
UNIT 19 RECENT DEVELOPMENTS IN ACCOUNTING

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19.0 OBJECTIVES

The objectives of this unit are to:

- explain some of the recent developments in financial and management accounting;
- give an overview on special accounting issues like inflation accounting, human resources accounting, environmental accounting and international accounting;
- give an overview on activity based costing and cost reduction methods; and
- review developments of information technology that are related to accounting.

19.1 INTRODUCTION

The primary role of accounting is to record financial transaction and summarise the same in a useful format. Financial accountants prepare three principal financial statements by summarising huge volume of financial transactions namely Profit and Loss Account, Balance Sheet and Cash Flow Statement. While these three are reported in annual reports, they also prepare a number of statements for internal purpose. Cost Accountants prepare a number of statements mainly for internal purpose and the primary objective of the exercise is to find out the cost of production. However, the world of accounting or accountant is fast changing. Modern accountants are expected to be more intelligent than doing a mere compiling job. You might have seen that even smaller companies are started using computer software for accounting. With simplification in tax laws, the role of

accountant in tax administration is also diminishing. Accountants are also expected to provide more information about the non-conventional information. When machines dominate industrial world, accountants are asked to provide more information about material things of the firm. Today, in many firms, knowledge is asset. Since financial reports stated above are not geared to provide such information, accountants are asked to provide additional information. There is also lot of concerns about the social behaviour of corporate sector. Hence many are interested in knowing the firms' effort on social responsibility and environment. Special reports are devised to address some of these issues. In this unit, we will briefly discuss some of these reports and recent developments. Each item discussed here are full subject on its own and depending on your interest, you can specialise in one or more of the subjects either taking up some specific issue and mastering them by reading some specialised books or attending some courses on these topics. It is to be noted that accountants today, are expected to be more intelligent since computers replaced conventional accountants in many firms.

Activity 1

- 1) It is the time for you to interact with some of your friends who are in accounting profession. Have a general chat with them and note down what they have observed as recent trends in accounting profession.

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- 2) Take any annual report of some well known companies and find out how much of space they spend in providing non-financial information?

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19.2 SCOPE AND LIMITATION OF CONVENTIONAL FINANCIAL ACCOUNTING

It is interesting to know why companies are suddenly focussing on some of the reports, which we mentioned in the introduction. Alternatively, what is the wrong with the conventional accounting reports? Accounting reports such as profit and loss account, balance sheet and cash flow statements provide wealth of information but the question is whether it is adequate to know about the current or future performance of the companies. Secondly, not all stakeholders are interested only in knowing the profit or income details. Future of companies depends on current strength and such strength is not reflected in the accounting reports. This is particularly true for new economy or knowledge based companies, which is seeing phenomenal growth in recent times. Also, many stakeholders would be interested to corporate social behaviour. Some of the prominent limitations are listed below:

- a) The balance sheet is often based on historical value. It fails to show the true value of the firm in that context. Suppose a company owns 10 acres land in Delhi or Mumbai, which was purchased some 40 years back at the rate of Rs. 10000 per acre. Is it right on the part of the company to show the value of the land at the same price in 2003 when the cost of land is several 100 times more than the purchase value? The above applies to many industrial machines which are used in the firm but are efficiently managed beyond their normal life. How to reflect true and fair value of such assets?

- b) Is human resource of a firm not an asset? Today, every company is proudly stating that they have so many engineers, doctors, etc. in their company. If so, what is the value of such intangible pool of expertise inside the company? Conventional accounting treat salaries and wages paid to such employees as an expense but fails to recognise the value of human resources.
- c) Can a company be focussed narrowly and always aiming to maximise profit? Is it not fair to provide something to society particularly when they spoil natural resources in their normal operation? Many developed nations are shifting their high-pollution industries to the third world countries to have a clean air in their countries. When these countries shift their base to third world nations, it is legitimate expectation of the citizens of these countries that these companies spend sufficient amount to control pollution and other side effects.
- d) Companies have changed the way in which it is operating business. Many concepts such as just in time (JIT), Total Quality Management (TQM), Flexible Manufacturing System, etc. are common today. But only very few companies have changed their costing system. For instance, salaries and wages of many manufacturing companies constitute an insignificant portion of the total cost but our costing system not only report the labour cost but also uses the same as cost allocation basis in some cases. Is it not desirable to change our costing system to get some reliable cost data?
- e) Traditionally, firms use IT only for accounting purpose and such accounting was standalone without any linkages to mainstream business operation. Today, accounting information is extensively used and also IT is extensively used throughout the organisation. Is it right or economical or efficient to have standalone IT system for each functional area? Is it not desirable to have an integrated accounting system or more specifically enterprise wide resource planning (ERP), which performs not only accounting but several other business operations in a total integrative manner?

Activity 2

- 1) We listed few reasons why accounting or accountants need to change from conventional outlook. Can you apply these ideas into anyone of the companies or to your own company and list out your findings?
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- 2) Find out from your IT friend how ERP is different from that of accounting pages like Tally.
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- 3) Do you feel that spending money on social and environment is wastage of corporate resources? What do these firms get in return by spending such amount?
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19.3 INFLATION ACCOUNTING

Inflation rate is the percentage change in the price level from the previous period. The primary objective of inflation accounting is to correct conventional historical cost accounts for the understatement of inventory and plant used in production, i.e. the cost of goods sold and depreciation, in order to prevent erosion of capital during inflation. That is, inflation accounting is used to provide information that is useful to present and potential investors and creditors and other users in making decisions (and) in assessing the amounts, timing, and uncertainty of prospective cash receipts from dividends or interest and the proceeds from the sale, redemption, or maturities of securities or loans. Inflation accounting was of interest when many developing economies were suffering inflation rates of 25% or more. Now that rates are in single figures, the debate on the need of inflation accounting is subdued. Some of the related objectives are:

- a) To show the real profit and loss for the period under consideration as against the profit or loss on the basis of historical cost;
- b) To show the real value of the assets and liabilities instead of historical cost; and
- c) To ensure that sufficient funds will be available to replace the various assets when the replacement becomes due.

This objective is generally achieved by the current cost method, which is also much more responsive to the general objectives of financial reporting. There are alternative methods like Current Purchasing Power Method, Constant Dollar Accounting Method, etc. Under the current cost accounting method, fixed assets, stocks, stocks consumed, etc. are shown in the financial statements at their value to the business and not at the depreciated value or original cost. Depreciation for the year is calculated on the current value of the fixed assets. All these things normally leads to reduction in profit worked out under this method compared to normal historical based profit. Since the discussion beyond this input is out of the scope of the subject, interested students are advised to refer to Statement of Standard Accounting Practice (SSAP) 16.

There are limitations to inflation accounting and the failure to recognize them has led to unnecessary complexity in some methods. Inflation accounting cannot isolate or condense into one earnings number all of the effects of inflation on a company. It is simply an improved system of measurement which brings financial statements into harmony with current costs and values. Such improved statements provide a foundation for analysis of a company's economic earnings and financial position in an inflationary environment, including any special effects of inflation.

Activity 3

- 1) What is the purpose of using inflation index in the preparation of accounting?

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- 2) Suppose a company provides inflation-adjusted accounting. In your opinion, who gains most by using such accounting statement?

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- 3) Identify a few old cement or fertiliser companies, which have been established some 20 years back. Compare their book value and market value of the company or price per share. Do you feel that the book value is not representative of current market value? If so, do you feel that use of inflation accounting resolve such inconsistency?

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19.4 HUMAN RESOURCES ACCOUNTING

In the case of manufacturing firms, most of the assets are in physical form. These could be easily traced and valued. Hence it's not much difficult to find the value of the firm. Other than the physical assets, manufacturing firms also have assets like intangible assets like goodwill, brand value etc. are to a greater extent possible to give an approximate value. The most important is human capital, the ability of employees to do the things that ultimately make the company work and succeed, particularly in the case of software firms, the main asset is human being. Is it possible to value human being? Can we assign a value every individual in the firm? Should we have to value the human beings, just because they form the main asset in the IT firms? Yes it is utmost necessary. As in most software companies though the projects are completed on a team basis, the skills of each individual and his contribution is utmost important. Further, its not only important only for IT firms it could also be more helpful if such value is given to employees in manufacturing firm also, so that human beings get to know what is the value they are contributing to the organisation and how much are they able to improve in providing the value addition. Hence human resource accounting became important. But not every company understands their contribution to the bottom line or knows how to manage them to drive even better financial results, even though they account for as much as 80 per cent of the worth of a corporation.

What is needed is measurement of abilities of all employees in a company, at every level, to produce value from their knowledge and capability. Human Resource Accounting (HRA) is basically an information system that tells management what changes are occurring over time to the human resources of the business. HRA also involves accounting for investment in people and their replacement costs, and also the economic value of people in an organization. The current accounting system is not able to provide the actual value of employee capabilities and knowledge. This indirectly affects future investments of a company, as each year the cost on human resource development and recruitment increases.

The information generated by HRA systems can be put to use for taking a variety of managerial decisions like recruitment planning, turnover analysis, personnel advancement analysis and capital budgeting, which can help companies save a lot of trouble in the future. In India, there are very few companies like BHEL, Infosys and Reliance Industries, which have implemented HRA and some are working on it. Infosys, which started showing human resource as an asset in its balance sheet, has been reaping high market valuations.

Companies can derive many benefits by going in for HRA. Not only can they measure the return on capital employed on total organisational assets (including the human assets), but the resources can also be planned accordingly. Once organisations realise the actual benefit and take it as a growth process, it will only help them in increasing their shareholders' value. When a company is able to assess an individual's worth, it helps in increasing its own worth. Basically HRA can be tracked through two

methods: cost-based analysis and value-based analysis. The cost-based approach focuses on the cost parameters, which may relate to historical cost, replacement cost, or opportunity cost. The value-based approach suggests that the value of human resources depends upon their capacity to generate revenue. This approach can be further sub-divided into two broad categories: non-monetary and monetary.

The disposition of resources can also be examined by allocating relative human asset values to different job grades. HRA also helps in examining expenditure on personnel and in re-appraisal of expenditure on services and training. It can also serve as a key factor in case of mergers and takeover decisions, where the human asset value becomes a relevant factor. Another very significant role, which HRA can help in creating, is goodwill for a company. The company can project itself in having best practices with superior policies in place. Experts believe that this may help the organisation attract more investments.

Infosys in its balance sheets shows Human Resources value at Rs. 9539.15 cr. as on March 31, 2002. The HRA section of Infosys Annual Report states the following:

The dichotomy in accounting between human and non-human capital is fundamental. The latter is recognized as an asset and is therefore recorded in the books and reported in the financial statements, whereas the former is totally ignored by accountants. The definition of wealth as a source of income inevitably leads to the recognition of human capital as one of several forms of wealth such as money, securities and physical capital.

The *Lev & Schwartz* model has been used by Infosys to compute the value of the human resources as on March 31, 2002. The evaluation is based on the present value of the future earnings of the employees and on the following assumptions:

1. Employee compensation includes all direct and indirect benefits earned both in India and abroad.
2. The incremental earnings based on group/age have been considered.
3. The future earnings have been discounted at 17.17% (previous year – 21.08%), this rate being the cost of capital for Infosys. Beta has been assumed at 1.41 based on the average beta for software stocks in US.

While HRA as a concept has been present in India for more than a decade, with BHEL taking a lead, it is only now that the awareness is being translated into application. However, in terms of awareness and acceptance, the level is still low as many companies take little initiative to make the numbers public to shareholders, despite having the data. And there is a lack of an industry standard. This means that every company has to evolve its own standard, which can become a tedious process, considering that most of them are still involved in improving their business. Industry bodies like Nasscom can help set a standard.

Activity 4

- 1) What is HRA? How different is it from Human Resource Management.

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- 2) How wide is the application in the area of human resources valuation in India? Name few companies that are implementing HR valuation.

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- 3) What are the benefits of human resource accounting for the companies and also for the employees?

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19.5 SOCIAL ACCOUNTING

Social accountability is about being answerable to the people affected by your actions. Leading organizations now engage relevant stakeholders, including employees, suppliers, consumers, regulators, NGOs and communities, in open, consequential dialogue at all levels of business decision-making and activity. They also volunteer information to these stakeholders on their social performance, thereby making themselves accountable to these interest groups. Social and ethical accounting, auditing and reporting is still relatively new in many developing or third world nations, but is gaining acceptance internationally as the primary demonstration of social accountability. A social report is the result of a thorough evaluative process focused on the social impact of a business on all its various stakeholders.

Social accounting and audit is a framework which allows an organisation to build on existing documentation and reporting and develop a process whereby it can **account** for its social performance, **report** on that performance and draw up an action plan to **improve** on that performance, and through which it can understand its **impact** on the community and be **accountable** to its key stakeholders. The social accounting process should be driven by a rigorous methodology that involves the collection, analysis and interpretation of quantitative and qualitative data. The accounting systems should be standardized to facilitate verification by a third party. A social report represents the disclosure of the company's social performance in the same way that the annual report discloses financial performance.

Social accounting is not just a public relation exercise but a strategic intervention that, in addition to disclosing social performance, serves to steer the company in a transformation process. This strategic effect is achieved by adhering to the principle of full disclosure. Both negative and positive performances are declared in the final report. Consequently the corporation is compelled to perform and the social report has a level of legitimacy that run-of-the-mill PR efforts do not have.

Effective reputational risk management contributes significantly to gaining and maintaining a competitive advantage. Today's informed consumers are increasingly concerned with the ethical characteristics of a business. And companies that have values closely aligned with wider societal demands are better placed to recruit and retain talented employees. A brand associated with ethical business conduct is better protected in the global market because it enjoys hardier loyalty. Engaging in a social accounting process, thoroughly and transparently, will enhance your company's competitive edge. Some of the social indicators are as follows:

- 1) Quality of Management
- 2) Human Rights
- 3) Environmental Performance
- 4) Health and Safety
- 5) Stakeholder Relationships
- 6) Corporate Social Investment
- 7) Employment Equity
- 8) Products and Services

Through dialogue with stakeholders, an organization identifies social and ethical indicators that will objectively reflect its performance in relation to corporate values and objectives. The choice of indicators is based on the organization's statement of values and the standards, codes and guidelines to which the organization subscribes; on stakeholders' perception of the organization's performance against its values, and in respect of their specific needs and concerns; and on best practices established in societies that are part of the social accounting scope, weighed against the societal needs of the South African context.

Decision-makers must consequently determine which parts of the organization, such as divisions, departments or sites, are to be measured. The process of improving social and ethical performance takes time and an organization may choose to limit disclosure while setting performance targets and goals for more comprehensive reporting over time. These decisions should be declared in the social report if credibility is to be maintained. Once indicators have been established and the parts of the organization to be evaluated identified, relevant data must be collected. Initially this may prove challenging because there is seldom a system in place for deliberately measuring social impacts. Producing the first social performance report will educate the organization as to the nature of Social Impact Accounting Systems (SIAS) needed for rigorously and objectively measuring performance.

Collected data is analysed and a social performance report is produced. The manner in which publication and distribution is addressed may be taken as indicative of the organization's commitment to ethical and socially responsible business practice. Consequently, the report should be afforded the care and status devoted to the traditional annual report on financial performance. And in the same way that a company's financial performance is audited for assurance, social performance should be submitted to the same intense scrutiny.

The core business of community and social enterprises and of community organisations is to achieve some form of social, community or environmental benefit. Financial sustainability or profitability is essential to achieving that benefit, but subsidiary to it. The organisation and all the people associated with it or affected by it need to know if it is achieving its objectives, if it is living up to its values and if those objectives and values are relevant and appropriate. That is what the social accounting process aims to facilitate.

A full set of Social Accounts is likely to include the following:

- 1) A report on performance against the stated objectives (How well have we done what we said we would do?)
- 2) An assessment of the impact on the community (Can this be measured? What do people think?)
- 3) The views of stakeholders on our Objectives and Values (Are we doing the "right" things? Are we "walking our talk"?)
- 4) A report on environmental performance (Are we "living lightly" and minimizing resource consumption?)
- 5) A report on how we implement equal opportunities (Do we effectively encourage social inclusion?)
- 6) A report on our compliance with statutory and voluntary quality and procedural standards (Do we do what is expected of us, and more?)

Keeping social accounts gives us the information we need qualitative and quantitative to tell us how we are performing and what people think about what we do, and how we do it. This is a social balance sheet so that all stakeholders can decide for

themselves whether to use, work for, support, or invest in the organisation. Through the production of audited social accounts the organisation can fulfil its accountability to its stakeholders. The overarching principle of social accounting and audit is to achieve continuously improved performance relative to the chosen social objectives and to the stated values. Six specific key principles have been identified from recent theory and practice as underpinning the concept and good practice.

19.6 ENVIRONMENTAL ACCOUNTING

Environmental accounting is defined as the accountants' contribution towards environmental sensitivity in organizations. It gained prominence in the 1990s. The emphasis on the social responsibilities of the accountancy profession is not new, having been led to prominence by the social accounting debate of the 1970s. The social consciousness of the accountancy profession was started to receive its attention. It focused on extending accountability to numerous stakeholders by necessitating disclosure of social information in corporate annual reports. The accountability function of accounting was believed to be fulfilled by reporting (financial and social) information that stakeholders would find useful in their decision making process.

This led to the appearance of environmental, employee and ethical information on a voluntary basis in modern day corporate annual reports. Unfortunately, social accounting as discussed in the earlier section, failed to make its way into the mainstream accounting agenda, largely due to lack of mandatory standards to guide it and value judgments associated with determination of social responsibilities of an organization. In spite of this, there has been renewed interest in social accounting in the 1990s, triggered by the urgency associated with reducing environmental problems that exist today.

Practical developments of environmental accounting saw tremendous growth in research, with various initiatives and proposals being put forward by accountancy bodies and related international organizations. In essence, environmental accounting now plays a vital role in daily commercial undertakings, attempting to ensure that development is not at odds with environmental protection. The potential for accountants to make a significant contribution towards environmental consciousness in organizations has been envisaged through their managerial, auditing and reporting skills. Increasingly, the emphasis has shifted from social accounting in general to a more specific environmental accounting. These days, social accounting has become synonymous with the term social and environmental accounting (SEA), a linkage that places due emphasis on the importance of environmental issues.

The fundamental premise behind environmental accounting is that organizations should internalize environmental costs. Currently, these costs are externalized, which means that the society bears the impact of an organization's adverse activities on the environment, largely due to the fact that it is a "public good". Internal environmental accounting mechanisms such as life cycle costing or even full cost accounting attempt to trace costs of the organization's activities on the environment. It is believed that once organizations are made accountable for these costs, they would be compelled to minimize the potentially harmful effects of such activities. Further, environmental accounting requires organizations to forecast the potential environmental impact of their activities and accordingly estimate contingent liabilities and create provisions for environmental risk.

Accountants' role in environmental issues extends beyond management of the internal mechanisms (environmental management accounting). They could be responsible for the disclosure of environmental information, primarily in corporate annual reports, but also through some other communication media. Environmental reporting provides accountability to the wider society of the organization's commitment to environmental

consciousness. Disclosure could constitute monetary information such as environmental costs, liabilities, provisions and contingencies, coupled with quantitative and descriptive information such as ecological data (for example, physical measurement of environmental impacts), environmental policies, targets and achievements.

The Environmental Accounting was first considered a new field in accounting in during 1998 by the intergovernmental work group ISAR (United Nations Inter governmental Working Group of Experts on International Standards of Accounting and Reporting). Jointly with this work, ISAR has been coordinating efforts with IAPC (International Auditing Practices Committee) to formalize a group of audit standards for verification of the environmental performance reported on accounting statements. This work group basically emphasised the need for environmental accounting to cover the following basic objectives: (a) assistance of professionals in other fields of knowledge; (b) give the status of the information system of the analyzed company, as regards the preparation of its internal controls to provide its financial accounting with relevant information on environmental aspects; and (c) effective contribution of various external intervenors, as the consulting specialists, certification companies and independent auditors, to grant an independent opinion on specific aspects of the report.

The concept of sustainable development catching on rapidly, corporate and industrial houses across the world are increasingly incorporating the environmental element in their day-to-day business operations. They are clear in their perception that along with quality, safety of the environment, too, is an important factor in making a business successful.

Activity 5

- 1) Take the annual report of top 5 companies in the Petrochemicals industry and find out which part of the report covers the environmental accounting if given?

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- 2) How efficiently companies follow the environmental accounting requirements? Do you find any deviance from what they actually practice and what they report in their financial reports? If so, given an instance of any company violating the same.

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19.7 INTERNATIONAL ACCOUNTING

Many Indian companies, particularly in pharmaceutical and software industry have overseas operations. With trade liberalisation in place, many Indian companies would be future multinationals. When firms operations move international, not only on manufacturing and marketing but also investors, accounting of different business operations located at different countries under one roof becomes difficult. There are two potential problems that an accountant faces in dealing with such consolidation.

Accounting standards differ in several countries and investors of those countries require the financial statements using their countries accounting standards to enable them to compare the company with other company. For instance, if you are a shareholder of Hindustan Lever Ltd., or Castrol India Ltd. you would like to have the financial statements under Indian GAAP. Think about an investor of Unilever located either in Netherlands or UK, who has majority stake in Hindustan Lever. While consolidating the Hindustan Levers Ltd. financial statements with Unilever statements, the investors of Unilever expects Hindustan Levers Ltd., financial data also reflects their countries GAAP. The task turns complex further if the shareholders are located in different countries. For instance, Infosys or many other top rated Indian companies shares are held by several FIIs whose investors are located across the globe and investors of ADR of these companies are also located in different parts of globe. If Infosys prepares financial statements only on the basis of Indian GAAP, they will not be happy. By virtue of agreement with overseas stock exchanges, Infosys may be required to present a separate statement following the US GAAP. But what about the investors in Japan, who has also purchased shares of infosys either directly or indirectly through FII. Today, many companies started giving separate financial statement using major countries GAAP to satisfy the investors of those countries. While it adds cost of compiling financial reports, it brings lot of goodwill.

Firms operating in different countries also have certain peculiar problem. For instance, your company's overseas venture would have posted increased profit during a period but when you convert the profit in your currency, you might be alarmed to see that profit has actually come down from the previous year if there is a currency depreciation in the country. On the other hand, the performance of overseas country might have actually come down but when we convert the same to our currency, the performance might have improved if our currency appreciates during the period. Handling multi-currency business operations in consolidation is another complex task in international accounting.

Activity 6

- 1) Collect or download from the company's website the annual report of Infosys or Wipro or Asian Paints. Read the statement of significant accounting policies of consolidated financial statements. List down your observation/understanding?

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- 2) Visit <http://www.icai.org> and locate Accounting Standard page. Download AS 21 and AS 27. Write a one page note on each accounting standard after reading the same.

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19.8 STRATEGIC COST MANAGEMENT

The field of management accounting has also seen considerable changes in recent times. When industrialisation was limited and economies were closed for external competition and also having restricted internal competition, managers decision making scope was normally restricted to few operational decision making such as production optimisation, product mix, setting discount policies, etc. Conventional cost and financial accounting provide adequate information for such decisions. However, over a period of time, business environment has completely changed and internal and external

competitions have become the order of the day. Top management of any firm, small, medium, large or multinational, are increasingly spending time on strategic decision and cost and financial data are extensively used along with input drawn from the environment, which includes competitors' financial and non-financial information. A new discipline called 'strategic cost management' or 'strategic management accounting' addresses these issues. The following issues are typically addressed using cost input from strategic perspective:

- a) **Value Chain Analysis :** Let us take an example of a product say television which we use daily in our life to understand the concept. The television set which you are using is giving you some value - educative or entertainment value. There are so many organisations, which are involved in the whole process of manufacturing and delivering the television to you. All these organisations are adding value at each stage to the product and what you get finally the collective amount of all value addition. The value chain analysis looks into how much of value addition has taken place at each stage of the whole process. It helps the organisations to identify the place where they need to be there to maximise the reward and at the same time using their expertise. If all organisations try to reduce the total cost of the value chain, then customers get benefit out of such exercise. For instance, if you are manufacturing PET bottles, which are used by many mineral water manufacturing companies you have two options in setting up your plant. One, you can put up a centralised huge plant to achieve economies of scale but force your customers to hold more inventory since without bottles, it is difficult to run the plant. Alternatively, you can put up smaller plants near manufacturer. While this will add cost of manufacturing, but it will bring down inventory level. As PET bottle manufacturer, you need to look beyond your costing and see the value chain.
- b) **Activity-based-costing (ABC) :** ABC looks into a firm as a bunch of activities and hence focuses more on activity analysis, cost associated in performing such activities and then finally ways to perform the activities better while reducing the cost. ABC provides more accurate cost data than conventional costing system and such reliable costing is often required for strategic decision. ABC is also useful to identify value added and non-valued activities.
- c) **Customer cost analysis :** Do you feel all your customers are equally important to you? If you ask this question to MD of a large company, the answer will be most probably 'Yes' since today every company wants to be customer focussed and it is immaterial whether the customer is small customer or large customer. Suppose you ask another question to the same MD - are all your customers equally profitable? The answer need not be 'Yes' and often the answer is 'No'. Customers are increasingly demanding and hence the cost of providing services to customers significantly differ from customers to customers. How many companies trace the cost up to the customer level? They normally stop costing exercise upto the product level and that too with some *ad hoc* overhead allocation. You need reliable cost data to measure customer profitability.
- d) **Competitor cost analysis:** Can you run a company without understanding competitor? The answer would be probably 'yes' in some 15 years back and today it is a strong 'NO'. What do you want know about the competitor ? Apart from several other things, you would like to know their cost structure. An understanding of their cost structure is helpful in several ways. For instance, if the material cost of the competitors is lower than your company, you can start looking for alternative source of buying or changing material quality or change.
- e) **Target costing:** Here, costing of product starts before the product gets into the production stage. Many experts find that the best way to reduce the cost is spend time while products are under development. Because, once a product design is

completed, about 80% of the costs are pre-determined. For instance, imagine you want to construct a hotel and run profitably. The operating cost of running a hotel is relatively small compared to fixed cost. So the best way to reduce the cost is to spend more time and energy in drawing the construction plans and economically using the space, material and other items. This applies to many manufactured products like watch or television or air-conditioner. Target costing is done with the help of set of employees drawn from several functional areas, who together participate in the development exercise with a single goal of designing a product whose cost is less than target cost.

In addition to the above, there are several other strategic cost management techniques like life-cycle costing, capacity costing, etc. For all these techniques, activity based costing is used as a principle cost information. we will discuss briefly the activity based costing. Under 19.9 of this Unit.

Activity 7

- 1) How value chain analysis is different from value analysis?
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- 2) Indian Railways moves passengers and goods from one place to other place. Can you perform value chain analysis for Indian Railways and find out how they can add value to passengers and business communities, which use the freight service?
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- 3) Compare whether the profit changes are in line with the changes in cash flow from operating activities.
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- 4) Suppose one of the co-operative banks want to consult you in helping customer cost analysis. Can you briefly tell how you can go about in helping the bank?
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19.9 ACTIVITY BASED COSTING

Accurate and relevant cost information is critical to any organisation that hopes to maintain, or improve, its competitive position. For years, firms operated under the assumption that their cost information actually reflected the costs of their products and services when, in reality, it did nothing of the kind. Over-generalised cost systems were actually misleading decision makers, causing them to make decisions inconsistent with their organisations' needs and goals, principally because of misallocated costs.

Activity-based costing (ABC) is a valuable concept that can be used to correct the shortcomings in the cost systems of the past. It is a means of creating a system that ultimately directs an organisation's costs to the products and services that require those costs to be incurred. ABC can be used this way because it provides a cross-functional, integrated view of the firm, its activities and its business processes.

As a result, in many organisations, ABC has evolved beyond the point of simply developing more accurate and relevant product, process, service and activity costs. These organisations use ABC as a means of improving operations by managing the drivers of the activities that cause costs to be incurred. They are using ABC to support major decisions on product lines, market segments and customer relationships, as well as to simulate the impact of process improvements. Organisations involved in Total Quality Management processes are using both the financial and non-financial information of ABC as a measurement system.

The basic distinction between traditional cost accounting and ABC is as follows: traditional cost accounting techniques allocate costs to products based on attributes of a single unit. Typical attributes include the number of direct labour hours required to manufacture a unit, purchase cost of merchandise resold, or number of days occupied. Allocations, therefore, vary directly with the volume of units produced, cost of merchandise sold, or days occupied by the customer. In contrast, ABC systems focus on activities required to produce each product or provide each service based on each product's or service's consumption of the activities.

Using ABC, overhead costs are traced to products and services by identifying the resources, activities and their costs and quantities to produce output. A unit of output (a driver) is used to calculate the cost of each activity. Cost is traced to the product or service by determining how many units of output each activity consumed during any given period of time. An ABC system can be viewed in two different ways. The cost assignment view provides information about resources, activities and cost objects. The process view provides operational (often non-financial) information about cost drivers, activities and performance.

ABC does not only apply to manufacturing organisations, it is also appropriate for service organisations such as financial institutions, and medical care providers and government units. In fact, some banking firms have been applying the concept for years under another name - unit costing. Unit costing is used to calculate the cost of banking services by determining the cost and consumption of each unit of output of functions required to deliver the service.

Activity 8

- 1) How ABC is different from that of conventional costing?

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- 2) Can you list at least three examples where ABC gives different cost value compared to conventional costing?

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- 3) List down any three uses of ABC in strategic cost application?

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19.10 IT DEVELOPMENTS IN ACCOUNTING

Accounting is one of the earliest operation that has seen computerisation in the commercial world. Today, we have reached a stage in which almost all accounting operations are done through computers. What is the use of computers in accounting? Book-keeping is monotonous job and it is best done by machine than men. Further, accuracy and speed of the operation improves considerably. Most importantly, transactions are entered only once and all further operations are done by the machine. Compare this with manual operations in which someone keep basic day books, someone posts it to ledger and prepares trial balance and someone prepares financial reports. When the level of computerisation expands and includes several other business operations, the task improves considerably.

Today, many companies are using Enterprise Resource Planning (ERP) software like SAP, Peoplesoft, etc. ERP attempts to integrate all departments and functions across a company to create a single software program that runs off one database. For instance, if your planning is very good, the ERP system operates like this. Suppose, the inventory level has come down below certain level. Your ERP system immediately generates purchase order and electronically placed the same to the pre-defined vendor. When the vendor supplies the material, you are making two entries - one at the stores level for the receipt of the material and one at the accounts department for invoice data. The machine compares the two and pass the bill for payment. On the due date, cheques are printed and accounting of payment is done electronically.

What is the use of such integration? It avoids duplication of systems and data entry or data transport from system to another. Major benefit of ERP is better planning and control. Suppose, you have made a plan for the next year sometime around January 2003 (for the period of April 2003 to March 2004). Sometime around July you have found that the performance of the first quarter is better than what you have expected and hence you want to increase your target and reset the budget. While it may be easier to change overall budget values, no one knows what will be changes required at various stages unless there is an integration. Planning doesn't end with the boardroom. To translate the planning into action, changes are required every stages and people should realise what kind of problems it may pose when we change the plan. For instance, such an upward revision may require additional working capital or identifying new supplier for the material or booking of additional railway wagon. ERP software typically identifies all such problems and helps you to optimise using simple to advance modelling.

19.11 LET US SUM UP

Accounting primarily complies monetary transactions taken place between the company and others and prepares financial statements. Accounting information is used by several users. A significant part of the accounting system is today handled by computers and hence requires accountants to upgrade the skills. Top management as well as other stakeholders expect accountant to provide useful information in addition to traditional income statement and balance sheet. For instance, the profit shown under profit and loss account is unreliable in a situation of high inflation or when the assets are very old. The company may not have adequate funds to meet the expenditure.

Accountants are expected to provide insight on the future growth prospects of companies in an inflationary condition. Similarly, stakeholders, particularly those other than shareholders, would be interested to know the contribution of company to social causes and how it respects environmental and other issues. Though in a narrow sense, shareholders are not concerned on this issue, their interest is also affected if the firm fails to consider the interest of society. Shareholders interest of automobile companies, textile companies, tobacco companies, etc. is affected if these companies fail to comply environmental issues. Accountants are also expected to provide information of intangibles, which are particularly relevant for knowledge-based companies and other service organisations. Human Resources Accounting, Brand Valuation, etc. are important pieces of information that stakeholders expect to be incorporated in the balance sheet. In addition to these inputs, accountants are expected to provide lot of inputs that are used for strategic decision making process. For instance, accountants have to collect the details on product-wise, geographic-wise, customer-wise, etc. and also information pertaining to competitors. Accountant inputs are extensively used for bench marking exercises and also decision such as out-sourcing. Since the stakeholders are geographically spread all over the world, many companies are showing accounting results under several accounting standards to satisfy the needs of investors, employees, suppliers, customers and government authorities of several countries. Modern accountants are also expected to be computer-savvy and be familiar to work in a computerised networking environment. Companies spend substantial money in IT and integrate all their operations. While on the one hand, accountants role is declining on account of computerisation, accountant contribution and involvement at high-end are increasing. For instance, today accounting processes are centralised and concepts like shared service operation are emerging. In this, the shared service operation provider maintains the accounts of several companies and general many value added reports for the management. In other words, accounting profession is as challenging as any other professions and also highly rewarding.

Interested students can refer the Shareholders Information section of the Annual Report of Infosys Technologies Limited (page numbers (page number 137 to 162). It covers intangible assets score sheet, human resources accounting and value-added statement, brand valuation, balance sheet (including intangible assets), current-cost-adjusted financial statements, economic value-added (EVA) statement, ratio analysis, statutory obligations, value reporting and management structure. It gives you a real life perspective on current trends in accounting. You can download the report from the company's website (http://infosys.com/investor/reports/annual/Infosys_AR03.pdf).

19.12 TERMINAL QUESTIONS

- 1) When conducting a social audit, what are the things must a company do?
- 2) What is the benefit of companies being socially responsible?
- 3) For what type of industries, Human Resource Accounting is most suitable? Is it relevant to countries like India? Explain.
- 4) Inflation rates have come down in the last few years in many countries including India. Do you feel inflation accounting has a role? Discuss your answer.
- 5) Is environmental accounting PR exercise? How do you perform environmental accounting and auditing of fertiliser company?
- 6) How does activity based costing differ from traditional costing approach?
- 7) What is the role of cost accounting/cost data in strategic management?
- 8) Suppose your company wants to pursue product differentiation strategy. How as an accountant you will be useful for this exercise?

- 9) List down some of the major benefits to a company on account of computerised accounting system. **Recent Developments in Accounting**
- 10) How implementation of ERP is different from computerisation of accounting function?

Note : These questions will help you to understand the unit better. Try to write answers for them. But do not submit your answers to the University. These are for your practice only.

19.13 FURTHER READINGS

- Bowman, E. H. and M. Haire. 1976. Social Impact Disclosure and Corporate Annual Reports. *Accounting, Organizations and Society* 1(1): 11-21.
- Brandon, C. H. and J. P. Matoney, Jr. 1975. Social Responsibility Financial Statement. *Management Accounting* (November): 31-34.
- Cowen, S. S., L.. B. Ferreri and L. D. Parker. 1987. The Impact of Corporate Characteristics on Social Responsibility Disclosure: A Typology and Frequency-based Analysis. *Accounting, Organizations and Society* 12(2): 111-122.
- Elias, N. and M. Epstein. 1975. Dimensions of corporate social reporting. *Management Accounting* (March): 36-40.
- Geoffrey Whittington (1983), *Inflation Accounting: An Introduction to the Debate*, Cambridge University Press.
- Gray, R. 2002. The Social Accounting Project and *Accounting Organizations and Society* Privileging Engagement, Imaginings, New Accountings and Pragmatism Over Critique? *Accounting, Organizations and Society* 27(7): 687-708.
- Jack Quarter, Laurie Mook, Betty Jane Richmond (2002), *What Counts: Social Accounting for Non Profits and Cooperatives*, Prentice -Hall.
- Lehman, G. 1999. Disclosing new worlds: A Role for Social and Environmental Accounting and Auditing. *Accounting, Organizations and Society* 24(3): 217-241
- Lyn M Fraser and Aileen Ormiston, *Understanding Financial Statements* (Sixth Edition), Prentice-Hall of India Private Ltd. New Delhi
- Pramanik, Kumar A. (2002) *Environmental Accounting and Reporting*, New Delhi, Deep & Deep, 2002.
- Robert Bloom Araya Bebessay, *Inflation Accounting: Reporting of General and Specific Price Changes*, Greenwood Publishing Group.
- Roberts, R. W. 1992. Determinants of Corporate Social Responsibility Disclosure: An application of stakeholder theory. *Accounting, Organizations and Society* 17(6): 595-612.