Chapter VII

MAHARASHTRA STATE ROAD TRANSPORT CORPORATION

AN ANALYSIS OF ITS ORGANISATION STRUCTURE

AND PERFORMANCE DURING THE DECADE 1970-80
Chapter VII

MAHARASHTRA STATE ROAD TRANSPORT CORPORATION
AN ANALYSIS OF ITS ORGANISATION STRUCTURE
AND PERFORMANCE DURING THE DECADE 1970-80

The Maharashtra State Road Transport Corporation (MSRTC) is today the biggest State Transport Undertaking in India. With a fleet strength of 9,370 buses, it owns 14.32 per cent of the total nationalised fleet in the country. MSRTC also happens to be the first Road Transport Corporation in the country. The present Road Transport Corporations Act was itself brought in to justify and give a new lease of life to the Bombay State Road Transport Corporation. Indeed, the history of Road Transport Corporations in India began with the philosophy of road transport nationalisation evolved in the erstwhile Bombay Province.

As mentioned in Chapter II, immediately after the enactment of the Motor Vehicles Act in 1939, there were several attempts to unify the road transport industry. The Provincial Government of Bombay also set up zonal tri-partite companies, in which the State Government, the Railways, and the private operators, were to participate. However, the interim Government of 1946 realised that the objective of reorganising the road transport industry as an instrument of effective public service could not be achieved by the
tri-partite companies mainly because of the dominant profit motive. The provincial Government therefore took the historic decision to completely nationalise transport services in the State. The State Transport Department formally came into existence in April 1948.

The Report on the Administration of the Bombay State Transport (1.4.1948 to 31.3.1952) records that, "The prominent feature of the scheme was that it would weld all transport services operating in the entire State into one single operating unit which would achieve uniformity in policy and administration and a progressively higher standard of efficiency in the true sense of the word. It was, therefore, decided that Government should itself step into the road transport and make it a public-owned business in order to ensure that the services were run in the public interest and that profits accruing from the operation were ploughed back into the road transport services."

The main reason which influenced the State Government in taking this step was to coordinate the then prevalent road transport systems (both passenger and goods), with rail and water transport. The small transport operators were not able to do this on account of the limited scope of their resources. The coordination with various modes of transport was to eliminate uneconomic competition and overlapping services as well as to bring about an integrated system of
transport, with each mode supplementing the other.

The State Transport Department faced considerable difficulty in orienting itself to the commercial nature of the task entrusted by it. A high power committee was set up to help the Department in matters relating to the purchase of vehicles, operations, recruitment of staff and valuation of the assets taken over from the private operators.

The Provincial Government, meanwhile, felt that a nationalised public service organisation of this nature cannot be handled by a department and that there was need to create a statutory public body with a considerable degree of autonomy and powers vested in it. The Bombay State Road Transport Corporation was, therefore, set up by the Government in exercise of the powers conferred by the Road Transport Corporations Act (1948), and the Corporation formally came into existence on 17th November 1949.

The Corporation originally consisted of nine members, of whom five (including the Chairman) were non-officials and the others (including the Vice-Chairman) were officials. The Corporation also set up various sub-committees to help consolidate the working and to enable smooth running of operations.

The Bombay State Road Transport Corporation (BSRTC) received a jolt in the shape of a High Court decision
declaring the Road Transport Corporations Act (1848) ultra vires, as the provisions amounted to delegated legislation. The Court declared BSRTC as never to have existed. The Road Transport Corporations Act of 1950 was hurriedly enacted to give life to BSRTC and to correct the lacunae pointed out by the High Court judgment.

Beginning with 36 vehicles in Poona division in June 1948, the Corporation grew into 11 divisions operating 1946 vehicles by March 1952. With the 1956 reorganisation of States on linguistic basis, the divisions of Belgaum, Hubli and Bijapur were transferred to Mysore State and the 'Abu pocket' to Rajasthan. This reduced the field of activity of the Bombay State Road Transport Corporation from 16 divisions to 13 divisions and sub-divisions. The Government of Bombay, however, took over the operations of the Sourashtra State Road Transport Corporation, Kutch State Road Transport Corporation and the Provincial Transport services (Nagpur), and the State Transport, Marathwada, came as a truncated part of the Road Transport Department of the Government of Hyderabad.3

The Transferred Road Transport Undertakings department

The Government of Bombay, as a consequence of taking over operations of several smaller road transport corporations, appointed a Motor Transport Controller to direct and
coordinate the working of these Corporations. The Motor Transport Controller was also the head of the Transferred Road Transport Undertakings Department (TRTUD).

Since the transferred transport organisations in Marathwada was only a part of the erstwhile Nizam state Railway and Road Transport department, and the Provincial Transport Service, Nagpur, (under the ownership of Government), was also a Government department, which functioned under a board of directors, it was necessary that an authority be established on behalf of the Government to take quick decisions on all matters pertaining to the management and operation of those undertakings and to make purchases of vehicles, machinery, etc. The Government, accordingly, under its Home Department resolution dated 3rd May 1957 constituted a high-power committee of officers for this purpose. The high-power committee so created had as its chairman, the Motor Transport Controller, State of Bombay, and had as its members: (a) the Joint Secretary, Government of Bombay, Finance Department, (b) the Deputy Secretary, Government of Bombay, Home Department, and (c) a representative of the Central Railway.

During the life of the TRTUD, action was taken to bring about uniformity in fares, in the rates of hire charges for buses on contract, in the construction of bus bodies, and
in the method of operations. The parcel traffic scheme was also introduced in Marathwada and Vidarbha. In the Marathwada area, the procedures of the gizam state Road Transport were in vogue, and therefore, action was taken to bring its entire working on a par with the Bombay State Road Transport Corporation as far as was possible.

Consequent upon the bifurcation of the then Bombay State with effect from 1st May 1960, the Bombay Reorganisation Act 1960, made provisions for the corresponding bifurcation of the Bombay State Road Transport Corporation between the two States of Maharashtra and Gujarat. However, at that time, the jurisdiction of BSRTC did not include the areas served by the TR(TUD). After bifurcation and the approval of the central government, a notification was issued in June 1961, formally merging in the MSRTC, the State Transport (Marathwada) and the Provincial Transport services (Nagpur), with effect from 1st July 1961. The jurisdiction of MSRTC covered the entire State of Maharashtra.

After these adjustments, when it fully came into its own, the MSRTC had a fleet of 3,603 buses operated by 10 divisions. By 1971, i.e., after ten years, the fleet of 6,884 buses operated by 18 divisions.
Organisation Structure

The BSRTC had a very simple organisation structure in December 1949. The Vice-Chairman and Motor Transport Controller, as the chief executive was then called, had nine officers directly working under him. They were: the central works manager, controller of stores, chief accounts officer, deputy general manager (administration), chief statistician, secretary, deputy general manager, chief mechanical engineer, and superintending engineer.

From the beginning, operations were carried out by depots. A division consisted of five depots and the control of depots was vested in the divisional controller. The divisional controller was given staff assistance of assistant traffic manager, works manager, assistant worksmanager, assistant accounts officer (audit), divisional accounts officer, divisional statistician and stores superintendent. The divisional controller was directly reporting to the chief executive.

But, "although officers and heads of sections of a division were under the divisional controller, technical control was exercised by the respective departmental heads from the Central Office."5

The Corporation basically functioned under a 3-tier
system. The first tier consisted of the central Office, the Central Workshop and the Central stores. The second tier was the division, which had a divisional workshop and divisional stores. The third tier was the depot.

The Central Office was to lay down policy so far as all concerned the constituent units were concerned, and to issue directives and instructions for implementation of the policies. The Central Stores was responsible for the purchase and distribution of stores for all the units. The Central Workshops at Dapodi (Poona) was functioning to meet the needs of the organisation in respect of body-building, reconditioning of assemblies and tyre retreading.

The work of reconditioning of vehicles, which was hitherto undertaken at the Central workshops, Dapodi, was decentralised so that the bulk of it could be carried out in the divisions. Similarly, in the matter of reconditioning of vehicles, the work at the Central workshops was being transferred to five other reconditioning centres established in the divisions. The allocation of vehicles and engines for reconditioning, depending upon the nature of the work to be done, was entrusted to the Central Workshops, Dapodi, only where the work required special machinery or was complicated. The tyre retreading work, which was so far being done only at the Central Workshops, Dapodi, was also decentralised and two more tyre retreading units were established.
The divisional office was meant for coordination between the various depots within the division and for controlling the operations of the depots. The divisional workshop was meant for the work of major docking, the R.T.O. passing, carrying out of running and heavy repairs, including reconditioning of vehicles and such other assemblies as may be necessary.

The depot was recognised as the main operating unit of the transport services. In a depot, daily and weekly maintenance and periodical dockings were attended to and minor repairs were also carried out. The work in the depot was controlled by a depot manager, with the assistance, in bigger depots, of an assistant traffic superintendent and an assistant works superintendent or mechanical engineering assistant in carrying out the various functions assigned to the depot. In smaller depots, such assistance was provided by either a mechanical engineering assistant or a traffic assistant, depending upon the requirements.

Analysis of the initial organisation structure

It is interesting to note that the organisation structure of MSRTC has evolved over a period of time and there was no deliberate attempt to drastically change it, as in the case of APSRTC. The Central Office, the division and the depot came into focus right from the beginning. This
three-tier system has also been followed in respect of workshop and stores, each tier having its own unit workshop and stores.

All the three levels were integrating units. The depot manager had the repair workshop and was placed in charge of operations. The divisional controller had a divisional workshop under him. He further had staff assistance in all the five functional areas. The Central Workshop and Central Stores were controlled from the Central Office.

The Corporation considered division as an accounting unit and therefore the depot manager’s functions were limited to maintaining the vehicles and sending the buses as per schedules drawn and approved by the divisional office. The depot manager had no powers of operating a bank account and directly draw the payments required to be made at the depot level. Therefore, both in the matter of bus scheduling and crew scheduling as well as in financial matters, the role of the depot manager was merely reduced to that of a supervisor. These powers were centralised at the division, where functional assistance was provided in the shape of workshop, stores, accounts and a traffic planning unit (headed by a divisional traffic officer). The entire personnel function was also directly looked after by the divisional office.
The division was in effect the operating unit of the Corporation, and the depots were mere branches or extensions of the division. The divisional controller, reporting to the chief executive directly, drew functional assistance from the heads of departments at the central office, and such help as he needed for operations from the Central Workshop and Central Stores. As a middle link in the 3-tier system, the divisional workshop drew vehicles from depots for major repairs and work connected with the issue of fitness certificates, by the road transport authorities.

In this 3-tier system, authority/responsibility framework has been well-laid down, except that the depot is weakened by centralisation of operational decision-making at the divisional level. Such centralisation may not allow operational response to changes in the operational environment quickly. However, the division became a compact unit and the central office was also able to control the divisions with ease. A simplified organisation structure of MSRTC may be seen at Chart 7.1.

Insipite of the weak depot structure, the Corporation was able to do very well in growth due to a very strong divisional structure, backed up by the Central Workshop and Central Stores. From a fleet strength of 2,602 in the year 1961-62, the Corporation grew into a fleet strength of 6,086
in 1970-71, an increase of 233 per cent. The pace of growth had slowed down in the next six years. This was due to the fact that major nationalisation, and taking over and consolidation of operations in the regions that got merged with the State, having been completed, the later years were only to take care of the normal growth and augmentation of existing services. From 6,086 buses in 1970-71, the Corporation’s fleet increased to 7,600 buses by 1975-76. This was indeed an impressive growth after the process of consolidation and stabilisation of operations.

By the year 1975-76, the strength of divisions increased to twenty-four. For the central office, it posed several problems for controlling directly all the twenty-four divisions. There was still only one major workshop at Napodi to cater to the entire state and the two regional workshops planned at Aurangabad and Nagpur were yet to come fully on their own. Bombay being almost at a corner of the State, the geographical distances were preventing quick contacts and causing delay in implementing decisions. It was at this juncture, a planned reorganisation was thought of. Till then the organisation grew, the structure being slightly adjusted whenever the need arose. The strong divisional set up was able to carry on well, till the divisions themselves proliferated and offered an unduly wide span of control for the general manager to oversee the performance effectively.
Pardassemi Committee Report of 1973

In February 1973, MSRTC constituted an 'Administrative Set-up Committee' consisting of five members headed by Shri M.S. Pardassemi. The terms of reference of the Committee were: "(a) In the light of existing organisation structure and expanding operations of the s.T. to examine whether to decentralisation of day to day functions is appropriate regional set up would be desirable, and, if so, to indicate the role and duties of such authorities so, however, as to maintain proper line and staff functional coordination and achieve optimum efficiency; and (b) to advise on other related matters if any needed to establish a system of management by objectives for the various staff levels."

After an exhaustive study, the Committee recommended a regional set-up envisaging substantial transfer of authority from the central office, so that the latter will deal only with certain essential functions relating to formulation of policies, general supervision, control of administration and dealings with Government and outside bodies. At the depot level, the Committee recommended that the depot should become a unit of accounting, and function as autonomously as possible. The Committee envisaged upgrading the post of depot managers and giving them the assistance of a joint depot manager. This meant transfer of authority from the divisional level to the depot level.
The divisional controller, according to the recommendations of the Committee, was to help, guide and motivate the depot managers to gear up their performance, and coordinate the functioning of depots as well as to control the activities of the various operating units so that passenger services in the division are developed properly.

The Committee suggested creation of the posts of Area Deputy General Managers. According to the Report, the allocation of work of the Area Deputy General Managers should be such that while they have supervisory responsibility for results and the authority to deal with all matters arising within 'the area of their region', there should be sufficient flexibility to ensure that certain types of cases are considered jointly by them, and only matters considered important either by the general manager or by the area deputy general managers should be put up to the general manager. The Committee, however, envisaged that the Area Deputy General Managers should function from the headquarters, though they were to be responsible for a particular area of operations in the State.

Although a major reorganisation took place in 1976, the Pardasani Committee Report was mainly ignored. The Committee recommended, and rightly, the strengthening of the depot, even if it meant posting a senior officer and delegation of greater authority and transfer of some
functions from divisions to depots. Since the depot is the real operating unit, the recommendations of the Committee merited consideration. However, it is difficult to agree with the Committee when it suggested that the Area Deputy General Managers should function from the headquarters. As will be seen from the 1976 Reorganisation, the entire State was divided into four regions and Regional Managers were posted at the regional headquarters. The only idea that was taken from the Report of the pardasani Committee in the 1976 Reorganisation was the creation of a line position with regional responsibility; the rest of the report was not considered. The suggestion of making the Area Deputy General Managers jointly responsible for the functioning of the organisation, under the guidance of the General Manager, has perhaps been rightly ignored as this would have diluted responsibility and created a potential for conflict.

The 1976 Reorganisation

In its Resolution No. 8467 dated 31st May 1976, the Corporation "decided that, as envisaged by the Government, the regional set-up should start functioning in all the four regions by 15th June 1976." Regional offices were located at Bombay, Poona, Aurangabad and Nagpur, to coincide with the jurisdictions of the revenue divisions. The Bombay region has six divisions (Thana, Kolaba, Ratnagiri, Nasik, Dhule and Jalgaon); Poona region, six divisions (Poona
Satara, Sangli, Kolhapur, Ahmednagar and Sholapur); Aurangabad region, five divisions (Aurangabad, Nanded, Beed, Parbhani and Osmanabad); and Nagpur region, seven divisions (Nagpur, Yavatmal, Amaravati, Chandrapur, Bhandara, Akola and Buldhana).

The Corporation Resolution stated that, "Each Region will have at its head a regional manager, and within the ambit of the functions allotted to the regional office, the regional manager will function as the chief executive officer to the same extent as the general manager does for the Corporation as a whole. It will be his responsibility to ensure effective implementation at his level and at all lower levels so as to fulfill the targets of physical and financial performance." The Regional Manager, according to the Resolution, should evolve a proper system of delegation, communication and supervision so that "neither decision-making is over-centralised at the regional level nor is its implementation allowed to suffer through lack of supervision and timely intervention." Subject to budget allocations and within the policies, rules and procedures laid down at the corporate level, the regional manager was "expected to exercise all powers at present exercised by the general manager, as may be necessary for the effective discharge of any of the duties assigned to him." This, according to the Resolution, was to specially apply to the
purchase of stores required to prevent or reduce vehicles going off-road or to maintain minimum essential stocks which the Central Stores may not be able to supply within reasonable time.

The Regional Manager was given assistance in all functional areas as follows: Accounts - Finance and Accounts Officer, Traffic - Divisional Controller/Divisional Traffic Officer, Mechanical Engineering - Regional Engineer, Stores - Stores Officer, Personnel (Administration & Labour) - Administrative Officer, Civil Engineering - Executive Engineer, Statistics - senior Statistician, Security - Senior security Officer.

Further, a Regional Management committee was also constituted "in order to emphasise that the function of the regional office is management and not mere supervision and inspection. Nor is the Regional Office expected to get involved in operations, which should be the function of the divisions and depots. Each regional office will have its own balance sheet and profit and loss account, and will be accountable for the results." The Regional Management Committee consisted of the following: (a) Regional Manager - Chairman, (b) Divisional Controller/Divisional Traffic Officer, (c) Finance and Accounts Officer, (d) Regional Engineer, (e) Administrative Officer, (f) senior Statistician. Other officers could participate by invitation.
Appraisal of the 1976 Reorganisation

The 1976 organisation structure of MSRTC may be seen at Chart 7.2. The main contribution of the 1976 structure was in the reduction of the span of control of the General Manager. It must indeed have been very difficult to control twenty-four divisions, spread over a vast state like Maharashtra, from the Central Office at Bombay. The divisions were unified into regions, with the regional manager as the line superior of the divisional controllers. The Regional Manager was not only the controlling level; he had functional assistants, most of whom of the rank of the divisional controller, to help him in improving and coordinating the performance of the divisions and depots. The regional manager was enjoined to act as general manager in all operational matters within the region.

The regional set-up, in fact, added one more tier of managerial hierarchy. The depot, division and central office were integrating levels with all functional assistance, including workshops at the three levels. The regions did not have control over central/regional workshops, which functioned under the Deputy General Manager (Mechanical) at the Central Office. Though the regional manager now has the assistance of a regional engineer, in the absence of control over the central/regional workshops (which supply the necessary unit assemblies to the depots), the overall
effect can only be the addition of one more supervisory level. This was already being done at the divisions, and even better, because the divisions were having their workshops. Though the divisional set up has not been disturbed, the Regional Manager, without any control over the central/regional workshop and the central stores, is to the extent they affect his operations, he can only become an inspecting and supervising authority.

The formation of regions on the basis of the revenue divisions has not solved the problem of logistics. The jurisdictions of the regional managers, especially in the cases of Bombay and Nagpur regions, were unwieldy and pose logistical problems.

Though the Regional Managers directly report to the General Manager, rank-wise they are junior to the Deputy General Managers at the Central Office. There is a potential for interference in the working of the regions by the respective functional Deputy General Managers. There have been instances of the Deputy General Managers calling for meetings of their functional subordinates from the regional offices, without the knowledge of the regional managers. Enquiries further revealed that the General Manager supported the right of the Deputy General Managers calling for meetings of regional officers. This instance is mentioned because, being slightly lower in rank, the regional managers
may not be able to wield sufficient influence with the Central Office, in order to function as 'general managers of the region'. This is indicative of the fact that though there could be decentralisation, which is formal, in the absence of firm commitment at all levels, there could informal withdrawal of delegation.

The fourth tier in the shape of the regional office cannot, in the present context, help the organisation much except in reducing the span of control of the General Manager. The regional manager can only be the coordinating authority, carrying out inspections, etc., of the depots and divisions. In which case, the plethora of administrative machinery given to the regional manager will be counterproductive. They can only in greater interference in the operational freedom of the divisions.

The regional set-up would have been more effective, if it has been organised on the geographical contiguity, ignoring the pattern of revenue administration. The regional managers should atleast be of the rank of the Deputy General Managers at the Central office. If anything, they should be slightly above the rank of the functional heads at the central office, in order to prevent informal withdrawal of delegation keeping a facade of formal decentralisation. Each region should have full-fledged workshop under the direct
control of the regional manager. Presently, the works managers of the Central and Regional Workshops are of the same rank as the Regional managers. Further, there should be a regional stores with vastly delegated powers of purchase. The central stores activity should confine itself with long term purchase contracts and take care of the economies of bulk purchase.

In 1976 Reorganisation there was no attempt to strengthen the depot manager. The depot was left untouched. It is needless to add that when the depot managers are placed in charge of operations, they require greater freedom to operate services and solve the various grievances of the employees. This was fully realised by the Pardasami Committee, when it argued for a better status for the depot manager. MSRTC depots require greater operational and financial freedom. Centralisation of these at the divisional level stifles the initiative of the depot managers and will in effect reduce them to the level of supervisors. Owing to lack of sufficient devolution, operational flexibility at depot level is likely to be affected.

A recent development is the posting of two depot managers in bigger depots, one senior and the other junior, and drawn from the disciplines of both traffic and mechanical engineering. This was justified on the basis of reducing the workload on the part of the depot manager. The two managers are parallel authorities, the senior among them having
no disciplinary powers over the junior. A similar suggestion was also made by the Pardasani committee. In this case, however, the principle of the unity of command is violated, and there is possibility of conflict especially in the face of each of the depot managers being drawn from the different functions, often at war with each other.

There is a clear potential for conflict, worsening the present situation and eroding the authority of the depot manager as a unified executive. If the workload of the depot manager is to be lightened, he should be given more functional assistance, or the depot should be bifurcated. Posting another depot manager at almost a parallel level is not likely to produce the desired effect. It should be seen that are all those who work in a depot the line subordinates of the depot manager.

It is significant to note that the 1976 Reorganisation has not dealt with the role and functions of the Board and the top management. This is characteristic of most Reorganisations, including the ones in APSRTC, in road Transport corporations. The board having been constituted by the Government under the Road Transport Corporations Act and the rules made thereunder, unless the Government subjects it also for restructuring, any changes in the structure cannot be comprehensive. There are presently as many as eighteen members on the Board of MSRTC, a majority of them being non-officials. Even for the selection of conductors
and drivers, there are sub-committees of the board, consisting of non-officials.

In this context, it is relevant to quote from the Recommendations of the Administrative Reforms Committee of Maharashtra on Public Undertakings (1968):

"(a) The State Government is formulating a scheme to form a special panel of officers drawn from the Administrative Services with aptitude for business administration and train them especially through deputational work in the private sector firms, for their assignments with public undertakings. This will be a step in the right direction.

"(b) The organisational structures of all public undertakings need a close look; wherever necessary they should be reshaped on modern lines to suit the special needs of each undertaking. The span of control for the chief executives should be reasonable and planned and this should be achieved, (i) through combining departments one head of allied activities reporting to and thus keeping the number of departmental heads reporting to the chief executive low, and (ii) where necessary, by creating the posts of one or two deputies to the chief executive, who could coordinate various departments on his behalf.

"(c) For the purpose of recruitment, each corporation
or a group of corporations should have a selection board working in conformity with procedures approved by the Government so as to ensure fairness. Selection of staff and matters affecting discipline among staff should always be dealt with by full-time members of the corporation and not by honorary (i.e., non-salaried) board members. Conventions should be established so that honorary board members should not have any direct access to staff and when approached, they should avoid entering into any discussion, but refer them to officers of the undertaking.

"Civil servants of the Government should not work for the public sector on deputation as this does not promote the right attitude and commitment. The Government of India has already accepted this policy and does not permit deputation of civil servants to public enterprises."

Although these recommendations have remained pious hopes, there is an increasing necessity to reorganise the Board in order to prevent involvement of the board members in the routine working of the Corporation. The Board also should be pruned and expertise, whether from within or from without, should be brought into it.

Taking advantage of the recommendation that the chief executive should have "one or two deputies who could coordinate various departments on his behalf," posts of regional
managers, if necessary, should be elevated to a rank higher than the present deputy general managers, and all production and operating units within the region should brought under their direct control and supervision. In order to reduce the span of control of the General Manager at the Central Office, it may indeed be necessary to think of Additional General Managers unifying the various functions at the corporate headquarters. Such measures would streamline the organisation structure and the burden on the general manager will be lightened. Some of these senior officers can be given membership of the Board in order to give professional representation in policy-making.

Conclusion

The organisation structure of MSRTC needs streamlining both at the top level and at the depot level. Greater power and authority should be delegated to the depot managers and expertise brought into the Board. It is necessary for the regional managers to have a higher rank in order to hold their own against the functional heads at the headquarters, as well as to prevent the likely process of 'recentralisation' by informal withdrawal of delegation. At the same time, the depots should be strengthened by giving greater freedom in operational decisions. The 1976 Reorganisation has initiated a process of decentralisation; in order, however, to make it real, there is need to continue the process.
Performance analysis of MSRTC - 1970-80

As has been done in the case of APSRTC, the performance of MSRTC will be analysed under the broad headings of:
(1) Operational Coverage; (2) Fleet Performance; (3) Man management; (4) quality of service; (5) Cost Performance; and (6) Revenue/Financial Performance.

The following indicators are considered under Operational Coverage: (a) Road length per 100 square kilometers; (b) Road length per 1,00,000 population; (c) Percentage of unsurfaced roads; (d) Total number of buses in the State; (e) Number of buses belonging to the Corporation; (f) Share of MSRTC in the total number of buses in the State; (g) Area of the State in square kilometers; (h) Total number of buses in the State per 10,000 square kilometers; (i) Total number of Corporation buses per 10,000 square kilometers; (j) Total population (in lakhs); (k) Total number of buses per 1,00,000 population; and (l) Number of Corporation buses per 1,00,000 population.

Under Fleet Performance, the following parameters are studied, (a) Fleet Strength; (b) Effective kilometers operated in the year (in lakhs); (c) Vehicle utilisation in kilometers per day; (d) Fleet utilisation in percentage; and (e) Passengers carried per bus per day.

In the area of Man Management, the following parameters
are identified: (a) Bus Staff Ratio; (b) Staff employed per 100 kms. of operation; (c) Operated kilometers per employee per day; and (d) Cost per kilometer on Personnel.

For assessing the quality of Service, the following indicators are considered: (a) Rate of Breakdowns per 10,000 kilometers; (b) Rate of accidents per 1,00,000 kilometers; and (c) percentage of punctuality, both in arrivals and departures of bus services.

In the area of Cost Performance, the following are considered: (a) Cost per kilometer on personnel; (b) Cost per kilometer on fuels and lubricants; (c) Cost per kilometer on materials; (d) Cost per kilometer on Taxes; (e) Kilometers obtained per litre of diesel oil; and (f) Kilometers obtained per tyre.

In the area of Financial and Revenue performance, the following parameters are identified: (a) Earnings per bus per day (EPB); (b) Earnings per kilometer (EPK); Cost per kilometer (CPK); (d) Profit/Loss per kilometer; (e) Percentage of internal resources to Capital; and (f) Return on Capital in percentage.

Tables 7.1 and 7.2 contain particulars of the above indicators for ten years from 1970-71 to 1979-80. These are taken from published reports of MSRTC and of ASRTU.
Operational Coverage

Table 7.1 gives certain facts about the Operational Coverage in the state of Maharashtra and the share of MSRTC. The road length is 36.73 kilometers per square kilometer. The road length per lakh of population is 224.26 kilometers. Unsurfaced roads account for 52.52 per cent, thus revealing the vast scope for improving the roads and reducing the costs of operation. The total number of buses registered in the State is 14,657, of which 56.41 per cent, i.e., 8,269 belong to MSRTC. It is interesting to note that in a State which is completely under nationalization, there are more 6,000 buses which are operating outside the control of MSRTC. Several of them may be operating as contract carriage services, while a majority are owned by municipal undertakings operating in Bombay, Poona, Sholapur, Kolhapur, etc.

Considering the area of the State, there are 476 buses per 10,000 square kilometers and the share of MSRTC comes to 269 buses per 10,000 sq. kms. In relation to the population in the State, there are 29.07 buses per 1,00,000 population. The number of MSRTC buses per 1,00,000 population comes to 16.40. The comparative coverage and penetration of the Corporations in each of their own States will be revealed in Chapter X.
Fleet Performance

The data obtained from the Annual Administration Reports for the decade and those available in published reports of the Association of State Road Transport Undertakings (ASRTU), have been processed in the light of the discussion in Chapter V. In Table 7.2, there is a comprehensive statement of performance parameters.

The fleet strength of the corporation went up from 6,086 buses in 1970-71, to 8766 buses in 1979-80, registering an increase of 44 per cent. In view of the increasing vehicle utilisation, the operated kilometers went up by 61 per cent, i.e., from 4163.38 lakh kilometers in 1970-71 to 6705.20 lakh kilometers in 1979-80. This is indeed a good indication of increased productivity; 44 per cent growth in the fleet strength has brought about 61 per cent growth in the operated kilometers.

In respect of vehicle utilisation on fleet held, there is a steady increase over the decade. Starting with 174 kms. per bus per day in 1971-72, it dropped to 157 kms. in 1974-75 and steadily picked up to 209 kms. in 1979-80. The rise from 1974-75, however steady and slow, coincides with the Corporation’s realisation that the operations were growing fast and that there was need for Reorganisation. With the ushering in of the regional set-up, there seems to be a
better appreciation of the need to increase vehicle utilisation.

The fleet utilisation was 76.75 per cent at the beginning of the decade and dropped to an all-time low of 67.50 in 1974-75, and picked up after the regional set-up, and steadily increased to 83.60 in the year 1979-80, the highest ever.

The number of passengers carried per bus per day also steadily increased from 336 in 1973-74 to 410 in 1979-80. This shows the increasing demand for transport that has been met either by increasing the number of seats per bus or by improving the load factor. It could also be because of overloading.

To sum up, the fleet performance of MSRTC has been showing steady improvement after the 1976 Regional set-up. The partial decentralisation of authority to the regional managers seems to have helped in achieving greater productivity out of the buses employed for operation.

**Man Management**

The bus-staff ratio for the decade ranged between 8.53 and 9.30. In the year 1976-77 and 1977-78, it was 9.27 and 9.17 respectively. This might be because of the regional set-up, which necessitated posting supportive staff
at the regional offices, though many of them were transferred from the central office.

The bus-staff ratio, when modified to 100 kms. of operation, has been ranging above 5.00. However, during the last two years of the decade, it registered the lowest 4.16 and 4.29. Though the general bus staff ratio was not impressive, when modified to 100 kms. of bus operation, the ratio is favourable. This is mainly due to increasing productivity of the buses and credit may be given to the regional set-up for bringing in this discipline in the organisation.

The cost on personnel per kilometer has shown steady increase. It has more than doubled during the decade; beginning with 38.41 paisa per kilometer, it went up to 80.49 paisa by 1979-80. This increase is mainly due to inflation, necessitating increases in wages and allowances payable to the staff.

In terms of kilometers produced per employee, there is considerable improvement after the regional set-up has come into being. Beginning with 61.41 kilometers per employee, in 1971-72, they went down to 49.87 in 1974-75. Coinciding with the regional set-up, from 1976-77 onwards for the following four years, the figures are: 58.27, 60.13, 64.60 and 68.61. This is indeed an impressive upward trend.
Quality of Service

As mentioned in the case of APSRTC, it has not been possible to get the number of kilometers cancelled. Only the number of kilometers actually operated are available from the published data.

The rate of breakdowns per 10,000 kms. was above 0.90 in 1973-74 and 1974-75. It went down to 0.63 in the years 1977-78 and 1978-79. This coincides with the regional set-up. But in the last year of the decade, the rate went up to 0.74. There is considerable scope for reducing the number of breakdowns. Such reduction will increase the productivity of the vehicles further and will avoid inconvenience to the travelling public.

In respect of the rate of accidents per 1,00,000, the years 1970-71 and 1971-72 started with 0.59. It is gathered from personal discussions with the officers responsible, that there was a drive in the Corporation during the middle years of the decade for reduction in the rate of accidents. Travel safety has been impressed upon the drivers and other operating staff, and accident analysis was undertaken to identify the causes for taking preventive action. There was a perceptible improvement from 1975-76 onwards. The five years that followed recorded the following figures: 0.51, 0.41, 0.39, 0.41 and 0.39. The need for maintaining operational safety seems to have taken root in the corporation,
and if the trend continues there will be considerable improvement in this regard.

As may be seen from Table 7.2, the punctuality of both arrivals and departures of buses is ranging around 90 per cent. In the absence of fool-proof clocking of arrivals and departures, it is not possible to give much weight to this otherwise good performance.

Cost performance

The inflationary atmosphere in the country has predictably affected MSRTC. The costs are constantly going up. The only to neutralise this increase, at least to some extent, is to eliminate wastages and to make the most efficient use of the materials purchased.

The cost on personnel, as noted in the previous paragraphs has been increasing and has indeed doubled during the decade.

The cost on fuel and lubricants has registered sizable increase; from 24.83 paise per km. in 1972-73, to 40.28, 37.78, 37.36 and 41.81 during the last four years of the decade respectively. The number of kilometers obtained per litre of diesel oil has not been impressive in this Corporation. Having started well in the first two years of the decade with 4.04 and 4.00, the performance slipped
below 4.00 during the next four years. The last four years of the decade registered 4.00, 4.12, 4.19 and 4.18. There is considerable scope for improvement in this regard. In view of the frequent increase in the prices of petroleum products, no opportunity should be left unexploited in effecting savings in respect of this strategic item.

The cost of materials declined in 1972-73 and 1973-74 but rose up again steadily to stand at an all-time high of 53.54 paise per kilometer during 1979-80.

The performance of tyres, in terms of kilometers, has not shown any spectacular improvement, in spite of the mounting costs in this area. Except in the year 1979-80, where the 50,000 kilometers mark has been crossed, all through the decade, though there has been an upward trend in costs, the performance was unimpressive.

The cost per kilometer on taxes has increased steadily over the decade. This is only to be expected, since the Government is intent on taking its own pound of flesh from this industry. Beginning the decade with 33.50 paise per kilometer, the cost increased to 49.43 by 1979-80 - an increase of 47.55 per cent.

To comment in general on the cost performance of the Corporation, it may be stated that while there have been
improvements, they have been meagre and unspectacular. They do not reflect the urgency and commitment that need to attend the organisational approach. The improvements, however, point to the scope and the opportunities left unexplored.

Revenue and Financial Performance

The revenue and financial performance of MSRTC is the standing proof of the effect of timely fare increases on the finances of the organisation. During the years 1975-77 the Government agreed to two fare hikes. The profitability and the extent of the build up of internal resources can be clearly seen from Table 7.2.

The earnings per bus per day have gone up from Rs. 250.64 in 1971-72, to Rs. 562.89 in 1979-80 showing an increase of nearly 125 per cent. This is mainly because of the frequent fare increases and the increasing productivity of the buses in terms of kilometers operated. The last two years of the decade registered the highest per bus earnings: Rs. 544.87 and Rs. 562.89.

The earnings per kilometer have also simultaneously showed steady increase during the decade from 140.39 paise to 269.33 paise - an increase of 91.84 per cent.

The total cost per kilometer has also been rising
over the decade. It was 143.50 paisa in 1970-71 and went up to 269.33 paisa by 1979-80, an increase of 87.68 per cent. It is significant that the rate of increase in cost is less than the rate of increase in earnings; the former is 87.68 per cent while the later is 91.84.

The profit/loss per kilometer has gone through several extremes, from -17.99 paisa in 1974-75, to +20.87 in 1976-77. The main credit for the reversal of the losing trend should go to the Government for giving timely increases in the fare structure. The trend of losses was reversed from 1975-76 onwards up to 1978-79, the figures of these years being +3.78, +20.87 (the highest ever), +13.89 and +10.01. But this happy run got terminated when the fare structure and the internal efficiency could not match the rise in costs and during the last year of the decade, the Corporation went into the red again to the tune of -5.72 paisa per kilometer.

The percentage of internal resources to the capital for the seven years from 1972-74 to 1979-80 is as follows: 67.69, 47.90, 45.71, 61.76, 66.14, 65.84 and 67.36. The effect of fare rise and the consequent increase in the financial health of the Corporation can be clearly seen. The most decisive factor in the financial performance of the Corporations is the Government's willingness to match the rising costs with suitable increases in the fares charged to the
commuters. One would be tempted to relate the increase in profitability to the changes in the organisational set-up. But the performance during the last year of the decade belies any such linkage.

By and large, the financial performance of the Corporation improved during the decade. This may also be due to certain streamlining of the system by introducing tighter budgetary controls and greater performance-orientation.

**Summing Up**

The decade's performance and the changes in the organisational structure during the mid-decade invite comment. The regional set-up introduced in 1976 is undoubtedly inconclusive and it also failed to strengthen the depot, which is the main operating unit. However, the reorganisation reduced the span of control of the Central Office and has helped the operating units to do better. There is need to transfer some authority and powers from the divisions to the depots, especially in the matter of operational flexibility. Similarly there is also the need to strengthen the regional managers by giving them control over all the production and operating units within their geographical jurisdiction, which will automatically include the central/regional workshops. The hopes of the 1976 Reorganisation that the Central Office would remain a policy making body have not been realised.
The Central Office is still the main executive unit with powerful departments controlling the vital supplies of workshop and stores materials.

The performance is only registering a slow and steady growth. It could be argued that this much of growth might well be possible even without the reorganisation, with the aid of better follow-up. What is required is a clear breakthrough in performance, and this can only be possible by strengthening both the regional manager and the depot manager, the central office and the divisional office consequently shedding a sizable amount of their executive power and authority in favour of the next lower level.

As noted while concluding the organisational analysis, the ranks of both the regional manager and the depot manager needed to be formally upgraded and built in safeguards created to prevent likely 'recentralisation' by withdrawal of delegation through an informal process. It is also necessary to unify the functions directly reporting to the General Manager, by creating intermediate posts of Additional General Managers. Unless the process of reorganisation started in 1976 is completed by devolution of power and authority to the regional and depot managers in a more meaningful manner, the very size of the organisation will obstruct all efforts to bring in greater efficiency.
References

1. Quoted in *Twenty-five Years of State Transport*, Maharashtra State Road Transport Corporation, Bombay, 1971, p. 6.

2. Ibid., p. 6.

3. Ibid., p. 9.

4. Ibid., pp. 9-10.

5. Ibid., p. 18.


ORGANISATION STRUCTURE OF MSRTC AFTER 1976

Chairman & Board

Vice Chairman and General Manager


Regional Manager  Works Manager

Adm. Officer  Regional Engineer  Senior Statistician  Divisional Controller  Executive Engineer  Accounts Officer

Divisional Mechanical Engineer  Divisional Traffic Officer  Divisional Statistician  Accounts Officer  Stores Officer

Depot Manager

Traffic  Mechanical

Chief Security Officer  Dy. G.M. Mechanical  Dy. G.M. Civil Engg.  Chief Accounts Officer

Chief

CHAPTER 7.2
Table 7.1

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Road length per 100 sq. kms. (in kms.)</td>
<td>36.73</td>
</tr>
<tr>
<td>2.</td>
<td>Road length per 1,00,000 population (in kms.)</td>
<td>224.26</td>
</tr>
<tr>
<td>3.</td>
<td>Percentage of unsurfaced roads</td>
<td>52.52</td>
</tr>
<tr>
<td>4.</td>
<td>Total number of buses in the state</td>
<td>14,657*</td>
</tr>
<tr>
<td>5.</td>
<td>Number of MSRTC buses</td>
<td>8,269*</td>
</tr>
<tr>
<td>6.</td>
<td>MSRTC's share of buses (%)</td>
<td>56.41</td>
</tr>
<tr>
<td>7.</td>
<td>Areas of the State in square kms.</td>
<td>3,07,762</td>
</tr>
<tr>
<td>8.</td>
<td>Number of buses in the State per 10,000 square kilometers</td>
<td>476*</td>
</tr>
<tr>
<td>9.</td>
<td>MSRTC buses per 10,000 sq. kms.</td>
<td>269*</td>
</tr>
<tr>
<td>11.</td>
<td>Total number of buses per 1,00,000 Population</td>
<td>29.07*</td>
</tr>
<tr>
<td>12.</td>
<td>MSRTC buses per 1,00,000 population</td>
<td>16.40*</td>
</tr>
</tbody>
</table>

(The data pertains to 1975-76, and where indicated by '*' it pertains to 1978)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fleet Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Total fleet</td>
<td>6086</td>
<td>6305</td>
<td>6690</td>
<td>6992</td>
<td>7376</td>
<td>7600</td>
<td>7785</td>
<td>8269</td>
<td>8151</td>
<td>8766</td>
</tr>
<tr>
<td>(b) Effective kms. (lakhs/year)</td>
<td>--</td>
<td>4163.38</td>
<td>4275.50</td>
<td>4150.51</td>
<td>4238.19</td>
<td>4613.76</td>
<td>4893.76</td>
<td>5423.03</td>
<td>6137.42</td>
<td>6705.20</td>
</tr>
<tr>
<td>(c) Veh. Utilisation (kms/day)</td>
<td>--</td>
<td>174</td>
<td>175</td>
<td>165</td>
<td>157</td>
<td>166</td>
<td>172</td>
<td>180</td>
<td>206</td>
<td>209</td>
</tr>
<tr>
<td>(d) Fleet Utilisation (%)</td>
<td>76.95</td>
<td>76.91</td>
<td>74.70</td>
<td>78.80</td>
<td>67.50</td>
<td>70.84</td>
<td>82.27</td>
<td>83.10</td>
<td>82.66</td>
<td>83.60</td>
</tr>
<tr>
<td>(e) Passengers per bus/day</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>336</td>
<td>357</td>
<td>354</td>
<td>378</td>
<td>387</td>
<td>404</td>
<td>410</td>
</tr>
<tr>
<td>2. Man Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Bus Staff Ratio (BSR)</td>
<td>9.70</td>
<td>9.30</td>
<td>8.49</td>
<td>8.85</td>
<td>8.68</td>
<td>8.53</td>
<td>9.27</td>
<td>9.17</td>
<td>8.58</td>
<td>8.97</td>
</tr>
<tr>
<td>(b) BSR per 100 km. operation</td>
<td>--</td>
<td>5.24</td>
<td>4.85</td>
<td>5.36</td>
<td>5.52</td>
<td>5.13</td>
<td>5.38</td>
<td>5.09</td>
<td>4.16</td>
<td>4.29</td>
</tr>
<tr>
<td>(c) Kms. per employee/day</td>
<td>--</td>
<td>61.41</td>
<td>54.25</td>
<td>52.53</td>
<td>49.87</td>
<td>51.78</td>
<td>58.27</td>
<td>60.13</td>
<td>64.60</td>
<td>68.61</td>
</tr>
<tr>
<td>(d) Cost per km. on Personnel (in paisa)</td>
<td>38.41</td>
<td>39.02</td>
<td>49.29</td>
<td>61.81</td>
<td>67.15</td>
<td>65.81</td>
<td>61.62</td>
<td>74.33</td>
<td>75.30</td>
<td>80.49</td>
</tr>
</tbody>
</table>
## Table 7.2 (Continued)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Breakdowns per 10,000 kms.</td>
<td>0.85</td>
<td>0.80</td>
<td>0.96</td>
<td>0.95</td>
<td>0.80</td>
<td>0.71</td>
<td>0.63</td>
<td>0.63</td>
<td>0.74</td>
</tr>
<tr>
<td>(b) Accidents per 1,000,000 kms.</td>
<td>0.59</td>
<td>0.57</td>
<td>0.60</td>
<td>0.58</td>
<td>0.52</td>
<td>0.45</td>
<td>0.39</td>
<td>0.47</td>
<td>0.39</td>
</tr>
<tr>
<td>(c) Punctuality (%)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Arrivals</td>
<td>87.96</td>
<td>86.80</td>
<td>91.09</td>
<td>93.01</td>
<td>90.83</td>
<td>89.22</td>
<td>90.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Departures</td>
<td>88.56</td>
<td>87.80</td>
<td>89.72</td>
<td>90.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. **Cost Performance**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Cost per km(CPK)</td>
<td>49.29</td>
<td>61.81</td>
<td>67.15</td>
<td>65.81</td>
<td>61.62</td>
<td>74.33</td>
<td>75.30</td>
<td>80.49</td>
<td></td>
</tr>
<tr>
<td>(b) CPK on fuel &amp; lubricants</td>
<td>34.46</td>
<td>34.46</td>
<td>38.63</td>
<td>40.28</td>
<td>47.00</td>
<td>48.25</td>
<td>49.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) CPK on Maintenance</td>
<td>33.31</td>
<td>33.31</td>
<td>33.31</td>
<td>33.31</td>
<td>33.31</td>
<td>33.31</td>
<td>33.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) CPK on Material &amp; Service</td>
<td>35.23</td>
<td>42.26</td>
<td>43.29</td>
<td>44.72</td>
<td>46.90</td>
<td>48.25</td>
<td>49.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) CPK on Taxes</td>
<td>35.23</td>
<td>42.26</td>
<td>43.29</td>
<td>44.72</td>
<td>46.90</td>
<td>48.25</td>
<td>49.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Kms. per litre of diesel oil</td>
<td>4.00</td>
<td>4.00</td>
<td>3.99</td>
<td>3.96</td>
<td>3.87</td>
<td>4.00</td>
<td>4.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Kms. per tyre</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7.2 (continued)
Performance Statistics of MSRTC for the decade 1979-80

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Revenue/Financial Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Earnings per bus/day (Rs)</td>
<td>--</td>
<td>250.64</td>
<td>263.18</td>
<td>297.90</td>
<td>317.89</td>
<td>396.92</td>
<td>431.84</td>
<td>461.07</td>
<td>544.87</td>
<td>562.89</td>
</tr>
<tr>
<td>(b) Earnings per km.</td>
<td>140.39</td>
<td>144.05</td>
<td>150.39</td>
<td>180.55</td>
<td>202.48</td>
<td>239.11</td>
<td>251.07</td>
<td>256.15</td>
<td>264.50</td>
<td>269.33</td>
</tr>
<tr>
<td>(c) Cost per km.</td>
<td>143.50</td>
<td>146.20</td>
<td>165.50</td>
<td>187.60</td>
<td>220.47</td>
<td>235.33</td>
<td>230.20</td>
<td>242.26</td>
<td>254.49</td>
<td>275.05</td>
</tr>
<tr>
<td>(d) Profit/Loss per km.</td>
<td>-3.11</td>
<td>-2.15</td>
<td>-15.11</td>
<td>-7.05</td>
<td>-17.99</td>
<td>3.78</td>
<td>20.87</td>
<td>13.89</td>
<td>10.01</td>
<td>-5.72</td>
</tr>
<tr>
<td>(e) Internal Resources to total capital (%)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>67.69</td>
<td>47.90</td>
<td>45.71</td>
<td>61.76</td>
<td>66.14</td>
<td>65.84</td>
</tr>
<tr>
<td>(f) Return on Capital (%)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6.67</td>
<td>13.62</td>
<td>9.76</td>
<td>15.29</td>
<td>--</td>
</tr>
</tbody>
</table>

(° - in paise)