
UNIT 4 **COMPUTER SYSTEMS AND APPLICATIONS IN SALES MANAGEMENT**

Objectives

After reading this unit, you should be able to understand :

- Role of Sales Management
- What information is needed for the execution of an order
- How to obtain the needed information
- How to design a computerised system for Sales Management
- What types of analyses are possible using the Sales Management System

Structure

- 4.1 Introduction - Role of Sales Management.
- 4.2 Organisation As an Information Processing System
- 4.3 Why Computers
- 4.4 Execution of an Order - Stages Involved
 - 4.4.1 Vetting for Technical Details
 - 4.4.2 Vetting for Commercial Details
 - 4.4.3 Information and Co-ordination for Execution
 - 4.4.4 Delivery of Goods to the Customer
 - 4.4.5 Installation of Goods and Collection of Payment
 - 4.4.6 Squaring up of Accounts
- 4.5 Information Sought from Sales Management
- 4.6 How to Obtain Information for a Sales Management System
 - 4.6.1 Factors Responsible for Incompleteness in Customer Order
 - 4.6.2 BDI - What is it
 - 4.6.3 Advantage of BDI and its Numbering
 - 4.6.4 Information Given in a BDI
 - 4.6.5 Other Informations
- 4.7 How Does a Computerised System Work
 - 4.7.1 Processing an Order (Manual)
 - 4.7.2 Processing an Order - Through Computerised System
 - 4.7.2.1 Record, File and Status
 - 4.7.2.2 Computerisation of Status
- 4.8 Uses of Computerised Sales Management System
- 4.9 Summary
- 4.10 Key Words
- 4.11 Self-Assessment Questions

4.1 INTRODUCTION - ROLE OF SALES MANAGEMENT

Functions of **Sales Management** in an organisation are two fold. On one hand, it acts on behalf of Management and scrutinises the orders picked up by the sales team and, on the other hand, it acts as the principal agency of the Sales team which executes the orders by co-ordinating among various departments and agencies.

Normally in an organisation, a separate department is created and is given the responsibility of vetting and executing orders and for co-ordinating with all related departments. Because of the administrative nature of these -activities, this department, at times, is called "**Sales Administration**" as well.

Activities that come under the purview of this department are the following :

- Vetting of an order, both technically and commercially
- Obtaining the items i services that are required to be delivered to the customer.



The schematic diagram of a particular organisation may vary depending upon the nature of business, size and type of organisation and the practices being followed in the organisation. Specific details of information to be exchanged between various departments would also be determined by the above mentioned factors. However, for understanding how this kind of system works, we shall take the example of fig. 4.1 and examine the kind of information that is exchanged between various departments of the organisation. Results of the examination are given below:

Informations Exchanged Between Departments

Informations Exchanged Between Departments

From	To	Information Sent/ Sought
Customer	Sales Office	<ul style="list-style-type: none"> • Enquiry about a requirement • Decision for purchase (through Purchase Order) • Intimation on release of payment.(by relea cheque) • Query on status of Order
Sales Office	Customer	<ul style="list-style-type: none"> • Price, availability & terms of sale (quotati • Acceptance of customer P.O. • Intimation of despatch of goods from godown. • Advise on status of the order
Sales Office	Sales Adm.	<ul style="list-style-type: none"> • Intimation of receipt of Order • Advice for execution of Order • Information of annual / quarterly / monthly plan • Any complaint from customer which is to be handled by Sales Administration
Sales Adm.	Sales Office	<ul style="list-style-type: none"> • Acknowledgement of receipt of an Order. • Acceptance or otherwise of the Order. • In case of non acceptance, reasons for non acceptance. • In case of acceptance likely date of delivery to customer. • Intimation of despatch to the customer. • Feedback on customer complaints • Inventory status. • Outstanding Bills Receivables.
Sales Adm.	Warehouse	<ul style="list-style-type: none"> • Advice for despatch of goods to the customer • Seeking information on availability of goods • Seeking information related to a customer complaint • Warehouse Sales Adm. • Intimation of despatches to customers • Advice on inventory status.



		· Informations related to customer complaints
Sales Adm.	Factory	<ul style="list-style-type: none"> · Information of annual / monthly / weekly requirement (Planning) · Information of additional requirement.
Factory	Sales Adm.	<ul style="list-style-type: none"> · Information on the projections by the factory on supply / replenishment of goods to the warehouse. · Information regarding any deviations from t projections about supply / replenishment of goods to warehouse. · Information on the goods already made available to the warehouse.
Warehouse	Accounts	<ul style="list-style-type: none"> · Information that goods have been despatched to customer (through a copy of invoice)
Factory	Warehouse	<ul style="list-style-type: none"> · Programme for despatch of goods to warehouse · Intimation of actual despatch to the warehouse.
Warehouse	Factory	<ul style="list-style-type: none"> · Seeking information on status of goods expected / required from factory. · Acknowledgement of receipt of goods from factory.
Warehouse	Transporter	<ul style="list-style-type: none"> · Advising Transporter that material is available for despatch. · Informing Transporter details of goods & destinati for despatch (through invoice/challan/gate pass. · Advising Transporter how freight, insurance and octroi would be settled.
Transporter	Warehouse	<ul style="list-style-type: none"> · Advising despatch particulars (GR no., date) · Advising details of actual delivery (Proof of delivery) · Informing on any problem faced in delivery of goods.
Transporter	Customer	<ul style="list-style-type: none"> · Advising details of goods that are being Delivered (through invoice / challan / gate pass et.
Customer	Transporter	<ul style="list-style-type: none"> · Acknowledging that material has been received. · Advising details of discrepancies noticed, if any
Factory	Accounts	<ul style="list-style-type: none"> · Advising goods given to the warehouse. · Advising goods that have been received from supplier of raw material.
Factory	Purchase	<ul style="list-style-type: none"> · Advising requirements of material.
Purchase	Supplier	<ul style="list-style-type: none"> · Advising suppliers the details of material required to be supplied to the factory or warehouse.



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- Advising payments having been released against materials supplied.

Supplier	Purchase	<ul style="list-style-type: none"> · Advising the schedule for supply of material to factory / warehouse · Advising details of actual material supplied to factory / warehouse.
Purchase	Factory	<ul style="list-style-type: none"> · Intimation of the details of orders released on suppliers. · Advising the status of the supplies scheduled.
Purchase	Accounts	<ul style="list-style-type: none"> · Intimation of the details of orders released on suppliers · Intimation of the payments required for supplier
Accounts	Purchase	<ul style="list-style-type: none"> · Intimation of payments released to suppliers. · Intimation of why a particular payments cannot be released to the supplier.
Accounts	Sales Office	<ul style="list-style-type: none"> · Intimation of payments not received from customers.
Sales Office	Accounts	<ul style="list-style-type: none"> · Intimation of payments received from Customer · Intimation of expectation of receipt of payments from customers.
Personnel	Staff	<ul style="list-style-type: none"> · Intimation of salary accrued to them (pay slip)
Personnel	Accounts	<ul style="list-style-type: none"> · Advice for releasing salaries to the staff
Accounts	Personnel	<ul style="list-style-type: none"> · Advice that the salaries have been released to the staff
Accounts	Staff	<ul style="list-style-type: none"> · Advice that the salaries have been released.

Activity 1

Develop a flow chart of sales information system in your organisation.

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4.3 WHY COMPUTER

Traditionally, exchange of information had been done manually and through paper - letters, purchase orders, quotations, memos, notes, reports etc. This method though, comfortable in traditional sense, has its own limitations, some of which are:

- Paper is bulky and messy.
- Paper is open to loss, abuse and damage.
- Paper is costly in itself and with respect to associated working time, equipment and furniture.



- Manual method is sequential, a paper cannot be examined simultaneously by more than one person, and making copies and distributing it is costly, time consuming and slow.
- Collection, sorting and analysis of data is time consuming and slow.
- Storage of data and retrieval subsequently is costly and time consuming.

Computers provide an alternate method of storage, exchange and analysis of data.

A single workstation computer can provide not only a cheaper and convenient method of storing data, but also simultaneous viewing, processing, sorting and analysis of data by several departments and individuals. It also brings about transparency of operations, and objectivity and uniformity in presentation of information.

But before we do that, we shall find out what "Informations" are needed for execution of an order in 4.4 and in 4.5 we shall see what kind of Informations are sought or likely to be demanded from the Sales Administration department. In 4.4 we shall see how information is collected to meet this demand and in 4.7 we shall see how information is stored, processed, transmitted and provided to the user department using a computer system.

4.4 EXECUTION OF AN ORDER. - STAGES INVOLVED

Execution of an order involves going through several stages. Each stage would have several activities. Who does what and therefore the exact sequence of activities would depend upon the nature of industry as well as on the type and size of organisation involved. Some of the activities may be concurrent, others are done in a predetermined sequence.

Nevertheless, there are certain stages which a purchase order goes through. These stages are common to most of the industries. These would be enumerated and discussed in next sections.

4.4.1 Vetting for Technical Details

Normally, the person who front-ends with a customer, negotiates and obtains the order, is not the person who actually has to deliver the goods against the order. In such a situation, there is high probability that a sales person through genuine mistake or ignorance or enthusiasm commits to supply an item or a combination of items which may not be possible technically or possible at a very high cost. Often such mistakes are discovered too late for going back to the customer for rectification.

Such situations are frequent in I. T. industry.

Therefore, before an order is accepted for execution, it must be vetted for technical details by competent people.

In a subsequent section, we will discuss how such mistakes can be avoided.

4.4.2 Vetting for Commercial Details

Commercial reasons are the most frequent cause of delay in execution of an order. The reasons are either omission or inadequacy in the customer order of the details / informations / documents needed for execution, in the customer order. These omissions or inadequacies may also affect the profitability of the operations. Hence a careful vetting of commercial details before acceptance of an order is a must.

These details would vary depending upon the nature of business, type and size of selling organisation as well as the buying organisation. Some of the details, which are common to all purchase orders, are discussed below:

ITEM	WHAT TO CHECK	WHY TO CHECK
<p>1) PRICE Excise Duty Sales Tax Octroi Freight & Insurance Packing & Forwarding</p>	<p>1) What all are included in the negotiated price and what all are the extra. 2) Whether Excise Duty, Sales Tax have been charged correctly or not. 3) Who bears the cost of Octroi, Freights, Insurance & Packing & Forwarding, and how is it settled.</p>	<p>1) To calculate the part of the price that is retained by the seller, what it has to give to government agencies, transporter & insurance company so that the contribution over costs can be calculated. 2) To arrive at the value of liabilities to government in terms of excise duty, sales tax, octroi.</p>
<p>2) PAYMENT TERMS Advance Credit Mode-Cheque/ Draft/Document Through bank / LC Conditionality, if any for release of payment.</p>	<p>1) Whether it is as per company policy or not. 2) Are there clauses which may cause delay in receipt of payment. 3) Whether sellers interest have been Protected adequately or not. 4) If payment is by documents through bank or by L/C, whether the name and address of the bank of the customer has been provided or not. 5) Are there any documents that need to be obtained / attached along with the invoice for realising payments ?</p>	<p>1) To assess the probability of getting the payment in time, given the terms for releasing the payment 2) To decide upon the measures to be taken to ensure that payment is not delayed.</p>
<p>3) DESTINATION</p>	<p>1) Which type of sales tax is applicable - CST for LST. 2) Whether any octroi has to be paid before entering the locality for delivery. 4) Whether any sales tax form is required to be furnished for entering the state. If yes, who provides the form & what is the procedure. 4) What the modes are available for reaching the destination. 5) What is the estimated cost of freight & insurance.</p>	<p>1) To ensure that the movement of material to the destination is smooth & all legal requirements have been taken care of. 2) To organise method of reimbursement / payment of octroi, freight, insurance and forwarding.</p>
<p>4) TRANSPORTATION Packaging Mode Freight Insurance</p>	<p>1) Has any special packaging been asked for by the customer. 2) What mode of transportation has been specified by the customer-Air/Rail/Road. 3) Whether the customer has specified the transporter as well or not. 4) Who bears the cost of freight. 5) Who bears the cost of insurance. 4) Has any specific agency been nominated by the customer to do insurance. 7) Is there a contact person at the destination who is to be contacted at the time of delivery or in case of a problem. Address & tele no., both office & residence. 8) If the payment is by documents through bank or L/C, & the transport does not have a godown at the destination town, where would the material be kept pending retirement of documents by the customer.</p>	<p>1) To decide upon the most suitable agency for the particular mode, unless the customer has specified the agency as well. 2) To find out whether the packaging demanded or being provided is suitable to the mode of transport being used. 3) To assess damage / determination due to likely period for which goods may be in transit or would be kept at sending / receiving ends and in recipients godown before utilisation, and to take adequate precautionary/ preventive measures.</p>
<p>5) BILLING ADDRESS</p>	<p>1) What is the address at which billing is to be done. Is it different than the destination of the material. 2) How many copies of invoices are to be provided to the customer & where all.</p>	<p>1) To take steps for minimising delay in realising payment due to communication gap between the billing address & despatch address.</p>
<p>6) DELIVERY PERIOD PENALTY CLAUSE LIQUIDATED DAMAGE</p>	<p>1) What is the date by which goods are required at customer end. 2) Whether the goods are available. If not then by what date the customer would actually receive the goods. 3) What kind of additional cost would have to be incurred if the order is executed with delay. 4) What kind of additional cost would have to be incurred if emergency measures are undertaken to supply the goods within the stipulated time.</p>	<p>1) To assess how stringent are the delivery requirement and whether customer order is worth accepting or not on account of it.</p>
<p>7. SPECIAL INSTRUCTIONS</p>	<p>1) Are there any special instructions and conditions which are required to be fulfilled as contractual obligation.</p>	<p>1) To assess whether these conditions are acceptable or not, and how would it effect execution of order & realisation of payments.</p>



4.4.3 Information and Co-ordination for Execution

Vetting of the customer order may reveal certain aspects which render the order unacceptable / unacceptably. In such situations, efforts of Sales Administration are directed towards converting the order into an executable and acceptable one. Ways and means of doing this would depend upon what is needed to be corrected. Some of the obvious methods are:

- a) advising Sales Team to obtain from the customer amendments to the order,
- b) obtaining needed documents / informations from the customer through Sales Team,
- c) seeking clarifications from the Sales Team on points not covered by the order, and
- d) holding discussions with in-house technical people for solving technical issues.

If in spite of the efforts of the Sales Administration, the order remains unacceptable, the Sales Team is informed to convey to the customer accordingly. On the other hand if the order is or has become acceptable after the efforts of the Sales Administration, customer is sent information on the acceptance through the Sales Team, and the order is handed over to the Warehouse for execution / despatch.

Next stage is to check the availability of goods at the warehouse to meet the delivery schedule specified by the customer. In a majority of business situations, customers demand immediate delivery, and therefore finished goods are required to be stocked. Even in cases where goods are manufactured against customer order, normally there wouldn't be enough time to procure raw materials and then manufacture and still meet the delivery schedule. In such industries, it is the raw materials that are required to be stocked in advance. This means planning for material. This planning is based on the projections given by the Sales. The projections are yearly, quarterly and monthly in Indian scenario. In Europe and America, these projections, as a rule, are weekly. These projections are reviewed and raised periodically.

Sales administration follows up with factory and / or Purchase for the items that are required for stocking at the Warehouse as per the sales projections. It also gives requirements of additional goods needed for executing orders on hand which may be over and above the sales projections.

4.4.4 Delivery of Goods to the Customer

The next stage after the acceptance of the customer order and the availability of goods, is that of delivery.

Normally, a transporter is engaged-to pick the material from the Warehouse and deliver the goods. Most of the activities involved in this operation are derived from the terms and conditions given in the customer order, and the warehouse is expected to adhere to it. And activities are as follows:

- a) Raising the invoice for goods to be despatched.
- b) Handing over the goods as per invoice to the transporter.
- c) Giving instructions to the transporter on contact person at destination and how the freight and octroi would be settled.
- d) Obtaining the GRIRR/AWB from the transporter as acknowledged of material handed over to him.
- e) Follow up with the transporter for proof of delivery at the destination.
- f) Informing the concerned people / agencies / department about the despatch of the material.
- g) Updating the stock register and maintaining other records at the warehouse.

4.4.5 Installation of Goods and Collection of Payment

Once goods have been delivered at the customer end, the next activity is that of collection of payments from the customer, which at times may be dependent upon installation or completion of certain formalities. Normally, the role of a Sales Administration department is to inform the Sales Team and the team responsible for installation about the despatch of the material and the date by which the material is expected to reach the customer, name, address and telephone number of the person that is to be contacted at customer end and the purchase order terms and conditions



according to which goods have been despatched, installations that have to be done and the payment that is to be collected, to enable them to co-ordinate amongst themselves and do their job. Sometimes this co-ordination job too is assigned to the Sales Administration. It all depends upon how the seller company has been structured and what roles have been assigned to individual departments.

4.4.6 Squaring up of Accounts

Once the payment has been collected from the customer, it is sent to the Accounts Department, who in turn gives suitable credit to the customer in the books of account maintained by it, and the account of the customer is squared up accordingly. With this, transactions related to a sale are completed.

4.5 INFORMATIONS SOUGHT FROM SALES MANAGEMENT

It is essential to be aware, in advance, of the kind of information / analysis that would be or might be demanded from Sales Management System. It is this awareness that decides the kind of information collected and stored by Sales Administration and the way the information is organised in the computer system.

Normally following informations are sought from Sales Management System.

Dept. Seeking Information	Information Sought
	A) ON AN ORDER
1. Sales Executive	<ol style="list-style-type: none"> 1) Whether a customer order has been accepted or not. 2) Reasons if the order has not been accepted. 3) When the goods against an accepted order will be despatched. 4) How the goods have been despatched - transporters name, despatch document no., date of despatch, when the material is likely to reach the destination. 5) Invoice No, invoice date. 6) In case of short supply, when the shortage would be made good.
	B) GENERAL INFORMATION
2. Warehouse	<ol style="list-style-type: none"> 1) Orders pending for acceptance - Items, Quality, Delivery Schedule
3. Accounts	<ol style="list-style-type: none"> 1) Invoices which have been raised 2) Time when payment against invoices may be received. 3) Sales Tax liabilities of the company.



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4. Factory

- 1) Schedule of goods required - yearly / quarterly / monthly
- 2) Orders pending - Item, Qty., Delivery Schedule.
- 3) Inventory at warehouse

5. Top Management

- 1) Target Vs Achievement-Total, Region wise, Sector wise, Item wise.
- 2) Target Vs Achievement - for individuals.
- 3) Bills Receivable, Age Analysis --- Region-wise, Individual-wise.
- 4) Pending Orders --- Item-wise, Value-wise, Age-wise.
- 5) Inventory in Warehouse - slow moving, dead stock and total inventory.

6. Additional Analysis Required

- 1) Percentage of orders accepted without any amendment.
- 2) Time Analysis of various segments of the cycle : "Dates of Customer Order, Receipt of Order, Acceptance of the Order and Despatch of goods".
- 3) Distribution of delay in delivery vis-a-vis customer requirement.

Activity 2

What specific information is obtained from better sales management, in your organisation.

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4.6 HOW TO OBTAIN INFORMATIONS FOR SALES ADMINISTRATION

We have seen that the functions of Sales Management, essentially, are :

- a) execution of customer order;
- b) dissemination of informations on "order execution" related activities; and
- c) analysis of sale related activities.

A customer order is executed on the basis of the instructions given in the order. However, often, customer orders, do not provide complete instructions or informations. Besides, there are informations needed by the Sales Administrations, which are, anyway, not part of a customer order. Hence a method is to be found whereby Sales Administration can obtain complete informations required by it. We shall examine what this method is, and how it helps, in obtaining complete information.

4.6.1 Factors Responsible for Incompleteness in customer order

(a) **Lack of knowledge /information:** This can occur both at customer end as well as sales executive end. Examples are, incomplete specification of the goods under purchase, sales executive not being aware of octroi applicable on goods being delivered at the destination, cess applicable on sales tax etc.

(b) **Invalid assumptions:** Examples are customary assuming that goods sold are always under one year warranty; negotiated prices are inclusive of sales tax etc.

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(c) **Information kept vague on purpose :** Normally this is resorted by the customer who negotiates price on "all inclusive" basis taking advantage of the ignorance of the sales executive about the octroi or entry less that a are imposed by municipal authorities of the area where the goods are required to be delivered. This kind of information is local in nature and is generally not available with the sales person who is based at a location far away from the place where material is to be delivered.

(d) **Lack of infrastructure at customer end:** When there is no format is available at customer and for releasing purchase orders, the orders are released on a letter-head. In such cases details are invariably missed out. Such instances are common with individual customers or organisations of small size.

(e) **Details irrelevant to the customer :** Some details such as name of the sales executive **who** negotiated the order, who all will get the credit for booking the order, the market segment to which the customer belongs, item code of the goods ordered etc. are. of no relevance to the customer, whereas these details are needed by the Sales Administration for analysis of sales activities.

4.6.2 BDI - What is it ?

To overcome the shortcomings, enumerated in 4.4 and 4.4.1, organisations generally resort to a format that is required to be filled in by the sales executive for each and every order picked by him. This format becomes an integral part of customer order for the purpose of order execution. This format is variously called BDI (Billing and Despatch Instruction), BDA (Billing and Despatch Advice), OADF (Order Acceptance and Despatch Format) etc. In this lesson we shall use the term B.D.I.

Every BDI is assigned a unique number. As a rule, there can be more than one BDI corresponding to a customer order (e.g. where customer order stipulates staggered delivery, separate BDI's may be. raised corresponding to each delivery), but one BDI must not correspond to more then one purchase order.

The numbers are assigned as per a defined system so that some information is built into the number. For example, let us assume that the numbering system stipulates an eight digit number.

AA B C D EEE

Where AA represent the last two digits of the year which the order has been booked

B : represents one digit defining the zonal office which booked the order.

C : represents one digit defining regional office which booked the order.

D : represents one digit defining the area office which booked the order

EEE : defines the serial number of order booked by the area office in the year AA by B.

4.6.3 Advantage of BDI and its Numbering

1. BDI numbering system helps keeping track of an order by providing a unique reference number across the organisation.
2. In a computerised system, one can sort the orders received from customers using the intelligence built into the numbering system.
3. Since one has to fill in all the rows / columns and boxes of the format, no information is missed out.
4. It helps the sales executive to, detect. the information that he has missed and therefore need to be obtained and filled in.
5. It ensures uniformity in presentation of information.

4.6.4 Information Given in a BDI

In this part of the lesson, we shall examine the informations generally asked for in a BDI.

BDI Number	:	Discussed in 4.6.2
BDI Date	:	Helps in determining the month in which the customer order has been booked. Also helps in doing analysis like target Vs achievement, time analysis of order processing cycle
Customer's Name	:	Identifies the customer
Billing Address	:	Discuss at 4.4.2
Pin Code Of	:	Helps in sorting and analysing the orders as per geographic location of the customers
Billing Address	:	Identifies the customer
Despatch Address	:	Discussed at 4.4.2
Pin Code Of	:	Helps in finding the distribution of the goods as per geographical location.
Despatch Address	:	
Purchase Order No.	:	Helps in correlating the BDI with customer order. This reference no. is reproduced in the invoice to help the customer to correlate the material received by it with his order.
Purchase Order Date	:	Helps in doing time analysis of the order processing cycle.
Item Description	:	Helps in determining the specifications of the goods to be supplied.
Item Code	:	Helps in ensuring that wrong item is not despatched because of incorrect reading or understanding of the specification.
Quantity	:	Informs the quantity of the items required to be supplied.
Price (Rate)	:	Discussed at 4.4.2
Excise Duty	:	Discussed at 4.4.2
Sales Tax	:	Discussed at 4.4.2
Value	:	Informs the value of the order.
Customer CST No.	:	For the satisfaction of Sales Tax authorities
Customer LST No.	:	For the satisfaction of Sales Tax authorities
Forwarding	:	Discussed at 4.4.2
Packing	:	Discussed at 4.4.2
Freight	:	Discussed at 4.4.2
Insurance	:	Discussed at 4.4.2
Transport Mode	:	Discussed at 4.4.2
Delivery Date	:	Discussed at 4.4.2
Payment Terms	:	Discussed at 4.4.2
Penalty Clause	:	Discussed at 4.4.2
Warranty	:	Discussed at 4.4.2
Sales Executive Code	:	To enable to do target Vs achievement analysis.
Area Code	:	To enable to do target Vs achievement analysis
Zone Code	:	To enable to do target Vs achievement analysis
Special Remarks	:	To provide special instructions and informations which have not been covered by other columns of the BDI.

4.6.5 Other Informations

There are informations which are not the part of a BDI and have to be obtained from other sources. Some of such informations are given below :

Required Date of Despatch	:	This is to indicate to warehouse the date by which goods must be despatched from warehouse. This is calculated by Sales administration from the Delivery Date & the transiting for the
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Expected Date Of Despatch	:	This date is provided by warehouse for the information of the Sales team
Invoice Number	:	For the information of Accounts and Sales, obtained from warehouse
Invoice Date	:	For the information of Accounts and Sales, obtained from warehouse
Invoice Value	:	For the information of Accounts and Sales, obtained from warehouse
Transporter	:	For the information of Sales, obtained from transporter
GR/RR/AWB No.	:	For the information of Sales, obtained from transporter
Despatch Date	:	For the information of Sales, obtained from transporter
No. of Boxes	:	For the information of Sales, obtained from transporter
Actual Date of Delivery	:	For information of Sales and for doing time analysis of order execution cycle, obtained from transporter

4.7 HOW DOES A COMPUTERISED SYSTEM WORK

Having understood the informations required by Sales Administration, next stage is to understand how this information is stored and processed and disseminated by Sales Administration.

We have already said that Sales Administration function can be done manually as well as by using a computer. We shall first see how a manual system works and then would understand how the activities of the manual system can be computerised.

4.7.1 Processing An Order (Manual)

Depending on the system being followed in an organisation, a customer order has to go through various stages till it is fully executed. Fully executed is the stage when customer is satisfied with the goods supplied and has released the payment. Broadly speaking, the stages through which a custom order goes are receipt of customer order at the works, verification of the order,

acceptance of order, obtaining the goods as per order, despatch to the customer, and realisation of payment. Each stage involves several activities, which can be organised sequencely.

Let us look at a typical manual order processing system and its activities as given below :

SL No.	Performer	Activity
1	Sales Executive	Receipt of the customer order
2.	Sales Executive	Vetting the customer order and if found in order then sending it to Sales Administration for execution.
3	Sales Administration	<ol style="list-style-type: none"> 1) Receipt of the customer order and the advise for executing it. 2) Acknowledging to the sales executive the receipt of the order. 3) Vetting the customer order technically and commercially. If found okay, then advising the warehouse to execute the order.

If not found okay then taking up the matter to appropriate person / authority. These are three:

- a) If everything is okay except the contribution, and if the contribution is above 10%, then obtaining the decision of the VP for acceptance.



S1. No.	Performer	Activity
		If it is accepted, then to advise the warehouse, & if not, inform the sales executive.
b)		If everything is okay, except the contribution, & if the contribution is below 10%, then obtaining the decision of the M.D. for acceptance. If it is accepted, then to advise the warehouse, and if not, then inform the sales executive.
c)		If there is problem with the commercial terms or there is a deficiency or if there is a query, then to write to the sales executive explaining the problem and seeking feedback and wait.
4)		The feedback from the sales executive, once received on 3(a), 3(b), or 3(c) of the activity no. 3, a decision is taken on the acceptability of the order. If the order is accepted, then an instruction is sent to warehouse to execute the order through a note giving all the details needed for despatch of the goods. If case the order is still not acceptable then the concerned sales executive is informed accordingly and the case is closed.
5)		Once warehouse has received the intimation for execution of an order along with the needed documents, & the goods are available With it, it calls the suitable transporter, raises the requisite gate pass & invoice and hands over the goods to the transporter. The warehouse informs the Sales Executive, the Sales Administration & Accounts the details of despatch.
6)		The Sales Executive informs the customer about the despatch & awaits the arrival of material at the customer end. The Accounts Dept. makes a debit entry in the books of the company against the name of the customer for the value of the goods despatched to it.
7)		Transporter in turn gives a copy of Good Receipt to the warehouse in token of the receipt of the material, carries it to the delivery destination, delivers the goods to the customer, obtains the acknowledgement of the receipt of goods from the customer and in turn hand over the acknowledgement to the warehouse.
8)		The warehouse informs the Sales that Administration, accounts and the Sales Executive that the goods have been delivered to the customer.
9)		The sales executive collects payment from the customer against the goods delivered, as per the purchase order terms and sends the payment to accounts. Alternatively, if the payment has not been received, then Accounts follows up with the Sales Executive to collect the payment.
10)		Once the payment is received, the Accounts Dept. makes the appropriate Credit entry against the name of the customer and the invoice for which the payment has been received. If payment is received in full, the transactions of the sale are considered closed.



4.7.2 Processing an order through Computerised System

Now let us see how the order processing can be done by using a computer.

This is done in the two stages. First, the information contained in the customer order and the BDI are keyed into the computer and stored as data in "records" and "files". In the second stage, these records are processed by affecting changes in the field "status" of the records.

Even though creating a computerised system and organising data storage and processing, is a specialised job of I.T. professionals like programmers, system analysts etc., it helps to know what these terms "file", "record" and "status" mean, and how information is stored in a computer.

4.7.2.1 Record, File and Status

Record

A record is a group of related details / informations / facts stored in separate fields as a unit, say a particular transaction. An example of this is the particular transaction of despatch against an invoice. The record of this transaction would probably contain, as related items, the customer's code no., invoice no., GR No., GR Date, Transporter's name, No. of boxes, Destination.

File

A collection of similar records constitutes a file, in this case records of despatch details. The records are organised in such a way that specific items of data or records can be retrieved and accommodated in main storage when required for processing.

Status of an Order

Status of an order denotes the stage at which the order is in the order processing procedure. By implication, it also indicates the stages that have been passed through and the kind of processing / examination / activity related to execution of the order is being done. The status is indicated by a symbol which can be numeric, alpha or alpha numeric. For the purpose of this lesson, we would choose alpha symbols. Now let us go back to section 4.7.1 and try to identify some of the status and then assign symbols to individual status.

The first status is that of customer order having been received at the Sales Executive end. Let us indicate this status by letter O.

While the status is O, the customer order is under vetting at Sales Executive end and if found O.K. a B.D.I is raised and the order along with the BDI is sent to Sales Administration. Let us assign to this status of "order having been sent to the Sales Administration" by letter "S".

The first activity that Sales Administration has to do is to acknowledge receipt of the order. Let this acknowledgement be denoted by letter A. Letter A, by implication, can also act as information to all concerned, be it Warehouse, Factory, Accounts, that an order for particular items, quantities and value has been received for execution.

Next stage is that of verification of the order by Sales Administration. Let us call this as status B.

The order is either acceptable or not acceptable. If it is acceptable, then we say that the order has reached status C. If not acceptable, then it could be because of technical reason or commercial reasons. When the reason for non acceptance is technical, we assign it status D. When the reason is commercial, the status assigned is E. And so on so forth.



4.7.2.2 Computerisation of Status

How assigning these status help in computerisation of the order processing ? The answer is

- > first entering the details of the order in respective fields in a computer,
- > then creating a record for status, and the,
- > by providing option for entering the status of the order in the field "status", and then
- > by providing an option for amending the content of the field "status" as per, a logical sequence or as per requirement of a decision.

Let us see, with an example, how the above operates in actual practice.

The order details are keyed in the record say "BDI". As soon as the complete details of the order is keyed in, another record is created for status where there are only two field - BDI no and order status. The record "status" corresponding to a BDI number is activated, and letter "0" is keyed in the field "status". If the customer order is found O.K. by the sales executive, he prepares the manual B.D.I. and send the customer order along with the B.D.I to the Sales Administration and simultaneously he changes the status of the order, by activating the record "status" corresponding to the BDI reference no. to S.

From now onwards, Sales Administration takes over.

A typical list of various status, is given below :

Letter	Status
A	Order received at Sales Administration.
B	Order under verification at Sales Administration.
C	Accepted by Sales Administration for execution.
D	Not accepted by Sales Administration for technical reasons.
E	Not accepted by Sales Administration for commercial reason.
F	Contribution is low, between 20% to 10% approval of G.M Sales is required for acceptance.
G	Contribution is low, below 10%, approval of MD required for acceptance.
H	Rejected by GM Sales.
I	Rejected by MD
J	-----
K	-----
L	-----
M	-----
N	-----
O	Customer order details keyed in by Sales Executive order under verification by him.
P	-----
Q	-----
R	Returned to Sales Team as unacceptable order, Sales team to rework on order to remove deficiency.
S	Order accepted by Sales Team, sent to Sales Administration, along with BDI.
T	-----
U	Material despatched to the customer.
V	Order has been received, material not available.
W	Customer has received material, proof of delivery obtained from transporter.
X	-----
Y	-----
Z	Order rejected, not executed, order closed.

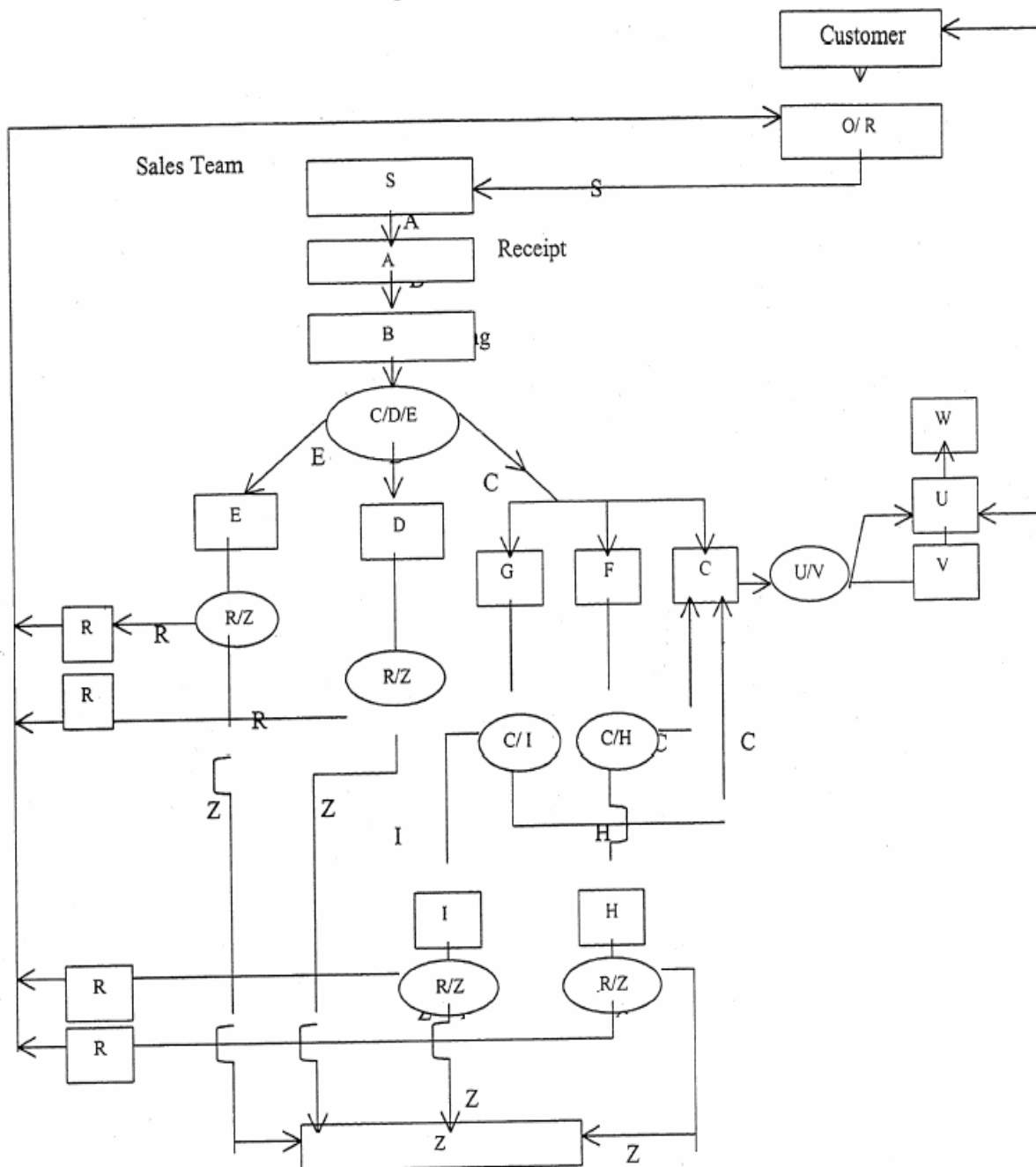
It would be noticed that not all letters of the alphabets have been used. Also assigning a letter to a particular status is arbitrary. For a system to work, it is not necessary that the alphabets for indicating status be chosen in any logical order, all that is required is that a letter defines a



significant and unambiguous status. What is significant and what is unambiguous would depend upon the nature of the things being handled.

A logical sequence, based upon the definition of status given above has been illustrated graphically in fig. 4.2.

Fig : 4.2



The letters in rectangular box indicates the status obtained or reached at a stage,

the letter (s) in indicate the options available for status changes from the previous status, the letter over a path line indicates the option exercised for the status change (this indicates the decision taken).

It would be noticed that there are three options available for change at status B which are B to C, ' B To D, B to E. While B to D and B to E, the resultant status is the same which was intended, when B is being changed to C, the status can change either to G or to F or to the intended C. This is because, it is assumed that while vetting at status B, the executive has all informations necessary for his decision making except one, and that is of contribution, with him. So while the



decision of acceptance of the order is taken by the executive on the basis of informations.

Basic Functions Available with him, the outcome what is dependent on "contribution" which is calculated by the computer based on informations and the decision logic already stored in it and changes the status to C or F or G accordingly. This kind of sophistication of computer operations is very useful where the item ordered by the customer can be viewed as all agglomeration or integration or assembly of various elements, and the number of such elements are large and cost of individual elements changes frequently. In such cases it may not be humanly possible in terms of efforts and time required to keep track of such changes and to do the calculations for each and every customer order manually.

4.8 USES OF COMPUTERISED SALES MANAGEMENT SYSTEM

We have seen how order processing can be done using a computerised system. However, if the system is used only for order processing, it can only be termed as gross under-utilisation of the capabilities of the system. In fact, order processing is only a part of the reason for computerisation of systems by the management, the real incentive is the ease with which information can be stored, viewed, exchanged and analysed for taking day to day decision. The system can also provides quickly the data base and do analysis for taking strategic decisions, In fact, computers have made it possible, for the first time to take decisions on the basis of actual data, because of its ability to handle volume quickly.

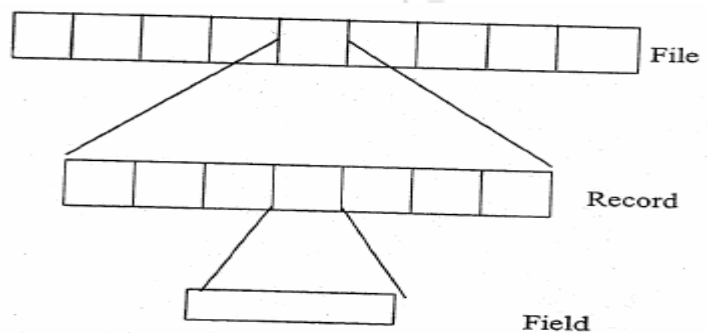
4.8.1 What Informations are Stored in Data Base

Basically the informations, stored in a computerised system have been listed in section 4.4.4 and 4.4.5. Apart form these, the system maintains the list of items that an organisation can supply and costs and prices thereof, list of customers - past and present, the list of employees and the targets given to them month wise, quarter wise, year wise or any other practice that the company

follows in this respect, list of approved transporters, customers credit ratings, stocks available at various warehoused, excise and tax structures for various items being supplied by the organisation and archival informations about orders received in past.

4.8.2 flow the Information is Stored

The information is stored in terms of fields, records and files. The hierarchical arrangement of these are shown below :



Field is the smallest unit of information like Date, Month, Year, GR no., Transporters Code, Employee Code, Item Code, Cost, Customer Code, Invoice no. etc.

A collection of relevant fields make a record such as despatch particulars which may consist of Invoice no. Transporters code, GR no., GR Date, GR Month, GR Year, Destination.



A collection of relevant records constitutes a file, such as file for Employees which would have records of each employee, with fields for employee code, employee name, target for various months, his present location etc.

Files are categorised depending upon the purpose of creating the file and their volatility, which is a measure of the extent to which the contents of the file change with time. Broadly there categories are:

- > Master file.
- > Transaction file
- > Work file
- > Security file
- > Audit file

No system can be created without the first two files, namely master file and transaction file, Creation of other three would depend upon the software being used and the way the elements of the system have been defined, designed and integrated.

As designing the system is a highly skilled and specialised job of a system designer and, is beyond the scope of present curriculum, we shall see, briefly what these five types of files are :

Master File:

It is a permanent file and contains details which are of permanent or semi permanent nature such as products, customers, employees, prices, costs, customer orders.

There are two types of master files:

- > Static master file (at times called reference file) contains details which are rarely attended.
- > Dynamic. master file where details which are of transitory importance are stored.

Transaction files:

This is the file where data is stored awaiting processing. The processing may be updating the master file or archiving the data for future reference.

Work File:

This file is for storing data created by one transaction before being used for a subsequent transaction. One example is "print" file where data is stored and further processing on the data is done for producing the output in a specified format.

Security File:

Theses files are used to provide back up copies in case of loss or damage of data.

Audit File:

These are the file where final data are stored for archival purpose.

4.8.3 How the Data is Accessed or Viewed

Normally the Sales Management System is made available to each and every possible user of the data bank of the system through LAN. The users are provided the login code, and the system is designed in such a way that it is menu driven. The word menu driven means that at every stage, the computer offers to the user various options to choose from in a logical sequence. System designer, normally provides a users manual which describe step wise procedures for login and subsequent progress into the system. Software for most of the analysis that the users may have to do, too are part of the system, and the user has only to choose the report that needs from the



menu options and the computer software does the analysis and make the result available in a formatted form.

4.8.4 Informations Sought from Computerised System

The informations sought from the system would, off course, depend upon the nature of the, business as well as on the type and size of organisation and the practices followed in the organisation. Here is a list of some of the informations that most of the organisation, would seek or would do the analysis, form time to time.

- A. For pending orders:
1. Details of an order.
 2. Status of an order.
 3. Details of all pending orders - status wise / area wise / region wise / company wise
 4. Details of orders under a particular status.
 5. Total qualities of various items.
 6. Details of orders required to be executed today / tomorrow / in next six days / next month / next quarter etc.
- B. For analysis and Monitoring:
1. Target Vs Booking - area wise / region wise / individual wise / company wise
 2. Bills Receivable Age Analysis - area wise /region wise / individual wise / total
 3. Todays Collection / Todays Billing / Todays Booking
 4. Analysis of Time Gap between Date of Order and Receipt of Goods by Customer, between Date of BDI and Acceptance, between Date of Acceptance and Date of Despatch etc.
 5. Delay Analysis between Required Date of Despatch and Actual Date of Despatch.
 6. Market Segment wise analysis of booking
 7. Population Distribution of a product.
 8. Daily MIS for Sales.

4.8.5 How to Set up a Sales Management System

There are three persons who have to interact amongst themselves for implementing a useful and efficient Liles Management Systems. They are:

1. initiator and controller;
2. users; and
3. system analyst and programmers.

Head of the Sales Administration is normally the person who acts as Initiator and the ownership of the data in the system is his and therefore in that sense is the controller of the System.

Users are all those departments and specific individuals who need access to the data in the system for doing their jobs. This would mean all the people in the Sales Administration, some people in Accounts, some people in Factory, almost all people at the Warehouses, and practically every member of Sales Team.

System Administrator is the person who is responsible for deciding and providing the hardware and software for establishing the LAN and who designs the system on computer.

In this lesson, we are concerned with only the Sales Administration, and would therefore confine ourselves to steps that he has to take for fulfilling his role in establishing the system. These are:

1. Contact all users of the proposed system and find out what type of informations they would like to have and what type of analysis they would do. Compile it.



2. Contact the System Analyst and explain to him the purpose of establishing the system and the informations and analysis that are expected out of the system. Find out what inputs he needs to establish and run the system.
3. Design a format for BDI and other systems for collecting informations accordingly.
4. Give a copy of the BDI to the System Analysts to enable him to understand the data that would be entered in the system. Give additional sheet for the data that would be entered but are not part of BDI such as details of despatch, targets for individual executives / area / region, credit ratings of customers etc.
5. Explain to the System Analyst(s) the decision making process - all the status and the logical relationship among them.
6. Give in writing to System Analysts who all will have access to the system, what operations they would perform, their authority and who have to be denied access to which informations.
7. Tell the System Analysts the average volume of data that is expected to be entered per week and frequency of various reports that would be taken out.
8. Give an idea of the usage of various terminals in terms of hours per day and the time of the day when the system would be under use.
9. Tell specifically which informations are only for "view" and which are for both "view" and "print".
10. Once the system has been installed, run both the manual and computerised system parallelly for some time and once people develop confidence in the computerised system, discontinue manual systems one by one gradually.

4.9 SUMMARY

Role of Sales Management in an organisation is to execute the orders received, to provide information to all connected with order execution and to prepare reports and analysis for management control, decisions making and planning. This involves handling of massive data at speed. Manual handling of this function is slow, cumbersome and costly. Computerisation of Sales Management System helps not only in speedy handling of data but also provides transparency of operations, simultaneous processing of the data by various users at a considerably lower cost. Computerisation of the system involves setting up a LAN system, entering all relevant data into the main processor (workstation) allowing access to various users to the LAN for viewing and processing. The key factors in successful working of the system are two. First one is gathering of informations which are relevant, accurate and complete and entering these into the system. The second factor is designing the system in a user friendly manner. The first is achieved by designing formats like BDI and second is ensured by detailing the expectations of users to the System Analysts and designing a menu driven system.

4.10 KEY WORDS

- BDI : A format which is required to be filled by sales executives for ensuring that the Informations made available on a customer order is relevant, accurate and complete.
- STATUS : Status of an order denotes the stage of order processing.
- RECORD : A record is a group of relevant details / informations / facts stored in separate fixed fields, as a unit.
- FILE : A collection of similar records.

4.11 SELF ASSESSMENT QUESTIONS

1. Do you think computerisation in the sales function can be used as a distinct competitive advantage ? Discuss.
2. In case the items supplied to a customer, against an order are found to be defective, how such information would be communicated to that sales executive, who booked the order.
3. What is BDI ? What are its specific advantages?