making policy intervention in order to provide converged services in rural areas.

(Source: Government of India (2006) Towards Faster and More Inclusive Growth:

Taking Mobile Telecom Services to Rural Areas in India

As noted earlier, among all the infrastructure sectors telecommunication services have been recording the highest growth rates. However, growth in telecommunications sector has mainly been contributed by mobile communication services in urban areas. There exists a huge divide in accessing telecom services between rural and urban areas. In order to bridge this gap, the Government has announced a policy intervention in the form of extending the support from Universal Service Fund to mobile telecom services.

The telecommunication services play a crucial role in the development and growth of rural areas. In India, the Tenth Plan period (2002-2007) recorded impressive overall growth in telecom sector. This was mainly propelled by the mobile communications. At present, on average, for every hundred people there are about fifty telephones in urban areas as compared to less than two in rural areas. Bridging this wide gap in telephone penetration between urban and rural areas has become a critical factor in rural development. Providing cellular mobile telecom services has emerged as the policy instrument for addressing this issue.

The New Telecom Policy'99 envisaged provision of access to basic telecom services at affordable and reasonable prices in rural and remote areas. The Universal Service Obligation Fund (USOF) has come into force from 1st April 2002. The USOF has been financially supporting both public and individual access of basic telephone services in rural areas. However, in order to address the issue of in-equal access existing between urban and rural areas the scope of USOF is extended to cover mobile services as well.

To this effect, the Indian Telegraph (Amendment) Rules, 2006 were promulgated on 17-11-2007. This Amendment allows for USO support for creation of backbone infrastructure required for provision of mobile services in rural areas.

The Program

The program initiated by USOF consists of two parts. Part-A relates to setting up of infrastructure sites that can be shared by three mobile service providers. Infrastructure cost that will be supported by USOF includes the cost of (a) land, (b) tower, (c) electrical connection, (d) power back up, (e) boundary wall and (f) security cabin. The infrastructure sites set up with USOF support shall be used by the three mobile service providers.

Part-B of the program is about provision of mobile services by installing necessary cellular infrastructure. The USO support will cover the cost of (a) BTS equipment, (b) associated antennas, and (c) backhaul. This infrastructure is non-shareable unlike that created under Pat-A. The infrastructure created will be used primarily for voice telephony. It can also be used for providing broadband services.

Implementation of both Part-A and Part-B is restricted only to those rural and remote areas that are yet to get wireless (fixed or mobile) services. Participation in Part-A of the scheme is open to Category-I Infrastructure Providers (IP-I) and existing basic, cellular and unified access services licensees. However, Part-B is not open to infrastructure providers. Support from the USOF is one time subsidy, which is meant for recovering capital.

The USO Support

The number of sites and their locations are determined by plotting the information on existing towers on a GIS map.

Districts of a service area that have rural areas with no existing fixed wireless or mobile coverage are clustered together. Across the country 81 clusters are identified. Bids are invited for a cluster. Support from USOF is decided based on the bidding process.

Following assumptions were made for identifying the locations of the proposed towers.

a. Uncovered areas were identified basing on coverage attained till 31-3-2006 by GSM and CDMA players. The radius of coverage of GSM and CDMA towers was considered as 5 kms and 10 kms respectively.

b. Village or a cluster of villages with a minimum of 400 households, as per 2001 Census, was considered for provision of towers. In case a Block Head Quarter was uncovered, it will get a tower.

Table S3 contains state-wise number of clusters and sites/towers identified for support under this program. Maharashtra and Madhya Pradesh States respectively have got highest and second highest number of sites. On the other side, lowest number of sites was identified in the states of Sikkim, Punjab and Haryana. Altogether, the 81 clusters contained 7871 sites.

By going into other relevant details, subsidy support for Part-A is contingent on identifying at least one successful bidder for Part-B of the Scheme. The support under Part-B will be given to three lowest bidders if there is a successful bidder for Part-A of the Scheme. The subsidy will be given for a period of five years. It can be further extended on the discretion of the USO Fund. During the subsidy period, the infrastructure provider cannot permit any other access provider barring the three identified by the

Table S.4: Bid Clusters of Districts and Service Areas

Service Area	Cluster Nos.	No. of Infrastructure Sites/Towers
A.P.	1 to 6	581
Arunachal Pradesh	7	62
Assam	8	90
Bihar	9-13	489
Chhattisgarh	14-18	560
Gujarat	19	66
Haryana	20	14
Himachal Pradesh	21-23	295
Jammu & Kashmir	24-25	178
Jharkhand	26-28	305
Karnataka	29-32	427
Kerala	33	46
Madhya Pradesh	34-43	985
Maharashtra	44-52	1017
Manipur	53	95
Meghalaya	54	102
Mizoram	55	71
Nagaland	56	56
Orissa	57-60	432
Punjab	61	13
Rajasthan	62-65	411
Sikkim	66	8
Tamilnadu	67-70	371
Tripura	71	147
Uttaranchal	72-73	217
Uttar Pradesh (E)	74-77	505
Uttar Pradesh (W)	78-79	161
West Bengal Total	80-81	167
Grand Total	81	7871

Source: USO Fund (2007)

USO Fund, to share the infrastructure. The infrastructure created under Part-A of the Scheme shall be owned by the IPs. So, after the subsidy period, the responsibility of maintaining it lies with the IP. Similarly, continuation of mobile services after the subsidy period lies on the operator.

The bid document of the scheme stated that only new equipment and material should be used for Part-A of the Scheme. An agreement between infrastructure provider and service providers was required during the subsidy period. The service providers are not required to pay any rental for using the infra-

structure during the subsidy period. However, the three service providers need to share the operational expenses of sites.

The height of the tower shall be 40 meters and will be suitable to mount antennae of three service providers. The BTSs shall be based on either GSM or CDMA Technologies. There has not been any restriction on the backhaul technology. The equipment to be installed shall have adequate radio frequency (RF) filtering. RF filtering avoids channel interference. The bidders are advised to avoid duplication of infrastructure sites/ towers.

The Bidding Process

A 'multi-layered informed descending bidding process' has been formulated for deciding the amount of subsidy and also to identify the successful bidders. The financial bids are for subsidy per site/tower in a cluster.

After the pre-qualification round, the bidders must quote a subsidy amount less than or equal to the specified benchmark for the equal annual subsidy. If there is N number of pre-qualified bidders for a cluster, where N is more than 6, lowest N/2 bidders will qualify for the second round of financial bidding, if N is an even number. In case N is an odd number, the lowest (N+1)/2 bidders will qualify for the second round of financial bidding. The higher bidders will be dropped.

On the other hand, if the number of pre-qualified bidders are less than or equal to six, maximum four will qualify for second round of financial bidding. If there are only two, three or four bidders with a valid bid, then all the bidders will qualify for second round of financial bidding. If there is only one bidder with a valid bid, then that bidder will be declared as the successful bidder and there shall be no further round of bidding.

The least quoted bid amount by a bidder from amongst the bidders who qualify for the second round of bidding shall be the 'reserve price' for the second round. The financial bids submitted for the second round should be either equal to or lower than the reserve price. The lowest valid bid out of the short listed bids for second round for a cluster shall become the representative rate for an Infrastructure Site.

Roll-out Obligations and Quality of Services

As for the telecom services to be provided, it was stated that quality parameters for mobile telecommunica-

tion services prescribed by TRAI shall be fulfilled. The service providers will keep a record of rural connections provided from the BTS installed under the scheme. They shall also maintain faults and rectification reports of the BTS, Backhaul, Antenna, Battery, Power Plant and other related details in respect of the service rendered which will be produced before the Administrator or TRAI as and when and in whatever form desired. There should also be compliant addressing mechanism. Liquidated damages are to be imposed on service providers that do not maintain stipulated quality of service. The service provider was required to submit monthly report on the number of connections that have actually been provided.

The successful Infrastructure provider for Part-A shall have to commission half of the infrastructure sites within eight months period of the signing of the Agreement. The remaining fifty percent of infrastructure sites need to be installed within next four months period. Following this, the service providers should provide mobile services within two months of the commissioning of the infrastructure site.

Results of Bidding

The results of financial bids for subsidy for Part-A and Part-B of the scheme are shown in Tables 2 and 3. It can be noticed from Table 2 that financial subsidies for all but one cluster under Part-A of the scheme were finalised in the Second Round. The finalised subsidy per site was just 29 percent of the benchmark.

As regards the Part-B of the scheme, financial support for eleven percent of sites was decided in the first round. It was 31 percent less than the benchmark. The second round saw financial subsidies being finalised about 16 percent of sites with the average amount

of subsidy required is Rs.-6172. It means that service providers not only did not require any subsidy from the Government but also have agreed to pay on average Rs. 6172 per site per year to the Government. The further interesting fact is that about three fourths of the sites required more rounds for finalising. The average reserve price per site for round three is set as Rs.-3838.

These results primarily reveal that

Part-A of the program i.e., creating infrastructure that include land, electricity supply and backups, and building forty meter iron structures, are perceived as more difficult than creating telecom infrastructure. Therefore, the difficulties associated with creating supporting infrastructure are mainly holding telecom operators back from providing mobile telecom services in rural areas.

Table S.5: Results of Financial Bids for Part A

	No. of clusters finalised	No. of sites	% share in total sites	Weighted Average Benchmark per site (Rs.)	Reserve Price per site (Rs.)	Aggregate Bid per site (Rs.)	% fall from Benchmark
I Round	0	0	0	-	-	-	-
II Round	80	7781	99	410054	189955	119098	71 (37from Resv. price)
III Round	1	90	1	441777	265066	To be finalised	-
Total	81	7871	100				

Table S.6: Results of Financial Bids for Part B

	No. of clusters finalised	No. of sites	% share in total sites	Weighted Average Benchmark per site (Rs.)	Reserve Price per site (Rs.)	Aggregate Bid per site (Rs.)	% fall from benchmark
I Round	10	908	11	267733	-	83204	69
II Round	14	1236	16	215815	0	-6172	103
III Round	57	5727	73	184112	-3838	Yet to take place	102*
Total	81	7871	100				

Note: * fall in reserve price for III round as compared to benchmark