

# ESTIMATES COMMITTEE

1957-58

## ELEVENTH REPORT

(SECOND LOK SABHA)

**MINISTRY OF TRANSPORT AND COMMUNICATIONS  
(DEPARTMENT OF COMMUNICATIONS AND CIVIL  
AVIATION)**

**THE INDIAN TELEPHONE INDUSTRIES (P) LIMITED,  
DURAVANI NAGAR, BANGALORE.**



**LOK SABHA SECRETARIAT  
NEW DELHI  
*March, 1958***

## C O R R I G E N D A

Eleventh Report of the Estimates Committee on the  
Ministry of Transport & Communications - Indian  
Telephone Industries (P) Ltd., - Bangalore.

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Page 1, para 3, line 4 from bottom delete the word 'give'

Page 10, para 27 line 2 for 'reoprt' read 'report'

Page 12, para 33, line 5 for 'or' read 'of'

Page 16, para 50, line 2 for 'producers' read 'procedures'

Page 18, para 53 line 11 insert 'be' between 'even' and  
'1 2'

Page 21, para 64, line 4, for 'on' read 'an'

Page 23, line 14 for 'production' read 'proportion'

Page 25, para 74, line 4 for 'appreaciate' read 'appreciate'

Page 26, para 78, line 2 for 'punblc' read 'public'

Page 36, para 103, line 3 for 'top' read 'tap'

Page 46, para 131, line 2 for 'via' read 'vide'

Page 53 para 145. last line: for 'corelate' read 'correlate'

Page 56. para 156. penultimate line: for 'I.T.A' read  
'I.T.I.'

Page 60 para 172. line 4: delete 'and' at the end.

Page 61. para 174. line 3 & 4: for 'i.e. I.T.I.'s effort'  
read '(i.e. I.T.I.'s effort)

Line 5 from bottom: for 'recommended' read  
'recommend'

Line 3 from bottom for 'the' read 'this'

Page 65. appendix I paras 2 & 3 delete last sentence in  
each.

Page 66. line 4 for 'o' read 'of'

Page 67. line 6 under Transmission Engineering Department  
for 'Engineer' read 'Engineer'

Page 70. col. 3. line 17 delete 'ter'

Page 81. appendix IV line 4 for 'where' read 'were'

Page 94. item 39. line 4 for 'for' read 'far'

Page 96. item 49 line 4 for 'production' read 'production'

Page 97. line 6 for 'excercised' read 'exercised'

Page 98. item 55. line 1 for 'ould' read 'ould'

Page 105. line 3 for 'implementation' read 'implementation'

Page 107. item 17. line 1 for 'workmen' read 'workmen's'

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Shri S. L. Shakdher—*Joint Secretary.*

Shri A. R. Shirali—*Deputy Secretary.*

~~Caused to be a member on his appointment as Deputy Minister w.e.f. 2-4-58.~~

## INTRODUCTION

I, the Chairman, Estimates Committee having been authorised by the Committee to submit the report on their behalf, present this *Eleventh Report on the Ministry of Transport and Communications (Department of Communications and Civil Aviation)–Indian Telephone Industries (P), Ltd.* The Report embodies the conclusions of the Committee on the Indian Telephone Industries (P) Ltd., Duravaninagar, Bangalore. It also includes the Committee's findings on a few aspects of the telephone expansion schemes of the P. & T. Department.

2. A statement showing an analysis of the recommendations contained in this report and the estimated economy which might result from their implementation (wherever it could be calculated) is also appended to the Report (Appendix VI).

3. The Committee wish to express their thanks to the Officers of the Ministry of Transport and Communications (Department of Communications and Civil Aviation), Indian Telephone Industries (P) Ltd., D. G. P. & T. and Ministry of Finance (Communications) for placing before them the material and information in connection with the examination of the Estimates. They also wish to thank the representatives of the Institute of Tele-Communication Engineers, New Delhi and Shri H. N. Srivastava (Retired Additional Chief Engineer, Posts and Telegraphs) for giving evidence and making valuable suggestions to the Committee.

BALVANTRAY G. MEHTA,  
NEW DELHI;  
*The 24th March, 1958.*

*Chairman,*  
*Estimates Committee.*

# I

## INDIAN TELEPHONE INDUSTRIES (P) LTD.

### Introductory

The growth of telephone communications along with other modes of communications is an integral element in the economic and technological advance of the country. Some idea of its importance may be had from the fact that the Second Plan provides *inter-alia* for the installation of 1,80,000 telephones. Further the telephonic industry has also been included in Schedule 'A' of the Industrial Policy Resolution for development by the State.

2. The requirements in respect of telephonic equipment apart from those which were manufactured in the P & T workshops, were formerly mostly imported from abroad. The decision to start a manufacturing unit for automatic telephone equipment was taken in 1947. For want of experience in this line as well as of the necessary patents and manufacturing rights, the assistance of foreign firms of repute who were specialists in this line was sought. After negotiations with a number of manufacturers, the Automatic Telephone and Electric Co., Ltd., Liverpool (U.K.) (A.T.E.) was selected by Government and later an agreement was entered into with that Company for providing the essential 'know-how' and technical assistance for the purpose of establishing a telephone factory in India.

3. The "Indian Telephone Industries" (I.T.I.) which was the first industry to be started by the national Government was established at Bangalore in July, 1948 to undertake the manufacture, assembly, buying, selling etc., of tele-communication equipment such as automatic telephones, carrier equipment, transmission equipment etc., for supplying the requirements of the country. It was under the direct control of the Government until 31st January, 1950. To enable the organisation of the Factory being modelled on commercial lines and to give it the necessary flexibility in administrative matters, it was decided to give run the Factory as a Company. Accordingly, the "Indian Telephone Industries, Ltd., " was formed with effect from the 1st February, 1950, with an authorised capital of Rs. 250 lakhs, which was later increased to Rs. 400 lakhs.

## II

### AGREEMENT WITH THE AUTOMATIC TELEPHONE AND ELECTRIC CO.

#### A. Selection of A.T.E. as collaborators and consultants

4. The procedure followed when entering into an agreement with the A.T.E. for the establishment of a Telephone Industry in the country was in brief as follows:—

- (i) No global tenders were invited as, it was explained, there was no question of making purchases of any stores and equipment and the idea was to enter into an agreement for developing the manufacture of telephone equipment. A technical officer of the P & T Department was sent abroad between 21st December, 1947 and 22nd February, 1948 to contact the leading manufacturers of telephone equipment. He received 4 offers in Europe including the one from U.K. These were reported to the Government of India on return from abroad on the 25th/26th February, 1948. Two offers—one from the A.T.E. and the other from a Swiss firm—only were considered since the terms of the other two offers were not considered favourable as they did not agree to supply the equipment immediately.
- (ii) In view of the fact that the Swiss firm had demanded a payment of Rs. 23 lakhs during a period of 15 years as against Rs. 87 lakhs demanded by the A.T.E., negotiations were started on 28th March 1948 with the former by a team of two officers sent by the Government of India to Switzerland. However, the Swiss firm later put up revised terms which involved besides a cash payment of Rs. 146 lakhs for a period of 15 years as royalty, an obligation to place orders for a specified large number of equipment and as a result negotiations were started with the A.T.E.
- (iii) The negotiations were finalised in Switzerland with a representative of the A.T.E. during April, 1948 by the Secretary, Ministry of Communications, who returned to Delhi on the 26th April, 1948 and brought with him the draft agreement. The proposal for finally executing the agreement was submitted to the Cabinet on the 28th April, 1948 which approved it on the 30th

April, 1948. The agreement was finally signed by the Minister for India in Switzerland with the A.T.E. on 3rd May, 1948.

5. While the delegation was in Switzerland, a proposal was also made by an American firm, I.S.E.C. in this connection. It involved the payment of 2-1/2% royalty for the period of agreement (15 years) and payment for services as consultants at 3 per cent for 10 years. This would have amounted to Rs. 133 lakhs. At the same time, it would have covered some items other than pure telephone equipment, e.g., radio and wireless equipment, etc., for which later another agreement was entered into with the C.S.F. for setting up the Bharat Electronics (P) Ltd., (B.E.L.), the fees (apart from royalties) for which would amount to Rs. 53 lakhs over 10 years.

6. The following considerations, it was stated, weighed with the Government while selecting A.T.E. for collaboration:—

- (i) The terms offered by the A.T.E. were more favourable.
- (ii) Sterling expenditure was preferred to expenditure in dollars.
- (iii) Almost all the telephone equipment at that time in use in India was of the British pattern.

7. The Committee understand that no project report which could have been utilised by the management as a plan showing details of and targets for setting up the factory, cost, programme of production and expansion etc. was prepared or submitted by the Automatic Telephone and Electric Company to the Government of India. It was stated that the Agreement provided for necessary technical assistance to Government in connection with the establishment of the factory, use of patent rights, manufacturing data, drawings, etc., and also for Automatic Telephone and Electric Co., to act as consulting engineers to the Indian Telephone Industries and that possibly as a result no project report was got prepared. It was further explained that the principal purpose of the Agreement, viz., to obtain the 'know-how' to enable the establishment of a factory in India for the manufacture of telephone equipment had to a considerable extent been carried out. *However, the Committee feel that it would have been advantageous to get a project report from the A.T.E. not merely to serve as a short-term and long-term plan but also as a means of watching and judging the progress made from time to time and that in its absence it is somewhat difficult to make a correct assessment of the actual progress.*

#### **B. Clauses 1 and 10 of the agreement—Territories of operation and Exports**

8. Clause 1 of the Agreement restricts the territory of operation of the I.T.I. in the matter of supply of telephonic goods, etc., to

Pakistan, Burma and Ceylon (apart from India) as long as these countries decide not to obtain their supplies from or through the Government of India in which case they would be excluded from the territory of the Agreement. The Committee were informed that the I.T.I. agreed in 1954 that A.T.E. could carry on business in Pakistan for a period of 5 years with effect from 1st September, 1954 on a commission from the A.T.E. varying from 2½% to 5% depending on the type of equipment. The I.T.I. also allowed A.T.E. to supply certain equipment to Ceylon on which the A.T.E. agreed to give the I.T.I. 2½% commission.

9. Clause 10 of the Agreement restricts the exports of I.T.I. to the territories mentioned in Clause 1 above. The Committee were informed in this connection that the question of exports had really come up only recently and at present about 10 per cent of the production could be exported. It was also stated that the A.T.E. had given permission to the I.T.I. to find export markets in Egypt, (after it had once been refused earlier) and Afghanistan for a limited period but had refused it for Sudan. In some other cases permission had been given in particular instances only.

10. The Committee feel that the limitations referred to above have precluded the I.T.I. from extending its operations to other areas where it could find a ready market especially now that the I.T.I. has the capacity and means to undertake production for this purpose. They were informed in this connection that the A.T.E. had already been addressed by the I.T.I. to modify these clauses so as to include some more territories for I.T.I. to do business for a specified period. *While the Committee hope that these efforts will meet with success, they would nevertheless suggest that in similar cases where the Government of India may enter into agreements with foreign firms for the establishment of industries in the country, due care should be taken not to fetter themselves too much by restricting the territory of operation.*

#### C. Clauses 4 and 5—Technical Information etc. from Other Manufacturers

11. In terms of clauses 4 and 5 of the Agreement the A.T.E. undertook to grant to the I.T.I. an exclusive royalty-free licence under all patents owned by it or under which it is in a position to grant licences for manufacture and use of equipment. In the case of patents acquired by it from another party for which the A.T.E. is obligated to pay royalties to that party, the I.T.I. has to pay royalty or other consideration in connection with the use of such patents calculated on a priority basis having regard to the extent of the use thereof in items manufactured by the I.T.I. under this agreement. At the same time, when the Government becomes possessed of, or are

in control of, any invention relating to telephone equipment, it shall have to indicate the same to A.T.E. and give A.T.E. a non-exclusive royalty-free licence to use such invention outside the territory of this agreement. In the case of all other patents which become vested in or are acquired by the Government, the Government shall give A.T.E. a non-exclusive licence to use such inventions outside the territory of this agreement on such terms and conditions as may be mutually agreed to.

12. While the above clauses appear quite satisfactory from the legalistic point of view, the Committee feel that in their practical operation, these have placed the I.T.I. in a disadvantageous position inasmuch as—

- (a) these clauses virtually prevent the I.T.I. from getting any technical know-how from any other manufacturers for the production of items which are either outside the scope of the Agreement or which the A.T.E. themselves are not in a position to manufacture efficiently, the reason being that while such manufacturers may be willing to pass technical know-how to I.T.I. for adequate consideration, they may not do so, if the information is to be passed on to A.T.E. who may be their competitors.
- (b) any information of a developmental nature resulting from research or development work carried out by any organisation in this country and made available to I.T.I. would automatically be accessible to the A.T.E. who could utilise it.

13. The Committee were told that no information was available to show the precise circumstances leading to the drafting of these particular clauses in the Agreement and that so far no case had arisen where the I.T.I. had to give such information to the A.T.E. They were also informed that the I.T.I. had so far utilised three-fourth of the patents vested in the A.T.E. and they hoped to utilise the rest by 1963, when the Agreement with that Company would terminate.

14. While the Committee are glad to note that the I.T.I. have so far utilised three-fourth of the patents vested in the A.T.E. they are not happy that such clauses should have been included in the Agreement even from the commercial point of view.

15. Incidentally, the Committee fail to understand why information is not available in the Ministry to show how these clauses were included in the Agreement. They would suggest that while examining the implications of various clauses contained in agreements which Government might enter into with foreign firms or consultants, a contemporary record of the discussions leading to the acceptance of the provisions contained therein should invariably be kept in the Ministry concerned.

#### D. Clause 9—Supplies of Telephonic Equipment from A.T.E.

16. Under clause 9 of the Agreement, import of telephone equipment (as detailed in the schedule attached to the Agreement) will be effected exclusively from or through the A.T.E. Further, a subsequent letter of Agreement dated 24-6-48 stipulates that Government obtain all its transmission equipment from the A.T.E. and also that as and when A.T.E. manufactures such items, Government would subject them to a field trial for four months and if they were satisfactory, such equipment would be placed in the schedule of items that would normally be obtained from the A.T.E.

17. In a note submitted to the Committee it has been contended that though the clause has resulted in some difficulties inasmuch as purchases from A.T.E. like carrier equipment as well as from others, particularly switching telephones from General Electric Co. were delayed and the prices paid through A.T.E. were more than for direct supplies (which are stated to have been corrected subsequently after discussion), these conditions were not considered unfair in the circumstances prevailing at that time. It has also been stated that this matter was also taken up with A.T.E. in 1954, but that Company was not willing to accept a change.

18. *The Committee feel that this Clause has placed a very severe restriction on the choice that could have been normally exercised in obtaining tele-communication equipment from manufacturers other than A.T.E. especially those in which the A.T.E. itself has not been fully established, as also while undertaking major projects like co-axial links etc. They also understand that it is impracticable to obtain a large quantity of equipment on a trial basis, assess their performance in a limited period of four months and return them if unsatisfactory without any serious detriment to the Project. The Committee consider the inclusion of this Clause in the Agreement as very unfortunate. They recommend that as a rule Government should not fetter themselves by such obligations and should, if at all necessary, commit themselves to get only a part of their requirements from the company with whom they enter into such agreements.*

19. The prices charged by the A.T.E. for equipment supplied by them are governed by the provisions of Clause 9 of the Agreement which provides for charging the British Post office home prices or where no such prices exist, the most favourable prices charged to other customers. It has been arranged between the I.T.I. and A.T.E. that while the B.P.O. will certify the reasonableness of the prices of such equipment as is also being supplied to them (B.P.O.) in other cases, the auditors of A.T.E. will certify that the prices charged were not higher than the most favourable prices charged to other customers. During discussion, the Committee were informed that the provision for linking the prices of equipment supplied by the A.T.E. with the

B.P.O. prices had worked satisfactorily, since the B.P.O. had qualified cost accountants and also had facilities for making an on-the-spot cost check. *This question has been discussed by the Public Accounts Committee in paragraph 66 of their Tenth Report, and the Committee do not wish therefore to comment on it here.*

#### **E. Clause 6(v) and 6(vi)—Technical Assistance under the Agreement**

20. Under the Agreement, the A.T.E. were to furnish to the I.T.I. assistance in the field of training of personnel. So far they have trained at their works in U.K. a number of technicians and engineers of the I.T.I. Besides, under clause 6(vi), 23 experts and technical advisers were also deputed by the A.T.E. for rendering assistance to the I.T.I. from 1948-56. As regards the future, it was explained that I.T.I. do not consider it necessary to obtain any experts or technical officers from the A.T.E. but that a few more Indian engineers will be sent to A.T.E. for training in transmission equipment. *The Committee hope that full advantage of the Agreement will be taken to get as many persons trained at the A.T.E. Works or by their experts as possible within the currency of the Agreement.*

#### **F. Clause 13—Payments to the A.T.E.**

21. In accordance with the terms of Agreement with the A.T.E., the following payments were to be made to it for the various services and assistance rendered to the I.T.I.:—

- (a) £ 1,00,000 (made up of £ 50,000 in cash and another £ 50,000 in free scrip in the I.T.I.) in consideration of their patent rights and know-how to be made available by them to the I.T.I.
- (b) A payment of 1½% on the invoiced output of the I.T.I. less the amount of equipment imported from the A.T.E. for manufacturing data and information to be supplied throughout the life of the Agreement, and ½% on the invoiced output of I.T.I. as defined above to be made towards the technical development and research facilities to be given to the I.T.I.
- (c) For the services of experts and technicians and the provisions for ordering, purchasing and following-up and for tool design and detailed lay-out of the Factory, the cost of such services including overheads associated therewith plus 5 per cent.
- (d) A further payment of out-of-pocket expenses plus 5% thereon for the services rendered as consulting engineers

22. The following payments have been made to A.T.E. so far:—

(a) 1948-49 £ 50,000 (Rs. 6,66,700) immediately after signature of the Agreement under clause 13 (a) thereof.

(b) *Dividends*

1955-56 Gross Rs. 25,012-8-0  
Net Rs. 7,894-10-0

(c) For services rendered: [C1.13 (c) (i) and 13 (c) (ii)]

Year	Amount	
1948	£ 2,578-0-6	
1949	£ 4,337-2-8	
1950	£ 4,820-6-8	
1951	£ 6,586-0-0	
1952	£ 3,749-0-0	
1953	£ 4,331-0-0	
1954	£ 3,564-0-0	
		Rs. 3.99 lakhs)
1955	£ 6,898-0-0	Not yet paid
1956		Not yet paid

(d) Shares worth Rs. 6,66,700/- allowed as free scrip in lieu of the payment of £ 50,000.

23. So far no payment is stated to have been made to A.T.E. for the supply of manufacturing data and technical development and research information though for the period 1949-50 to 1953-54 a statement of dues has been prepared, the total value of which is Rs. 95,190/-. It is to be paid on receipt of the acceptance of the A.T.E.

24. It would be observed from the above that so far payments amounting to Rs. 17.3 lakhs have actually been made to the A.T.E. under clauses 13 (a) and 13 (c) of the Agreement as against Rs. 87 lakhs contemplated to be paid during the fifteen years when the Agreement was signed (*vide* para 4 (ii)]. As stated earlier no payment has so far been made under clause 13 (b), which provides for payment of royalty at the rate of 2% of the invoiced output of I.T.I. It was likely, however, that a sum of about Rs. 2 lakhs including Rs. 95,190 referred to in para 23 would have to be paid to the A.T.E. up to March, 1958. On this basis the invoiced output of the I.T.I. for the years 1949-50 to 1957-58 works out to about Rs. 1 crore while from the original proposal it would appear that the royalty was to be worked out on the basis of the production of Rs. 20 crores. It was, however, pointed out that the procedure for working out the royalty had not been finalised because materials, equipment, etc. imported

through A.T.E. were excluded from the invoiced output for calculating royalty and, therefore, this did not give an accurate idea of the I.T.I.'s efforts for production. *How ever, in the absence of a Project Report, the Committee are not in a position to comment on the progress of actual production in the Factory, for the purpose of Cl 13 (b) of the Agreement.* Nevertheless, it would appear that the actual production in the I.T.I. has fallen short of that contemplated at the time of the Agreement. The Committee, therefore, feel that there is no reason to feel complacent in regard to the progress made by the I.T.I. so far. They recommend that this matter may be re-examined by the Management.

#### **G. Clause 13—Investment by A.T.E.**

25. Under clause 13(a) of the Agreement shares of the value of Rs. 10,00,500 out of the total share capital of I.T.I., viz., Rs. 4 crores are held by A.T.E. Ten per cent of any additional shares which may be issued are also required to be reserved for A.T.E. These upto £ 100,000 could be got redeemed at the request of the A.T.E. at any time five years after the signing of the Agreement. Further, during the period of the Agreement, the A.T.E. are entitled to one seat on the Board of Directors of I.T.I.

*The Committee suggest that these provisions may be reviewed and discussed with A.T.E. if considered desirable, in the light of the changes made in this regard in the agreements entered into by the Hindustan Machine Tools (P) Ltd. and Hindustan Steel (P) Ltd. with their foreign consultants, as a result of which the latter function only as Technical Consultants.*

#### **H. General**

26. The Committee were glad to be assured by the representatives of the Ministry that the Agreement has on the whole worked satisfactorily so far in spite of a few deviations here and there and that it had achieved its main purpose. However, there had also been cases where—

- (i) the I.T.I. have had to purchase plant and machinery from the A.T.E. in excess of what was strictly required and that some of this machinery is still lying idle (vide paragraph 70 and 104);
- (ii) there had been delays in the matter of getting manufacturing data and other technical information especially in regard to Carrier Equipment as a result of which production in the transmission division has been delayed by 1-1½ years;

- (iii) there had been difficulties in the matter of getting supplies of certain materials through the A.T.E. which has also resulted in higher prices being paid than for direct supplies. (These prices are stated to have been got rectified later); and
- (iv) there had been difficulties in the settlement of bills resulting in avoidable delays in payments.

27. The Committee feel that these difficulties could have been avoided at least partially had there been a project report. However, they hope that these and similar other points will be amicably discussed by the I.T.I. with the A.T.E. and resolved (to the extent possible) and every effort made to secure the effective utilisation of the Agreement.

### III ORGANISATION

#### A. Board of Directors

28. The business of the Company is managed by a Board of Directors in whom is vested the day-to-day management of the company except for certain policy matters which are reserved by the Government of India. The number of Directors of the Company under the Articles of Association of the Company is determined by the President of India, who has the right to appoint all the Directors with the exception of the Director to be appointed by the A.T.E.

29. The Board at present consists of 8 Directors, 7 of whom have been appointed by the President while one has been appointed by the A.T.E. Ltd. under clause 13 of the Company's Agreement with the Government of India. The present composition of the Board is as follows:

**Chairman:** Secretary to the Government of India in the Ministry of Transport and Communications (Department of Communications and Civil Aviation.)

**Directors:**

- (1) Chief Engineer, Posts and Telegraphs (P. & T.).
- (2) Representative of the Finance Ministry.
- (3) Representative of the Government of Mysore.
- (4) Representative of the A.T.E.
- (5) Representatives of the Industry:—
  - (a) Sir Vithal N. Chandavarkar, Bombay.
  - (b) Shri S. M. Ramakrishna Rao, Bangalore.
- (6) Managing Director, I.T.I.

Thus, there are as many as 5 officials on the Board of Directors and the Managing Director is the only whole time Director.

30. The propriety of appointing the Secretary of the parent Ministry as the Chairman of the Board of Directors of a Government Company has already been dealt with by the Committee in paras 47-48 of their 39th Report on the Bharat Electronics Ltd. Bangalore. Further, the inherent anomalies and dangers of such an arrangement have also been demonstrated. *The Committee recommend that early action be taken to appoint a Chairman with requisite qualifications and aptitude who holds no post in the Secretariat or has severed his connection with the administration. They would further suggest that persons with business experience who might have no interest in private undertakings and also persons of experience in financial matters and in telecommunication engineering should be associated with the Board in*

*terms with the recommendations contained in the Committee's Sixteenth Report. To the extent possible, they could also act as functional advisers in various matters and provide technical services in the fields of production, performance measurement, etc.*

31. The Ministry of Transport and Communications is the administrative Ministry controlling the I.T.I. The Government of India have reserved powers only in regard to the following:—

- (i) Appointment of Directors;
- (ii) Remuneration to be paid to the Directors;
- (iii) Obtaining of Loans; and
- (iv) Obtaining allotment of foreign exchange for sending personnel abroad.

When asked whether the I.T.I. had experienced any difficulties on account of these limitations on the powers of the Board of Directors, it was stated that no difficulties had been felt by the management in this connection.

32. The Committee found that on a few occasions references had been made by the I.T.I. to the Government of India where in fact from a business point of view, decisions could have been taken by the Board itself e.g., the terms for the export of I.T.I.'s products to Indonesia on a credit basis were referred to Government for their approval possibly because I.T.I. wanted Government to stand security for the dues which it is understood was not agreed to by Government. Even apart from such references the presence of the Secretary and other Government officials on the Board would itself tend to increase dependence on Government even excluding the dependence on the P & T Department to determine the production programme. *The Committee would recommend that the Board should take maximum responsibility and function on business principles and not look to Government for guidance in matters where decisions could be taken by it.*

33. Incidentally, it also appeared to the Committee that the Board of Directors had been spending considerable time discussing matters which could be disposed of by lower authorities to whom powers have been or could be delegated e.g., extension of posts, sanction to leave, fixing or transportation charges for officers using Company's call-vans, advances for purchase of cycles, water supply arrangements, re-appropriations under-limits of the master budget etc. *The Committee consider that the Board of Directors should concentrate on policy matters and measures to improve efficiency, economy and production and that there should be suitable delegation of powers to the authorities on the spot for execution of day-to-day work. It will be appreciated that unless there is effective delegation, there can be no efficient functioning. The Committee would recommend that with this end in view the delegation of powers to lower authorities should be reviewed by the Management. They would further suggest that it should also be ensured by the various authorities that the powers delegated to authorities below them are actually exercised.*

### B. Organisational set-up

34. A Chart showing the present organisational set-up of the I.T.I. is given at Appendix I with an explanatory note. As would be observed therefrom the organisation consists of 3 major departments each under a Senior Divisional Head, 3 intermediate and 4 minor Departments and 4 Branch offices. These are supervised by the General Manager, Manager and the Finance and Accounting Manager, under the over-all supervision and control of the Managing Director, who is responsible to the Board of Directors.

35. Unlike the Hindustan Aircraft (P) Ltd. and Bharat Electronics (P) Ltd., Bangalore, the I.T.I. has no Board of Management. However, during discussion, it was explained that the I.T.I. followed a method of holding weekly consultations with the Heads of Departments on various matters which helped the Managing Director in reaching decisions.

36. The Committee examined the justification for the existence of separate posts of General Manager (Rs. 1300—60—1600) and Manager (Rs. 1300—60—1600). It was explained that the extent of supervision over the various departments in the I.T.I. was considerable and that while the General Manager was responsible for the Transmission Department, the M.A.X. factory, Stores and Shipping Department etc., the Manager looked after the Administration, Branch offices, purchases and sales, Engineering and Construction Departments. *The Committee do not feel that the division of work between the General Manager and Manager has been made on a very rational basis such as would ensure maximum co-ordination. Further, they also observed an anomaly in that the Head of the Transmission Department drawing a salary in the scale of Rs. 1300—1600 worked under the General Manager who also drew pay in the same scale.*

37. *The Committee would deprecate the existence of avoidable intermediate supervisory officers especially in an industrial and commercial undertaking like the I.T.I.* The Managing Director explained that they were necessary since it would be difficult for him to coordinate the work of 10-12 heads of Departments. *The Committee feel, however, that it should be possible for the Heads of major Departments at least e.g., the Transmission and Engineering Departments to function directly under the Managing Director, especially since the present incumbent is himself a technical officer, while the General Manager might control the other important Departments.* Under this arrangement, it might be possible to abolish the post of Manager. *The Committee would recommend that the organisational set-up of the I.T.I. should be reviewed in the light of the above remarks, as well as of the position obtaining in modern undertakings elsewhere.*

38. *Further, to ensure better coordination, the Committee would suggest the formation of a Board of Management, as in the H.A.L. etc., consisting of the Managing Director and Senior Officers of the*

*I.T.I. to assist the Managing Director in the exercise of his powers, functions and responsibilities not in an informal manner but by holding meetings at regular intervals, maintaining records of proceedings etc. In this connection, they might mention that the practice of having Boards of Management which involves collective and to that extent considered decision-making and encourages joint responsibility among senior officers has become extensive in most enterprises.*

### C. Finance Committee

39. The Committee understand that there is a Finance Committee consisting of 3 Directors of the I.T.I.—The Managing Director, the Chief Engineer, P & T, and the representative of Ministry of Finance. It holds regular meetings for considering all financial matters and is stated to be working more on conventions than on definite delegations. The recommendations of the Finance Committee are placed before the Board of Directors for approval.

40. The Committee do not appreciate the association of the Chief Engineer, P & T, and the representative of the Ministry of Finance, with the Finance Committee, especially in view of the fact that they are stationed at New Delhi where they have other responsibilities also. Further, in view of the fact that there is no delegation of powers to that Committee so that all its recommendations have to be placed before the Board of Directors, three of whom constitute the Finance Committee, the Committee do not quite understand the justification of such a Committee with the present composition. They consider that while important financial matters should be considered by the Board of Directors, there should be sufficient delegation of authority below that level for which purpose they have already recommended a Board of Management. The Committee, therefore, suggest that the continuance of the Finance Committee may be re-examined.

### D. Branches of I.T.I.

41. There are at present 5 Branch offices of the I.T.I. (P) Ltd., at Calcutta, Bombay, Delhi, Madras and London. The Branches at Calcutta, Bombay and Madras are mostly concerned with imports clearance work, maintenance of PAXs etc.

42. The expenditure incurred on the following offices during the year 1956-57 is as follows:—

				Rs.
Calcutta	..	..	..	1,06,624
Madras	..	..	..	13,680
Bombay	..	..	..	66,014
Delhi	..	..	..	14,136

43. The Committee feel that it might perhaps be more economical to entrust the work relating to the clearance of stores received from abroad and forwarding them to the Head Office, at present handled by these three Branches, to the Clearing and Shipping Agents approved by the Government of India. They would suggest that this question may be examined in consultation with the Ministry of Transport and Communications.

44. The Delhi Branch on which an expenditure of Rs. 14,136 was incurred in 1956-57, is mostly concerned with work relating to liaison with P & T and Government of India. The Committee feel that the justification for its continuance may also be re-examined to see whether this work can be done through some other agency, such as one of the Committees discussed later.

45. As regards the London Branch, the Committee were informed that it has at present one Officer and two clerks and that it would have to be continued till the agreement with the A.T.E. was terminated.

46. The Committee discussed with the representative of the I.T.I. and the Chief Engineer, P & T the feasibility of P & T Department taking over the work relating to the maintenance of the PAXs installed by the I.T.I. and the financial implications thereof with special reference to the extra staff that may have to be appointed by the P & T Department. In this connection the Managing Director, I.T.I. pleaded that in consonance with the normal commercial practice, the sale should be followed by service and the P & T Department had no organisation for effecting sales. The D. G., P & T in a note furnished to the Committee has stated that apart from the fact that the maintenance of PAXs\* by the P & T is costlier than by I.T.I. it is not the policy of that Department to maintain PAXs installed by other agencies, and they, therefore, did not consider it expedient to take over maintenance of private PAXs. While the Committee agree that under these circumstances it might be necessary for the I.T.I. to keep some maintenance staff to look after the PAXs installed in the areas served by the various Branches, they would suggest that the I.T.I. should examine the whole question of maintaining these Branches, in their present form and strength, particularly, in case it is found economical to entrust the handling work to the Clearing Agents.

#### E. Liaison with User Departments and A.T.E.

47. So far as liaison with the Posts and Telegraphs Department is concerned, there are two Committees assisting the I.T.I. viz., Technical Advisory Committee and Production Coordination Committee. The Technical Advisory Committee has representatives from Indian Telephone Industries, Automatic Telephone and Elec-

\*Private Auto Exchange.

tric Company and Posts and Telegraphs Department. They meet once a quarter every year and discuss:

- (a) Technical advice from Automatic Telephone and Electric Company with regard to manufacturing problems;
- (b) Production programme *vis-a-vis* Posts and Telegraphs' requirements.

The Chief Engineer (Planning), Posts and Telegraphs is one of the Posts and Telegraphs Representative so that technical problems relating to specifications, future developments etc., could be discussed.)

The Production Co-ordination Committee consists of representatives from Indian Telephone Industries and Posts and Telegraphs Workshops. They meet at least once in every six months to co-ordinate the production in the Posts and Telegraphs Workshops and in the Indian Telephone Industries so as to avoid duplication. The Committee were informed that as a result of the working of the two Committees, the coordination between the production programme and the users' requirements had improved.

48. As to the requirements of the Railways, the Committee note that recently a Railway Equipment Committee has been formed to discuss questions relating to the equipment peculiar to Railways while in regard to Defence discussions are held with Technical Development Establishment (Electronics).

49. Liaison with A.T.E. was maintained through that Company's local office in Bangalore and through the Communications Adviser to Indian High Commission, London who is assisted by a whole time I.T.I. Officer.

50. *The Committee feel that the present system of having different Coordination Committees and producers for P. & T., Railways and Defence is not quite satisfactory. They will have occasion to point out later that there is scope for better coordination between the I.T.I. and the user departments of P. & T. They therefore feel that a better arrangement might be to have one coordination Committee with 3 to 4 sub-Committees each dealing with the requirements of different User Departments and also a small office since that might ensure a closer coordination in production as well as in research programmes between the I.T.I. on the one hand and the different user departments on the other.*

**IV**  
**ACCOUNTS & FINANCE**  
**A. Capital**

*(i) Authorised Capital:*

51. The authorised capital of the I.T.I. amounts to Rupees four crores, which is at present fully paid up and is made up as below:-

Name of the shareholders	No. of shares	Amount (Rs.)	Percentage of total
1. Govt. of India . . .	3,58,745	3,58,74,500	89.7
2. Govt. of Mysore . . .	31,250	31,25,000	7.8
3. A.T.E. Ltd. (under the provision of the Agreement)	10,005	10,00,500	2.5
<b>TOTAL . . .</b>	<b>4,00,000</b>	<b>4,00,00,000</b>	<b>100.0</b>

*(ii) Participating Capital vis-a-vis Output;*

52. The following table indicates the capital of the I.T.I. together with its borrowings *vis-a-vis* the output during the last three years:

(figures in lakhs of rupees.)

S. No.	Particulars	1954-55	1955-56	1956-57
<b>1. Participating Capital</b>				
(a) Total paid-up capital . . .	400	400	400	
(b) Loans from State Bank . . .	52	..	63	
(c) Loans from Govt. . .	52	52	64	
<b>TOTAL . . .</b>	<b>504</b>	<b>452</b>	<b>527</b>	
<b>2. *Production including works in Progress at the end of year . . .</b>	<b>309</b>	<b>337</b>	<b>377</b>	
<b>Percentage of (2) to (1) . . .</b>	<b>61%</b>	<b>74%</b>	<b>72%</b>	

\*Production figures have been calculated for each year separately after ignoring the works-in-progress at the beginning of each year. See para 97 of the Report.

Thus in the year 1954-55, the percentage of production to capital etc., was only 61 per cent. It increased to 74 per cent in 1955-56 but fell to 72 per cent in 1956-57.

53. On its being pointed out by the Committee that the Capital output ratio was only 72%, the representative of the Ministry of Finance (Communications) stated that the figure was 81%, if the loan amounting to Rs. 63 lakhs taken from the State Bank of India was excluded from the working capital. He also urged that even this rate of 72% was far better than that in Sindri Fertilizers and Chemicals, (P) Ltd., and Hindustan Machine Tools (P) Ltd. While the Committee are aware that this ratio is bound to differ from one industry to another, they understand that in specialised industries including tele-communication, it should be at least 1:1 and could even 1:2. *It is evident that efforts will have to be made by the I.T.I. to increase their production to the optimum capacity for use at home as well as by tapping export markets and undertaking manufacture of ancillary items. This aspect has been elaborated later in the chapter dealing with Production.*

### B. Financial Results of Working

54. The table below gives certain figures relating to the financial working of I.T.I. for the last four years:

(figures in lakhs of rupees)

S. No.	Particulars	1953-54	1954-55	1955-56	1956-57
1. Sales . . . .	291.9	302.5	258.9	272	
2. Gross profits . . . .	27.6	27.5	26.0	22.7	
3. Percentage of Gross Profits to Sales . . . .	9.6	9.2	10.01	8.7	
4. Net profits . . . .	23.4	15.5	26.0	23.6	
5. Dividends . . . .			2½%	2%*	
6. Total Depreciation . . . .	18.6	23.7	21.00	26.11	
7. Depreciation on Idle Machinery . . . .		1.8	1.3	.8	
8. Provision for renewals and replacements . . . .	11.50	..	..	1.0	
9. Stocks . . . .	22.8	27.2	34.2	22.8	
10. Book debts . . . .	145.2	304.9	229.4	131.6	
11. Provision for bad debt reserve . . . .	3.89	..	..	..	
12. Provision for general reserve . . . .	7.5	7.5	8.0	..	
13. Res. for Income-tax and Super-Tax . . . .		3.0	10.2	15.0	
14. Loans from Government and Banks . . . .	24.47	103.82	51.84	126.4	
15. Writes off . . . .	.5	.3	.2	.8	

\*Proposed for 1956-57

55. *Profits:* The profits of the I.T.I. were mainly on account of the profit margin allowed on the cost of production or sales in the case of imported equipment. The profit margins were 7½% in the case of P & T, 10% for other Government departments and 12½% for private parties in the case of I.T.I.'s products and 5% commission in the case of direct sales. The Committee may, however, point out that in monopoly public concerns profits have to be viewed differently.

56. Prior to November, 1955, supplies to the P & T were based on provisional selling prices. These resulted in the P & T being overcharged to the extent of Rs. 60 lakhs upto 31st March 1956, which had to be adjusted subsequently. Further, the figures of profit shown above do not seem to take into account the amounts of royalty, etc., which have still to be paid to the A.T.E. for 1954-55 as also the Selling Price Variations for 1955-56. The figures of profits shown in the above statement are, therefore, not real. It has, been pointed out that the payment of Rs. 60 lakhs to the P & T Department and of royalty to the A.T.E. which is to be recovered from the P. & T. Department would not affect the profits of the I.T.I. for any year. *The Committee doubt, however, whether the declaration of a dividend by the Directors in 1955-56 and in 1956-57 was in consonance with the accepted commercial practice.*

57. Incidentally, the Committee were informed that the I.T.I. had a proposal to increase the profit margins referred to earlier by rates varying from 2½% in the case of P. & T. to 7½% in the case of the private parties. This was justified by the Managing Director, I.T.I. on the ground that it was in accordance with the practice followed by the Bharat Electronics Ltd., in whose case the Planning Commission had fixed a profit margin of 10%. *The Committee would consider these increases as unobjectionable so long as they assisted in self-financing future development projects. At the same time, they would point out that the basic objective of a public enterprise like the I.T.I. should not only be to realize a financial profit but to produce the required products, to achieve the optimum output and to ensure production by economic and efficient methods.*

58. *Depreciation and Renewals reserve:* The Committee observe that in regard to depreciation, the Straight Line method is followed in the I.T.I. while provision for Replacement and Renewals Reserve is made on an ad-hoc basis depending on the availability of funds, and estimated future requirements. *In regard to the amount provided for depreciation the Committee observe variations which do not seem to have relation to either increase in machinery or in production. The Committee suggest that this should be examined by the Management.*

59. As regards the existing reserve and provision for depreciation the Committee were assured that they were adequate. *The Committee consider, however, that provision for replacement should also be based on some scientific formula.*

60. *Provision for General Reserve:* The General Reserve of the I.T.I. stood at Rs. 24 lakhs as on 1st March, 1957. However, no provision for the Reserve has been made in the accounts for the year 1956-57 even though dividend at a rate of 2% is proposed to be declared. *The Committee would suggest that, as a rule, provision should be made for General Reserve since such reserves go to strengthen the internal finances of an undertaking.*

61. *Book Debts:* It is evident from the statement given earlier in this section that the position regarding the book debts of the I.T.I. has been consistently bad and that at one stage as on 31st March, 1955 the dues to the I.T.I. were Rs. 305 lakhs. Since then the position has no doubt improved considerably. Thus, the total Book-debts as on 1st December, 1957, amounted to Rs. 138 lakhs of which Rs. 117 lakhs were the dues from the P. & T. Department, Rs. 16 lakhs from Railways and the balance from the Defence Department and other parties. Nevertheless, the Committee do not feel happy that a commercial undertaking like I.T.I. should have allowed such outstandings to accumulate especially from a department whose representative functions on its Board of Directors. They consider this as particularly unbusinesslike in view of the fact that because of this locking up of funds, the I.T.I. had to borrow from the Government and the State Bank of India. These borrowings amounted to Rs. 127 lakhs as on 31st March, 1957 and the interest thereon about Rs. 5 lakhs. *The Committee recommend that action to liquidate the outstandings should be vigorously pursued by the I.T.I. with the concerned Departments.*

62. As regards the dues from the P. & T. Department, the Committee were informed by the C.E., P. & T. that according to the P. & T. books the total outstandings due to the I.T.I. were only Rs. 40-50 lakhs. The Committee consider it incredible that there should be such wide discrepancies between the books of the I.T.I. and the P. & T. Department. One of the reasons for this discrepancy was explained to be the possible non-receipt by the P. & T. units of bills sent by the I.T.I. by ordinary post which was now sought to be overcome by sending them by registered post. The Committee were not, however, convinced by this reasons adduced for the discrepancy. They consider that the main reasons for the outstanding are the lack of promptness on the part of the I.T.I. in rendering bills or in chasing those which were not paid within a reasonable time, and also on the part of the P. & T. units in paying or taking any action on the bills rendered to them for supply of goods. *The Committee recommend that strong action should be taken against those who allowed the dues to accumulate both in the I.T.I. and the P. & T. units and*

*that there should in future be greater co-ordination between the two in the settlement of dues.*

63. It was contended on behalf of the I.T.I. that the outstandings against the P. & T. were principally due to (i) non-payment of 90% value in a large number of cases by P. & T. Department on the basis of the I.T.I. delivery challan as required under the agreement between the D. G. P. & T. and the I.T.I. as well as of the balance when due, both of which were sometimes due to non-availability of funds and proper sanctions with some units of the P. & T. (ii) non-payment of sales-tax by the P. & T. units (Rs. 10 lacs) and (iii) rejections of goods supplied by I.T.I. (Rs. 5 lacs). As regards the 90% value, the Committee would suggest that since there is already P. & T. inspection staff stationed at the I.T.I., the desirability of sending immediately a copy of the I.T.I. delivery challan accompanied by the inspection certificate to the Deputy Accountant General P. & T. concerned, who could on its receipt arrange payments to the I.T.I. should be considered.

64. As regards the non-availability of funds and lack of proper sanctions of estimates in the P. & T., the Committee consider them as a reflection on the working of the P. & T. It is wrong for any authority to place an order for supply of goods without being in a position to pay for them which is also no ground for not paying for an obligation incurred. The Committee recommend that the D. G. P. & T. should examine all such cases and issue strict instructions in the matter.

65. As regards sales-tax, the Committee fail to understand why its payment should continue to be objected to by the P. & T. units even after the question of inter-State Sales Tax has been settled and particularly for the periods prior to 6th September, 1955 and after 1st July, 1957. They suggest that immediate instructions should be issued in the matter by the D. G. P. & T. in regard to these periods. As regards the intermediate period the matter was stated to be under consideration of the Law Ministry. The Committee hope that an early decision will be reached in the matter.

66. As regards non-payment of Bill on account of rejections, the Committee would suggest that instead of disallowing bills and holding up payment, the feasibility of first making full payment of Bills and thereafter making adjustments for rejections by means of credit notes should be considered. This procedure, they understand exists in the case of supplies made to the Railways and Defence.

67. In respect of arrears of payments due to I.T.I. from Railways and Defence, the Committee would suggest that the existing procedure followed in the case of P. & T. together with the above suggestions should be made applicable in their case also and that the necessary discussions for the purpose be undertaken immediately.

68. Finally the Committee observe from the terms and conditions of supply that no interest is levied on delayed payments on account

of supplies of goods etc. They would suggest that the desirability of levying a charge of this nature in accordance with normal commercial practice should be considered.

69. *Writes off:* It will be seen from the statement given earlier in this section that on an average about Rs. 45,000 had been written off each year during 1953-54 to 1956-57. The Committee are concerned to see this abnormal rate of writes off in the company and would suggest that the management should examine into them carefully.

### C. Trends in Expenditure

70. The following table gives figures for certain items of expenditure, production, sales and plant and machinery in the I.T.I. for the last three years:

Items	(Rupees in lakhs)			
	1954-55	1955-56	1956-57	1957-58 Budget
(i) Salaries & Wages	33 (100)	39 (118)	52 (160)	70 (233) *62 (188)
(ii) Overheads	49 (100)	58 (118)	72 (147)	..
(iii) Power & fuel	1 (100)	1.3 (130)	1.6 (160)	2.03 (200)
(iv) Depreciation	23.7 (100)	21.00 (88)	26.1 (110)	28.0 (118)
(v) Depreciation on idle machinery	1.8 (100)	1.3 (72)	.8 (44)	..
(vi) Repairs to machinery	4.1 (100)	7.9 (193)	4.2 (102)	..
(vii) Total revenue expenditure	76 (100)	94 (124)	110 (144)	130 (171)
(viii) Plant & machinery in factory	87.7 (100)	95.5 (109)	107.2 (122)	141 (171)
(ix) Total Production	309 (100)	337 (109)	377 (122)	425* (129)†
(x) Actual Production (I.T.I.'s Effort)	110 (100)	139 (126)	176 (160)	239 (217)†
(xi) Sales	302 (100)	259 (85)	272 (90)	350 (112)

It would be seen from the above that the increases in salaries and wages, overheads, power & fuel as well as total revenue expenditure have been disproportionate to the increases in total production and sales, over the period 1954-55 to 1956-57. Thus while total production increased by 9% in 55-56 and 22% in 56-57, the corresponding increases in Salaries & wages and total revenue expenditure were of the order of 18% + 60% and 24% + 44% respectively. The increases do not however compare unfavourably with the increases in actual production i.e., I.T.I.'s efforts.

\*Likely to be actual for 1957-58.

†I.T.I.'S comments at Appendix VII received on 8-4-58.

But, the proportion of salaries and wages to the total revenue expenditure has been steadily rising over this period being 43.5%, 42.5% and 47.5% while that budgeted for 1957-58 would be 54%.

The above table would also show that depreciation on idle machinery has been decreasing. Its decreasing proportion to the depreciation charged during these years, viz., 7, 6 and 3 would also indicate the proportion in which idle machinery is decreasing. Even then its value during the three years would be Rs. 6 lakhs, Rs. 5.7 lakhs and Rs. 3.2 lakhs respectively. Further, the proportion of the total production during each of the three years to the plant and machinery almost remained the same which would mean that there has been little improvement in the over-all utilisation of plant and machinery. However, if actual production (i.e. the I.T.I.'s efforts) is only considered, then its production to the Plant and Machinery has shown improvement during the period. In 1955-56, the repairs to plant and machinery also showed an unusually steep increase.

71. *The Committee feel that the expenditure trends do not reveal a very satisfactory picture in many directions especially since in the year 1957-58 when though the total production figure showed an increase of about 29% since 1954-55 the budgeted expenditures on salary and wages, power and fuel and depreciation as also the total revenue expenditure were much higher. The Committee suggest that the management and the Board of Directors should regularly have the expenditure in I.T.I. carefully analysed and take action to control disproportionate increases wherever they are noticed.*

#### D. System of Accounts

72. Proper and effective system of accounts is of importance in any undertaking and particularly so in a monopolistic concern like the I.T.I.

73. (i) *Standard of Budgeting:* The following are the figures of estimates and actuals in the I.T.I. under various heads for the last three years.

(In '000 of rupees).

S. No.	Particulars of items	1954-55		1955-56		1956-57	
		Budgeted	Actual	Variation	Budgeted	Actual	Variation
1. Salary and Wages	• • •	3,633	3,110	+523	4,295	3,745	+550
2. Staff Welfare	• • •	115	117	-2 (1.8%)	158	176	-18
3. Consumption of stores and spare parts	• •	226	265	-39	372	378	-6
4. Repairs to machinery, etc.	• •	335	409	-74	361	785	-424 (117%)
5. Depreciation	• •	2,182	—2,182	...	1,973	—1,973	...
6. Depreciation on idle machinery	• •	185	—185	...	132	—132	...
7. Revenue Receipt	• •	151	—151	...	287	—287	...
8. Sales	• • •	33,500	30,200	-3,300	32,100	25,900	+6,200
						28,800	27,200
							+16,00

Thus, there are considerable variations between the actuals and budgeted figures, which range from 1.8 per cent in the case of Staff Welfare Expenses for 1954-55 to 11.7 per cent in the case of repairs to machinery for the year 1955-56. Further, in the case of depreciation, depreciation on idle machinery and revenue receipts, no provision was made in the Budget Estimates for these years even though there were figures under these heads for several years. Even in regard to Salaries and Wages, the variations amount to 11.14 per cent. It is evident that the standard of budgeting in the I.T.I. is far from satisfactory.

74. *The Committee are aware that in commercial undertakings variations between the actuals and budgeted figures are not uncommon though they can be minimised with proper planning and foresight. They do not appreciate, however, wide variations in the case of an undertaking like the I.T.I. which has an assured business on the basis of the cost of production. The Committee feel that such wide variations render effective financial control difficult and that, to minimise them the standard of Budgeting, which in turn depends on proper accounting and costing, should be improved.*

75. In this connection, the Committee observe that the Chief Cost Accounts Officer (C.C.A.O.) of the Government of India who examined the system of accounting in I.T.I. in 1952 and again in 1954 had stated in the two reports submitted by him in January, 1953 and November, 1955 respectively that he was not satisfied with the system of accounting followed in the I.T.I. He, therefore, made various suggestions to improve the system of accounting in the Company as also for effecting economies in its working. The Committee observe from the 2nd Report which was made available to them on a specific inquiry only on 10th February, 1958, (extracts from the first report having been made available much earlier) that most of the recommendations in the first Report had not been fully implemented. As regards those in the Second Report the Committee enquired from the Ministry the action taken by them thereon but they regret that till this report was finalised, information\* in the matter was not made available to them by the Government. *The Committee feel, however, that sufficient action has not been taken thereon by the I.T.I. Even the Board of Directors, do not seem to have taken any specific note of these Reports of the C.C.A.O. which is unfortunate. The Committee would recommend that the Board of Directors should arrange for immediate action on the reports and recommendations made by the C.C.A.O.*

The more important recommendations made by the C.C.A.O. are, reproduced in Appendix 'III'. It would be observed therefrom that the following remarks made by him in his Second Report are revealing:—

"The lay-out and the system of accounting itself in this organisation is far behind the standard that should be

\*Since received on 3rd April, 1958. See Appendix IV.

expected in an organisation of this type....and I would appeal to the Management to first establish a properly finalised system of accounting—both financial and cost."

In his first Report on stores accounting, the Chief Cost Accounts Officer wrote as follows:—

"There is considerable amount of confusion existing in regard to the accounting of stores in this Factory. It requires immediate and concentrated attention for setting right things."

In his second Report given in 1955, he observed:

"I very much regret that the position in this respect had not at all improved."

76. As regards costing, the C.C.A.O. concluded as follows in his second report:

"... the original accounting itself was in arrears—and therefore costs based on proper data were not available to think of further looking into the possibility of a comparative study being made into the cost of similar imported articles. This could be taken in hand only when it is known that costs produced at I.T.I. are correct and have been compiled on proper methods."

The internal audit department had also pointed out in successive reports defects in regard to costing such as delays in compiling cost figures, non-availability of standard costs and absence of review of cost cards.

77. The Committee recommend that the entire system of accounting—financial, cost and stores—should be urgently got examined afresh by an expert team specially to be set up for the purpose. Incidentally the Committee would observe that during their examination of various State undertakings they invariably found that the costing system followed by them was not always what it should be in a Commercial and Industrial undertaking. They, therefore, suggest that the Government should urgently consider the setting up of an expert committee to go into the system of Accounting—Finance, Cost and Stores—in all the State Undertakings with a view to making it fool proof and achieving standardisation of Accounting Procedure, to the extent possible, at least in all manufacturing units.

#### E. Presentation of Accounts

78. The Committee consider it desirable that the Annual Accounts and Reports of Public Undertakings placed before the Parliament should be made far more detailed and exhaustive than at present. These should clearly bring out the financial working of the undertaking as well as of its various manufacturing departments

*and branches, an analysis of accounts with particular reference to administrative expenses, overheads, staff strength and measures to control them, actual production of various items and its cost and trends, relations with users, personnel and training matters, etc., together with illustrative graphs and charts wherever possible. In this connection, the Committee would suggest that the Annual Reports and accounts of the Nationalised Industries in U.K. might be considered as a model. Further, in order to enable Parliament and Parliamentary Committees to make a proper study of these undertakings, their annual accounts and reports for the preceding financial year should be laid before the Parliament before the commencement of Budget discussions. In their absence, the Committee had to call for detailed information on almost everything from the I.T.I. during their examination of the undertaking.*

#### F. Audit

79. The I.T.I. being a private limited company formed under the Companies Act, 1956, its accounts are audited by the auditors appointed by the Government of India on the advice of the Comptroller and Auditor-General under the provisions of Sec. 619 of the Act *ibid.* Results of the audit conducted by the Company's auditors are made available to the Comptroller & Auditor-General who has a right to give directions to the auditors and to conduct any supplementary audit. On the basis of these, the Comptroller & Auditor-General may also submit an Audit Report to the Parliament. Besides there is also a separate Internal Audit Organisation in the I.T.I. for an independent and continuous examination of the accounting, financial, manufacturing and other operations carried out at the I.T.I. by the various departments. Reports of the internal audit are submitted to the management quarterly.

80. As the P. & T. Department are the principal customer of the I.T.I. they have also stationed at I.T.I. a separate cost-check and inspection staff consisting of 1 Accounts Officer, 2 Accountants, 1 Graphist, 2 Divisional Engineers, 2 Asstt. Engineers and about 11 clerks. In view of the fact that there already exists in the I.T.I. a separate Cost and Internal Audit Organisation, the Committee feel that a separate inspection staff need only be kept by the P. & T. at I.T.I. *As regards cost check, the Committee are of the opinion that since the I.T.I. and P. & T. are under the administrative control of the same Ministry, it should be possible for the P. & T. Department to accept a certificate from the Cost Accounts authorities of the I.T.I. as to the cost of articles supplied to that Department, at least after the accounting system has been reviewed as suggested earlier. They would, therefore, suggest that the justification for having a separate cost check staff by the P. & T. might be examined by the Ministry of Transport and Communications (Department of Communications) in consultation with the Ministry of Finance and the Comptroller and Auditor-General of India.*

## V

### PRODUCTION

#### A. Projects

81. The principal projects for purposes of production in the I.T.I. are at present two *viz.* (a) M.A.X. (Main Automatic Exchange); and (b) Transmission equipment.

82. *M.A.X. Division.*—The M.A.X. Division of the factory initially started with the Assembly of Telephones from imported components in 1949. The next stage of development was fabrication of individual components in I.T.I. itself.

83. *Transmission Division.*—The transmission Department was started in April, 1950 in the I.T.I. to manufacture the transmissions equipment. In the initial stages, the development work was carried out in the Electrical Communication Laboratory of the Indian Institute of Science. After the successful completion of Single Channel Carrier Telephone System, bulk production was taken up and now the Division is working on 3 Channel Carrier Telephone System, 8 Channel Carrier System and 12 Channel Carrier System for which the I.T.I. has entered into a Supplementary Agreement with the A.T.E. Besides these projects, this Division of the I.T.I. has also developed and manufactured secrecy equipment, U.F. Repeaters, 4 channel equipment, Transmission Measuring Sets, Channel displacers etc.

#### B. Review of Production

84. The following table shows the estimated production and the actual production in I.T.I. during the last 5 years:

Item	1953-54	1954-55		1955-56		1956-57		1957-58	
		Target	Actual	Target	Actual	Target	Actual	Target	Actual
<b>MAX</b>									
1. Telephones	..	40,000	40,952	50,000	49,137	50,000	48,200	60,000	48,400
2. Exchange Lines	..	15,600	15,600	30,000	29,000	35,000	29,400	41,000	32,480
<i>Transmission</i>									
3. Single Channel Tel. Sys.	..	30	30	30	12	30	19	60	61
4. Channel Carrier Sys.	..	..	..	2	12	15	40	20	40
5. PAX's & SAX's	..	..	..	45	..	99	..	166	..
6. 12-Channel-Carrier Equip.	..	..	..	..	..	..	3	1	5
Production in Rs. Lakhs	..	..	..	309	..	337	..	377	..

The above figures include manufacture on the basis of components imported or obtained indigenously the extent of which was as follows during the years 1952-53 to 1956-57:—

(In lakhs of rupees)

	Imported	Indigenous	Total
1952-53	43.12	4.62	47.74
1953-54	101.43	5.33	106.76
1954-55	41.18	4.62	45.80
1955-56	20.44	12.86	33.30
1956-57	45.57	17.12	62.69

85. It would thus be observed that in several cases, the production in I.T.I. did not reach the targets as envisaged by it. Further, on the transmission side, where there is extensive scope for production, the production schedules do not appear to have been framed realistically. The shortfall in respect of 12 channel carrier equipment was however due to non-receipt of components etc. from A.T.E. The Committee understand that targets of production often underwent change because the P. & T. who are the main buyers of the I.T.I. products did not intimate their requirements sufficiently in advance or made changes in them later. The position is, however, stated to have improved recently and P. & T. has been requested to place firm orders about 22 months in advance.

86. *The Committee would recommend that the I.T.I. should impress on the P. & T. whose representative functions on the Board of the I.T.I. the necessity of intimating actually the firm requirements sufficiently in advance and of not making changes in them frequently. They feel that this should be possible by undertaking proper planning in the P. & T. In this connection it is important to point out that for economical working schedules once fixed should not be frequently altered since such changes result not only in decreased productivity but also in loss of work-flow and inefficient use of manpower and machines.*

87. As regards the I.T.I. effort *vis-a-vis* the total production, it was explained that at present practically all the components of a telephone are being fabricated in I.T.I. and manufacture and assembly of sub-components like Dials, Transmitters and Telephone condensers have been established. As regards the exchange equipment, 85 per cent. of the items are stated to be now manufactured by it, while the balance of 15 per cent. comprising specialised components like Power Plant equipment, etc. are imported from abroad. However, it would appear from the table given earlier that on an average 18 per cent. of the direct materials in value were accounted for by components imported or procured indigenously. Even then in the last three years, the actual production (the I.T.I.'s efforts) has been Rs. 110 lakhs, Rs. 139 lakhs and Rs. 176 lakhs respectively, *i.e.* Rs. 425 lakhs which comes to only about 41% of the total production of Rs. 1023 lakhs during that

period. *The Committee, therefore, recommend that efforts should be made to improve the extent of actual production in the I.T.I.*

### C. Programme of Production

88. (i) *MAX Equipment.*—The Committee were informed that the present targets for supply of MAX equipment to the P. & T. Department on expansion as well as replacement account during the 2nd Five Year Plan envisage the cut-over of about 165,000 lines of new auto-equipment. For this purpose, the supply of equipment has to be completed by about the end of the 4th Year of the Plan. Of this target, approximately 36,000 lines of equipment had already been supplied before the Second Plan commenced leaving approximately 1,30,000 lines to be supplied in the first four years of the Plan. During the first 2 years approximately 56,000 lines have been supplied so that the I.T.I. would have to supply the P. & T. Department approximately 37,000 lines of MAX Equipment and about 45,000 telephone instruments per annum during the years 1958—60. By 1960, the target is to produce in all 3,20,000 telephones and 2,15,000 exchange lines.

89. (ii) *Transmission Equipment.*—The estimated requirements of the P. & T. Department for transmission equipment upto 1960 are stated to be as follows:—

Items	P. & T. Department	Present Target
1. 12-Channel open wire systems	5 a year	3 to 5 a year.
2. 12-Channel Groups for Co-axial Project	148 in 4 years**	18 in 2 years.
3. 12-Channel 2 wire Cable systems for Rly. Electrical Project.	32 in 2 years**	..
4. 3-Channel open wire system	30 a year	30 to 40 a year.
5. Single Channel open wire system	30 a year	30 a year.
6. 8-Channel open wire system	6 a year	..
7. V. F. Repeaters 2W for Trunk Exchanges	20 a year	..
8. V. F. Repeaters 2W Cable Type for Rly. Elec. system	350 in 2 years**	..

\*\*Subject to approval of schemes and availability of funds.

Thus the targets and capacity of the I.T.I. do not appear to be adequate to meet the requirements of the P. & T. Department in respect of transmission equipment, particularly in regard to the 12-Channel open wire system, 12-Channel co-axial project etc.

90. In October, 1954 the I.T.I. had entered into an agreement with the A.T.E. for supply of manufacturing information on the open wire 12-Channel carrier system. For this purpose the I.T.I. had also sent 8 Engineers for training to the A.T.E. Further it is understood that the I.T.I. has received the required technical and manufacturing

information as well as tools in regard to this Project and the Transmission Department is now completely manned by Indian Personnel. A separate building for this Department costing about Rs. 3.5 lakhs is nearing completion and most of the required machinery has also been received.

91. *The Committee feel that the manufacture of the transmission equipment needs to be given greater attention in the I.T.I. than at present especially considering its revenue-earning capacity as well as future demand. The Committee understand that in the export field also there are greater chances of marketing transmission equipment than telephone exchange equipment. They, therefore, suggest that the programme of transmission equipment of the I.T.I. should be reviewed in the light of the above remarks.*

92. (iii) *Other Equipment.*—In view of the surplus capacity available in certain shops of the I.T.I. the manufacturing of certain items which can be produced in the I.T.I. with the existing machinery has been undertaken e.g., screws and die casts. During the last two years, I.T.I. have delivered about Rs. 2.4 lakhs worth of screws and Rs. 46,000 worth of die cast items. *The Committee suggest that the feasibility of further production in these directions should be explored so as to utilise fully the spare capacity.*

93. The Committee were informed that the I.T.I. has under contemplation the manufacture of the following type of equipment which are more or less in the line of manufacture in I.T.I. though not strictly telephone equipment:—

1. Mines Signalling Equipment and associated telephone equipment.
2. Automatic Road Signalling Equipment.
3. Automatic Voting Equipment.
4. Remote Control Equipment.
5. PAX Equipment coupled with Public Address System.
6. Staff Locators.
7. Country sets—V.H.F. Telephone System.
8. Operators flame proof Telephones.
9. High Tension Protective Equipment.

94. The Committee understand that there have been some discussions regarding the possibilities of I.T.I. and B.E.L. each taking up the manufacture of certain parts and components for the other on a regular basis and that recently it has been agreed that the I.T.I. will act as sub-contractors to B.E.L. in the matter of supplying Carrier Equipment to Railways, to work in conjunction with Radio Multi-channel Equipment manufactured by the B.E.L. and that I.T.I. will be able to undertake the manufacture of such equipment as soon as formal specifications and orders are issued by B.E.L.

The Committee understand, however, that some difficulty is being experienced by the two Concerns in regard to the above since B.E.L. follows the metric system while the I.T.I. follows the traditional F.R.S. System. They suggest that this matter should be examined expeditiously with a view to standardisation as well as production.

95. The Committee have pointed out elsewhere that there is surplus capacity in machinery and possibly in respect of man power also, and that certain shops in the I.T.I. are working only on a single shift or partially double shift basis e.g., Telephone manufacturing, Dials manufacturing, Condenser manufacturing, switches manufacturing, Die casting etc. Further, in the last five years the average imports of tele-communication equipment in the country have been Rs. 115 lakhs per annum (details given under para. 112) while for the year 1957-58 the budgeted imports are of the order of Rs. 111 lakhs. The Committee would, therefore, recommend that in order to ensure the utilisation of this surplus capacity and to minimise dependence on imports, the I.T.I. should undertake production of as many other items both in the tele-communication and non-telecommunication fields as possible. For this purpose, the I.T.I. should first clearly determine what items can be manufactured by them after making a survey of the idle capacity as well as the capacity of the machinery to produce those items. Thereafter the I.T.I. should conduct a market survey of the demand for all such items keeping in view the capacity already available in the country. To enable such surveys to be made, the Committee would suggest the appointment by the Government of a Committee analogous to the Engineering Capacity Survey Committee which had been appointed by Government sometime back. Finally, the I.T.I. should draw up necessary plans for starting manufacturing operations on the basis of the survey.

#### D. Cost of Production

96. The following table shows the trends in the cost of production of certain items manufactured in the I.T.I. for the years 1955-56 and 1956-57:-

Description	1955-56		1956-57	
	Rs.	Rs.	Rs.	Rs.
Auto Telephone . . . . . . .	90.00		79.19	
C. B. Telephone . . . . . . .	70.00		61.33	
Dial 24C . . . . . . .	20.00		16.88	
Transmitter . . . . . . .	4.53		4.12	
Meter . . . . . . .	16.00		10.66	
Uniselector . . . . . . .	37.85		33.48	
Strip connection . . . . . . .	8.75		7.12	
Condenser 2.0 MF . . . . . . .	3.05		2.35	

It was also pointed out that these prices compared well with the prices of the corresponding products of A.T.E.

The comparative cost of certain common items of production in the I.T.I. and P. & T. Workshops showed that the former was higher. This was stated to be due to the specifications, better quality and better finish of I.T.I. products.

97. While the Committee are glad to note the downward trend in the cost of production in the I.T.I. they feel that there are many directions in which there is scope for further reduction, as would be apparent from the following table which gives the break-up of cost of production during the last 3 years:

(Rs. in lakhs)

S. No.	Particulars	1954-55		1955-56		1956-57	
		Rs.	%	Rs.	%	Rs.	%
1. Direct material	.. .	252	81.5	269	79.8	292	77.4
2. Direct Labour	.. .	8	2.6	10	2.9	13	3.4
3. Over-heads	.. .	49	15.9	58	17.3	72	19.2
4. Percentage of overhead to Direct Labour	.. .	612.5%		580%		554%	
Total production (including works in progress at the end.)		309	100.0	337	100.0	377	100.0

Thus, while the percentage of direct materials in the total cost of production has gone down from 81.5 in 1954-55 to 77.4 in 1956-57 the position regarding overheads continues to be unsatisfactory. The percentage of overheads to the total cost during this period went up by 3.3 per cent. though no doubt as compared to direct labour, the position has improved slightly in that the overheads which were about 613 per cent. (of direct labour) in the year 1954-55 are now 554 per cent. In this connection, it is pertinent to point out that the Chief Cost Accounts Officer who examined the accounts system of the I.T.I. in 1954 found that the percentage of such overheads was 946 per cent. which included 421 per cent. for administrative expenses. This was characterised by the C.C.A.O. as "an extra-ordinarily high-rate". Even the Board of Directors, it is seen from the minutes of their sittings, have observed that the rates of overheads were *prima facie* high and that with the increase in production it should be possible to bring it down to 400 per cent. It is obvious, therefore, that even the present rate i.e. 554 per cent. is still very high. In this connection the Committee might mention that overheads are charged to production in the P. & T. workshops at the standard rate of 185 per cent. They, therefore, recommend that strenuous efforts should be made to reduce the overheads to a reasonable figure and thus to reduce the cost of Production. This they feel can be done by increasing production and simultaneously undertaking a review of the staff position. In this connec-

*tion, attention is invited to para. 75 of this Report wherein the Committee have suggested that the Board of Directors should arrange for early action on the recommendations of the C.C.A.O. for effecting economies in the I.T.I.*

*E. Sales*

98. (i) *Sales Organisation*.—There is a separate Sales Organisation in the I.T.I. which handles all enquiries and orders received from customers. This Department furnishes quotations and delivery information to customers and arranges for despatch of materials. A technical section is also attached to this Department to scrutinise all orders and enquiries.

99. When asked what special purpose was served by the Sales Section when 90 per cent. of the sales from the I.T.I. were made to the P. & T. Department, it was explained that the Sales Department handled sales to the extent to Rs. 2·5-3 crores annually of not merely goods manufactured in I.T.I. but also of allied imported goods which it obtained under the agreement with A.T.E. and delivered to customers. Further the department had to look after many jobs such as canvassing orders for PAXs etc., attending to all enquiries, making arrangements for imports or despatch of goods, valuing of invoices, work regarding customs clearance, sales of scrap etc. When asked further whether this could not be looked after by some other Department of I.T.I. or by appointing agents, it was stated that it was not possible and that the Agents demanded 25 per cent. commission which could not be given as cost of sales in the I.T.I. amounted to 10 per cent. only. *The Committee, however, feel that it should be possible for I.T.I. by proper advertisement and negotiations to find agents on payment of reasonable remuneration.*

100. As regards sales of I.T.I. products in other countries, the Committee were informed that to the extent possible, agents were being appointed for the purpose. *They would suggest that as far as possible in this matter preference should be given to Indian Nationals resident abroad.*

101. (ii) *Exports*.—As pointed out earlier, the Agreement with A.T.E. restricts the sale of equipment manufactured by I.T.I. to certain territories mentioned in the Agreement. In regard to other countries, the Agreement lays down that export of such equipment manufactured by I.T.I. should not be made without the consent of the A.T.E., which consent shall not unreasonably be withheld. The Committee understand that in the case of Indonesia, A.T.E. have agreed to treat it as part of the territory for operation on condition that A.T.E. will also be free to operate there. Also, as mentioned earlier, A.T.E. have agreed to allow I.T.I. to operate in Egypt and Afghanistan, for a limited period of two years, subject to payment of small commission to them. Further offers and enquiries are also under process with Syria, Philippines and South Africa.

102. The Committee were informed that the main difficulty experienced by I.T.I. in regard to promotion of sales in foreign

countries was due to keen competition from other more well-established foreign tele-communication equipment manufacturers. Even though as mentioned earlier, the prices of I.T.I. products compared favourably with corresponding A.T.E. products. One of the reasons for this was stated to be that the foreign companies were even prepared to undersell equipment initially and then get compensated later from out of the supply of spare parts etc.

103. *The Committee were informed that even at present over 10 per cent. of the production capacity was available for being utilised for exports. They recommend that further efforts to tap export market on commercial lines should be vigorously pursued by the I.T.I.*

#### F. Utilisation of Plant and Machinery

104. The Committee asked for statistics regarding the utilisation of plant and machinery in the I.T.I. It was stated that prior to 1954-55 no direct statistics were maintained. However, the approximate utilisation was worked out for 1952-53 and 1953-54 based on actual production and furnished, but figures for earlier years were not available. The average figures of machine utilisation for the whole factory for the last five years as furnished and the extent of plant and machinery installed at the end of each of the last five years are as follows:—

Year	Rupees in lakhs			Average utilisation value of idle machinery
1952-53	69.71	35%		45 lakhs
1953-54	80.29	56%		36 lakhs
1954-55	87.7	82%		15 lakhs
1955-56	95.5	91%		9 lakhs
1956-57	107	112%		

The extent of machinery lying completely idle has been approximately stated in para. 70 as Rs. 6 lakhs, Rs. 5.7 lakhs and Rs. 3.2 lakhs for the last three years. Thus, in 1956-57 even when the average machine utilisation was 112 per cent. there was still idle machinery worth Rs. 3.2 lakhs. The above figures only show the average

position for the whole factory. The position in each machine shop was stated to be as follows:—

Sl. No.	Group	1956-57 *M/c. Utn.	1955-56 M/c. Utn.	1954-55 M/c. Utn.	1953-54 M/c. Utn.	1952-53 M/c. Utn.
1.	Telephone Manufacturing	90	90	88	76	63
2.	Dials Manufacturing	70	69	64	32	18
3.	Condenser Manufacturing	60	60	..	..	..
4.	Heat Treatment	180	140	100	80	..
5.	Frame Works	120	110	105	83	30
6.	Moulding	175	126	129	103	69
7.	Relay Manufacture	130	123	102	58	10
8.	Bank Manufacture	110	108	91	52	..
9.	Plating, Finishing etc.	140	111	93	56	35
10.	Automatics	140	120	89	35	30
11.	Miscellaneous Manufacturing	102	102	60	10	..
12.	Switches Manufacturing	75	73	59	20	10
13.	Die Casting	60	55	43	..	..
Factory Average		112	91	82	56	35

\*Machine Utilisation

It was clarified in this connection that the utilisation of 90 per cent. or more would indicate that the shop was working on more than one shift, i.e., 8 out of 13 shops were working on more than one shift, 2 being on 3 shifts and some only partially on double shifts.

Even these figures show only the average position in each shop and not the utilisation of each machine.

105. Further, the Committee were also informed that there had been bottlenecks in production due to comparative imbalance in capacity of different types of machinery required for manufacturing of associated components.

It was pointed out to the Committee that machinery to the full extent recommended by A.T.E. was not invariably ordered. They were also told that the question of surplus machinery was discussed with A.T.E.'s. Directors who conceded that the quantity recommended by them had turned out to be in excess of that required but stated that they had done it in the best interest of I.T.I. However, they offered to purchase back some machinery but the I.T.I. decided to retain it in view of increase in schedule and manufacturing prospects.

106. *The Committee are concerned to observe that the I.T.I. purchase from the A.T.E. more plants and machinery than was required for the production as a result of which considerable portion of it was*

lying idle. It is evident, that there has been lack of proper planning as well as co-ordination between I.T.I. and A.T.E. in this matter. There appeared to be some misunderstanding even in regard to the schedule of manufacture.

107. There was no project report and the recommendations of the A.T.E. also do not seem to have been scrutinised sufficiently by the I.T.I. The Committee would recommend that greater care should be exercised in such matters at least in future. Further, the imbalance in the capacity of different types of machinery which is said to be causing bottlenecks in production should be rectified. Lastly, the existing idle machinery and surplus capacity should be utilised to the best advantage in the manner indicated earlier.

## VI

### STORES

#### A. Purchase Organisation

108. The Purchase Organisation of the I.T.I. is manned by a Purchase Officer who functions under the general supervision of the Manager. For purchases valued over Rs. 5,000/- there is a Stores Purchase Committee of which the Manager, I.T.I., is Chairman, the F & A Manager, and Stock Controller are Members, and the Purchase Officer is the Secretary. The meetings of the Stores Purchase Committee are normally held once a week and decisions are taken and placed before the Management before issue of orders. *The Committee consider the existence of such Committee as a very desirable feature, which may be adopted with advantage by other State Undertakings.*

109. *However, in view of the fact that the annual purchases of the I.T.I. amount to Rs. 2.5-3 crores, the Committee would suggest that the feasibility of associating non-officials with this Committee may be examined by the I. T. I.*

#### B. Procurement of Stores

110. Stores are procured generally on the order level basis, that is, by fixing an order level for each type of raw material depending upon the procurement time and the minimum stock fixed for each item. The minimum stock in the case of imported material is six months and for the indigenous materials three months.

111. The Committee understand that in spite of this system there have been occasions when there have been bottlenecks in production due mainly to the non-receipt of material in time. In order to overcome these difficulties, stock-piling has been resorted to. However, from a note furnished to the Committee, it is observed that in many cases, the I.T.I had made purchases in excess of requirements even when the opening stocks of raw materials were sufficient for the year. Thus, though the opening stocks of raw materials for the years 1954-55 and 1955-56 (which was Rs. 50.4 lakhs and 43.2 lakhs respectively) was sufficient to cover the consumption in those years (which was Rs. 20.5 lakhs and 26.6 lakhs respectively), the company purchased considerable raw materials during these years. Yet in these two years idle time payments for want of materials amounted to Rs. 19,000 and Rs. 23,000 respectively, i.e., an average loss of 3,000 man hours per month. *The Committee consider that it should be possible to minimise overstocking and yet avoid bottlenecks by proper planning by stipulating realistic delivery dates for materials*

*and by imposing penalties for failure on the part of suppliers to supply the materials in time. At the same time a commercial organisation like the I.T.I. should also take full advantage of periods when the prices of materials are at a low level to obtain and stock them and, for this purpose, the Board of Directors should exercise latitude with proper discretion.*

### 112. C. Extent of Purchases

*The following Table shows the Raw Materials, Components, etc. purchased by the I.T.I. from Indigenous and Foreign Sources during the last 5 years*

	1952-53	1953-54	1954-55	1955-56	1956-57
	Indige- nous Imports	Indige- nous Imports	Indige- nous Imports	Indige- nous Imports	Indige- nous Imports
<b>Raw Materials</b>	7.7	23.3	7.9	26.9	3.0
<b>Components</b>	4.6	43.12	5.3	101.43	4.6
<b>Wires and Cables</b>	27.35	..	24.95	..	14.55
<b>Miscellaneous Stores</b>	7.84	10.00	8.74	18.0	7.45
<b>Project Supplies</b>	..	..	..	..	..
<b>Total for I.T.I.</b>	20.14	103.77	22.01	172.38	18.85
<b>Percentage Indigenous</b>	16%	..	11.4%	..	20%
<b>Purchases for direct supply to customers</b>	10	13.71	134.42	7.71	156.41
<b>Total</b>	33.85	238.19	29.72	327.69	26.34
<b>Percentage Indigenous</b>	12.4%	..	8.4%	..	10.3%
					8%
					35.5%
					..

The Budget for 1957-58 shows purchases from indigenous sources of Rs. 62 lakhs and imports of Rs. 111 lakhs, i.e., about 36% from indigenous sources. Thus indigenous sources accounted for a very small portion of the requirements of raw materials, components, etc. of I.T.I. as well as of direct supplies of telephone equipment. The position has shown considerable improvement since 1955-56. Even then two-thirds of the requirements are met only by imports.

### D. Imports

113. The main items of import of raw materials are special aluminium sections, brass, phosphor bronze, copper, ebonite, phenol, fibre, nickel silver, insulating materials, enamelled copper wires of finer gauges, moulding powder of special flows and colours, switch-board, cables, wires and cordages, condenser materials, tool raw materials and small tools. In addition, special components required for manufacture of telephone equipment which are not at present produced in the country as also special components required in connection with transmission division requirements and special types of capital plant such as motor generators, stationary batteries of high capacity, ringing machines, etc., are also imported.

114. The Committee were informed that the possibility of using indigenous raw materials was being constantly explored and that as far as possible the manufacture of imported items was being taken up in the factory whenever the item was suitable for the line of production in the I.T.I. In other cases, private manufacturers were encouraged to take up such items for which constant liaison was maintained with the development wing of the Ministry of Commerce and Industry to locate such manufacturers. The Hindustan Cables (P) Ltd., was also being regularly contacted for the manufacture of cables and switch-boards. These efforts had resulted in progress on the telephone and exchange sides. With regard to the transmission side, the position is stated to be improving and the manufacture of more and more components is being taken up by the I.T.I.

115. *The Committee recommend that in view of the position regarding the extent of imports of raw materials, components etc. (even apart from plant and machinery) as well as of other telephone equipment pointed out earlier, more concerted measures to locate and develop indigenous sources should be taken in coordination with the Development Wing. An increasing use should also be made of the system of sub-contracting which at present, it is understood, amounts to 5 per cent only. One difficulty experienced in this matter was stated to be that indigenous manufacturers failed to maintain the quality of supplies as well as the programme for supply. The Committee feel that indigenous manufacturers should be encouraged to improve the quality of supplies and that the position is bound to improve gradually. In this connection they would further suggest that a system of decentralised purchases should also be adopted by the I.T.I. However, to obtain better results in all these matters, the Committee feel that it would be desirable to appoint a Telegraph and Telephone Equipment Committee on the lines of the Railway Equipment Committee which was appointed by Government to locate idle capacity in the country for the manufacture of imported Railway equipment, to assess the existing capacity of Stores hitherto manufactured in the country and to suggest ways and means of increasing the indigenous capacity to produce the imported items.*

## VII

### TELEPHONE EXPANSION SCHEMES OF THE P. & T. DEPARTMENT

#### A. General

##### (i) *Organisation*

116. The Posts and Telegraphs Department under the Director-General, Posts & Telegraphs, is divided into two Wings *viz.*, (i) Posts, and (ii) Telegraphs and Telephones, the latter being under the technical control of Chief Engineer, P. & T. There is a separate Chief Engineer (Planning), who is *inter alia* responsible for all Telegraph and Telephone Planning and large-projects including Bombay and Calcutta auto expansion schemes. In addition, there is an Additional Chief Engineer, T. & D. Circle, Jubbulpore, responsible for execution of large installations and training of personnel. For day to day executive work, the country has been divided into 12 regional units known as cycles, which exercise local control over telephones as well as telegraph and postal service.

##### (ii) *P. & T. Workshops*

117. There are at present 3 workshops under the General Manager, P. & T. Workshops, Calcutta—one each at Alipore (Calcutta), Bombay and Jubbulpore and are controlled at present by a P & T Workshops Board. These produce a variety of telephone stores, chiefly manual Switch Boards (approximately 30,000 lines per year), line construction stores, etc.

118. There are only 3 items of production *viz.*, P. B. Blocks, Gate type fuses and 3,000 type Relays, common to the P & T Workshops and the I.T.I. However, the repair work of telephone instruments manufactured in the I.T.I. is carried out in the P & T Workshops.

119. During discussion, the Committee enquired as to what extent it was feasible to have a common management for the I.T.I. and P & T workshops. It was explained that the Managing Director of I.T.I. could not take over charge of P & T workshops since it would cause a very heavy load of work on him but coordination was being maintained through the Chief Engineer, P & T who was the Chairman of the P & T Workshops Board and also a Director on the Board of I.T.I. The Committee were however informed that the whole question of the re-organisation of P & T workshops was at present under consideration of Government. *They would suggest that the need for streamlining the organisational set-up of P & T*

Workshops with a view to ensuring greater coordination with I.T.I. even if common management for the two be not immediately feasible as well as of rationalising the manufacturing operations in these units to fit in with the telephone expansion schemes of the P & T Department should be constantly kept in view while making the reorganisation.

120. (iii) *Financial Working of the Telephone Wings:*

The following table shows the financial working of the Telephone Wing of the P. & T. Department for the last six years:—

(Figures in crores of rupees)

Serial No.	Years		Total Revenue	Total Expenditure	Surplus (+)
1	1951-52	.	9.55	6.15	3.40
2	1952-53	.	10.46	6.94	3.52
3	1953-54	.	11.43	8.55	2.88
4	1954-55	.	12.21	8.94	3.27
5	1955-56	.	14.31	10.82	3.49
6	1956-57	.	16.28	11.31	4.97
GRAND TOTAL			74.24	52.71	21.53

121. The Committee were informed that of the average telephone revenue of about Rs. 16 crores a year the total outstanding as on 31st March, 1957, were about Rs. 106 lakhs. This matter has been commented upon by the PAC in their various reports on P. & T. accounts. The Committee do not propose therefore to make any comments thereon here.

### B. Expansion Schemes

122. (i) *Telephones:* At the beginning of the First Five Year Plan there were about 1,68,000 telephones in use in the country. During the First Plan period 1,00,000 telephones were installed with the result that at the beginning of the Second Five Year Plan, there were nearly 2,70,000 telephones, the pending demand being estimated at about 1,20,000 lines. The Committee were further informed by the P. & T. Department that—

“likely total demand during the Second Five Year Plan will be about 3,00,000 telephones necessitating installation of about 2,50,000 lines of exchange equipment. Provision has, however, been made in the 2nd Plan only for 1,80,000 telephones out of which 1,40,000 will be served from automatic exchanges and the remainder from manual exchanges.”

123. The Committee observe that even after installing 1,80,000 telephones, the outstanding demand will not only remain the same viz., 1,20,000 lines, but might also rise in view of the rapid industrial development of the country as envisaged in the 2nd Five Year Plan.

*The Committee would suggest that the P. & T. should undertake a survey of the telephone requirements of the country at regular intervals.*

124. (ii) *Trunk Telephone Services:*

The Trunk Telephone Service is provided by public call offices and trunk Exchanges which are connected with the trunk net-work by physical circuits and carrier systems. The number of public call offices was 1249 in 1955-56 while another 1200 are to be added during the Second Plan. The Committee understand that the plan is:—

- (i) to provide all district Headquarters and sub-Divisional Headquarters with public call offices;
- (ii) to expand the public call offices to tehsil headquarters with a population of 20,000 and above;
- (iii) to re-organise the Trunk Exchange system by dividing the country into 11 zones centres, 65 district centres and a number of minor and dependent exchanges. (In the 2nd Plan it is, however, proposed to take up installation for 6 zones centres, 9 District Centres and the minor and dependent Exchanges served by them.)

125. The objective laid down in the Plan is to make available the service not only at all sub-divisional tehsil headquarters but also within a convenient distance, say 3-5 miles, of any place in the country.

126. It has been stated in the Second Plan that the telephone expansion programme is broadly correlated with the development of capacity for the production of telephone instruments and exchange lines and more especially with the production plan of I.T.I. The Committee observe however, as has been pointed out earlier, that considerable capacity for increasing production in I. T. I. exists and that lack of capacity would not therefore be the only hurdle in the expansion programme.

127. It was explained to the Committee that one of the difficulties in meeting the full demand of telephones was the shortage of funds. The amount provided in the First Plan for expansion of the telephone system was Rs. 41.7 crores while in the Second Plan the corresponding amount is Rs. 43 crores. The Committee appreciate that conflicting demands for funds have to be met in order of priority. They would however suggest that the P. & T. Department should consider the economics of drawing up plans from a long term point of view to meet the demand—existing and potential—after taking into account the fact that it would also bring in revenue to Government.

*In this connection the Committee would suggest that the feasibility of setting up a 'Telephone Development Fund' after taking into account the revenue earned by the Telephone system, as well as such schemes as the OYT (Own Your Telephone) scheme etc. should be considered. Further the possibility of negotiating loans from the World Bank or some other similar agency to finance the expansion of the Telephone system in the country should also be considered.*

128. Another bottleneck in the expansion programme was stated to be the shortage of cables and transmission equipment. In regard to the latter the Committee have made certain recommendations elsewhere. As regards the former it was stated that the requirements of co-axial cables which are at present imported would, to some extent, be met by their production in the Hindustan Cables Ltd., for which efforts were being made. It was expected that out of the total requirement of 1,800 miles of cables during the Second Five Year Plan, 300 miles of such cables would be produced every year in the Hindustan Cables (P) Ltd. while the rest would have to be imported. *The Committee suggest that efforts should be made to persuade the Hindustan Cables (P) Ltd. to increase its production capacity and that there should be more effective coordination between the P. & T. and the Hindustan Cables (P) Ltd. for this purpose.*

129. *Incidentally, the Committee would suggest that to facilitate effective coordination, the desirability of placing the Hindustan Cables (P) Ltd. under the administrative control of the Ministry of Transport and Communications (Department of Communications) should be considered.*

### C. Telephone Exchanges

130. The P. & T. Department is planning for the expansion and installation of telephone exchanges in the country, subject to availability of funds. One of the major schemes has been the automation scheme at Calcutta costing about Rs. 13 crores. The target of new installations of Exchanges in the 1st Plan was 409, of which about 350 were installed while the capacity of the existing exchanges was increased by 24,100 lines. Upto 30th September, 1957, during the Second Plan 55 new auto-exchanges with a capacity of nearly 2000 lines were provided. During the same period, the capacity of existing installations was increased by 32,000 lines.

131. In this connection, the Committee observe that in certain places like Bombay, Calcutta, Madras and Delhi (*via* statement below the number of working connections provided was far less than the installed capacity at the exchanges in spite of the considerable demand at these places.

## Statement

	Capacity				Connections on 30-9-57
	1-4-56	1-4-57	30-9-57		
Calcutta	38840	48040	52440	38182	
Bombay	35153	39153	40153	35345	
Delhi	14900	19900	20100	16835	
Madras	8350	8950	10250	7973	

It was explained by the Chief Engineer, P & T. that when new Exchanges were brought into service, there always was a 20-25% surplus capacity, since the manufacture and installation of Exchanges took 3-5 years. The Committee do not appreciate why there should invariably be a time-lag of at least  $1\frac{1}{2}$  years between the installation of capacity and provision of working connection, especially when there is an outstanding demand. *They feel that with better planning it should be possible to reduce this time-lag considerably to see that capacity is utilised in full, as far as possible simultaneously with its installation. The Committee recommend that this matter should be carefully examined.*

132. *In this connection, the Committee would point out that the telephone service require five basic elements—the subscriber's terminal apparatus, his line to an exchange, the exchange equipment, a comprehensive trunk and junction line network and operating staff. The aim of the Posts and Telegraphs Department should clearly be to keep these five elements in balance relative to each other, for any imbalance would result in inefficiency either in the form of poor service or in uneconomic utilisation of capital equipment such as idle capacity etc.*

#### D. Conversion of Manual into Auto-exchanges and vice-versa

133. Until the I. T. I. commenced the manufacture of auto-exchanges most of the telephone exchanges in India were of the manual variety. The P. & T. Department has now undertaken the provision of auto-exchanges in most places in replacement of manual exchanges, which are transferred to other places. As regards the policy followed in this matter, the Committee were informed that though auto-exchanges were generally cheaper than manual for systems of 300 lines and above in actual practice due to the various technical reasons this was not always observed. *The Committee would suggest that the scheme to provide auto-exchanges in replacement of manual exchanges on the above basis should be expedited.*

134. It was observed in this connection that certain Auto-Exchanges e.g., those at Bhavnagar, Mysore and Gwalior which were having more than 300 lines were replaced in 1950 by manual exchanges. The Committee were informed that this was done mainly due to certain special extraneous and technical reasons and that priority had been given for providing auto-exchanges at these places. *While the Committee are in no position to comment on the technical reasons adduced, they consider it most unfortunate that even 7-8 years after this change was made the reconversion to auto-Exchanges has not been made. It was explained that priority had been given to these places and by 1960-61 the change would be effected. The Committee trust that no further avoidable time would be lost in restoring this facility which existed in these places till 1950.*

#### E. Rural Auto-exchanges

135. The Committee understand that a unique Rural Telephone System existed in the erstwhile State of Saurashtra before the federal financial integration, which besides being cheap and helpful to administration was also a good source of contact between villages and Headquarters. The Committee were informed that proposals were in hand for the design of suitable Rural Automatic Exchanges, that the necessary data to undertake the development of these units was under compilation and that the work would be taken up in the course of next few months. The Committee are surprised that though this system existed in Saurashtra prior to 1950, it should still be in a design stage even in 1958, as far as the P & T is concerned. *They, therefore, recommend that the question of restoring as well as expanding it elsewhere should be urgently examined.*

## VIII RESEARCH

136. Research involves the application of scientific methods to industrial problems and is of importance in economising and streamlining production.

### A. Research Organisation

137. The research activities in the I.T.I. are carried on in the Methods Engineering Department, Metallurgical and Chemical Sections etc. of the I.T.I.

138. The Committee understand that Messrs. A.T.E. have a separate Research Centre employing about 400 persons. The A.T.E. also has a research and development unit at Liverpool with about 500-600 persons. Similarly, Siemens and Halske have an establishment of about 4,000 people of which 2,000 are fully qualified Engineers employed solely on research and development, while other manufacturers in the West engaged in Tele-Communication work have also similar organisations.

139. *For the successful running of a telephone industry it is of utmost importance that Research and Development work should be carried out in a Research Unit working as a close adjunct to the manufacturing Centre so that developments made could be quickly translated into production units. The Committee would suggest that this question should be examined further as suggested in the succeeding paragraphs.*

### B. Expenditure on Research

140. The total expenditure incurred on research and development projects in the I.T.I. during the last 5 years has been stated to be as follows:—

<i>(Figures in lakhs of Rupees)</i>				
1952-53	1953-54	1954-55	1955-56	1956-57
1.19	1.48	1.89	4.03	2.32

The Committee were informed that in view of the increasing importance of Research in the Tele-Communication Industry, the I.T.I. propose to spend about Rs. 56 lakhs on Research during the next ten years.

### C. Research Activities

141. The research activities so far undertaken by the I.T.I. have been on a limited scale. They have been directed mainly towards

the development of certain types of equipment and the utilisation of indigenous raw materials in the case of those which are imported at present. The more important achievement are produced in Appendix 'II'. It would be observed therefrom that the research activities of the I.T.I. have so far not been very significant and that considerable ground has still to be covered in this field specially when rapid developments are taking place in the Tele-Communication science every day. *The Committee would, therefore, urge that greater attention should be given to this problem. For this purpose, the Committee would suggest that the I.T.I. and P & T should concentrate first on building up a nucleus of adequately trained research staff who could build up a research organisation gradually. Simultaneously phased and co-ordinated programme for expansion of research activities in the I.T.I. as well as in the P & T Department should also be drawn up. In this programme, due stress should be laid on the utilisation of indigenous raw materials, as well as on improving the production processes in the I.T.I. Finally, every effort should be made to maintain contacts with A.T.E. and other Tele-Communication Manufacturers in regard to their research activities.*

#### D. Co-ordination with other Institutions

142. As regards co-ordination with the research activities in the P & T Department and NPL, it was stated that:—

- (i) Complete co-ordination was maintained with the P & T Research Unit in the field of Transmission. The major items of research and development had been arranged in a proper manner to avoid duplication and the I.T.I. had been making proto-types and later establishing bulk manufacture of new products worked out by the P & T Research Unit.
- (ii) In the field of automatic telephone engineering, technical developments had been co-ordinated mainly with the Chief Engineer, P & T; Additional Chief Engineer, Planning, P & T; and one or two of the major telephone districts having Engineering Exchanges. Complete co-ordination was also assured through the Technical Advisory Committee of which the I.T.I., Chief Engineer (Planning), P & T, Additional Chief Engineer, P & T and Director, Research, Posts and Telegraphs Department are Members.
- (iii) Necessary contacts were also maintained with the National Physical Laboratory, National Metallurgical Laboratory, Electro-Chemical Research Institute, National Chemical Laboratory and with the Indian Institute of Science at Bangalore with the help of which the I.T.I. had been able to solve many of their problems relating to the manufacture and development of Tele-Communication Equipment and various components.

*The Committee feel that the existing co-ordination for Research is not adequate. They would therefore suggest that there should be greater integration between the Research activities of I.T.I., P. & T., Railways, Defence and Universities so that limited resources and facilities in this field might be used to the best advantage. For this purpose, the Committee would suggest setting up of a tele-communication Research Council, consisting of Experts drawn from these Organisations.*

## IX

### PERSONNEL

#### A. Strength of Staff

143. The statement below gives the strength of the Administrative, Supervisory, Non-Supervisory and Factory staff for the years 1954 and 1957. The administrative staff includes all staff in Accounts, Establishment, Personnel, Sales, Purchase and Engineering (mostly Draftsmen) Departments:—

Category	Description	As on 31-12-54	As on 30-9-57	% increase over 1954 strength
I	Administrative including Accounts etc. . . . .	548	650	19%
II	Factory Supervisory . . . .	357	504	41.5%
III	Factory staff (Monthly Rate) . . . .	320	416	30%
IV	Factory staff (Non-Supervisory):			
	Skilled* . . . .	357	547	
	Semi-Skilled* . . . .	933	1816	
	Un-Skilled . . . .	174	385	87%
	Others (including Construction, Watch & Ward, Transport and Hospital Staff). . . .	177	329	
		2866	4647	62%

\*Including those under training.

144. The following statement gives the value of production in the I.T.I. for the years 1954-55 and 1956-57:—

(In lakhs of Rupees)

Particulars	1954-55	1956-57	% increase over 1954-55
Total Production (including works in progress at the end of the year) . . . .	309	377	22%
Actual Production . . . . .	110	176	60%

145. The above statements would show that while from 1954 to 1957, the staff strength increased by 62%, the corresponding increase in total production and actual production was only 22% and 60% respectively. *The Committee feel that in an industrial and commercial Undertaking like the I.T.I. it should be possible to control increases in manpower especially when the overheads are high. They recommend that vigorous and determined attempts should be made to control staff strength and to correlate it with production.*

146. As regards administrative and supervisory staff, which has also shown a substantial increase, the Committee would draw pointed attention to the following observations made as early as November, 1955 by the Chief Cost Accounts Officer of the Government of India in the Report (No. 1911 dated the 25th November, 1955) submitted by him as a result of the detailed study of the system of Accounts followed in the I.T.I.:—

Para 13: The first aspect, which glaringly projected out, was the proportion of management and supervisory and other ancillary staff to the actual workers. The total strength of the factory for all personnel together was about 2500 people, out of which 981 men or say about 1000 roundly were officers and monthly paid staff, who were employed on managerial, supervisory and other ancillary work. In other words, it represented about one person on the managerial, supervisory and other ancillary work for every 1.5 worker or so employed. In the computation of this 1000 men, I have not taken into account about 377 or say 380 roundly, number of daily rated men, who were employed as charge hands or inspectors and who again, I understand, were on work of a supervisory nature. If these men are also included, the position will be still worse. It will be about 1400 men roundly being employed on managerial, supervisory and other ancillary work as compared with 1100 labourers employed on production. Alternatively, for every labourer employed there would be a supervisory strength of about 1.3 men. This state of affairs would appear to any one to be rather extraordinary, and it is essential that this should be carefully gone into. In my opinion, there lies the scope for considerable economy. Unless all concerned are satisfied that this position is justified in any peculiar circumstances of this industry, this position is not capable of being accepted as sound and would call for very careful examination".

As regards the Accounting Organisation of the I.T.I. which at present consists of about 240 men i.e. 5.2% of the total of 4647, the C.C.A.O. observed in 1955 as follows:—

"The total strength of accounting organisation, including the officers, but excluding the internal audit and time keep-

ing, was 153 on 1-11-1954. A strength of 153 men for the accounting in a factory where the total strength is about 2500, out of which about 1100 only are workmen employed on actual production, and the others are managerial or supervisory staff, is really a high figure. In spite of this strength, the condition in the Accounts Organisation was far from what it should be. In spite of the fact that this is a multiple costing factory, I am clearly of the view that there is ample scope for effecting a substantial reduction in strength in this Department."

Further, it might be mentioned that even one of the visiting Directors from the A.T.E. had pointed out in his Report dated the 3rd May, 1956 that staff increases were on the high side in the I.T.I.

147. The Committee regret to observe that the position has not shown substantial improvement since then. They have already pointed out elsewhere that the overheads in the I.T.I. continue to be very high and stress the need for controlling effectively all such charges.

148. It will also be seen from the statement given earlier in this Chapter that the Factory staff (non-supervisory) have shown an abnormal increase (87 per cent) during 1954-57 as compared to the increase under other categories as well as in total production (22 per cent) and in actual production (60%) during the same period. The Committee feel that this would indicate that the productivity of labour has been on the decline in the I.T.I. They recommend that the management should give urgent attention to this problem. *For this purpose, the Committee would suggest that a detailed job-analysis and a proper time and motion study be undertaken immediately in the various shops in the I.T.I. since only then can the optimum efficiency of an operative business be measured. This would facilitate fixation of correct norms of work which would in turn facilitate programming, manning, productivity measurement and cost control. It would also serve as the basis of incentive scheme which the Committee have recommended elsewhere.*

149. The Committee were told that the practice followed in this respect is similar to the one adopted by the A.T.E. It is evident, however, that the present system has not succeeded in effectively controlling staff strength. *The Committee would, therefore, recommend a review of the methods in the manner suggested above.*

### B. Foreign Personnel

150. The number of foreigners employed in the I.T.I. during the last 5 years was as follows:—

Years	Total No. of Foreigners
1952 . . . . .	16
1953 . . . . .	18
1954 . . . . .	13

Years	Total No of Foreigners
1955	4
1956	3
1957	1*

\*Since left the services of I.T.I. and replaced by an Indian Officer.

The Committee are glad to note that by gradually placing under-studies, the I.T.I. were able to reduce the number of foreign Technicians to one, who has also since been replaced by an Indian Officer. In this connection, para 20 may also be seen.

### C. Conditions of Service

151. The Committee understand that the I.T.I. have experienced certain difficulties in recruiting suitable technical personnel for employment in I.T.I. e.g., Apprentices Grade, 'A' Draughtsmen, Tool Makers, Designers etc. They are aware that there is a dearth of qualified technical personnel in the country especially in the field of tele-communication and that special steps have to be taken to improve the position. However, one of the reasons ascribed to the non-availability of suitable Engineering Graduates and Diploma Holders is stated to be better remuneration offered elsewhere.

152. In this connection, the Committee observe with regret that a large number of resignations of staff have taken place in I.T.I. during the last 5 years. These according to the reasons given are as below:—

Year		Reasons							Grand Total
		For better prospects	Further Studies	Domestic reasons	Reasons known	Ill health			
1953	Supervisory Technical	2 { 9 } 11	— { 2 } 2	1 { 23 } 24	— { 2 } 2	— { 4 } 4	— { 4 } 4	3 { 40 } 43	
1954	Supervisory Technical	3 { 9 } 12	— { 2 } 2	1 { 20 } 21	— { 2 } 2	— { 6 } 6	— { 6 } 6	4 { 39 } 43	
1955	Supervisory Technical	4 { 18 } 22	— { 5 } 5	1 { 20 } 21	— { 4 } 4	— { 4 } 4	— { 4 } 4	5 { 51 } 56	
1956	Supervisory Technical	13 { 29 } 42	— { 6 } 6	5 { 35 } 40	2 { 4 } 2	6 { 5 } 5	— { 5 } 5	20 { 79 } 99	
1957	Supervisory Technical	9 { 20 } 29	3 { 9 } 12	3 { 26 } 29	1 { 3 } 1	4 { 4 } 4	— { 4 } 4	16 { 62 } 78	
(Upto Sep., 57)									
Total	Supervisory Technical	31 { 85 } 116	3 { 24 } 27	11 { 124 } 135	3 { 15 } 18	— { 23 } 23	48 { 271 } 319		

The above includes 5 Officers who were trained in the A.T.E.'s Works in the U.K. which is particularly unfortunate. The Committee suggest that the question of taking suitable undertaking from those specially trained for employment in I.T.I. should be considered.

153. The Committee consider that the real reasons for the large number of resignations in the I.T.I. should be carefully investigated with particular reference to the conditions of service enjoyed by the personnel and remedial measures taken to the extent possible so as to avoid recruitment and personnel difficulties. They would also suggest that other Central Government Undertakings at Bangalore and representatives of staff might be associated with this investigation.

154. The Committee notice that the following officers of the P & T Department who are at present on deputation to the I.T.I. have been granted the following facilities:—

Managing Director . . . .	(1) Entertainment All Rs. 150/- P.M. (2) Free car provided.
General Manager . . . .	Conveyance All. @ Rs. 150/- P.M.
Manager . . . .	Conveyance All. @ Rs. 150/- P.M.
Works Manager Transmission	Conveyance All. @ Rs. 150/- P.M.
Works Manager . . . .	Conveyance All. @ Rs. 150/- P.M.
Senior Engineer . . . .	Conveyance All. @ Rs. 150/- P.M.

155. The Committee fail to understand the justification for the grant of a conveyance allowance to all the above Officers and the entertainment allowance to the Managing Director. In this connection, reference is invited to para 66 of the Committee's 27th Report on the Hindustan Insecticides Ltd., wherein while agreeing that such expenditure should be treated as an expense of the factory to the extent that it was actually incurred, they pointed out that there was no need for payment of a fixed amount of allowance to the Managing Director etc. They had, therefore, recommended that such allowances wherever paid may now be reviewed and as far as possible the payment withdrawn.

#### D. Incentive System

156. It is desirable for a management to lay down the proper background and provide the necessary incentives for the right attitude on the part of the workers and staff so as to maximise production. The wage incentive system is one which will enable the management to adjust earnings to output or production, thus providing a special financial incentive for increasing effort. The Committee were informed that the incentive system of payment by results had not been introduced as yet in the I.T.I. but that its introduction was under contemplation and negotiation with the Trade Union. They trust that the I.T.A. would before long introduce this system on a scientific basis and thus stimulate production.

### **E. Absenteeism**

157. The average absenteeism without permission during the period September, 1956 to August, 1957 was stated to be 0.18 % of the total number of man days scheduled to work while the percentage of absenteeism during the same period, both with leave and without permission averaged 9.675. It is evident that this results in considerable loss of production as well as in over-employment which becomes necessary on account of habitual absenteeism.

158. *The Committee would suggest that the workers and staff should be educated to reduce absenteeism and that recognition should be given to those who are prompt and always on the job. In this connection they would invite reference to the recommendation made in Para 99 of their 67th report on the H.A.L. for the introduction in all State Undertakings of an 'Attendance Bonus Scheme' as in the H.A.L.*

### **F. Reward for Suggestions**

159. The Committee were informed that in the I.T.I. there is a system of giving awards for suggestions, which has been in force since 1949. The Principle followed in granting awards is that a minimum award of Rs. 10/- is given for any accepted suggestion after making an assessment, wherever possible, of savings that will accrue to the Company in a quarter on the implementation of the suggestion. Where, however, savings cannot be assessed in terms of money, *ad hoc* awards are made depending upon the value and usefulness of the suggestions. Besides, awards for industry are also made to deserving employees for conscientious work and for outstanding achievements in the course of their duties.

However, the scheme does not appear to have attracted sufficient number of suggestions in the last 5 years. *The Committee would suggest that the scheme as well as the awards so far made may be better publicised so as to enable the workers to appreciate the types of suggestions that they should make e.g., those which would make for savings in labour, time and materials, accident prevention, increased sales etc. Further when a suggestion is not accepted, the reason may be given to the employee submitting the suggestion, if possible.*

### **G. Welfare Measures**

160. The I.T.I. has introduced a number of measures for the welfare of its employees. These include the Township medical facilities, payment of gratuity, provision of milk, during working hours in certain shops, provision of approms, uniforms, cycle advance, Festival Advance, Magazines, School and Transport run departmentally etc. There are also the Sports Club, Fine Arts Society, Photographic Society, Employees' Co-operative Society, School etc. which have their own elected Managing Committees through which they manage the funds allotted to them.

161. There is no separate Welfare Fund in the I.T.I. but for welfare activities a budget is prepared which is considered by the Finance Committee and then finally by the Board of Directors. The total expenditure incurred on these activities during 1956-57 was Rs. 5.12 lakhs which comes to Rs. 122 per head.

162. *While the Committee appreciate the welfare measures existing in the I.T.I., they would suggest that the I.T.I. should consider the desirability of creating a separate Welfare Fund to be managed by a Committee consisting of workers only.*

163. *Transport Facilities:* With regard to the transport facilities available in the I.T.I. the Committee note that since the factory is located about 7 miles from Bangalore, the I.T.I. has provided a fleet of 23 Buses for the transport of workers from their places to factory and back. Besides, vehicles are also hired from M/s H.A.L. In addition about 1000 employees go by train specially run for the I.T.I. workers. Hiring of Vehicles from H.A.L. entails a loss of Rs. 11 per seat per month while on I.T.I.'s buses, the loss is about Re. 1. To minimise the loss on account of subsidy of transport which comes to about Rs. 2.3 lakhs a year, the Committee were informed that a proposal to buy more Buses was being considered. *They would suggest that this should be carefully examined by the I.T.I. especially in view of the fact that this facility is causing a heavy recurring financial loss to the I.T.I. In this connection the Committee would suggest that the feasibility of having a common pool of transport for all the Government concerns or some of them located in neighbouring localities should also be considered.*

164. As regards workmen's train, the Committee understand that its late running caused during the last 2 years an average loss of 6500 man-hours per month (Rs. 45,000 - a year) to the I.T.I. It was explained that the train ran late due to certain operational difficulties of the S. Rly. and the position had now improved since in October, 1957 the man-hours lost by late running of train were only 700. Besides, the doubling of the Railway track was also stated to have been taken up. *The Committee would suggest that it might be impressed on the Railway Administration to attend to this matter so as to minimise detention and consequent loss of production in I.T.I.*

## X

### TRAINING

#### **A. Employee Training**

165. The value of a well-designed employees training programme has long been recognised, since untrained workers and those who are learning by the trial-and-error method slow up production and increase accidents, spoilage, and costs. This is particularly so in the case of the Indian Telephone Industries as facilities for such training are not adequately available at present in the country.

#### **B. Training under the Agreement with the A.T.E.**

166. The agreement with A.T.E. provides for assistance in regard to training of personnel. In the early years, 17 Assistant Engineers, 3 Technical Assistants, 2 Deputy Engineers and 1 Senior Accountant were trained at A.T.E. works and most of them now hold responsible jobs in the I.T.I. In addition, the personnel deputed by A.T.E. assisted in establishing the Training School and schemes in the I.T.I. and in training up a large number of people in various Departments.

167. The Committee were informed that there was no arrangement for providing training in the Transmission side of the I.T.I. and that the A.T.E. had agreed to train persons at their cost, *i.e.*, they would meet all expenses including board and lodging. *The Committee would recommend that the I.T.I. should formulate phased programme for the training of their technical personnel in the expanding sphere of tele-communication equipment in the A.T.E.'s Work's and also establish with the assistance of the A.T.E. training programme in the I.T.I. itself for the purpose.*

#### **C. Training Programmes**

168. At present the main training programmes in the I.T.I. consist of the following:—

- (i) 'A' Grade Apprenticeship intended for Engineering Graduates.
- (ii) 'B' Grade Apprenticeship intended for Diploma Holders in Engineering.
- (iii) 'C' Grade Apprenticeship intended for building up technicians, especially Tool-makers.
- (iv) *Learners:* Learners course intended for training Operators.

For facility of training, there is a School in the I.T.I. with one Assistant Engineer and 5 Instructors, the annual expenditure being

about Rs. 12,000. The Committee would point out that the efficiency of any training scheme would largely be determined by the calibre of the Instructors, as well as the training programmes. *They would, therefore, suggest that the desirability of putting a more senior officer serving or retired with experience of Tele-Communication Engineering in charge of the Training School should be considered.*

169. The number of trainees at one time in I.T.I. was stated to be about 9 or 10 'A' Grade apprentices, 15-20 'B' Grade apprentices, 15-20 'C' Grade apprentices and 40-50 Learners, i.e., 80-100 in all. In this connection, the Committee would invite attention to a recommendation made by a Director of A.T.E. in 1953 that there should always be 150 persons under training and 60 should be released per month to I.T.I. *In view of the expansion of the I.T.I.s since then, and the need to correlate the number under training to the number of employees, which is now over 4,600, the Committee would suggest that the adequacy of the training schemes should be reviewed.*

170. The Committee are informed that difficulties have been experienced by the I.T.I. in regard to draftsmen, tool-makers and designers. *They would, therefore, suggest that the I.T.I. should recruit and train qualified apprentices and that for this purpose necessary training-schemes should be started.*

171. *The Committee would also suggest that there should be a continuous review of the training scheme and programmes so as to introduce modern methods of production and work. For this purpose, the instructors and supervisory staff should themselves keep abreast of recent developments in Tele-Communication and industrial engineering as well as training and personnel problems.*

172. *In this connection, the Committee would suggest extension of the scheme known as Training within Industry which they understand is invaluable. In addition, they would also suggest that courses for executive development need to be encouraged in order to ensure and adequate supply of persons who possess the necessary ability, capacity and expertness of managerial assignments at each level as the need arises.*

#### **D. Joint Training Scheme for I.T.I. and P. & T. Department Personnel.**

173. In the course of discussion, the Committee made a suggestion to the representatives of the Ministry and I.T.I. that a joint training scheme for the I.T.I. and P & T Departmental personnel might be formulated. The Secretary, Ministry of Transport and Communications (Department of Communications) assured the Committee that this suggestion was worth considering and that a Committee might be appointed to go into details of the training programme for both the I.T.I. and P & T Department personnel to see how best coordination and expansion of the existing training programme in the two organisations could be achieved. *The Committee desire that this suggestion should be expeditiously examined by Government.*

## XI

### CONCLUSION

174. The examination of the estimates relating to the Indian Telephone Industries (P) Ltd., by the Committee has revealed that the progress made by the I.T.I. in regard to the actual production i.e. I.T.I.'s effort of telephone equipment (excluding mere assembly of components) in the last 10 years cannot be considered entirely satisfactory. In the last three years as has been observed by the Committee in para 87, the actual production has only been 41% of the total production. There have also been considerable delays particularly in the manufacture of transmission equipment. Further the installed capacity in the Undertakings is not being put to the optimum use and there is also scope for effecting considerable economies in its working. The Committee have suggested certain changes in the organisational set up of the I.T.I. They have also recommended an early examination of the system of accounting followed by the concern as well as of the high rate of over-heads and expenditure trends particularly on staff. They have also suggested the optimum utilisation of the production capacity with reference to the requirements of telephonic and allied equipment in the country, measures to increase indigenous production of imported telephone equipment, intensive research etc. The Committee feel that besides the examination of these questions by the various Committees as suggested in paragraphs 77, 95, 115 etc. of the Report, a co-ordinated and comprehensive enquiry into the progress made by the I.T.I. particularly in regard to production and other technical matters is necessary. Further since the P & T Workshops also operate in the Tele-Communications field, it would be desirable to have similar enquiry made into the progress of these workshops with special reference to their re-organisation and co-ordination with I.T.I. in various matters including Research and Training. For this purpose, it would be desirable to appoint a Technical Committee consisting of one or two tele-communication Engineers and a Chartered and/or Cost accountant under the Chairmanship of an experienced industrialist to review the working of the I.T.I. during the last decade. This Technical Committee may also look into the affairs of P. & T. Workshops. The Committee recommended that this be done at an early date and its report made available to Parliament in due course so that it along with the Report would enable Parliament to make a correct assessment of the working of and the progress made by I.T.I. and P & T Workshops.

BALVANTRAY G. MEHTA,

NEW DELHI;

The 24th March, 1958.

Chairman.

Estimates Committee.

## **APPENDICES**

## EXPLANATORY NOTE

### APPENDIX I

The organisational set up of the Factory is supplied herewith in the form of diagrams (Annexure). There are various departments in the Organisation which are indicated by numbers on the diagram. Detailed organisation charts for these departments are also attached herewith.

2. *Foreign Personnel*: There is only one foreigner working in the ITI at present. He is an officer (Mr. G. Felthem) seconded by the Automatic Telephone & Electric Co., Ltd. His contract of service will expire next month and he will be leaving the Company shortly. His position in the organisation (Chief Inspector) is indicated in Chart No. (3), page 3.

3. *Personnel employed in foreign countries*: There is a branch office in London which is managed by an Officer of the rank of a Deputy Engineer. The staff working under him are recruited in U.K. and they are shown in Chart No. (8)—Branches, page 2.

4. The functions of each department are indicated below:

(i) <i>Management</i>	Deals with policy matters and keeps the overall control of the organisation.
(ii) <i>Transmission</i>	(Works and Engineering) : Transmission Works Department is responsible for the manufacture of Carrier Equipment and accessories. Transmission Engineering Deptt. is carrying on development work in the Transmission field.
(iii) <i>M.A. Y. Factory</i>	This is controlled by the Works Manager and is responsible for producing telephones, and accessories, Exchange equipment etc.
(iv) <i>Stores, Shipping &amp; inward Goods</i>	Materials received in the Factory are received in the Inward Goods Department and duly inspected for their quality and quantity. All Stores in stock are maintained and accounted for by the Stores Department. All goods despatched from the factory are handled by the Shipping Department.
(v) <i>Accounts (Costing &amp; Stores A/cs)</i>	Responsible for the maintenance of all Costs and Stores Accounts and Stock Verification.
(vi) <i>General Accounts</i>	Responsible for maintenance of all Financial Accounts of the Company.

(vii) *Internal Audit*      Deals with the internal audit of all accounts and procedures in the Factory.

(viii) *Branches*      Are responsible for carrying out the Company' services including Clearance, and delivery of consignments received at the ports and for delivery to the consumers, sales, service, maintenance of PAXs etc.

(ix) *Sales*      Sells products manufactured by the Works and products purchased from the A.T. & E. and other sources.

(x) *Construction*      . Is charged with the responsibility of construction and maintenance of buildings for the offices, factory and Township, water supply, roads and gardens.

(xi) *Engineering*      . Looks after the technical aspect of design of exchanges and equipment and is also responsible for service to the clients.

(xii) *Personnel*      . Looks after the welfare problems of employees and is also responsible for recruitment of employees and security and fire fighting arrangements of the Factory ad offices.

(xiii) *Purchase*      . Is responsible for the purchases of all materials required for use in the Factory and Offices.

(xiv) *Hospital.*      . Attends to the medical needs of all employees of the Factory and their families.

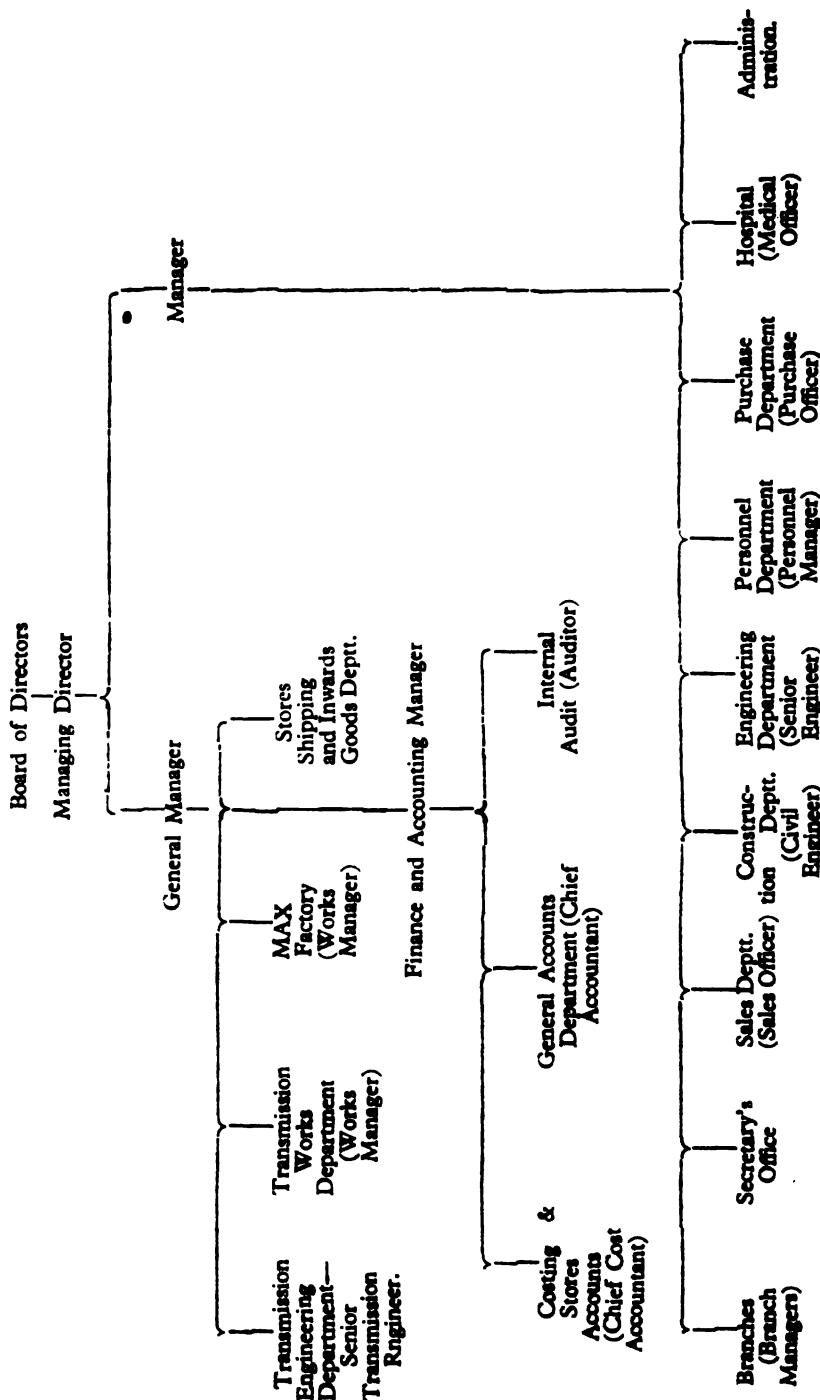
(xv) *Administration*      Interprets and implements the policies laid down by the Management and is responsible for all establishment and staff matters except recruitment as also for the receipt and despatch of all correspondence.

(xvi) *Duplicating*      . Responsible for all reproduction machines, for example, Printing Press, Blue Printing, Honeb, Banda duplicating, Photostat etc.

(xvii) *Secretary's Office*      Responsible for all legal and Board matters, patents, magazine etc.

(xviii) *Transport*      . Charged with the responsibility of transport services and maintenance of all vehicles.

*ANNEXURE*  
ORGANIZATIONAL CHART



## APPENDIX II

### *Research Activities in the I.T.I. (P) Ltd.*

Research activities in the Indian Telephone Industries (P) Ltd., have mainly been in the field of applied research and development of products both in the automatic exchange field as also Transmission. These are on a very limited scale. A list of important items on which such activities have been done in the past and are under progress now is given below with comments which will indicate the achievements :

#### **M.A.Y. 1. Magneto Telephone**

2. Railway Control Telephones for way stations.
3. Inter-communication telephones of types.
4. Switching Telephones.
5. Low impedance receiver for use at Indian Air Force.
6. Watch type receiver for ringer panels.
7. Selective calling equipment for train control.
8. Special types of relays for Civil Aviation, Atomic Energy Commission etc.
9. Small automatic exchanges for rural and undeveloped areas.
10. Automatic Exchanges for use on power line carrier.
11. Out of band signalling relay equipment for 12 channel carriers.

**NOTE :** All these items are now under current production.

#### **M. A. X. (Under Development)**

1. Switching Telephone—Mark III.
2. Portable Magneto Telephone.
3. Simplified Auto and C.B. Telephones.
4. Buttinski Telephone.
5. Signalling Equipment.
6. Wayside Telephone Instruments, and control telephone equipment for Railways.
7. Staff Locating Equipment
8. Police Broadcast Equipment.
9. Automatic Vote Recording equipment.
10. Paging system for hotels.
11. Telex Exchange.
12. High Tension Protective equipment.

***Transmission***

1. Single Channel Carrier system.
2. 3-Channel Carrier Telephone system.
3. Ultaphones (secrecy equipment).
4. Transmission Measuring set.
5. Voice Frequency Repeater.
6. 4th Channel equipment for adding to existing 3-Channel equipment.
7. Speech plus Duplex Telegraph Equipment.
8. Amplifier-cum-Attenuator Units.
9. Voice Frequency repeaters to replace War Department repeaters.
10. High Frequency Single Channel Carrier system.

All the above have been developed and are manufactured on bulk scale.

The following items are those on which development is in progress or proto type stage has been reached and sent out for field trials :

1. Transformer & Choke Units for PAX,
2. Amplitude Modulated V.F.T. Equipment—3-Channel,
3. 3-Channel UCP type equipment,
4. Apparatus Carrier Telephone 4—Channel,
5. 12 volts Vibrators,
6. 8-Channel Carrier Telephone system,
7. Channel Terminating Bay,
8. Ultaphone with Scrambling Arrangement,
9. Transmission Measuring Kit,
10. Line Matching Transformers, and
11. Repeating Coils.

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### APPENDIX III

*Some Important Recommendations/Comments made by the Chief Cost Accounts Officer of the Government of India who Examined the System of Accounting of I.T.I. in 1952 & again in 1954.*

Sl. No.	Subject	Recommendations in 1st Report (given in January 1953.)	Comments in 2nd Re- port (given in Novem- ber 1955)	Remarks of the Ministry
1	2	3	4	5*
1	Late atten- dance and workers.	I noticed that calcula- tions for late atten- dance are made up to the last minute which involve considerable meticulous working. This naturally takes a lot of time and work. In my opini- on, an arrangement must be reached with the labour that such late attendances (when trains come late) will be regulated for the nearest quar- ter of an hour, i.e., in the case of a man coming more than 7 minutes late, his wa- ges would be cut from a quarter of an hour, and in the case of those who come less than 7 minutes late, the late attendance would be ignored. Such a simplification would, in the long term, equalize the position so far as the factory is concerned, to that which obtains under the present procedure.	No action had been taken ..... Throughout my experience in this country, in commer- cial organisations, I have not seen such complications. It is most essential that the Management should devote some serious attention to this and improve matters.	
2	Pay Rolls.	Preparation of Pay Rolls mechanically on Remington Ac-	....the lay out of the system of accounting itself in this orga-	

\*See Appendix IV

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counting Machines or on Adrema, or other similar machines, should be arranged for, so that the Pay Rolls and the Pay Slips can be prepared simultaneously. I understand some investigation has been done in this respect. It should be completed.

nisation is far behind the standard that should be expected in an organisation of this type. Any system of high power mechanisation of accounting should follow a finally systematised accounting routine which is not available in this organisation at present. It is my view that, in these circumstances, adoption of the punched card method of accounting would only result in confusion worse confounded and I would appeal to the Management to first establish a properly finalised system of accounting—both financial and cost—and thereafter consider the question of mechanising the same.

3 Stores Account- There is considerable amount of confusion existing in regard to the Accounting for Stores in this Factory. It requires immediate and concentrated attention for setting right things.

I very much regret to state that the position in this respect had not at all improved.... Receipts of materials had been priced only for the first few months. In several cases, no pricing had been done at all for the year. Issues of materials had not been priced at all for the year.... I may also mention here that adoption of standard rates, without any re-

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ference to actual costs in the year 1953-54 had resulted in abnormal variations in the rates for certain items of stocks and also in unorthodox balances as carry forwards. Use of standard rates should be based on comparative study of actuals frequently and not for long periods without any reference to fluctuations of actuals.

4 Issue of Stores. The lay outs represent the estimates for the particular type of manufacture. When a Shop Order is issued, the different kinds of materials and the quantities of each item thereof to be issued against that order, at the rates authorised in the lay out should be calculated and recorded on the shop orders. A copy of this Shop Order should go to the Stores Department and another copy to the Accounts Department too.

In view of the incomplete records, that were available for the year 1954-55, even if I had looked into the details, it would not have been possible for me to come to any definite conclusions.

5 Do. It is necessary to modify the Stores Requisition Form, so as to show in it the balance of stocks after each transaction, which information will be used by the Accounts Office to verify the

This had not been acted upon, but I was told that there was a proposal now to adopt it..... The position was worse than what it was during my previous visit.

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correctness thereof simultaneously with posting of the same info the ledger card, with the balances thrown out in the ledger cards.

6 Priced Stores Ledgers. I must recommend the mechanisation of the accounting work here without any hesitation. The ledger cards should be maintained on the Remington Accounting Machines, or on other similar accounting machines.

7 Do. It is my view that unless the accounts in this respect are mechanised, the stores accounts department cannot function properly except at a great expense. It will also involve delays and difficulties in the completion of the accounts.

8 Over-heads Accou- Arrangements should be made to departmentalise the over-head rates, at least with effect from 1-4-1953.

For the present, I may only repeat that there have been practically no Stores Accounts for the year 1954-55 upto the time of my visit.

An attempt had been made to adopt departmental overhead rates. The procedure laid down for the determination of these rates was not examined by me in detail because no detailed data were available for the several months of 1954-55. Unless there is a monthly working, it is not

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possible to examine the effectiveness of the actual procedure adopted.

**9 Overheads Accounting.**

For an effective control of overhead expenses, there should be a budget also for the various items of overhead expenditure. This Budget will be a subsidiary to the General Financial Budget of the Co., it will be closely linked with it.

It will be seen that the scope for reduction in the overhead expenses lies only in reducing the rate resulting from items of salaries and wages that are treated as overhead charges. The rate of about 42% on direct wages is, in my opinion, an extraordinary high rate and would necessarily have to be brought down.

One method, in which the rate of overheads on account of salaries and wages of supervisory and other personnel could be brought down, is by increasing production by leaps and bounds, but, at the same time, retaining the Management and supervisory etc. staff at the present level and if necessary, increasing them by a small percentage, which compared with the rate of increase in output would be negligible.

In my opinion, this is an aspect, on which the present Management should be able to lay down definitely

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their forecasts before the Directors of the concern.

Another method is to examine the present organisation in detail to see whether the present strength of managerial, supervisory and other personnel are actually necessary. This study should naturally be connected with the system followed in the various departments and other production routines that are being adopted.

In these circumstances, it is necessary to get into the detailed working in each Department and the necessity for an reasonableness of the strength, each Department has. In making out these investigations, it should be remembered that this is a commercial organisation and the procedure followed in commercial organisation should essentially be adopted. I am inclined to feel that the fact that this Organisation was sponsored by Government, has naturally resulted in the usual Governmental routine being adopted here in several

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respects, resulting  
in considerable  
wastages.

10 Depre- I noticed that it is the  
ciation. practice in this fac-  
tory to debit in the  
accounts, deprecia-  
tion on all items  
of machinery, irres-  
pective of whether  
they were installed  
and brought into use  
or not. Even machi-  
nery which had arri-  
ved in the Factory,  
but which had not  
yet been installed  
were being depreciated. This is not  
correct. From a  
cost determination  
point of view.....  
only depreciation on  
Machinery, which  
were actually in use  
should be taken into  
account and no more.

11 Do. Regarding depreciation  
on buildings, I ob-  
serve that there are  
any amount of addi-  
tional floor space  
available and which  
are not in use. There-  
fore, it would again  
be incorrect to debit  
into costs, the full  
amount of deprecia-  
tion on all the build-  
ings, to the present  
actual load on the  
Factory. The best  
procedure would be  
to allocate to costs,  
only depreciation on

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1	2	3	4	5
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buildings, in proportion to floor space actually used.

12 Account for Manufacturing for Manufactured Stock. It will be seen that the cost accounts department should be intimated of the completion of a particular order for manufacture of components, etc., immediately the manufacture is completed, so that the corresponding cost card can be closed and action taken to adjust the transactions involved.

13 Salvage Accounts. I understand that materials imported, or locally purchased, are, on inspection, sometimes, transferred to salvage. I must observe that this is a dangerous pigeon. The creation of a salvage pigeon would eventually lead to considerable losses, unless the clearance of this salvage periodically and with minimum delay possible is insisted upon. There is no use in carrying them in the books at their original values. The accounts also should be immediately adjusted to show the exact values at which these items will be held by the Factory.

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14 Rejections. In the existing system of accounts, the rejections made at the customers' end, do not seem to be accounted for. This position requires straightening up.

15 Stock verification. I examined the records maintained by the stockverifiers. These records had not been properly maintained. They were very haphazard. The stock verifier must make a daily report of the surpluses and deficiencies noticed by him in a proforma to be laid down for the purpose.

16 Register of Capital. A capital assets register should be maintained in a departmentalised manner, separately for each department, consisting of various parts.

17 Tool Stores. In connection with the Central Tool Stores I must observe that, there are several items of surplus dies, tools etc., which are either far in excess of current requirements or which are not required at all. These should be weeded out and their disposal taken up. They represent considerable amount of capi-

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tal locked up for no purpose. In my opinion, it would be necessary to appoint a Technical Committee to see how many of these are not required, or surplus etc. and keep them out of account so far as costs are concerned.

18 Machine Load-ing.

I found that the Indian Telephone industries had already put in an Engineer to investigate into the machine capacity required in each department for several operations based on the target load and also to assess the surplus machinery that were available. This work was in progress, and therefore I considered that it would not be correct on my part to interrupt that investigation, as it was purely a technical question and it would be more advisable to await the completion of that investigation.

19 Comparison of Cost of Production of

I have stated that the original accounting itself was in arrears at the time of my visit—(I have no

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I.T.I.  
with the  
Cost of  
similar  
import-  
ted arti-  
cles.

reason to believe that today they are in any way current)—and therefore costs based on proper data were not available to think of further looking into the possibility of a comparative study being made with the cost of similar imported articles. This could be taken in hand only when it is known that costs produced at I.T.I. are correct and they have been compiled on proper methods.

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## APPENDIX IV

### *Comment of I.T.I. on the Report of the Chief Cost Accounts Officer.*

The report of the Chief Cost Accounts Officer was received by the Indian Telephone Industries (Private) Ltd. sometime in December, 1955. On many items the report was general in nature without going into details. As the views expressed by the C.C.A.O. on many of the points were not quite acceptable to I.T.I., I.T.I. made repeated requests to the C.C.A.O. to visit I.T.I. again to enable further discussions being held on these points with a view to examining the feasibility of implementing the suggestions made by him. Even though the C.C.A.O. visited Bangalore later on one or two occasions in connection with work other than I.T.I., he could not find time to visit I.T.I. subsequently, with the result that I.T.I. could not finalise their views on these points. Difficulty was also experienced in regard to some of the recommendations made by him in his earlier report and which has been introduced in the I.T.I. It, therefore, became essential for I.T.I. to discuss matters with the C.C.A.O. but unfortunately there was no opportunity for such discussions. However the position in respect of the various points mentioned in the report is as follows :

- (1) *Para 4 (Item 9).*—The statement that the Accounting routine in I.T.I. is not systematised cannot be accepted as such. The system has been evolving, so to say, since the beginning of the factory and it may now be claimed, on the other hand, that the accounting system is at present as good in I.T.I. as is in any other factory in the country.

The C.C.A.O. was very much in favour of the Remington Accounting Machines and was not quite in favour of the Hollerith or any other punch card system. The management was not convinced on this point. Pay rolls have not been put on the Hollerith machine as there was considerable delay in getting the machines and, in particular, one machine "tabulator", was available only in a second hand condition. This gave frequent trouble and so the machines are being used mostly for obtaining tabulation, and data, such as, material and labour cost allocations, stores ledger posting etc. For the wage rolls Adrema machines are being used for printing the staff number, names, rates of pay, etc. Other calculations are being carried out manually and checked by Comptists.

- (2) From para No. 5 onwards the report deals mainly with an important issue regarding the strength of managerial, supervisory and other personnel with reference to the volume of production and organisational methods, procedures and practices. The statistics that are furnished (in paras 5,6,7,8,9 etc. of the report) appear to have been taken from 1953-54 figures.

The industry commenced manufacturing activities on a significant scale only in 1953-54 and in any concern the initial stages the proportion of fixed expenses, like the salaries of managerial and supervisory personnel, will be high in relation to the output, as the output has to be necessarily built up over a period of time.

This industry is the first of its kind in India and suitable personnel could not be readily obtained from the employment market. Further, the problems of an industrial concern are more often peculiar to the conditions obtaining within the organisation, the nature of the industry and the period during which the production potential is sought to be achieved. So far as the procedures and practices are concerned, they have to be stabilised with reference to the changing conditions within the organisation and also the experience gained in working. The statistics compiled on the figures pertaining to 1953-54 would obviously not indicate the working of the entire organisation.

(3) *Para 11.*—Before any staff is sanctioned, prior Work Studies are carried out. The proportion of supervisory personnel has been determined with reference to existing conditions on the basis of such studies. This proportion is also periodically reviewed with reference to changing conditions and need for improvement in methods and practices. It is not quite clear, in which particular manner the C.C.A.O. wanted the works studies to be conducted in future. It was intended that this should be got clarified from him at future discussions, but there was no occasion for it. The statement that all monthly rated staff are employed on managerial, supervisory and other ancillary work would not also be quite correct. A detailed study would have indicated that a large telephone manufacturing concern involving the handling of as many as 30,000 items would need a large number of staff for planning, inspection and engineering. The designing and production of various exchanges also present complicated problems. It will be appreciated that these facts could have been brought out only at discussions, which could not be arranged on account of Shri Iyer's pre-occupation with other matters.

It was also intended to find out from the C.C.A.O. details about duplication of work, etc., which he has mentioned. The staff in the Purchase and Stock Control Department is not really much, compared to the magnitude of the work. As regards time keeping, there are only 10 time keepers, who are looking after about 5,000 persons. Besides time keeping, they also attend to the following work :

- (a) Reconciliation of attendance time with booked time.
- (b) Compilation of certain statutory data to comply with the Factories Act.
- (c) Miscellaneous work relating to items such as late arrival of train and buses etc.

(4) *Para 15.*—Due to the nature of the agreement with the Automatic Telephone & Electric Company requiring certification by B.P.O. and other organisations, the work in the Sales Branch is more involved than it could otherwise be. This is something which cannot be helped. The agreement with the P & T Department also provides for charges being recovered on the basis of actual costs and this leads to considerable correspondence and subsequent adjustments. Several requirements of Government Audit and the P & T Department have also to be complied with, and these make the working of the organisation not being strictly comparable to purely commercial concerns.

Definite delegation of responsibility exists in this organisation. Procedures have been standardised and convention stabilised. Such delegation could be done only in course of time in the wake of experience gained and could not have been made in the initial stages hurriedly.

(5) *Para 16 (d) Central Tools Stores.*—The position of personnel in all Departments has been determined on the basis of works studies. There have been major changes in the organisation since the report was made in 1955. Planning has been decentralised to a certain extent. Responsibility for material utilisation has also been decentralised. A number of other improvements have also been effected, such as floor investigations, cost standards, etc.

In any manufacturing programme, tools have to be obtained in advance. It is only after the tools have been tried out and the manufacturing process is stabilised that additional staff for the production of particular items can be arranged. Most of the tools which were considered surplus in 1953-54 are no longer surplus. However, there are some cases of imported die sets etc., which are really surplus, but the cost of these forms a small percentage of the total cost of tools and gauges and action is also being taken to have them disposed of wherever possible.

(6) *Para 19.*—An Engineer was put on the work of investigation of the machine capacity required in each Department and also to assess surplus machinery. Since then, the machine capacity etc., are being revised with a view to meeting the increasing demands of tele-communication equipment. This is a continuing process and additional machines are being ordered for, only after satisfying that no spare capacity exists. The method of machine log card is being introduced by stages. Machine utilisation charts are also being prepared. The targets for production have been increasing every year. For 1955-56, the target was 55,000 telephones and 45,000 exchange lines. For 1958-59 the figures have been provisionally fixed at 85,000 and 54,000. More and more components have indigenously been produced. In addition, fresh items have also been taken up for production and most of the factory is working in double shift while some individual shops are working in 3 shifts, because of the increase in targets of production. There are practically no surplus machines now.

## APPENDIX V

### *Summary of recommendations*

Serial No.	Paragraph No.	Recommendation
1	2	3
1	7	The Committee feel that it would have been advantageous to get a project report from the A.T.E. not merely to serve as a short-term and long-term plan but also as a means of watching and judging the progress made from time to time and that in its absence it is somewhat difficult to make a correct assessment of the actual progress.
2	10	The Committee feel that the limitations referred to in clauses 1 and 10 of the Agreement with the A.T.E. have precluded the I.T.I. from extending its operations to other areas where it could find a ready market especially now that the I.T.I. has the capacity and means to undertake production for this purpose. They were informed in this connection that the A.T.E. had already been addressed by the I.T.I. to modify these clauses so as to include some more territories for I.T.I. to do business for a specified period. While the Committee hope that these efforts will meet with success, they would nevertheless suggest that in similar cases where the Government of India may enter into agreements with foreign firms for the establishment of industries in the country, due care should be taken not to fetter themselves by restricting the territory of operation.
3	12	While the clauses (4 & 5) appear quite satisfactory from the legalistic point of view, the Committee feel that in their practical operation, these have placed the I.T.I. in a disadvantageous position inasmuch as :  (a) these clauses virtually prevent the I.T.I. from getting any technical know-

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how from any other manufacturers for the production of items which are either outside the scope of the agreement or which the A.T.E. themselves are not in a position to manufacture efficiently, the reason being that while such manufacturers may be willing to pass technical know-how to I.T.I. for adequate consideration, they may not do so, if the information is to be passed on to A.T.E. who may be their competitors.

(b) any information of a developmental nature resulting from research or development work carried out by any organisation in this country and made available to I.T.I. would automatically be accessible to the A.T.E. who could utilise it.

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The Committee fail to understand why information is not available in the Ministry to show how clauses 4 & 5 were included in the Agreement. They would suggest that while examining the implications of various clauses contained in agreements which Government might enter into with foreign firms or consultants, a contemporary record of the discussions leading to the acceptance of the provisions contained therein should invariably be kept in the Ministry concerned.

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The Committee consider the inclusion of clause (9) in the Agreement as very unfortunate. They recommend that as a rule Government should not fetter themselves too much by such obligations and should, if at all necessary, commit to get only a part of their requirements from the company with whom they enter into such agreements.

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The Committee hope that full advantage of the Agreement will be taken to get as many persons trained at the A.T.E. works or by their experts as possible within the currency of the Agreement.

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It would appear that the actual production in the I.T.I. has fallen short of that contemplated

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at the time of the Agreement. The Committee, therefore, feel that there is no reason to feel complacent in regard to the progress made by the I.T.I. so far. They recommend that this matter may be re-examined by the Management.

8                    25                    The Committee suggest that the provisions entitling A.T.E. to one seat on the Board of Directors of the I.T.I. may be reviewed and discussed if considered desirable with A.T.E. in the light of the changes made in this regard in the Agreement entered into by the HMT (P) Ltd., and Hindustan Steel (P) Ltd., with their foreign consultants, as a result of which the latter function only as Technical Consultants.

9                    26 & 27                    Though the Committee were assured that the Agreement had on the whole worked satisfactorily, and had achieved its main purpose, there had been cases where :—

- (i) the I.T.I. had to purchase plant and machinery from the A.T.E. in excess of what was strictly required and that some of this machinery is still lying idle (*vide* paragraphs 70 & 104).
- (ii) there had been delays in the matter of getting manufacturing data and other technical information especially in the matter of Carrier Equipment as a result of which production in the transmission division has been delayed by 1-1½ years.
- (iii) there had been difficulties in the matter of getting supplies of certain materials through the A.T.E. which has also resulted in higher prices being paid than for direct supplies (These prices are stated to have been got rectified later); and
- (iv) there had been difficulties in the settlement of bills resulting in avoidable delay in payments.

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The Committee feel that these difficulties could have been avoided at least partially had there been a project report. However, they hope that these and similar other points will be amicably discussed by the I.T.I. with the A.T.E. and resolved to the extent possible and every effort made to secure the effective utilisation of the agreement.

10 30 The Committee recommend that early action be taken to appoint a Chairman with requisite qualifications and aptitude who holds no post in the Secretariat or has severed his connection with the administration. They would further suggest that persons with business experience who might have no interests in private undertakings and also persons of experience in financial matters and in tele-communication engineering should be associated with the Board in terms with the recommendations contained in the Committee's Sixteenth Report. To the extent possible, they could also act as functional advisers in various matters and provide technical services in the fields of production, performance measurement, etc.

11 32 The Committee would recommend that the Board of Directors should take maximum responsibility and function on business principles and not look to Government for guidance in matters where decisions could be taken by it.

12 33 The Committee consider that the Board of Directors should concentrate on policy matters and measures to improve efficiency, economy and production and that there should be suitable delegation of powers to the authorities on the spot for execution of day-to-day work. It will be appreciated that unless there is effective delegation, there can be no efficient functioning. The Committee would recommend that with this end in view the delegation of powers to lower authorities should be reviewed by the management. They would further suggest that it should also be ensured by the various authorities that the powers delegated to authorities below them are actually exercised.

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13 37 The Committee feel that it should be possible for the heads of the major departments in the I.T.I. at least, e.g., the Transmission & Engineering Departments to function directly under the Managing Director, especially since the present incumbent is himself a technical officer, while the General Manager might control the other important Departments. Under this arrangement, it might be possible to abolish the post of Manager. The Committee would recommend that the organisational set-up of the I.T.I. should be reviewed in the light of the above remarks, as well as of the position obtaining in modern undertakings elsewhere.

14 38 To ensure better co-ordination, the Committee would suggest the formation of a Board of Management as in the H.A.L. etc. consisting of the Managing Director and Senior Officers of the I.T.I. to assist the Managing Director in the exercise of his powers, functions and responsibilities not in an informal manner but by holding meetings at regular intervals, maintaining records of proceedings, etc. In this connection, they might mention that the practice of having Boards of Management which involves collective and to that extent considered decision-making and encourages joint responsibility among senior officers, has become extensive in most enterprises.

15 40 The Committee consider that while important financial matters should be considered by the Board of Directors, there should be sufficient delegation of authority below that level for which purpose they have already recommended a Board of Management. They therefore, suggest that the continuance of the Finance Committee may be re-examined.

16 43 The Committee feel that it might perhaps be more economical to entrust the work relating to the clearance of stores received from abroad and forwarding them to the Head Office, at present handled by the three Branches of I.T.I. to the clearing and

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shipping agents approved by the Government of India. They would suggest that this question may be examined in consultation with the Ministry of Transport and Communications.

17            44        The Committee feel that the justification for the continuance of Delhi Branch may also be re-examined to see whether this work can be done through some other agency, such as one of the Committees discussed in the Report.

18            46        While the Committee agree that under the circumstances it might be necessary for the I.T.I. to keep some maintenance staff to look after the PAXs installed in the areas served by its various Branches, they would suggest that the I.T.I. should examine the whole question of maintaining these Branches, in their present form and strength particularly in case it is found economical to entrust the handling work to the clearing agents.

19            50        The Committee feel that the present system of having different Co-ordination Committees and procedures for P & T, Railways and Defence is not quite satisfactory. They, therefore, feel that a better arrangement might be to have one co-ordination Committee with 3 to 4 Sub-Committees each dealing with the requirements of different User Departments and also a small office since that might ensure a closer co-ordination in production as well as in research programmes between the I.T.I. on the one hand and the different user departments on the other.

20            53        Since the capital output ratio in the I.T.I. is only 72 %, it is evident that efforts will have to be made by the I.T.I. to increase their production to the optimum capacity for use at home as well as by tapping export markets and undertaking manufacture of ancillary items.

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21	56	The Committee doubt whether the declaration of a dividend by the Board of Directors in 1955-56 and 1956-57 without making provisions for Royalty to be paid to A.T.E. for 1954-55 and selling price variation for 1955-56 was in consonance with the accepted commercial practice.
22	57	The Committee would consider the increases of profit margins as unobjectionable so long as they assist in self-financing future development projects. At the same time, they would point out that the basic objective of a public enterprise like the I.T.I. should not only be to realize a financial profit but to produce the required products, to achieve the optimum output and to ensure production by economic and efficient methods.
23	58	In regard to the amounts provided for depreciation the Committee observed variations which seem to have no relation to either increase in machinery or in production. The Committee suggest that this should be examined by the Management.
24	59	The Committee consider that provision for replacement should be based on some scientific formula.
25	60	The Committee would suggest that, as a rule, provision should be made for General Reserve since such reserves go to strengthen the internal finances of an undertaking.
26	61	The Committee do not feel happy that a commercial undertaking like I.T.I. should have allowed outstandings of the order of Rs. 138 lakhs to accumulate especially from a department whose representative functions on its Board of Directors. They consider this as particularly unbusinesslike in view of the fact that because of this locking up of funds, the I.T.I. had to borrow from the Government and the State Bank of India. These borrowings amounted to Rs. 127 lakhs as on 31-3-57 and the interest was about Rs. 5 lakhs. The Committee re-

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commend that action to liquidate all the outstandings should be vigorously pursued by I.T.I. with the concerned departments.

27 62 The Committee consider that the main reason for the outstandings is the lack of promptness on the part of the I.T.I. in rendering bills or in chasing those which are not paid within a reasonable time and also on the part of the P & T units in paying or taking any action on the bills rendered to them for supply of goods. The Committee recommend that strong action should be taken against those who allowed the dues to accumulate both in the I.T.I. and in the P & T units and that there should in future be greater co-ordination between the two in the settlement of dues.

28 63 As regards the 90% value required to be paid to the I.T.I. on despatch of goods, the Committee would suggest that since there is already P & T inspection staff stationed at the I.T.I., the desirability of sending immediately a copy of the I.T.I. delivery challan accompanied by the inspection certificates to the DAG, P&T concerned, who could on its receipt arrange payments to the I.T.I. should be considered.

29 64 It is wrong for any authority to place an order for supply of goods without being in a position to pay for them which is also no ground for not paying for an obligation incurred. The Committee recommend that the D.G., P&T should examine all such cases and issue strict instructions in the matter.

30 65 As regards sales-tax the Committee fail to understand why its payment should continue to be objected to by the P&T units even after the question of inter-State sales tax has been settled and particularly for the periods prior to 6-9-55 and after 1-7-57. They suggest that immediate instructions should be issued in the matter by the D.G. P&T in regard to these periods. As regards intermediate period the matter

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		was stated to be under consideration of the Law Ministry. The Committee hope that an early decision will be reached in the matter.
31	66	As regards non-payment of Bills on account of rejections, the Committee would suggest that instead of disallowing bills and holding up payment, the feasibility of first making full payment of Bills and thereafter making adjustment for rejections by means of credit notes should be considered. This procedure they understand exists in the case of supplies made to the Railways and Defence.
32	67	In respect of arrears of payments, due to I.T.I. from Railways and Defence, the Committee would suggest that the existing procedure followed in the case of P&T together with the above suggestions should be made applicable in their case also and that the necessary discussions for the purpose be undertaken immediately.
33	68	The Committee observe from the terms and conditions of supply that no interest is levied by the I.T.I. on delayed payments on account of supplies of goods etc. They would suggest that the desirability of levying a charge of this nature in accordance with normal commercial practice should be considered.
34	69	The Committee are concerned to see this abnormal rate of write off (about Rs. 45000 per annum) in the company and would suggest that the management should examine them carefully.
35	71	The Committee feel that the expenditure trends do not reveal a very satisfactory picture in many directions, especially since in the year 1958-57 when though the total production figure showed an increase of about 29 % since 1954-55 the budgeted expenditures on salary and wages, fuel and power and depreciation as also the total revenue expenditure were

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much higher. The Committee suggest that the Management and the Board of Directors should regularly have the expenditure of I.T.I. carefully analysed and take action to control disproportionate increases whenever they are noticed.

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The Committee do not appreciate wide variations between the actuals and Budget figures, in the case of an undertaking like the I.T.I. which has an assured business on the basis of the cost of production. They feel that such wide variations render effective financial control difficult and that to minimise them the standard of budgeting which in turn depends on proper accounting and costing should be improved.

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The Committee regret that till this report was finalised, information in regard to action taken by the Government on the 2nd Report of the C.C.A.O. of the Government of India was not made available to them by the Government they however feel that sufficient action has not been taken thereon by the I.T.I. Even the Board of Directors do not seem to have taken any specific note of the two Reports of the C.C.A.O., which is rather unfortunate. They would, therefore, recommend that the Board of Directors should arrange for immediate action in regard to these recommendations of the C.C.A.O.

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(i) The Committee recommend that the entire system of accounting—financial, cost and stores—should be urgently got examined afresh by an expert team specially to be set up for the purpose.

(ii) Incidentally the Committee would observe that during the examination of various State undertakings they invariably found that the costing system followed by them was not always what it should be in a commercial and industrial undertaking. They therefore suggest that the Government should urgently consider the setting up of an expert Committee to go into the system of Accounting — Finance, Cost and Stores — in all the State Undertakings with a view to mak-

ing it fool-proof and achieving standardisation of Accounting Procedure, to the extent possible, at least in all manufacturing units.

39            78            The Committee consider it desirable that the Annual Accounts and Reports of public undertakings placed before the Parliament should be made for more detailed and exhaustive than at present. These should clearly bring out the financial working of the undertaking as well as of its various manufacturing departments and branches, an analysis of accounts with particular reference to administrative expenses, overheads, staff strength and measures to control them, actual production of various items and its costs and trends, relations with users, personnel and training matters, etc., together with illustrative graphs and charts wherever possible. In this connection, the Committee would suggest that the Annual Report and Accounts of the Nationalised Industries in U.K. might be considered as a model. Further, in order to enable Parliament and Parliamentary Committees to make a proper study of these undertakings, their annual accounts and reports for the preceding financial year should be laid before the Parliament before the commencement of Budget discussions.

40            80            The Committee would suggest that the justifications of a separate cost check staff maintained by the P. & T. at the I.T.I. might be examined by the Ministry of Transport and Communications (Department of Communications) in consultation with the Ministry of Finance and the Comptroller and Auditor-General of India.

41            86 (i) The Committee would recommend that the I.T.I. should impress on the P.&T. whose representative functions on the Board of Directors of the I.T.I. the necessity of intimating actually the firm requirements sufficiently in advance and of not making changes in them frequently. They feel that this should be possible by undertaking proper planning in the P. & T. In this connection it is important to point

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out that for economical working schedules once fixed should not be frequently altered since such changes result not only in decreased productivity but also in loss of work-flow and inefficient use of man-power and machines.

(ii) In the last three years the actual production (the I.T.I.'s efforts) has been Rs. 110 lakhs, Rs. 139 lakhs and Rs. 176 lakhs respectively, *i.e.* Rs. 425 lakhs which comes to only about 41% of the total production of Rs. 1023 lakhs during that period. The Committee, therefore, recommend that efforts should be made to improve the extent of actual production in the I.T.I.

42 91 The Committee feel that the manufacture of the transmission equipment needs to be given greater attention in the I.T.I. than at present especially considering its revenue-earning capacity as well as future demand. The Committee understand that in the export field also, there are greater chances of marketing transmission equipment than telephone exchange equipment. They, therefore, suggest that the programme of transmission equipment of the I.T.I. should be reviewed in the light of the above remarks.

43 92 The Committee suggest that the feasibility of further production of screws and die-casts and similar other items should be explored so as to utilise fully the spare capacity.

44 94 The Committee understand, that some difficulty is being experienced by the B.E.L. and I.T.I. in regard to the manufacture of certain parts and components for each other since B.E.L. follows the metric system while the I.T.I. follows the traditional F.R.S. system. They suggest that this matter should be expeditiously examined with a view to standardisation as well as production.

45 95 The Committee would recommend that in order to ensure the utilisation of this surplus capacity and to minimise dependence on imports, the I.T.I. should undertake production of as many other items both in the tele-communication and non-telecommunication fields as possible. For this purpose, the I.T.I. should first clearly determine what items can be manufactured by them after

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making a survey of the idle capacity as well as the capacity of the machinery to produce these items. Thereafter the I.T.I. should conduct a market survey of the demand for all such items keeping in view the capacity already available in the country. To enable such surveys to be made, they would suggest the appointment by the Government of a Committee analogous to the Engineering Capacity Survey Committee which had been appointed by Government some time back. Finally, the I.T.I. should draw up necessary plans for starting manufacturing operations on the basis of the survey.

46 97 The Committee recommend that strenuous efforts should be made to reduce the overheads to a reasonable figure and thus to reduce the cost of production. This, they feel, can be done by increasing production and simultaneously undertaking a review of the staff position. In this connection they would invite attention to their recommendation at S. No. 37 above.

47 99/100 The Committee feel that it should be possible for the I.T.I. by proper advertisement and negotiations to find Agents on payment of reasonable remuneration. As regards appointment of agents abroad, the Committee would suggest that as far as possible preference should be given to Indian Nationals resident abroad.

48 103 The Committee recommend that further efforts to tap export markets on commercial lines should be vigorously pursued by the I.T.I.

49 106/107 The Committee are concerned to observe that the I.T.I. purchased from A.T.E. more plant and machinery than was required for the production, as a result of which considerable portion of it was lying idle. It is evident that there has been lack of proper planning as well as coordination between I.T.I. and A.T.E. in the matter. There appeared to be some misunderstanding even in regard to the schedule of

manufacture. There was no project report and the recommendations of the A.T.E. also do not seem to have been scrutinised by the I.T.I. They would therefore recommend that greater care should be excercised in the procurement of Plant and Machinery at least in future. Further, the imbalance in the capacity of different types of machinery which is said to be causing bottlenecks in production should be rectified. The existing idle machinery and surplus capacity should also be utilised to the best advantage.

50 108/109 The Committee consider the existence of Stores Purchase Committee in the I.T.I. as a very desirable feature which may be adopted with advantage by other State Undertakings.

In view of the fact that the annual purchases of the I.T.I. amount to Rs. 2·5—3 crores, the Committee would suggest that the feasibility of associating non-officials with the Stores-Purchase Committee may be examined by the I.T.I.

51 III The Committee consider that it should be possible to minimise overstocking and yet avoid bottlenecks by proper planning and by stipulating realistic delivery dates for materials and by imposing penalties for failure on the part of suppliers to supply the materials in time. At the same time, a commercial organisation like the I.T.I. should also take full advantage of periods when the prices of materials are at a low level to obtain and stock them and for this purpose, the Board of Directors should exercise latitude with proper discretion.

52 115 (i) The Committee recommend that in view of the position regarding the extent of imports of raw materials, components etc. (even apart from plant and machinery) as well as of other telephone equipment, more concerted measures to locate and develop indigenous sources should be taken in

co-ordination with the Development Wing. An increasing use should also be made of the system of sub-contracting which at present amounts to five per cent only.

(ii) The Committee feel that indigenous manufacturers should be encouraged to improve the quality of supplies and that the position is bound to improve gradually. They would also suggest that a system of decentralised purchases should be adopted by the I.T.I. However to obtain better results in all these matters the Committee feel that it would be desirable to appoint a Telegraph and Telephone Equipment Committee on the lines of the Railway Equipment Committee.

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The Committee would suggest that the need for stream-lining the organisational set-up of P. & T. Workshops with a view to ensuring greater co-ordination with I.T.I. even if common management for the two be not immediately feasible as well as of rationalising the manufacturing operations in these units to fit in with the Telephone Expansion Schemes of the P. & T. Department should be constantly kept in view while making the re-organisation.

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The Committee would suggest that the P. & T. Department should undertake a survey of telephone requirements of the country at regular intervals.

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The Committee should suggest that the P. & T. Department should consider the economics of drawing up necessary plans to meet the demand—existing and potential—after taking into account the fact that it would bring in revenue to Government.

In this connection they would also suggest that the feasibility of setting up a 'Telephone Development Fund' after taking into account the revenue earned by the Telephone system, as well as such Schemes as

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the OYT (Own your Telephone) etc. should be considered. Further the possibility of negotiating loans from the World Bank or some other similar agency to finance the expansion of the Telephone system in the country, should also be considered.

56 128 The Committee suggest that efforts should be made to persuade the Hindustan Cables (Private) Limited to increase its production capacity and that there should be more effective co-ordination between the P. & T. and the H. C. L. for this purpose.

57 129 The Committee would suggest that to facilitate effective co-ordination, the desirability of placing the Hindustan Cables (Private) Limited under the administrative control of the Ministry of Transport and Communications (Department of Communications) should be considered.

58 131 The Committee feel that with better planning it should be possible to reduce the time lag between the installation of capacity and its utilisation considerably, to see that capacity is utilised in full as far as possible simultaneously with its installation. They recommend that this matter should be carefully examined.

59 132 The aim of the Posts and Telegraphs Department should clearly be to keep these five elements (as stated in para 132 of the Report) in balance relative to each other for any imbalance would result in inefficiency either in the form of poor service or in uneconomic utilisation of capital equipment such as idle capacity etc.

60 133 The Committee would suggest that the scheme to provide auto Exchanges in replacement of manual Exchanges should be expedited.

61 134 While the Committee are in no position to comment on the technical reasons adduced for replacing the auto Exchanges of Bhavnagar,

Gwalior and Mysore by manual one, they consider it most unfortunate that even 7-8 years after this change was made the reconversion to auto exchanges has not been made. The Committee trust that no further avoidable time would be lost in restoring this facility which existed in these places till 1950..

62 135 The Committee recommend that the question of restoring the Rural Auto Telephone system in Saurashtra, as well as expanding it elsewhere should be urgently examined.

63 139 For the successful running of a telephone industry it is of utmost importance that Research Unit should work as a close adjunct to the manufacturing Centre so that developments made could be quickly translated into production units. The Committee would suggest that this question should be examined further.

64 141 The Committee urge that greater attention should be given to Research activities. For this purpose, they would suggest that the I.T.I. and P.&T. should concentrate first on building up a nucleus of adequately trained research staff who could build-up a research organisation gradually. Simultaneously a phased and co-ordinated programme for expansion of research activities in the I.T.I. as well as in the P.&T. Department should be drawn up. In this programme, due stress should be laid on the utilisation of indigenous raw materials as well as on improving the production processes in the I.T.I. Finally, every effort should be made to maintain contacts with A.T.E. and other Tele-Communication Manufacturers in regard to their research activities.

65 142 The Committee feel that the existing coordination for Research is not adequate. They would, therefore, suggest that there should be greater integration between the research activities of the I.T.I., P. & T., 'Railways,

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		Defence, and Universities so that limited resources and facilities in this field might be used to the best advantage. For this purpose the Committee would suggest the setting up of a Tele-communication Research Council consisting of experts drawn from these organisations.
66	145	The Committee feel that in an industrial and commercial undertaking it should be possible to control increases in man power especially when the overheads are high. They recommend that vigorous and determined attempts should be made to control staff strength and to correlate it with production.
67	148/149	<p>(i) The Committee consider the abnormal increase of Factory staff without corresponding increase in production an indication that the productivity of labour has been on the decline in the I.T.I. They recommend that the management should give urgent attention to this problem. For this purpose, the Committee would suggest that a detailed job analysis and proper time and motion study be undertaken immediately in the various shops in the I.T.I. since only then can the optimum efficiency of an operative business be measured.</p> <p>(ii) Since the present system of fixing standards in the I.T.I. has not succeeded in effectively controlling staff strength the Committee would recommend a review of the methods adopted.</p>
68	152	The Committee suggest that the question of taking suitable undertaking from those especially trained for employment in I.T.I. should be considered.
69	153	The Committee consider that the real reasons for the large number of resignations in the I.T.I. should be carefully investigated with particular reference to the conditions of service enjoyed by the personnel and remedial measures taken to the extent possible so as to avoid recruitment and personnel

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difficulties. They would also suggest that other Central Government Undertakings at Bangalore and representatives of staff might be associated with this investigation.

70            155            The Committee fail to understand the justification for the grant of a conveyance allowance to 6 senior officers of I.T.I. and the entertainment allowance to the Managing Director. In this connection, reference is invited to para 66 of the Committee's 27th Report on the Hindustan Insecticides Ltd.

71            156            The Committee trust that the I.T.I. would before long introduce the Wage Incentive system on a scientific basis and thus stimulate production.

72            158            The Committee would suggest that the workers and staff should be educated to reduce absenteeism and that recognition should be given to those who are prompt and always on the job. In this connection they would invite reference to the recommendation made in para 99 of their 67th Report on the H.A.L. for the introduction in all State Undertakings of an 'Attendance Bonus Scheme' as in the H.A.L.

73            159            The Committee would suggest that the scheme of rewarding suggestions as well as the awards so far made may be better publicised so as to enable the workers to appreciate the types of suggestions that they should make e.g., those which would make for savings in labour, time and materials, accident prevention, increase sales, etc. Further when a suggestion is not accepted, the reason may be given to the employee submitting the suggestion, if possible.

74            162            While the Committee appreciate the welfare measures existing in the I.T.I. they would suggest that the I.T.I. should consider the desirability of creating a separate Welfare Fund to be managed by a Committee consisting of workers only.

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75 163 The Committee would suggest that the proposal to buy more buses should be carefully examined by the I.T.I. especially when transport facility is causing a heavy recurring financial loss to the I.T.I. In this connection they would suggest that the feasibility of having a common pool of transport for all the Government concerns in Bangalore or some of them located in neighbouring localities should be considered.

76 164 The Committee would suggest that it might be impressed on the Railway Administration to attend to the late running of workmen's trains so as to minimise detention and consequent loss of production in I.T.I.

77 167 The Committee would recommend that the I.T.I. should formulate a phased programme for the training of their technical personnel in the expanding sphere of tele-communication equipment in the A.T.E.'s Works and also establish with the assistance of the A.T.E. training programme in the I.T.I. itself for the purpose.

78 168 The Committee would suggest that the desirability of putting a more senior officer, serving or retired with experience of Tele-communication Engineering in charge of the I.T.I.'s Training School should be considered.

79 169 (i) In view of the expansion of the I.T.I. and the need to correlate the number under training to the number of employees, which is now over 4,600 the Committee would suggest that the adequacy of the training schemes should be reviewed.

170 (ii) They would also suggest that the I.T.I. should recruit and train qualified apprentices drafts-men, tool-makers, designers and that for this purpose necessary training schemes should be started.

80 171 The Committee would suggest that there should be a continuous review of the training schemes and programmes so as to introduce modern methods of production and work.

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81                    172                    The Committee would suggest extension of the scheme known as "Training within Industry" which they understand is invaluable. In addition, they would also suggest that courses for executive development need to be encouraged in order to ensure an adequate supply of persons who possess the necessary ability, capacity and expertise for managerial assignments at each level as the need arises.

82                    173                    The Committee desire that their suggestion for a joint training scheme for I.T.I. and P & T should be expeditiously examined by Government.

83                    174                    The Committee feel that it would be desirable to appoint a Technical Committee consisting of one or two tele-communication Engineers and a Chartered and/or Cost Accountant under the Chairmanship of an experienced industrialist to review the working of the I.T.I. during the last decade. This Technical Committee may also look into the affairs of P & T Workshops. They also recommend that this be done at an early date and its report made available to Parliament in due course so that it along with this Report would enable Parliament to make a correct assessment of the working of and the progress made by I.T.I. and P & T Workshops.

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## APPENDIX VI

*Analysis of Recommendations contained in the Report and the estimated economy likely to result from their implementation.*

### I. CLASSIFICATION OF RECOMMENDATIONS

	No.
A—Recommendations for improving the Organisation and working of the Company (S. Nos. 8, 10-12, 14, 19, 21-24, 25, 28-32, 36, 38, 39, 47, 48, 50, 53, 54, 57, 59, 61-65, 69, 73, 74, 77, 78-83, of the Summary of Recommendations).	39
B—Recommendations for future guidance while entering into Agreements. (S. Nos. 1-6 and 9 of the Summary of Recommendations)	7
C—Recommendations for effecting economy which includes suggestions for increasing production (S. Nos. 7, 13, 15-18, 20, 26-27, 33-35, 37, 40-46, 49, 51-52, 55-56, 58, 60, 66-68, 70-72, 75-76 of the Summary of Recommendations).	37
TOTAL	83

### 2. ANALYSIS OF THE MORE IMPORTANT RECOMMENDATIONS DIRECTED TOWARDS ECONOMY

S. No.	No. as per Summary of Re- commendations	Particulars
1	2	3
1	7, 20, 42, 43 and 45	For increasing production, taking up new items in the tele-communication and non-telecommunication fields, higher capital output ratio etc. These would reduce the idle capacity in I.T.I. and make for economy in overheads etc.
2	13	For abolition of the post of Manager (Rs. 1300—1600).
3	15	For abolition of the present Finance Committee.
4	16	For re-organising the Branches of the I.T.I.

1	2	3
5	17	For reviewing the justification of keeping separate Branch at Delhi.
6	26	For prompt realisation of the outstandings of the I.T.I. on account of which I.T.I. had to borrow funds from the State Bank on which interest alone amounted to Rs. 5 lakhs.
7	33	For introducing interest charges by the I.T.I. for late payment of bills.
8	37	For taking action on the various recommendations of the Chief Cost Accounts Officer of the Government of India contained in his two Reports which he submitted on the working of the I.T.I. Most of the recommendations were directed towards economy.
9	40	For abolition of the present separate Cost Check Staff maintained by the P & T Department at I.T.I.
10	46	For effecting economies in the overheads which at present are of the order of 554% of direct labour as against 400% which was considered reasonable by the Directors of the I.T.I. (In the case of P & T Workshops, such overheads are only 185% of direct labour).
11	49	For optimum utilisation of the surplus plant and machinery in the I.T.I.
12	55	Expansion of telephone connections to be financed by the creation of a Telephone Development Fund or by having loans from the World Bank etc., the aim being to increase the telephone revenue.
13	58	For reducing the present time lag of about 1-1/2 years between the installation of capacity and its utilisation by giving expeditiously more connections in Exchanges at important places.
14	66	For reviewing the staff strength in the I.T.I. In the last three years the increase in the staff strength has been disproportionate to increases in production.

1	2	3
15	70	For discontinuing the conveyance allowance at present given to six senior Officers of the I.T.I. at the rate of Rs. 150 each p.m.
16	75	For purchasing more buses to avoid a recurring loss of about Rs. 11/- per seat at present incurred by the I.T.I. on hiring buses from the H.A.L.
17	76	For punctual running of the workmen train. Its late running in the past has caused a loss of about 65,000 man-hours per year (Rs. 45,000 a year).

### 3. ECONOMY

Though it is not possible to calculate the money value of the economies suggested in the Report, calculations which could be worked out for some recommendations are given below.—

Recommen- dation No.	Particulars	Probable savings per year (Rs.)
13	Abolition of the post of Manager.	Rs. 19,200
26	Prompt realisation of out- standings, thereby saving interest at present paid to the State Bank.	Rs. 20,00,000 (4% interest on an average loan of Rs. 50 lakhs)
70	Discontinuance of Conve- yance allowance.	Rs. 10,800
75	Saving in Transport subsidy by purchase of more buses.	Rs. 1,00,000
76	Punctual running of work- men train.	Rs. 45,000
46	Economies in overheads to the extent of 154% on direct labour assuming Rs. 12 lakhs to be the annual amount for direct labour.	Rs. 18,40,000
<b>TOTAL Rs.</b>		<b><u>22,15,000</u></b>

## APPENDIX VII

### Comments by I.T.I.

If the cost of our equipment had been more by say 40% which would have been the cost for such equipment obtained from U.K., our production figures would have been higher. Even above the imported costs, Government gives some allowance to manufacturers and so, but for our efficiency, the production (by value) would have been at a more satisfactory figure. this approach places inefficiency at a premium and does not give any consideration to the special efforts made by us to reduce costs.....substantial reduction in prices has been effected by us. If I.T.I. had been less efficient, the production during 1956-57 could have been equal to or even more than the capital. Quantitative production would be a more reliable yardstick.

2. We had explained that the production in earlier years had relatively much more imported components and so the actual increase in our production has been substantially more than what the figures would show in terms of equipment. During 1956-57 we had to import large quantities of components for the 12-Channel production and this upset the progressive decrease in the value of imported components.