Chapter : 9

Accounting and Computerization

A: Accounting for Small Business

9.1 Accounting as a Useful Task

Accounting is not an end in itself. It should never be done simply for its own sake, as some entrepreneurs seem to believe. These all add up to planning and control. Any accounting system should help entrepreneurs answer two key questions. Is it his venture earning a profit? If the answer is no, entrepreneurs should find out why and do something about it. And even if the venture is earning a profit, they should find out if it is as high as it should be-and what part of the venture is producing the profit. What is his venture worth? Entrepreneurs and fellow investors, if any, invest their money in the hope of earning some return, so entrepreneurs should know whether their equity in the venture has gone up or down, and why. To keep track of what is happening. Thus an accounting system should accomplish the following major objectives for a small business:

1. The system should yield an accurate and thorough picture of operating results.
2. The records should permit a quick comparison of current data with prior years' operating results and with budgetary goals.
3. The records should provide suitable financial statements for use by management, bankers, and prospective creditors.
4. The system should facilitate prompt filing of reports and tax returns to regulatory and tax collecting agencies of the government, and
5. The system should reveal employee frauds, thefts, waste, and record-keeping errors.

Any accounting system, of course, must be consistent with the accepted principles of accounting theory and practice. This means that a business must be consistent in its treatment of given data and given transactions. For this reason the services of a public accountant ordinarily are required. Designing an accounting system is seldom well done by the amateur. Accounting, therefore, in brief, serves the purposes as under:

- ❖ To help solve problems
- ❖ To help express future plans,
- ❖ To help pursue opportunities and
- ❖ To keep track of what is happening

Financial information must also be gathered for reporting to and dealing with the world in side and out side the business i.e., stockholders, employees, banks, government, potential investors, brokers, stock exchanges, regulatory agencies, and others.

Double Entry System of Record Keeping

Accounting under double entry system in order to arrive at a final account passes through three stages such as journal, ledger and trial balance. This flow can be seen from the following cycle:

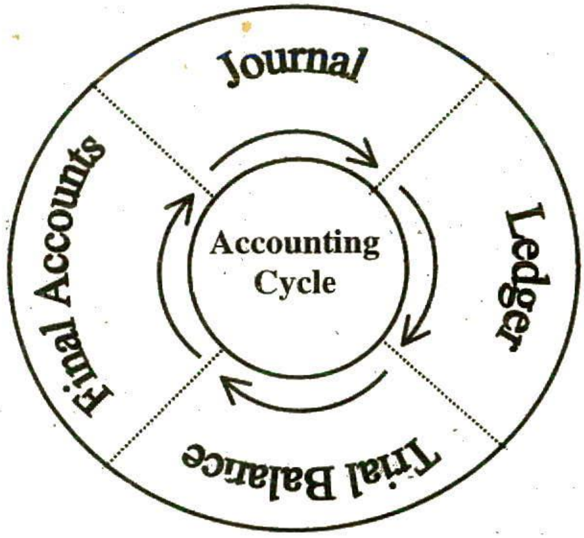


Figure-9.A: Showing the Accounting Cycle

The books usually are maintained by a small business person may include the following:

i.	Cash Book	v.	Purchase Return Book
ii.	Purchase Book	vi.	Bills Receivable Book
iii.	Sales Book	vii.	Bill Payable Book
iv.	Sales Return Book		

Accrual vs. Cash System

Most modern accounting systems are based on an accrual, rather than a cash, system. In a cash system, the accounts are debited and credited as cash is received and paid out. In the accrual system, income earned and expenses incurred are recorded at the time the sale is made or the expense is incurred. The use of the accrual method is preferable because it provides a more nearly accurate and up-to-date statement of profits.

Single entry Vs Double entry

Single entry method of record keeping is crude and unscientific in which accuracy of financial position is not ensured. On the other hand in order to help ensure efficient account records double entry method has been proved to be dependable for reasons of accuracy and auto balancing. Double-entry accounting serves three specially important functions when appropriate accounts are set up:

- ❖ It keeps track of assets and liabilities, showing what from they are in.
- ❖ It keeps accurate records of revenue and expenses.
- ❖ It allows the financial condition of the small business to be determined easily by adding up all account balances for assets, liabilities and equities.

9.2 Minimum Information Needed From Accounting Records

Accounting records generate some very useful information required for day to day decisions. These originate from sales, expense, income, cash movement and the like. This may be gauged from the undernoted presentation:

1. **Sales:** The small business owner should know not only the total sales by day, week, month, quarter, and year, but should also be to break these sales down easily into departments, products, or types of merchandise as appropriate to the particular business. A grocery store usually divides its sales into meats, produce, dairy, and staple groceries. A separate division may be needed for a delicatessen, if one is part of the store. Drugstores may divided sales into prescriptions, house-wares, self medicines, tobacco, and magazines, and they may even have separate category for the gift cards.
   The division of sales are necessary for the owner to be able to decide on the profitability of each department or line and to make decisions about it.
2. **Operating expenses:** Information is needed for total expenses, departmental expenses, product expenses, and any other appropriate divisions of expenses. Retailers' expenses many be classified as selling expenses and general expenses. Owners of factories will want to divide total expenses into manufacturing, selling, and administrative expenses.
3. **Inventory:** The accounting records must provide ways to give the owner regular information about the total inventory and its major divisions. Inventory control was discussed in an earlier chapter.
4. **Payroll records:** Payrolls involve much more than the issuance of weekly, bimonthly, or monthly checks to employees. The requirements of withholding taxes, unemployment taxes and other payroll deductions must be noted in detail or each payday.
5. **Cash Register:** Use a modern cash register. This essential piece of business equipment can be invaluable in assuring accuracy in recording transactions. But it can do much more. Modern cash registers can provide classification of sales and expenses paid in cash into almost any groups desired. Sales can be divided into departments, products, or lines of merchandise and by sales representative. The register will then provide daily subtotals for each classification, as well as total sales for the day. It will also provide subtotals for cash sales and credit sales. Representatives of companies selling these machines will teach the individual firm how to utilize them to their greatest advantage.
6. **Accounts receivable and accounts payable**: Set up records for accounts receivable and accounts payable. If sales are made on credit and the company is carrying its own receivables, a record for

each cústomer will also suffice. Copies for sales slips are necessary to prost each sale. This book is known as an accounts receivable ledger.

The record of amounts due to others is known as an accounts payable ledger, and it operates similarly to the accounts receivable record. In both cases, it is important to be able to tell immediately the current amount owed by a customer or the amount owed to a creditor. Many small firms use computers to track this data, but its is important to have the manual records, too, in many cases.

7. **Taxes:** Local, country, state, and federal taxes are an unavoidable part of managing any business. Details, except for federal income taxes, will vary from one location to another. Requirements must be determined, and then provisions for getting the proper information can be arranged.
8. **Office Supplies:** Provide the firm with a businesslike set of supplies. Any firm's image, its public relations, and its accuracy in record keeping are all served by using attractive and businesslike supplies.
9. **Business papers:** Carefully reserve all underlying business papers. All purchase invoices, receiving reports, copies of sales slips, invoices sent to business firm customers, all canceled checks, all receipts for cash paid out, and all cash register tapes must be meticulously retained. They are not only essential to maintaining good records, buy they may be important if legal action involves any of these action.

9.3 Entrepreneurs' Most Vital Financial Statements

The most popular financial statements and the purposes for which these are used may be seen:

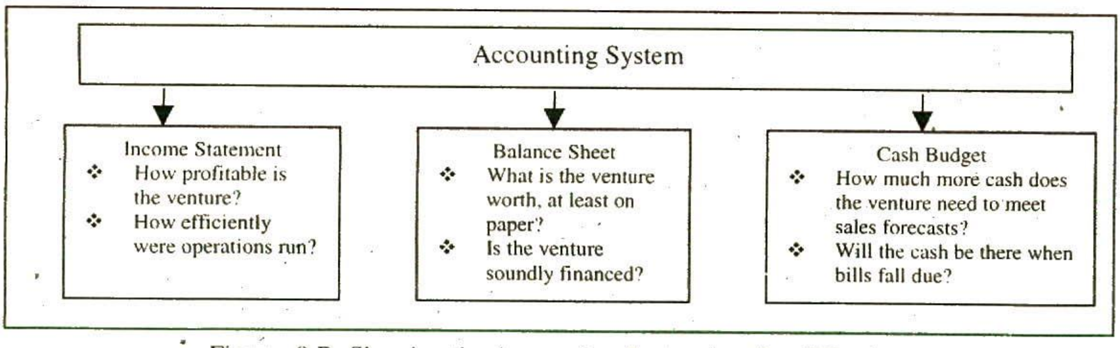


Figure- 9.B: Showing the Accounting System in a Small Business

In spite of the obvious importance of keeping accounting records, many small firms do not maintain them adequately. A file of canceled checks and invoices alone is woefully inadequate. It has been discovered, for example, that small firms which have gone bankrupt typically had inadequate accounting records. On the other hand, small firms which maintain adequate records reflect high-quality management because such records provide management a basis for more effective decision making and better control over operating results. Furthermore, adequate accounting records make it easier to detect employee frauds, waste, spoilage, and other losses.

Install a basic set of accounting books in a combination journal-ledger system. Such a system is explained in the letter part of this chapter. This is the heart of the accounting records. The basic record, plus a worksheet summarize operations at the end of the month or fiscal period, will enable the owner to make formal balance sheets and income statements regularly. Anyone who has had a high school course in bookkeeping should be able to handle both easily. Self-instructing computer programs may be of help too.

9.4 Typical Financial Statement

The preparation of financial statements is made possible by the existence of accurate and thorough accounting records. Most of the small business firms prepare income statement, balance sheet, statement of cost of goods manufactured, statement of changes in the financial position and the like.

Income Statement

The income statement shows the results of a firms operations over a period of time, usually one year.

Balance Sheet

The balance sheet is a statement that shows a firm's financial position at a specific date.

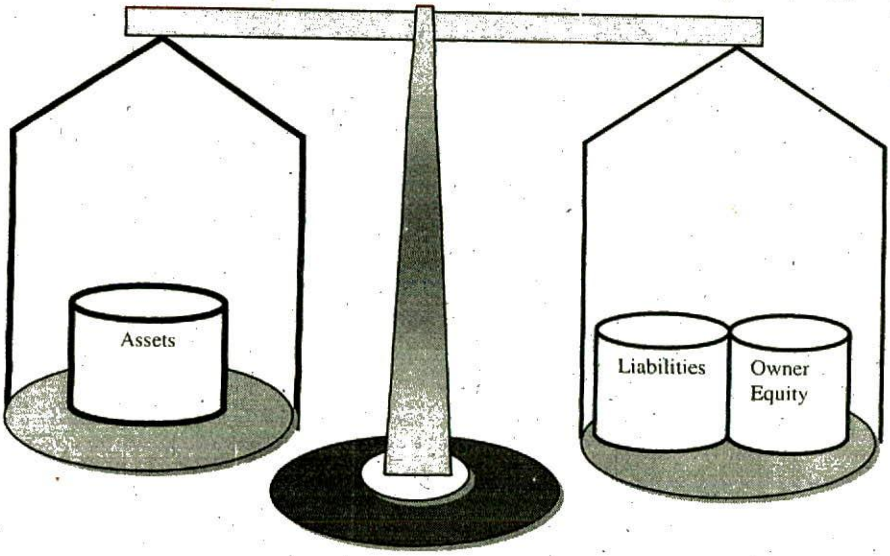


Figure- 9.C: Showing that Both Sides of the Balance Sheet are Balanced

Statement of Cost of Goods Manufactured

The statement of cost of goods manufactured is a supporting, detailed schedule of the "cost of goods manufactured" entry in the income statement.

Statement of Changes in Financial Position

Formerly known as the "statement of sources and uses of funds," the statement of changes in financial position shows how a firm acquired funds and employed these funds over the same period covered by its income statement.

9.5 Budgeting

One of the most important kinds of planning is *budgeting*, the translation of management's overall strategy into financial terms. Budgeting uses the whole management information system, because it covers all phases of the small business operation and uses data from all the information subsystems. The *master budget* is a financial model of the entire company, made up of individual budgets for its separate sections. Its foundation is the sales-budget, since all other operations depend on the accuracy of the sales forecast. How much is budgeted for production depends on how much is expected to be sold. The same is true for administration and distribution. All these projections combined determine how much cash will be needed to run the operation, and as a result, how much income the company will receive.

But a budget is at best an estimate, and some managers argue that budgeting is too uncertain to be useful. Yet the management's of most large and successful small business would never consider operating without a budget. Many of them argue enthusiastically that conscientious and continuous budgeting has been a significant factor in their success.

Successful small business that use budgeting indicate that it has three important advantages, First, preparing a budget forces management to think ahead, to stand away from day-to-day problems, to consider the overall goals, and to anticipate change. Second, a budget serves as a guide for judging performance. It enables management to ask, at the end of the year, "How did we do in comparison to what we thought we were going to do?" Third, a budget helps coordinate a complex organization. It makes production, distribution, and financial management departments coordinate their efforts and agree on their goals.

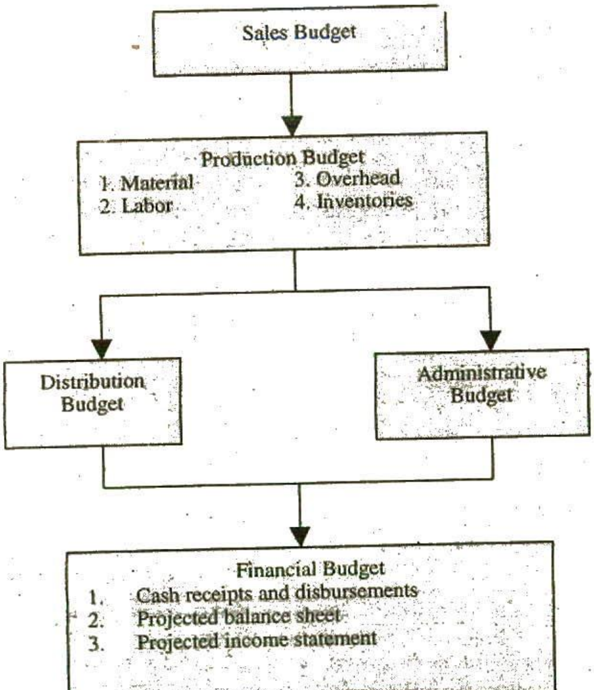


Figure – 9.D: Showing the Different Components of a Small Business Budget

Cash Budget

The centerpiece of the business plan is the cash budget, which translates operating plans into a financial amount. Without a cash budget, entrepreneurs have no way of estimating their financial needs. So vital is this budget that few investors or creditors will entertain a request for money without one. More than any other piece of information, the cash budget enables the lenders to make an intelligent decision about whether to finance the entrepreneur. The cash budget, for example, helps the banker obtain answers to three essential questions:

- How much money do the entrepreneur need?
- How will the entrepreneur spend the money?
- How soon will the entrepreneur pay us back?

Cash planning is very important if a company is to meet its payments. Cash planing takes two forms (1) the daily and weekly cash requirements for the normal operation of the business, and (2) the maintenance of the proper balance for all requirements.

Cash Flow of a Small Business

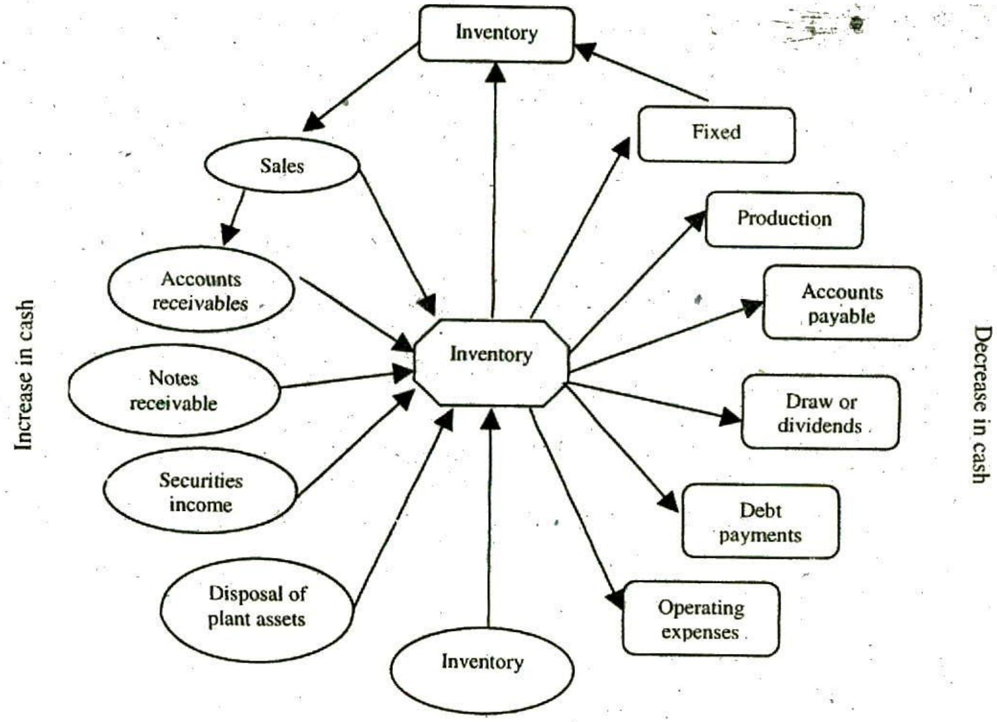


Figure – 9.E: Showing the Different Items of Inflow and Outflow of Cash

By referring to the chart above, we see that cash increased by activities such as selling for cash, collecting accounts receivable, receiving a note due to the business, receiving dividends from outside securities, selling of a plant assets, and by the owner investing more cash in to the business. Cash is decreased within the operation of a business by the payment of invoices for the purchase of inventory and supplies, by the investment in fixed assets, by paying general operating expenses such as salaries and rent, by the owners' draw or dividends paid to share holders and by making payments on bank loans.

The first type of planning tends to be routine. For example, your company may have a fairly constant income and outgo which can be predicted. Policies can thus be established for the level of cash to maintain. Therefore, a procedure should be established to control the level of cash. These operating demands represent a small part of the cash needed and tend to remain fairly constant.

The second type of planning requires a budget for, say, each month of the yeaı. Payments for rent, payroll, purchases, and services require a regular outflow of cash. Insurance and taxes may require large payments a number of times each year. A special purchases, say of a truck, will place a heavy demand on cash. It takes planning to have the right amount of cash available at all times.

It shows that one form of a cash budget for three months ahead. Each month is completed before the next month is show. Lines 1-3 are completed for the cash estimated to be received. The Sample Company expects to receive 20 percent of its monthly sales in cash. A check if its accounts receivable budget (presented in the next section) can provide estimates of the expected cash receipts in January. Other income might come from interest on investments or the sale of surplus equipment.

Expected cash payments, lines 5-12, should include items for which the company pays cash. The Sample Company might list salaries and utilities separately, and combine advertising and selling expenses under sales promotion. Cash is often paid in the month after the service is performed. Examples of this are payments for electricity and for material purchases. Some cash payments can be made at any one of several times. For example, payments on a new insurance policy can be set when your other cash demands are low. The cash budget shows when payment is to be made.

The Sample Company

Cash Budget Form

Cash Budget

(for three months, ending March 31, 19_)

	January		February		March	
	Budget	Actual	Budget	Actual	Budget	Actual
Expected Cash Receipts :						
1. Cash sales						
2. Collections on a accounts receivable						
3. Other income						
4. Total cash receipts						
Expected Cash Payments :						
1. Raw materials						
2. Payroll						
3. Other factory expenses (including maintenance)						
4. Advertising						
5. Selling expense						
6. Administrative expense (including salary of owner-manager)						
7. New plant and equipment						
8. Other payments (taxes, including estimated income tax; repayment of loan; interest; etc..						
9. Total cash payments						
10. Expected Cash Balance at beginning of the month						
11. Cash increase or decrease (item 4 minus item 13)						
12. Expected cash balance at end of month (item 14 plus item 15)						
14. Desired working cash balance						
15. Short-term loans needed (item 17 minus item 16, if item 17 is larger)						

Cash Budget (for three months, ending March 31, 19_)	January		February		March	
	Budget	Actual	Budget	Actual	Budget	Actual
16. Cash available for dividends capital cash expenditures, and /or short-term investments (item 16, if item 17, if item 16 is larger than item 17						
Capital Cash :						
1. Cash available (item 19 after deducting dividends, etc.)						
2. Desired capital cash (item 11, new plant equipment)						
3. Long-term loans needed (item 21 less item 20, if item 21 is larger than item 20)						

9.6 Essential Data for Effective Ongoing Control

Interviews with many successful small firm owners reveal that they usually divide their management information into tow categories: (1) data that they analyze daily, weekly, or monthly, and (2) long-range data that they check less often or whenever the occasion presents itself.

[A] First category trends

1. Sales data and trends
2. Effectiveness of producers against shoplifting and theft
3. Suggested new products or new lines
4. Weekly results compared with weekly break-even chart
5. Public relations effectiveness
6. Production records
7. Cash position and cash flow outlook
8. Inventory data and need for change
9. Price policy questions that may have arisen
10. Policy violations and need for charge
11. Price policy questions that may have arisen

[B] Second category include:

1. Adequacy of accounting data
2. Personnel policies
3. Outlook for expanding or contracting operations (these aspects of planning and forecasting are a continuing concern at all times)
4. Effective measure in adjusting to seasonal variations
5. Review of lease arrangements
6. Review of location and site values
7. Study of broader economic data and local developments that might affect expectations for the firm.
8. Possible changes in legal form of organization
9. Additional asset needs that might improve efficiency
10. Adequacy of risk coverage
11. Efficiency in purchasing and possible new sources of supply

The priorities given to the various items on any owner's list will vary with the other demands upon his or her time and the circumstances of the particular firm. For example, a small private water company would not need to check income records often. A restaurant would need this data almost daily. A small department store would need regular data at least weekly on a new department that just opened. Owners would be more concerned with inventory movement and inventory control in style goods departments.

9.7 Inventory Management

Inventory has to do with the materials kept on hand, either to make a product or to resell it in most instances. This definition excludes services, because obviously they cannot be stored in the way that, say, automobiles and computer can.
Why have inventory at all? Although rarely asked, this is a question that entrepreneurs should never overlook. The answer strongly influences how best to plan and control inventories. Reasons for having inventory include:

- To avoid the loss of customers because a product is not in stock
- To enable customers to look over a product before buying it.
- To capitalize on discounts in the price of raw materials.
- To make a product in quantities that minimize costs.
- To keep a plant from cutting back or shutting down.
- To speculate against increases in price and cost.
- To assure customers of prompt delivery.
- To protect against strikes.

Inventory control is important for all types of businesses but it is relatively more important in case of small business because of its limited resources & insignificant market share in the locality. Blockage of capital & inability to deliver goods when asked may seriously affect the prospect of the small business. It is for this reason, small business should care most for managing inventory with all time vigilance.

9.8 Failure Symptoms & Red Flags to be Hinted by Accounting Ratios

Accounting records if properly kept systematically and the required statements are prepared periodically with up to date adjustments many signals can be had well ahead. The symptoms of impending business failure discussed in this section are the red flags that alert the entrepreneur. Any one of them may point to trouble. If any of these symptoms are detected, the firm's financial position may be assessed by computing some ratios and comparing them with industry standards.
Working capital is defined as the difference between current assets and current liabilities. It includes cash on hand, receivables, marketable securities, and inventories. Receivables and inventories are less liquid than cash, even though they may be quickly convertible into cash. And inventories are less liquid than receivables as they involve one extra step for conversion into cash..
When a firm's working capital position is deteriorating, its working capital is becoming inadequate and illiquid.

[A] Declining Working capital

Factors that contribute to declining adequacy and liquidity of working capital include:

1. Continuing operating losses.
2. Frozen loans to officers, subsidiaries, and affiliates.
3. Over investment in fixed assets from working capital funds.
4. Payment of excessive managerial bonuses and unearned dividends.
5. Long-term loan payments in excess of a proper share of annual profits.
6. Unusual, nonrecurring losses such as those due to theft, flood, tornado, and adverse court judgments.

[B] Declining Sales

Sales declines represent a serious situation for any business, large or small. This is true because operating expenses – particularly fixed overhead expenses – do not decline in proportion to sales. Hence, prolonged sales declines result in reduced profits or actual losses.

Controllable factors that may contribute to sales decline include:

1. Inadequate market research to measure sales potentials by sales areas or customer groups.
2. Poorly planned advertising and promotional activities.
3. Obsolescent products and product packaging.

[C] Declining Profits

Profits that go downward from month to month or year to year may be attributed to many factors, the most important of which are:

1. Higher taxes.
2. Declining sales.
3. Higher labor costs.
4. Increasing costs of merchandise or raw materials.

[D] Increasing Debts

If current liabilities get out of hand and bills or payrolls due for payment cannot be paid, the firm's situation might deteriorate into involuntary bankruptcy. Nor should a company's fixed, long-term liabilities be allowed to become excessive.

9.9 Analysis of Financial Statements

A single item from a financial statement has only limited meaning until it is related to some other item. For example, current assets of Tk.10,000 mean one thing when current liabilities are Tk.5,5000 and another when they are Tk.50,000. For this reason ratios have been developed to relate different income statement items to each other, different balance sheet items to each other, and income statement items to balance sheet items.

Although numerous financial statement ratios can be computed, only those that are the most practical and widely used for small businesses will be explained here. These ratios will be grouped according to the symptoms of impending business failure discussed, using the financial statements of the Parker Manufacturing Company for illustrative purposes. It must be emphasized that a careful interpretation of ratios is required to make them useful to a particular firm. A ratio may indicate potential trouble, but it cannot explain either the causes or the seriousness of the situation. Most small firms find it profitable to compare their ratios with their own past experience and with industry standard ratios.

Selected Key Ratios in Financial Analysis

Some key ratios ascertained from records obtainable from accounts are of valuable help to the small business owners/ management. These are:

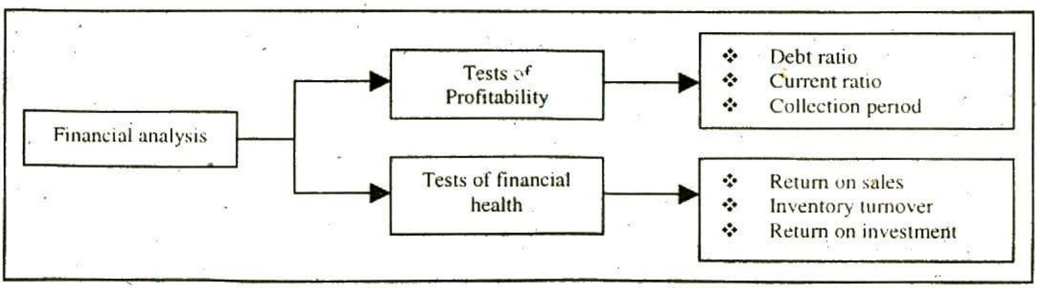


Figure – 9.F: Showing Test of Profitability & That of Financial Health of a Small Business

The use of ratios for small business decisions may be hinted from the table provided as under: We have furnished the name of the ratio with its formula, measures and indications. These speak about owners' return possibility, liquidity, leverage, debt service ability and the like. The selected ratios are:

Ratio	Formula	What it Measures	What it Tells You
Owners Return on investment (ROI)	Net Income / Average Owner's Equity	Return on owner's capital; when compared with return on assets, it measures the extent financial leverage is being used for or against the owner.	How well is this company doing as an investment.
Return on Assets (ROA)	Net Income / Average Total Assets	How well assets have been employed by management	How well has management employed company assets? Does it pay to borrow?
Short-term Creditors Current ratio	Current Assets / Current Liabilities	Short-term debt-paying ability without regard to the liquidity of current assets.	Does this customer have sufficient cash or other liquid assets to cover its short-tem obligations?
Quick ratio	Cash + Marketable Securities + Account Receivable / Current Liabilities	Short-term debt-paying ability without having to rely on inventory sales	Does this customer have sufficient cash or other liquid assets to cover its short-term obligations?
Long-term Creditors Debt-to-equity ratio	Total Debt / Total Equity	Amount of assets creditors provide for each dollar of assets owner(s) provide	Is the company's debt load excessive?
Times interest earned	Net Income + (Interest + Taxes) / Interest Expense	Ability to pay fixed charges for interest from operating profits	Are earning and cash flows sufficient to cover interest payments and some principal repayments?
Cash flow to liabilities	Operating Cash Flow / Total Liabilities	Total debt coverage: general debt-paying ability	Are earning and cash flows sufficient to cover interest payments and some principal repayments?

9.10 Ways to Raise Profits of a Small Business

Increasing profits can result from any one of three activities: decreasing expenses, increasing margins, or increasing revenues (sales). These are:

(A) Decreasing Expenses

Expenses are like weeds; they have a natural tendency to spread and to grow. Left alone, expenses won't stop spreading and growing until they overtake everything in their path, profitability included. It is the entrepreneur who must make a cast-in-stone commitment to contain his or her company's expenses and live up to fulfilling that commitment.

Once that cast-in-stone commitment to control expenses has been made, here are some tips on how to make it happen.

1. *Technology is cheaper than people.* Purchase user-friendly software in lieu of accumulating additional employees. Areas such as accounting and bookkeeping, inventory control, accounts receivable, and payroll lend themselves to software. Wherever possible, let technology, not people, do the detail work.
2. *Recognize and reward.* The best way to develop and expense-aware culture is to publicly recognize those who are responsible for controlling the expenses, and reward them once they've done their job.
3. *Zero-base budgeting* works like this, at the beginning of each budgeting year, your individual expense accounts are absolute zero, like they would be if you were starting the company from scratch. Then question every unit of taka budgeted to every line item. (in other words, yesterday's expenses are not necessarily today's.)
4. Remember that expense control is not only a profitability issue, it is also an important element of controlling cash flow. And since lack of cash is the number one symptom of small business failure, how better to begin building a solid foundation than to begin by controlling expenses?
5. *Recognize that the need for expense control is forever.*
6. *Put the responsibility for controlling expenses where it belongs.*
7. *Don't wait until a crisis arrives*
8. *Avoid over-staffing*

(B) Increasing Margin

There are two ways to increase margin; the first is by increasing prices, the second by decreasing cost of goods sold. Significant taka can be found in both.

As simple as it may sound, an increase in price does not come without its downsides. Sales volume will probably pay the price as low-balling customers take their business elsewhere. Will you miss them? Probably not! Often they are the same folks who beat you up on delivery and take 90 days to pay their bills.

Decreasing cost of goods sold can be an easier and less dangerous approach. Usually this process involves either seeking price reductions and / or better service from current suppliers or finding new suppliers with lower prices and / or better service. (And don't forget the *incoming freight* account; there are plenty of excess-dollars-without-off-setting-costs to be found there, too).

(C) Increasing Revenues (Sales)

Finally the fun part, for most entrepreneurs anyway. Increasing revenues includes the hiring of new sales people, the introduction of new products, the uncovering of new markets. The kinds of things most entrepreneurs are bred to do.

But adding revenues does not come without adding risk. There are real and tangible costs involved. Salespeople must be hired and trained, new products developed and introduced, new markets located, and most of all, a new infrastructure must be introduced to handle the increases ales volume.

And remember, when planning push your sales, not every sale is a profitable sale – there are good ones and there are bad ones. Good sales are to customers who are willing to pay a fair price and willing to pay their bills on your terms. Bad sales are to customers who are unwilling to pay a fair price and unwilling to pay their bills on your terms.

The correct way to make a push to increase profitability? In the order outlined above – first, make a beeline for expenses, then attack margin, and finally, pursue increased sales. Don't drive into all three at once and don't expect to achieve the desired results by yourself. Involve the team in the effort, set goals for everyone, focus on what you can reasonably achieve, and broadcast and reward the progress you make.

9.11 Profit Planning

Small business owner / manager may prepare a profit plan well ahead of the financial year. For the purpose he should follow the steps:

1. Establish profit goal for the period.
2. Determine planned volume of sales.
3. Estimate expenses for planned volume of sales.
4. Determine estimated profit based on plans reached in (2) and (3).
5. Determine how costs vary with changes in sales volume.
6. Determine how profits vary with changes in sales volume.
7. Analyze his alternatives from a profit standpoint.
8. Compare estimated profit with set profit goal.

   If satisfied with his plans, he can stop after completing Step 5. However, he may want to check further to determine whether improvements can be made – particularly if he is not happy with the results of Step 5. The following steps may help him understand better how certain changes in his business activities may affect the set profit. They are:

9. List possible alternatives which can be used to improve his profit position.
10. Select changes in his plans, if any, and implement the changes through the use of budgets.

    He should be realistic when going through these steps; otherwise he may not be able to attain his goals. He may feel the future is too uncertain to make such plans, but the greater the uncertainty, the greater the need for planning.

Cost- Volume – Profit Analysis

Operating leverage results when fluctuation in sales are accompanied by disproportionate fluctuations in the operating profit. in practice, a small firm engaged in manufacturing , will have three types of costs viz. [i] variable, [ii] fixed, and [iii] semi-variable or semi-fixed , meaning partly fixed & partly variable. In profit planning the objective is to maximize profit or minimize loss. Therefore, leverage that will have an unfavorable (negative) impact on profit is not desirable.

Operating leverage is used for operational or profit planning. For the same purpose, the cost- volume profit analysis or break-even- analysis is used. By such an analysis, it is possible to predict the probable effect on profits which may be expected to follow from a change in volume or level of activity. The result of such analyses are generally presented in the form of Break- Even- Charts [BEC]. BEC is a pictorial representation of marginal costing. It has been defined as a chart which shows the profitability or otherwise of an undertaking at various levels of activity and as a result indicates the point at which neither profit nor loss known as Break- Even – Point [BEP] is made. BEC is made to locate BEP which is constructed based on certain assumptions.

BEC is a useful tool to guide small business –owner or management to study the impact of changes of costs, volume and profits. The strength of profit earning capacity can be ascertained by the construction of BEC and the margin of safety and the angle of incidence together. Small business owner can take important decisions basing on the BEC indications about appropriate product – mix. Many other policy decisions involving the issues as under are facilitated by the construction of the BEC:

[i] impact of the possible increase in the proposed activity level;
[ii] impact of the possible reduction in costs ;
[iii] impact of the possible increase in the proposed selling price ;
[iv] impact of the possible substitution of existing products , etc.

An Illustration of a Conventional Break-even Chart May be Seen as Under:

The following of an example of BEC drawn from the schedule below on the basis of data provided:

(Amount in taka)

Units	Sales	Fixed Cost	Variable Cost	Total Cost
Nil	Nil	80000	Nil	80000
2500	50000	80000	10000	90000
7500	150000	80000	30000	110000
10000	200000	80000	40000	120000

Procedure:

1. Represent fixed cost of Tk. 80000 by a line parallel to 'X' axis. Plot the variable cost for different levels of activity over fixed costs line. Join the variable costs line to fixed cost line at zero activity level. The resultant line will represent total costs line, variable cost having been added to fixed costs.
2. Similiarly determine sales value various levels of activity and plot them on the graph paper and join to zero in the graph. This line will represent sales value.
3. This sales line will cut the total cost line at a point which is known as Break-Even-Point 9BEP). The Break even sales will be determined by dropping a perpendicular to the 'X' axis from the point of intersection and measuring the horizontal distance from the zero point to the point at which the perpendicular is drawn. Another perpendicular to the Y axis from the point of intersection will indicate (vertically) the Break-Even Sales value.

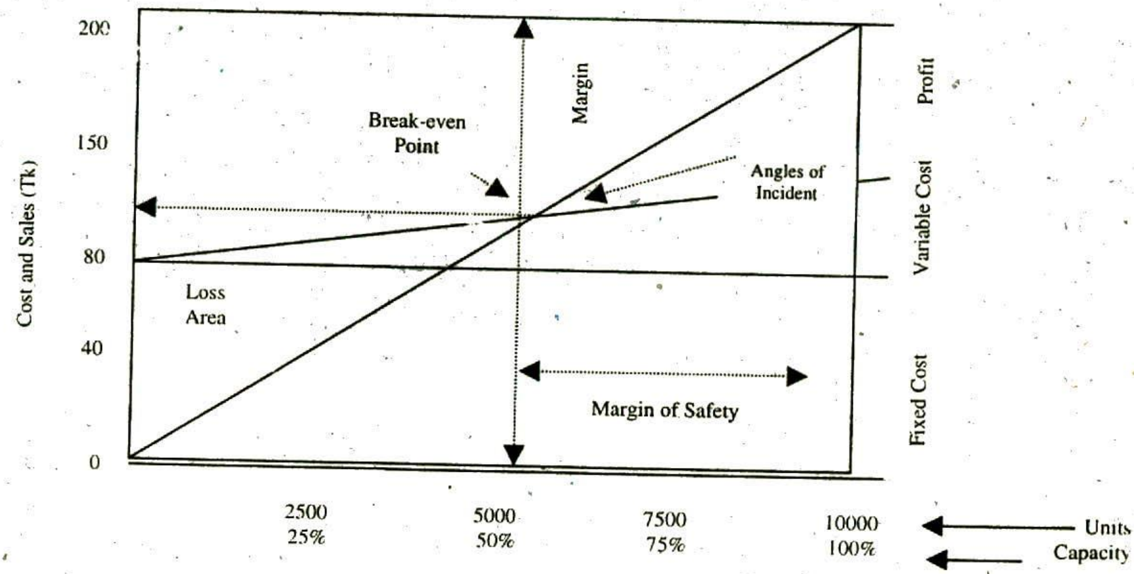


Figure-9.G: Showing Break-even Chart of a Hypothetical Problem

Interpretation

The Break Even Chart will give a vivid picture of profit or loss at different levels of activity. For instance, where the sales line is above the total cost line, there is profit and where it is below the total cost line, there is a loss and where total cost equals total sales, there is no profit or no loss.

B: Computerization in Small Business

9.12 The Computer

A Computer is a system of electromechanical devices that receives data from its environment, processes the data arithmetically or logically, and transmits the converted data back to the environment in some way. The data read by the system usually include instructions for its own operations. This broad definition covers a wide range of different devices and application. The small business owners should keep in mind, however that a computer is only a tool. Whether the firm owns its own computer or uses a data processing arrangement with an outside company, the tool is not an end in itself. Rather, it is a means to provide information to facilitate better business decisions with the hope of obtaining a better competitive position for the firm, which could mean higher profits.

A prime example of the impact of new technology on business practices and capabilities is the growing use of computers. Computers have reshaped methods of obtaining, recording, and applying information in nearly every company of any size. The increasing use of statistics and formal management control and decision methods has largely resulted from the availability of general purpose computers. Such methods were nearly inconceivable in the past.

9.13 Types of Computers to Use

The firm owned and operated computer is very popular today. This ownership may be in the form of a small microcomputer, a medium-sized minicomputer, and occasionally some businesses use a larger mainframe computer.

1. Microcomputer: A microcomputer, called a personal computer (PC) or micro, is a small desk-top machine which can do many, many tasks and which can be operated by persons with no special computer knowledge.
2. Minicomputer: A minicomputer is a medium-sized machine into which information can be entered directly, such as inventory changes, as they occur. Minicomputers have large storage capacities and computing ability and can be operated by persons with no special computer knowledge.
3. Mainframe: A mainframe is the traditional large, room-sized computer with vast computing and storage capacity.

The choice for more and more small business is the microcomputer. They have plenty of power for many small firms. The supermicros currently on the market, such as the models produced by Compaq, IBM, AT&T, and Unisys, have the power of a 1975 mainframe. They can perform the needed business functions at incredible speed and accuracy.

Digital Computers

Manipulate numbers

A large class of computes work by turning all the data received into numerical form and performing operations on these numbers. These are *digital computers*.

Hardware. Computer *hardware* is the term applied to the actual physical devices that send and receive data and perform operations on it.

Software. In the restricted sense, *software* is a collection of instructions read by a computer that tell it where to read input, what specific operations to carry out on the data, and where to write the resulting output. A software program to be formulated would have to specify the following instructions in detail:

- The form in which data is recorded and how to read the input.
- How to record the data to be operated on.
- What should be added and where , and
- What form to describe the output.

The software then has to be tested extensively. The new application can then be put in to operation to produce reports as desired.

9.14 Applications for Better Efficiency & Productivity

All benefits form using a computer relate either directly or indirectly to increased productivity. So few, if any, entrepreneurs can afford to ignore the value of computerization. A remarkably versatile tool, the computer enables entrepreneurs to get more output with less input-in short, to "work smarter, not harder."

Although there are many ways in which a computer relate either directly or indirectly to increased productivity, the following applications are particularly important to small business:

- Spreadsheets- for forecasting, modeling, accounting, and bookkeeping.
- Word processing- for producing letters and documents.
- Project management – for planning tracking, and analyzing complex projects.
- Database management- for storing, organizing, manipulating, retrieving, and summarizing data.
- Graphics presentation- for creating, editing, displaying, and printing graphic.
- Desktop publishing – for writing, editing, typesetting, graphics, page layout, and printing. Desktop publishing is used in the preparation of brochures, newsletters, catalogs, and reports.

To locate the software that can perform these functions and the hardware on which the programs will run, entrepreneurs should hire a computer consultant. The first step in the process is making sure that the consultant understands the venture's product and needs. To this end, entrepreneurs should ask the consultant to write a statement summarizing how their product is produced and marketed and identifying areas that might benefit from computerization. Entrepreneurs then should commission a proposal for action, a proposal that specifies what the computer system will be able to do for the business. And, in all instances, they should be sure that the consultant is able to communicate in language they understand.

In the actual choice of a system, the first step is selection software. These programs help define the type of hardware the business is going to need. Before making a software decision, entrepreneurs should speak with other entrepreneurs who already have chosen their software, to learn about their experiences with different packages. Talking with a noncompetitor in the same industry can be especially helpful.

Once they have selected their software, entrepreneurs are ready to select the hardware. There are six major criteria to consider in choosing a computer system:

- Cost
- Software needs
- Dependability
- Expandability
- Maintenance
- Compatibility

The final decision is choosing a vendor. Here, again the experience of other entrepreneurs can be a help, as can the recommendations of a computer consultant.

9.15 Advantages and Disadvantages of Using Computer

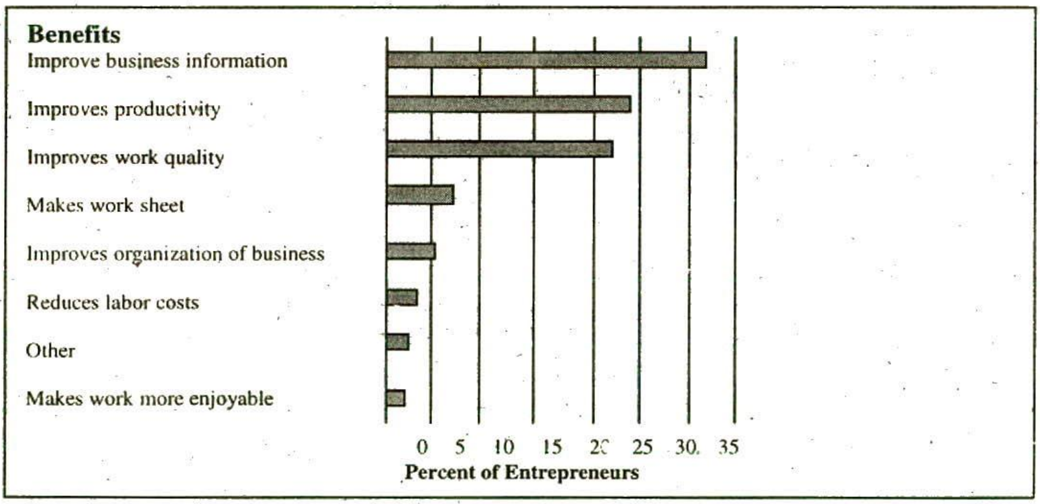
To a great extent, the introduction of computer methods to business operations has been a positive step. However, like nearly all-technological innovation, computer use has its advantages and disadvantages.

[a]The main advantages of computers are as follows:

- They are extremely fast, sometimes performing millions of simple operations every second.
- Computers can store and rapidly locate and organize tremendous amounts of information.
- Computers can relieve employees of some of the routine clerical and mechanical work that accompanies all production activity.
- They are very accurate. With well-written and thoroughly tested software, computers are virtually error-free.
- Because of their speed, memory, and ability to handle so much data, computes have made possible the use of complex statistical and analytical methods that could never be used with manual processing.

Benefits to be Derived

Most important benefits of computer use



[b] The chief disadvantages are:

- Computers are very expensive to own and operate. Many larger models cost several hundred thousand dollars a month to rent, plus the cost of highly trained analysts, programmers, and operators.
- Computers perform a wide variety of services in organization operation, management planning, product and process design, and management and production control. They have important advantages as a result of their speed and accuracy but are very expensive to own and operate and require a complex human organization in order to be used effectively.
- Computers systems require accuracy and detail in their operating software. To create an effective application is a demanding and expensive undertaking. Extensive program testing is needed.

- Computers are only tools. The real requirement for success is an outstanding human organization surrounding the computer to decide on its use, accurately prepare input, and usefully interpret output.
- Computer systems are electromechanical devices that receive data, operate on it to convert it to a more useful form, and transmit the results back to the environment. These systems consist of physical devices, or hardware, and operating programs and methods, or software.

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9.16 Summing Up

i. Accounting system & computer serves the small business maintaining proper, timely speedy & accurate records as a means to control and provider of reliable analysis required for business decisions from time to time.

ii. Accounting provides thorough picture of operating results and permits a quick comparison of current data with prior years' operating results and with budgetary goals.

iii. The records provide suitable financial statements for use by management, bankers, and prospective creditors.

iv. Furthermore, adequate accounting records make it easier to detect employee frauds, waste, spoilage, and other losses.

v. Budgeting uses the whole management information system, because it covers all phases of the small business operation and uses data from all the information subsystems. The *master budget* is a financial model of the entire company, made up of individual budgets for its separate sections.

v. Cash planning is facilitated by the use of cash budget.

vi. Proper inventory management helps to keep a plant from cutting back or shutting down and also helps to make a product in quantities that minimize costs.

vii. Accounting records if properly analyzed may indicate symptoms of impending business failure and show the red flags that may timely alert the entrepreneur and take appropriate corrective actions.

viii. The best way to develop an expense-aware culture is to publicly recognize those who are responsible for controlling the expenses, and reward them once they've done their job. Expense control is not only a profitability issue, it is also an important element of controlling cash flow And since lack of cash is the number one symptom of small business failure.

ix. Increasing profits can result from any one of three activities: decreasing expenses, increasing margins, or increasing revenues (sales).

x. Profit Planning to be meaningful & effective should follow steps like: establish profit goal, determine planned volume of sales, estimate expenses for the planned volume of sales, determine estimated profit, determine how profits vary with changes in sales volume and the like.

If it is not right, do not do it;
If it is not true, do not say it.
- Marcus Aurelius

Model Questions

Broad Questions

1. Do you think a small business can go without maintaining proper accounting? What benefits are derived from maintaining accounts? Discuss.
2. What are financial statements? Why are financial statements the most vital thing for entrepreneurs? How do these become helpful in making entrepreneurial decisions?
3. Why is cash budgeting important for a business? What forms of cash budget are usually maintained?
4. Why does the businessman maintain data for the business? Do you think it is essential for them? Why or why not?
5. Comment on the attitude "I don't have to worry about the books in my business. I've hired an accountant to handle it all."
6. How does gross profit differ from net profit? What is the difference between working capital and current ratio?
7. What is meant by the statement "A computer is only a tool"?
8. List and explain some of the functions for which computers can be used by small businesses.
9. Why is it important to match computer programs to business functions? Explain with examples.
10. Explain the importance of inputting adequate and accurate information into the small business computer.
11. How does the income statement tie into the balance sheet? Describe some of the limitations of accounting. Can they be corrected? Explain.
12. Can you think of situations where small firm owners could make wrong decisions because they lacked good accounting information? Name them.

Short Questions

1. Why do people follow accounting system?
2. Distinguish between accrual and cash system of accounting?
3. What are the components that comprise the financial statement?
4. Indicate why management uses accounting?
5. What type of data are maintained by the management of the enterprise?
6. Why do we need to manage inventory?
7. How most firms analyse their financial statements?
8. Mention the various ratios, which are used to analyze the liquidity of a business.
9. How does modern technology contributes to information needs of the small business?
10. What are the advantages and pitfall of using a computer?
11. What are the five major classifications of accounts?
12. Is profit best defined as a short-range objective or long-range goal? Explain.
13. State six operational expenses.
14. What is an accounts receivable ledger? How does it work?
15. What is an accounts payable ledger? How does it work?
16. How would you describe a "journal-ledger" accounting system?
17. What is the need for accounting in a business venture?
18. How would you, as an entrepreneur, use the information generated by your accounting system?
19. What procedure would you follow to find the right accountant for your business?