CHAPTER VI

COST CONTROL SYSTEMS IN TELECOMMUNICATION AND COMPUTER SECTOR

INTRODUCTION

To stand in the quality conscious and competitive market at a global level, a company wants to bid at competitive price with quality assurance. To gain control over these factors requires that cost should be optimum. To control the cost is not one time job but it is a continuous process.

"Cost Control is a preventive step or action which is operated through setting standards or targets. This is a process by which costs are controlled before they are incurred."

Overhead are controlled through budgets established in terms of costs for each item of expenses and for each cost centres. Expenses like power, maintenance, overtime, shift work and idle time are budgeted in physical units to enable immediate control being exercised in the cost centres or departments.

The consistent impressions within the sample companies are that cost planning, cost control and cost reductions are pivotal activities in the referred sectors.

Cost planning activity is undertaken before production begins (and, in many cases, before the production line is built). Plant engineers and product engineers are playing important role in cost planning. The aim is to design both product and production facility with an approximate mix of cost, quality, deliverability and flexibility.
Cost reduction activity begins in both preproduction and production stages of the product life cycle. At several electronics units, cost-reduction targets are set for each product and/or assembly stage, depending on its stage in the life cycle. Cost reduction targets are more common in assembly line.

Each aspect of the business or operations viz. product, process, procedure, method, organization, personnel etc. is critically and regularly examined and reviewed with a view to improve the efficiency and effectiveness of operations or workings of the company and in turn to reduce the costs of the company and of product(s).

During the course of study, researcher has found that most of the companies engaged in the referred sectors have installed cost control systems and procedures while few of them have effective control over cost. The reasons for this paradox are the common faults of over complex paper work, outdated and inaccurate information, incorrect diagnosis of the causes of excess cost etc.

COST CONTROL SYSTEMS AND PROCEDURES

In a nutshell, researcher mentions the procedures which are used by sample companies to have better and effective cost accounting and control system.

CORPORATE OBJECTIVES

The cost control systems normally depend on the objectives of the company. The objectives of the company are properly defined by the top management.
For any organisation or company to survive and to continue its existence for longer period, it is necessary for an organisation or company to set out and define in clear terms their corporate objectives. The corporate objectives means a specified set of well defined goals which will be the set targets for all members of the corporate hierarchy. It is also needed by the corporate sector to define objectives very clearly and to communicate the same to all levels of the management.

The overall objectives of the company or unit are determined by top management such as the Chairman of Board, Board of Directors and Chief Executive Office. The members of the top management team are also responsible to set the individual and departmental objectives which must be dovetail in to the overall corporate objectives. The objectives are reasonably attainable. The objectives are providing a basis for planning and development of other types of plans and policies such as diversification, enter into the new market segment, to explore the possibilities to utilise deployed resources in better way etc. Set objectives are also give direction and force a management to think ahead to adhere to the corporate objectives.

The objectives of the sample companies engaged in telecommunication and computer sectors are numerous, viz., to achieve a target rate of return on investment, to maintain or to improve market position, to become market leader, survival and continuity of business, constant growth of the company, constant improvement in product and continuous research with a view to evolve new products to maintain competitive edge in the market, to motivate employees' and community welfare schemes etc..
ORGANISATION CHARTS AND MANUALS

The companies taken in the sample have clearly defined organisation charts and manuals, which specify the management levels and reporting levels within the company, to have proper control and to initiate remedial control measures for adverse variances etc. The organisation chart differ from company to company based on individual requirements of the company.

Organisation charts and manuals are useful aids in gaining insight into organizational relationships that exist in a particular enterprise. Organisation charts help one to visualize an organization as a whole, and identify the work divisions, the assignment of manpower and lines of formal authority. Normally organisation charts and manuals mention only the principal divisions and lines of formal authority. An organisation manual can be utilized to supplement the chart, and these two together can provide the relevant data needed for a clearer understanding of the organization...

...organization chart indicates the formal organizational relations among executives, clarifying who supervises whom as well as the flow of authority and responsibility. As the organization chart cannot possibly give all the details required for a clearer understanding of an organization, a manual is often prepared which includes details such as careful job descriptions as well as each position's relations with the other parts of the organization.

Charts and manuals provide a clear picture to all executives regarding their own job positions and duties and how they fit into the organization as a whole. Charts and manuals help to avoid overlapping of authority and foster unity of command and also stimulate interest in the job assigned to the concerned managers or executives. This also helps the manager to adhere strictly to the important aspects relevant to his main responsibility. It must be remembered that charts and manuals are merely facilitating instruments.

For the purpose of establishment of proper control, every company engaged in the referred sector has developed clearly defined...
organisation structure, which is useful at management level and also the reporting level.

An attempt has been made to develop an organisation structure which can work in any type of company with slight modifications as per the situation and requirements of the individual company. Specimen organisation chart is as under:

**Organisation Chart**

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Board of Directors

Managing Director

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Factory Manager  Financial Controller  Marketing Manager  Research & Development Manager

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Production Manager  Materials Manager  Sales Service Manager

Planning Manager  Finance Manager  Accounts Manager  Costing Manager

Quality Manager

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Product Pricing Overhead Costing Control
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**Organisation Manual or Notes**

1. **FACTORY MANAGER**

   The Factory Manager is responsible for manufacturing activities i.e. production, production planning and monitoring, materials management and maintenance of plants and machineries installed at factory.
i. Production Manager:

The Production Manager is head of the team of senior engineers and commercial assistants for supervising, monitoring and controlling of production activities. He is also responsible to conserve and optimum utilisation of energy e.g. power, water etc.

ii. Materials Manager:

The Materials Manager is looking after procurement, storage and issue of materials e.g. raw materials, components, bought out items, traded items, consumables etc. to the user departments. As we have seen, materials cost consume significant portion of total income, he is responsible to procure materials at reasonable rate within reasonable time with the quality assurance, to develop new vendors for effective purchases as well as to cut the lead time of procurement, to maintain and monitor the inventory levels for effective and efficient inventory management, to adopt the procedures to reduce the lead time for issuance of materials from stores to the user departments and to help the production activities for effective and optimum utilisation of installed machineries. He is assisted by the Stores Incharge, Purchase Manager, Vendor Development Manager etc.

iii. Planning Manager:

Planning Manager plays a key role within the company or unit. As we understand, units or companies engaged in the referred sectors are import oriented and raw materials and components are numerous in nature. So it is prime responsibility of Planning Manager to maintain up-to-date Bill of materials for all type of assemblies (exhaustive list of materials required to manufacture and/or assemble an assembly). As the equipments are
customary product, the Planning Manager has to plan his requirement very well in advance in consultation with Marketing Manager (for prospective demand) and Production Manager (for production scheduling) etc. He is assisted by the Technical Engineers etc.

iv. Quality Manager:

Quality Manager is playing a key role in the unit or company. He is mainly responsible to measure and evaluate the physical, technical parameters etc. of all types of raw materials and components before accepting it for the in turn use in the products. He is responsible to develop and maintain a strategy which aims at increasing the reliability and durability of the product through better materials or engineering.

2. FINANCIAL CONTROLLER:

Financial Controller is responsible for managing finance, books of accounts and for monitoring and controlling costs of the company and in turn of the products of the company. He is assisted by the Finance Manager, Accounts Manager and Costing Manager.

i. Finance Manager:

Finance Manager is responsible for monitoring and controlling the funds position and liquidity position of the company. He is also responsible to make necessary arrangements with financial institutions to borrow money at reasonable and cheaper rate of interest and to draw the attention of top management for ineffective utilisation of funds e.g. utilising credit terms from the suppliers, non-realisation of debtors in time etc.

ii. Accounts Manager:

Accounts Manager is responsible for maintaining books of
accounts as per the legal requirements e.g. Companies act, Indian Income Tax act, Central Excise act, Central and State Sales Tax act, Local Authorities act etc..

iii. Costing Manager:

Costing Manager is responsible to monitor the operating efficiency, production accounting, inventory valuation etc. He is also responsible to monitor and control the costs of the company and turnover of the products, to provide timely necessary feedback to the top management to frame and/or to amend the pricing policies of the product and of the company, to give timely information to the management for undue higher costs of the company and also of any of the components of the costs by observing strict procedures and policies for accounting and analysis of overhead.

He is also responsible to calculate standard or estimated costs of the company and of the product, to calculate actual costs of the company and of the product and to find out the reasons for variances in costs. He informs the management for any type of adverse variances and favorable variances higher by certain percentage for framing or revising the necessary rules for future references. He is also responsible to give necessary feedback regarding productivity, efficiency etc. of any department(s) and of the personnel to decide penalties and/or rewards etc.. He is assisted by the cost accountants, technical engineers etc.

3. MARKETING MANAGER:

Marketing Manager is responsible to procure orders, timely deliveries of the product, proper installation and testing of equipment at customer's site, to provide after sales services.
e.g. speedy and timely action to upkeep and maintain the equipment, to attend the customers complaints calls by an efficient way. He is also responsible to promote the sales by efficient application of business promotion methods. He has to develop proper scheduling of the marketing network i.e. sales and services, which is at an advantage of the company.

He is assisted by the Sales Manager, Service Manager, Regional and Branch Sales Managers, Regional and Branch Service Managers etc. Co-ordination with the line management is his important role.

4. RESEARCH AND DEVELOPMENT MANAGER

It is a prime responsibility of the Research and Development Manager (R & D Manager) to put constant endeavour to search for new and improved products, the new application of the raw materials and components, development of substitute components, improve the designs and circuits of printed circuit boards, to have proper production processes e.g. combine the two or more production processes and/or to drop the one process without deteriorating the quality of the product etc.

All Managers and operating personnel are responsible to utilise the scarce resources i.e. man, machine and money in an efficient and effective way, so that optimum result could be achieved by deploying the resources in the best way for the functioning of the company. They are also responsible to monitor and control the expenses of their sections and/or departments.

All Functional Managers i.e. Factory Manager, Financial Controller, Marketing Manager and R & D Manager are directly reporting to the Managing Director or Chief Executive Officer (CEO) of the company.
SETTING OF COST CENTRES

The researcher has already defined Cost Centres in detail in Chapter V of this report.

INTER DEPARTMENTAL DOCUMENTATION

The strength of the cost accounting system lies in with basic information feedback from various department(s). To supplement the system documentation at departmental level is developed by the sample companies.

Marketing Department

When the purchase order is received from the customer the 'Shop Instruction Order' (S.I.O.) is prepared and forwarded to the production planning & service department (P.P.S. department) & costing department.

Production Planning & Service (P.P.S.) Department

1. On the receipt of S.I.O. from the marketing department, the bill of materials and process chart, bearing reference of customer's order no., customer's name, S.I.O. no. & date etc. is prepared. The P.P.S. department is forwarding one copy of bill of materials to the concerned production cost centre and one copy to the materials management department and costing department for information and necessary follow-up.

2. On the basis of anticipated production plan, the bill of materials for job production at package assembly department and mechanical assembly department is prepared. The P.P.S. department is forwarding one copy of bill of materials to the concerned production cost centre and one copy to the materials
management department and costing department for information & necessary follow-up.

3. Generally, bill of materials is the same for an assembly except for some optional items required by a particular customer.

4. On the planned date of commencement of production, the Job Order (for job production of packages and/or assemblies) is prepared and forwarded to the concerned production cost centres) and to the costing department.

5. The 'Operation Movement Card' for each job production to be undertaken is prepared. The operation movement card provides the column for noting down the date and time of starting of operation and completion of operation for each machine and cost centre. Operation movement card is moving with the quantity produced. For ease of identification of the quantity with concerned operation movement card a tag is attached with magazines or bins bearing reference of operation movement card number.

6. After completion of all operations required for the concerned job production, the operation movement card is sent to the costing department.

7. Every next day, 'Production Report' is sent to the costing department.

Production Centres (PCCs)

1. Whenever materials drawn from the stores for particular job, concerned materials issue slip number is written on the operation movement card at appropriate place and operation movement card number in the 'Materials Issue Slip'.

2. Whenever materials are returned to stores from the
particular cost centre, which is not useful and/or required for particular job, concerned material return slip no. is written on the operation movement card at appropriate place and operation movement card number in the 'Materials Return Slip'.

3. Whenever scrap or defective materials or waste emerge out at any stage of process, Scrap Ticket is prepared and forwarded to the stores dept., bearing reference of operation movement card number. Scrap ticket number is written on the operation movement card at appropriate place. Copy of the same is sent to the costing dept.

Finance & Accounts Department

For the ease of cost collection, classification, analysis and allocation to the particular cost centre, company identifies the point of occurrence of costs.

1. Whenever payment is made a 'Payment Voucher' is prepared, with a detailed note about the transaction. Vouchers are spaced to pass accounting entries, with column provided for writing cost centre number.

2. Company is using integral accounting system.

3. On all payment vouchers cost centre numbers are written by costing department.

Costing and Pricing

1. Issues as well as returns are valued by adopting monthly weighted average method.

2. Materials are issued to the production cost centres - job orderwise. The costing department is preparing the 'Monthly Consumption Analysis Report' (C.A.R.), which specifies cost centre-wise and job order no. wise, value of materials consumed.
Personnel Management

1. Whenever any person joins or leaves the organisation, or if any employee is transferred from one department to another department, the personnel department is immediately informing the same to the costing department by way of note, stating employee no., employee name, designation, reporting authority etc.

2. Inturn, the costing department is informing to the personnel department the cost centre number and cost centre name, to which each employee belongs to. A direct link is established between employee number & cost centre number. So that employees' gross earnings and other recurring expenses are directly allocated to the concerned cost centre.

3. The personnel department is sending the 'Monthly Wages and Salaries Cost Report' to the costing department, and finance & accounts department. The monthly wages & salaries cost report is stating the gross pay, net pay, overtime pay, leave pay etc.

INTERNAL CONTROL SYSTEM

The internal control systems and procedures are part and parcel of the effective cost accounting and control system. The important internal control systems are discussed hereunder:

Materials Indenting and Purchase System

A. Bill of Materials:

(1) On the base of shop instruction order received from marketing dept. the production planning and service dept. is preparing the bill of materials.

(2) The bill of materials is covering each and every item
of material required for manufacturing of equipment and fulfilment of technical requirements as prescribed in the shop instruction order. The bill of materials is authorised by Planning Manager.

B. User Department :

(1) User department is planning the requirements of various consumables and stores items one month in advance in consultation with production planning and service department.

(2) The user department is raising the bill of materials in advance, for consumables and other stores items, and getting it signed by Departmental Head and authorised by Production Manager.

C. Purchase Indent :

(1) The purchase indent is originated by stores dept. only.

(2) The stores dept. is mentioning the stock position in bill of materials and finding out the quantity to be purchased.

(3) The stores dept. is preparing the purchase indent and getting it signed by Stores-in-charge and authorised by Materials Manager.

(4) In respect of consumables and raw-materials for low value and for which necessary delegation of responsibility has been done in favour of the stores dept., after considering stock level and comparing the same with re-order level, if necessary, purchase indent is originated by stores dept. and signed by Stores-in-charge and authorised by Materials Manager.

(5) The purchase indent is prepared in triplicate.

(6) Distribution of purchase indent - original to the purchase dept., first copy for stores dept., and second copy to bill of materials originating department.
D. Calling of Quotations and Placing of Purchase Order:

1. The concerned Procurement Officer and/or Purchase Manager is obtaining minimum three written quotations from suppliers or vendors.

2. Maintaining quotation register for comparing the quotations and if the value of materials is less than Rs.10,000/-, it is approved by Purchase Manager.

3. If the value of materials is equal to or more than Rs.10,000/-, it is approved by Factory Manager.

4. In respect of proprietary items or for procurement from monopoly supply sources, where it is not possible to obtain minimum three quotations, this condition is waived, provided that this fact is conveyed to the Chief Executive Officer.

5. For every purchase, a purchase order is issued. In case of urgent requirements when purchase is made before issuing purchase order and indent, it is to be regularised within 24 hours.

6. All purchase orders are issued by Purchase Manager.

7. The purchase order is drawn up in quintuplicate with copies endorsed to supplier, finance & accounts department, stores department, production planning & service department and office copy for purchase department.

8. All purchase orders are serially numbered.

9. Purchase order clearly states quantity, materials specification, rates, credit terms, taxes, duties, delivery conditions and delivery schedules. The purchase reference number is also quoted therein.
E. Follow-up:
The stores and purchase dept. are monitoring adherence to the schedule and initiate follow-up actions whenever necessary.

Materials Accounting System (Stores Management System)
The detailed procedures and/or steps followed for the materials control and accounting are enumerated hereunder.

A. Receipt of Materials:
(1) Accept the materials against delivery challan of the party.

(2) Compare the quantity as per delivery challan with purchase order. If the goods are required to be weighed, weigh them, otherwise physically count them.

(3) If the quantity received is within the purchase order quantity, accept the materials subject to inspection and quality control. If the quantity received is more or less than purchase order quantity, send a note immediately to the materials administration and receive instructions from them.

(4) Provisionally acknowledge the receipt of materials on the supplier's challan or carrier's consignment note copy.

(5) The receipt of all materials at the factory are evidenced by a 'Materials Receipt Report' (M.R.R.) signed by receiver of materials and approved by Stores-in-charge.

(6) M.R.R. is prepared in quintuplicate with copies endorsed to stores department, accounts department (only after completion of inspection), supplier, input testing department,
production planning & service dept. (only after completion of inspection) and purchase department.

(7) Forward immediately third copy of M.R.R. to the input testing department.

(8) M.R.R. have a preprinted serial number and a separate series are used to evidence raw-materials and components, packing materials, stores and miscellaneous purchases.

(9) Enter the particulars from the M.R.R. into the 'Stores Inward Register' (S.I.R.). Fill up the columns pertaining to I.R.no., M.R.R.no. and date, material's code, material's description, transporter's name, L.R./R.R. no. and date, unit of measurement and quantity received.

B. Acceptance of Materials:

(1) The material is inspected by the input testing department within three days of the receipt of materials.

(2) In every event the inspecting authority is signifying its approval or rejection of the quantity inspected including reasons for rejection on the face of M.R.R. (on all copies) and approved by testing Engineer or Departmental Head, as the case may be.

(3) Only on the completion of inspection, the stores clerk is filling up the columns of the stores inward register pertaining to the quantity accepted, quantity rejected etc.

(4) Only on the completion of inspection, the concerned stores clerk is making necessary entries in the 'Bin Card' and costing clerk is making necessary entries in 'Stores Ledger' from stores inward register.

C. Passing of Supplier's Bill:

(1) The concerned Account Officer of the accounts dept. is
keeping track of M.R.R. received from stores and supplier's bill for the concerned M.R.R. to identify any missing M.R.R. and/or non-receipt of bill. For this purpose, he is maintaining an 'M.R.R. Control Register'.

(2) Supplier's bill is matched with M.R.R., compared for the rates and terms set out in the purchase order, checked for unadjusted advance and then passed for payment, by considering accepted quantity only, and making the changes in both copies of bill, if any change necessary.

(3) A 'Bill Passing Slip' is prepared in duplicate and attached with the bill and approved for payment, by Accounts Manager.

(4) Second copy of the supplier's bill and bill passing slip is sent to stores dept. for materials accounting purpose.

D. Valuation of Materials Received:

(1) After receiving the second copy of the supplier's bill and bill passing slip from the accounts dept., the stores clerk is filling up the columns of the stores inward register relating to the valuation of the receipts, from the authorised passed bill by reference to the supplier's bill and M.R.R. as well as by reference of S.I.R. no. in the bill passing slip.

(2) After passing the entry of particulars of the bill into the S.I.R., the stores clerk is making a remark on the concerned M.R.R. copy maintained to the effect that invoice has been posted. He is also noting down the bill passing slip no. on the concerned M.R.R. copy.

(3) From the stores inward register the costing clerk is entering the information relating to rates and values by reference to the S.I.R. no., and date as well as bill no. and
Incidental charges such as sales tax, octroi etc., which may be commonly indicated as separate items on the bill, are apportioned over the various material items listed on the bill on a percentage basis.

4. Other incidental expenses, not forming part of bill but incurred, are known as incidental purchase cost, and are treated as materials overhead.

5. In the event of inordinate delay in receipt of supplier’s bill, for any reason whatsoever, at the close of the calendar month, the costing clerk is reviewing the M.R.R. book maintained by the stores dept., to ascertain the M.R.R.’s in respect of which supplier’s bills are awaited. He then proceeds to post the stores ledger for items covered by such M.R.R.’s and adopt the purchase order rates for provisionally valuing the receipt of materials. He is, as a matter of caution, confirming that such M.R.R.’s are also kept pending in a similar file in the accounts dept., as pending M.R.R. for supplier’s bills.

6. After posting the information on to the relevant folio of the stores ledger, the costing clerk is indicating the stores inward no. and date as well as bill no. and date on the folio, against the entry made.

7. The costing clerk is also indicating the stores ledger folio no. on the stores inward register, against the entry made.

E. Issues of Materials to Cost Centres:

1. Separate material issue slips books are issued to each cost centre.

2. Each material issue slip (M.I.S.) is serially pre-printed in duplicate.

3. Blank issue slip books are kept by user department.
(4) For drawing any material from the stores, a M.I.S. is prepared by Supervisor and approved by Departmental head specifying the name of cost centre, c.c. code no., job order no., name of material, material code, quantity required etc.

(5) Issue the materials to the user cost centre only upon the presentation of filled-up and authorised M.I.S.

(6) When the material is issued, the stores clerk is filling up the quantity issued in the "Issued" column of the M.I.S. and also signing as issuer and obtaining the signature of receiver on the M.I.S. at the appropriate place.

(7) The stores clerk is getting the signature of Stores-in-charge on materials issue slip.

(8) For updating the physical balance, the stores clerk is posting the quantity issued from the issue slip in to the "Issued" column of the bin card immediately after the issue has been made, by reference to the M.I.S. number and bin card number on the materials issue slip.

(9) The concerned costing clerk is posting the quantity issued from the M.I.S., on the "Issued" column of the concerned stores ledger folio by reference to the M.I.S. No. and date, Name of cost centre, code number of cost centre, quantity etc. and S.L.F. No. on the materials issue slip.

F. Materials Returned to Stores from Cost Centre

(1) A separate set of material return slip (M.R.S.) is used for returning raw-materials and components, packing materials, consumable items, scraps, defective materials etc.

(2) Each M.R.S. is serially pre-printed in duplicate.

(3) Blank M.R.S. books are kept by the user department.

(4) For returning any material from the cost centre, a
M.R.S. is prepared and signed by Supervisor and approved by Department Head, and specify the name of cost centre, code number of cost centre, job order no., name of material, material code, quantity returned, reasons for return etc.

(5) When the material is returned, M.R.S. is signed by receiver of the material in the stores department.

(6) The stores clerk is getting the signature of Stores-in-charge on materials return slip.

(7) For updating the physical balance, the stores clerk is posting the quantity received from the M.R.S. in to the "Receipt" column of the bin card immediately after receiving the materials, by reference to the M.R.S. No. and bin card no. on the M.R.S.

(8) The concerned cost centre clerk is posting the quantity received from the M.R.S. in the "Receipt" side of the concerned stores ledger folio by reference to the M.R.S. No. and date, name of cost centre, cost centre's code number, quantity etc. and S.L.F. No. on the materials return slip.

G. Materials Transferred from one cost centre to another cost centre:

(1) As a normal procedure, as far as practicable, transfer of materials from one cost centre to another cost centre is to be avoided.

(2) Each 'Material Transfer slip' (M.T.S.) is serially pre-printed in triplicate.

(3) Blank M.T.S. books are kept by the stores department.

(4) For transferring any materials from one cost centre to another cost centre, the M.T.S. is prepared and signed by the Supervisor and approved by the Department Head of the transferring cost centre.
(5) Each M.T.S. is specifying the name and code number of both the transferor and transferee cost centres, respective job numbers, name and code number of materials, quantity transferred etc.

(6) At the time of receiving the materials, the M.T.S. is signed by the Supervisor and approved by the Department Head of the transferee cost centre (on all copies of M.T.S.).

(7) The concerned costing clerk is considering the same as material returned from the transferor cost centre (shown as "Receipts" in stores ledger folio) and issued to the transferee cost centre (shown as "Issues" in the stores ledger folio).

H. Valuation of Materials Issues:

(1) Issues of material is valued by adopting 'Monthly Weighted Average Method'. The method is described here under:

In this method, the issue rate is worked out by taking the quantity and the value of each lot of receipt during a month.

The rate worked out in this manner is applicable for issues made in the same month. E.g. during September-1992, item "C" has been purchased in three lots. The quantity and the total value for each lot is as below:

<table>
<thead>
<tr>
<th>Date of receipt</th>
<th>Quantity (Pcs)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.09.92</td>
<td>05</td>
<td>50</td>
</tr>
<tr>
<td>15.09.92</td>
<td>10</td>
<td>105</td>
</tr>
<tr>
<td>22.09.92</td>
<td>12</td>
<td>130</td>
</tr>
</tbody>
</table>

\[
\text{Date of receipt} \quad \text{Quantity (Pcs)} \quad \text{Value} \\
05.09.92 \quad 05 \quad 50 \\
15.09.92 \quad 10 \quad 105 \\
22.09.92 \quad 12 \quad 130
\]

\[
\text{Weighted average} = \frac{\text{Total Value}}{\text{Total Quantities}}
\]

\[
\begin{align*}
\text{Weighted average} &= \frac{50 + 105 + 130}{285} \\
&= 0.65
\end{align*}
\]

\[
\text{Weighted average} = \frac{5 + 10 + 12}{27} = \frac{27}{27} = 1
\]

\[
\text{Rate} = \text{Re. } 1.00
\]

\[
\text{Total rate} = 1 \times 285 = 285
\]

\[
\text{Total rate} = \text{Rs. } 10.55
\]

\[
\text{Total rate} = \text{Rs. } 18.36
\]
(2) In the case of subsequent month, at the time of calculating issue rate, the quantity and the value of closing stock of the preceding month is considered at the time of calculating new weighted average. So, if in the previous example, 5 pieces has been in stock worth Rs.50/- instead of received as on 05.09.92, then also issue rate remain same.

I. Valuation of Materials Returns:

(1) Material return is valued at the same price at which issued.

(2) The returned material is treated as a new purchase (but priced at the issued price) and to post the transaction in bin card and stores ledger after the last purchase entry.

(3) At the time of finding out the new monthly weighted average, this return is also considered.

J. Valuation of Materials Transfer:

(1) Materials transfer is valued at the same price at which issued.

(2) "Receipts" and "Issues" side of the stores ledger folio is valued by the original issued price.

K. Goods Return to Suppliers:

(1) When the material is rejected by the Testing Engineer or Departmental Head, the stores department is preparing the 'Goods Return Note' (GRN) bearing reference number of materials receipt report, supplier's challan number and date, reasons for rejections etc.

(2) Prepare the gate pass for despatching the materials to the supplier bearing reference of C.R.N. number and date, delivery challan number and date etc.
Labour Accounting

The detailed procedures and/or steps followed for the labour accounting are explained hereunder:

A. Employee's Basic Information Data:

(1) Four digits alpha-numeric code for individual employee is devised. These codes are prefixed by the category to which the employee belongs. In case of promotion/transfer, the code remains unchanged, only the prefix no. is altered. Ranges of codes are reserved for different location. For example A1060 - "A" is denoting the category to which he belongs, "1" is denoting the location and "060" is denoting the employee number.

(2) The payroll master file contains all information about an employee's eligibility which is expected to remain unchanged during the year e.g. employee no., name of the employee, category, location, cost centre no., date of joining, date of birth, sex, P.F. account no., mode of payment, basic salary, income tax, L.I.P., P.F. loan., H.R.A., special allowances etc..

(3) The following data is forwarded to the payroll dept. by personnel dept. & time keeping dept., by the 25th of each month. A month is reckoned from the 25th day of one calendar month to the 24th day of the subsequent calendar month.

<table>
<thead>
<tr>
<th>Nature of Data</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Details of overtime</td>
<td>Personnel dept. &amp;</td>
</tr>
<tr>
<td>b) Deductions for late reporting/early leaving</td>
<td>Time keeping dept.</td>
</tr>
<tr>
<td>c) Deduction for leave without pay</td>
<td>&quot;</td>
</tr>
<tr>
<td>d) No.of days attended</td>
<td>&quot;</td>
</tr>
<tr>
<td>e) Income Tax</td>
<td>Employee's Advice</td>
</tr>
<tr>
<td>f) Personal advance</td>
<td>Accounts dept.</td>
</tr>
<tr>
<td>g) Others</td>
<td>Accounts, Personnel department &amp; Time keeping dept.</td>
</tr>
</tbody>
</table>
B. Assemble of Attendance Records, Leave Records and Analyse them:

(1) Each department of office and administration maintains attendance records. Each officer & office staff member is asked to sign attendance muster before commencing his work. The register is placed at the gate or close to the entrance of the main building. These registers are collected fifteen minutes after the office begins and kept with the personnel department and/or time keeping department so that all late comers are marked out. Separate attendance records are maintained for all temporary staff, if any.

(2) A clock card system is followed for factory staff and workers. A clock card machine is installed at the gate to register time in and time out for each employee.

(3) Attendance of travelling or touring staff is certified by the concerned Department Head.

(4) From the attendance muster the personnel department & time keeping dept., is filling up the Service Card of the Employee.

(5) From the each and every clock card the time keeping department is filling up the service card of the employee.

(6) On receipt of the clock cards, time keeping dept. is making necessary entries in the overtime card (maintained for each employee) and monthly total in the service card of the employee. The overtime card is specifying the date and time in hours of overtime worked.

C. Calculation of Wages and Salaries and Preparation of Payroll:

(1) The payroll department is calculating the wages and
salaries payable to the employees. Calculation of wages & salaries is made in the 'Payroll sheet'. The attendance for the wage period as recorded in the clock card or attendance muster is transcribed in totals into the payroll. Separate payroll sheets are used for each cost centre.

(2) For overtime pay, separate payroll sheets for each cost centre are prepared.

(3) Payroll sheets are prepared in duplicate. The duplicate copy is in perforated system so that this copy is issued to the employee for his reference at the time of disbursement of pay.

(4) Each payroll sheets are completed in ink and checked by Payroll Officer and authorised for payment by Payroll Executive and Factory Manager (for factory personnel), or Personnel Manager (for office and administration personnel).

(5) Separate payroll sheets are prepared for all casual and temporary staff and workers.

D. Disbursement of Wages and Salaries:

(1) The employees are asked to open an account with the company's banker to facilitate transfer of funds.

(2) The Payroll department have made necessary arrangements with banker for crediting the wages and/or salaries in the employee’s account in such a manner that employee can withdraw money latest by 5th of every month.

E. Reports:

(1) The personnel department is sending the "Labour Time Analysis Report" to the costing department, within 10 days of the following month. Labour time analysis report shows the manshifts for each cost centre(s) and for each category of employees.
(2) The personnel and time keeping dept. is sending the "Labour Absenteeism Report" for each month to the Chief Executive's office, Factory Manager's office & costing dept. Labour absenteeism report is stating the presence and absenteeism manshits for each category of workers, cost centrewise.

(3) The personnel department is sending the "Monthly Wages and Salaries Cost Report" to the M.D.'s Office, C.E.'s office, Factory Manager, costing dept. and accounts department. The "Monthly Wages & Salaries Cost Report" stating the gross pay, net pay, overtime pay, leave pay etc.

BUDGETARY CONTROL SYSTEM

A budget is defined as a formal statement of performance to be achieved, expressed in quantitative and/or financial terms, formulated by taking into account, the long range goals of the organisation.

The budgetary control system of the sample companies engaged in referred sectors has no specific distinctive features in comparison to other manufacturing units engaged in different industries or sectors of an economy.

Budget is prepared for each financial year and well before the start of the financial year, during which it is used as an yardstick for evaluating performance. Some finer details are summarised below.

SALES BUDGET

This is the most difficult budget to prepare because of manifold uncertainties in marketing in the telecommunication and computer sectors. It is the most important major functional budget, as
profits accrue only through sales and consequently all other activities are really subordinate to marketing and sales.

The sales budget is usually with a dual sub-division i.e. product and geographical area.

A separate sales budget is usually prepared for final products i.e. finished equipments and spare parts. The sales budget for finished equipments is prepared by team of marketing personnel by taking into consideration the prospective demand of the product, the competition, the price variations, the quality consciousness of the prospective customers at large etc.. The sales budget for finished equipments is prepared in detail i.e. the expected sales of each type of equipment in total as well as marketing areawise both in terms of quantity and value. By taking into consideration the instability of the government economical policies, the sales budget is usually prepared at net sales revenue (excluding all taxes; only basic sales values are taken into account).

The sales budget for spare parts is prepared by team of marketing personnel by taking into consideration technical reliability of the parts of the equipment. The past years or periods sales play a dominant role in estimating the sale of spare parts. It is normally observed that the spare parts consumption in referred sectors are increasing from the 4th year of the life of the product(s).

It is normal practice to estimate sales of spare parts for the equipments sold in last 4 to 8 years only. E.g. at the time of estimating the sales of spare parts for the year 1990, the equipments sold during the year 1982 to 1986 are considered. The equipments sold after the year 1986 and before the year 1982 are
not considered. The expected sales of each type of spare parts in total as well as marketing area-wise both in terms of quantity and value is prepared by marketing personnel. The sales value of spare parts are also estimated at net sales revenue.

PRODUCTION BUDGET

This shows the physical units of the products i.e. finished equipments and spare parts, to be produced during the budget period (for a year). It is merely the sales budget duly adjusted for changes in finished stock level i.e. stock to be maintained at the year end plus estimated sales for the year less estimated opening stock at the beginning of the year.

A separate production budget is usually prepared for final products i.e. finished equipments and spare parts. The production budget is being influenced by productive capacity of the unit. Normally, the sales budget and production budget are properly balanced and co-ordinated. The annual production budget is broken down into monthly (or four-weekly) budgets for control purposes.

MATERIALS BUDGET

The materials budget indicates the quantities and costs of the raw materials and components needed to fulfil the forecast of output. The materials budget is prepared by taking into consideration standard part lists of finished equipments and spare parts. The materials budget is also prepared month-wise by taking into consideration production budget and stock levels required to be maintained. The materials budget provides the details of part code and description or item code and description, unit of measurements, quantity, rate per unit.
CONVERSION BUDGET

The preparation of conversion cost budget is based on every item of expenditure or expenses chargeable to one cost centre or group of similar cost centres, so that the Manager, Supervisor or Engineer of the department or cost centre(s) can be held responsible for all incurred expenditures. The conversion cost budget is compiled cost centre(s) wise as well as by types of expenses. Overheads are budgeted cost centrewise for a year and are broken down into monthly by taking into consideration the activities level to be achieved in each and every cost centre(s).

VARIANCE REPORTS

Performance evaluation and reporting of variance is an integral part of budgetary control system. The head of each cost centre(s) receives a monthly report of the performance of his cost centre(s). This shows his monthly as well as cumulative budget for the period alongside the actual expenditures incurred in a month as well as cumulative for the period. The reports are prepared in such a manner that they reveal the responsibility of a department or an Executive and give full reasons for the variances so that corrective actions can be taken. The reports show the both favourable and unfavourable variances.

COST INFORMATION SYSTEM AND MANAGEMENT INFORMATION SYSTEM

In order to assist the management in taking appropriate actions, information is communicated in the form of reports, statements, charts and graphs. The information communicated covers physical facts as well as cost data. The requirement and contents of
The information submitted is in accordance with and appropriate to the requirement of the recipient, firstly, with regard to his level or status and secondly his knowledge and responsibility. Reports are prepared for each executive from the bottom to the highest level of management.

For the operating level and co-ordinating level of management detailed and specific reports are prepared and are restricted to the activity with which the Officers and/or Operating Managers are concerned.

For Top level management or Divisional Managers only summarised totals or summaries of important points are given so that the members of the management team can scan through them quickly and take corrective actions or decide policies.

Prices are set by adopting full cost pricing system, for which the sample companies are estimating targetted cost for the pricing season. It is normally the responsibility of the middle management to compare the actual cost with targetted cost and to take action to adhere to the targetted costs for each components of costs.

PENALTIES AND REWARDS

During the course of field works, it is found that referred sectors are part and parcel of hi-tech technological industry. A huge amount of capital is invested in infrastructure and/or plants and machineries, to handle and operate the equipments which are highly automatic and/or computer processed control systems skilled operators i.e. workers are employed. For the
purpose of maintenance of machines and optimal utilisation of the
installed capacities, sample companies have appointed highly
technical calibre personnel at all levels at plants. The end
products of the referred sectors are also part and parcel of hi-
tech industry, highly technical calibre personnel at major
functions viz., planning, costing, sales, after sales services,
product management, R & D etc., are employed.

Most of the companies engaged in the referred sectors, have made
arrangements with their technical collaborator i.e. Foreign
company or Indian company viz., Centre for Development of
Telematics (C-DoT), Centre for Development of Advance
Computations (C-DAC), Department of Electronics (DoE), Department
of Telecommunications (DoT) etc., to impart training for its
personnel working at plant and on field.

To extract the best performance from the personnel and to utilise
his/her capability and competency in the interest of the company,
some of the companies have already made arrangements with
Management Training Institutions, Business Schools etc., to
impart organizational, managerial, and administrative trainings
to its personnel.

The researcher has found that companies are adopting highly
methodological performance appraisal and evaluation system for
their personnel. By taking into consideration last year’s
performance and personal capabilities and competencies for
further growth etc., they are evaluating an employee by rating
him/her as Below Average, Average, Good and Outstanding. By
rating an employee in a proper way, the management of the
company is rewarding or penalising him/her. The increment as well
as promotion etc., are based on the ratting allotted to him/her.

Above all this, a merit award scheme is also prevailing in some of the sample companies. For the purpose of implementing effective and efficient ratting scheme, office automation equipments e.g. computers are used.

Based on the ratting and the performance appraisal and evaluation sheets, the training needs for an employee is decided and the concerned employee is nominated to attend the particular training programmes etc.

**REMEDIAL MEASURES**

Number of remedial measures are initiated and undertaken by the management of the company by taking into consideration the needs of the company, so that such type of mistakes cannot be emerged out in future. At the same time proper actions or investigations are carried out, so that reasons for the same are known, as it will provide a base for the future. Based on continuous study and investigations, standard or target costs are set at an attainable levels instead of to be set at an arbitrary level.

**CONCLUSIONS**

To stand in quality conscious and competitive market at the global level, a company wants to bid at a competitive price with quality assurance. This has led the companies to become cost conscious, and to control and reduce the cost of the company and product(s). To monitor and control the cost is a continuous process. Most of the companies taken in the sample, have identified and installed the systems to compile the cost of the company and product(s), which includes guidelines and systems for
operational easiness i.e. corporate objectives, organisation charts and manuals, cost centres (the smallest segment of an activity), inter departmental documentation, internal control systems i.e. materials indenting and purchasing system, stores management system, and labour accounting.

The sample companies have installed systems for monitoring and controlling of cost, and penalising or rewarding the employees of the company i.e. budgetary control system, cost information system, and management information system.

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7. Ibid., pp. 320-321
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