UNIT 3 ACCOUNTING INFORMATION AND ITS APPLICATIONS

Objectives

After studying this unit, you should be able to appreciate the:

- nature of accounting information
- major purposes of accounting information;
- role of information in the control process;
- the uses of earnings information; and
- uses of information contained in balance sheet.

Structure

3.1 INTRODUCTION

As you have observed in Unit I, historically, accounting developed as a system for reporting information to the owners including shareholders and other investors of the business. In the process of its evolution, accounting has branched off into two distinct directions- one dealing with information processing for external uses and the other dealing with information processing for internal (or managerial) uses. We refer to the first one as **financial accounting** and the second as **managerial accounting.** But when we talk about accounting information, we generally look at it in a broader sense to encompass information processing for both internal and external uses. In this unit we shall deal with some illustrative uses of accounting information so as to give you a feel of what accounting could contribute.

3.2 PURPOSES OF ACCOUNTING INFORMATION

At the outset, let us share with you that accounting information is useful for (1) score-keeping, (2)attention-directing, and (3) problem-solving . Let us ask a question: What precise information should the accountant provide for these purposes? Obviously, the type-coverage of information needed may vary from organisation to organisation. Further, the specific information needs in the actual decision-making process at different organisational levels influence the scope of an accounting information system.

Score-keeping: The score keeping function is one of the primary purposes of accounting information. It basically deals with the financial health of the enterprise. In other words, it answers: How are we doing ? Good , bad, or indifferent? Though it appears to be a simple question, a moment's reflection will show that it is not that simple. It involves answering questions such as : What is doing good? What is doing bad? Is profit earned good? If so, how much? Is it that profit alone is not sufficient? Thus we can go on increasing the string of questions intending to further clarify the basic question. Thus, score-keeping has two aspects, one is that of keeping record of actual data on performance- a constant process of measurement and valuation. The other aspect is concerned with putting the data in relation to predetermined standards. In order to answer the question whether the performance is good, bad or indifferent we have to have a constant process of comparison against some norms, standards or benchmarks. This is achieved by preparing a series of reports based on comparison of actual data with the planned data.

Activity 3.1

Complete five questions (two are already given below) that will lead to the assessment of the financial health of a business organisation.

1. How much profit was made by the organisation in the preceding accounting year?

2. Does the organisation have sufficient funds to meet its day to day expenditures?

3. ………………………………………………………………………………

4. ………………………………………………………………………………

5. ………………………………………………………………………………

Attention directing : Attention-directing is nothing but the process of giving a signal to the user of accounting information about the need to take a decision. As such the accounting information supplied arouses the user's attention to take a decision. For example, a report from an accountant comparing the actual performance data against budget data is a score-keeping record. In the hands of a decision-maker it is an attention-directing information. This would enable him to immediately focus his attention on the deviations or variances from the budgets or the plans. A whole series of actions will be triggered by this, namely, evaluation of reasons for the deviation, remedial actions to be taken, modifications in the feedback for future and so on Most of the formal reporting takes the form of annual reports. An annual report is the score card of activities for an accounting period. If properly analysed, this report can be helpful in understanding the problems of overall nature faced by the enterprise. It can also help the shareholders in assessing the actual performance of the company vis-a-vis their expectations.

Problem-solving : The problem-solving function of accounting information involves provision of such information which enables the manager to find solutions to the problems. There are many problems which accounting information could highlight and provide for their possible solutions, such as make or buy decision with respect to component, parts or products, continue or drop decisions with respect to product lines leasing or acquisition decisions with respect to assets etc. Problem-solving is therefore an important purpose of accounting information system.

Let us summarise the purposes of accounting information:

Accounting, in its score card role, accumulates data and enables interested persons, both internal and external, to understand and take stock of the organisation's performance

In its attention-directing role accounting information, by reporting and analysing the data, focuses a manager's attention on operational deficiencies, weaknesses, threats - and opportunities. In this role accounting complements day to day operational planning and control activities.

In its problem-solving role, accounting enables quantification of the different alternative solutions, their relative merits and demerits.

Activity 3.2

Fill in the blanks:

1) Financial accounting deals with reporting information for ……….uses and ……………deals with reporting information for managerial uses.

2 Accounting information addresses itself to three distinct activities (i)……………….…(ii)………………...….(iii)…………….……..…

3 Score-keeping activity involves two functions, first, keeping ……..and …………second a constant process of………….

4) Attention-directing information triggers the need for taking………in the recipient's mind.

5) Problem-solving in accounting involves provision of………..to enable managers to find…………..to problems.

3.3 ACCOUNTING AND CONTROL IN ORGANISATION

In this course we shall deal with financial and management accounting together. You, probably know that both these branches of accounting, after all, are concerned with providing information about the same business.

One of the tasks of the management is to control the operations of the organisation. Accounting is closely connected with control system in an organisation. To understand this, let us have a look at the control system in an organisation as shown in Figure 3.1. You know that the organisation is a system of inter-related parts and is linked with the environment. It derives its inputs from the environment and transforms them with the help of the operating system into outputs which it delivers to the environment. To control organisational system, we have first to measure inputs, operations and outputs. The measurements obtained men have to be evaluated against standards. This information has to be supplied to the concerned managers so that they could take appropriate actions form future point of view. In all these activities i.e, measuring evaluating and providing feedback the accountant is deeply involved. The process of evaluation brings out deviations which provide the basis for feedback in a system and lead to changes in inputs for operations to achieve desired outputs.

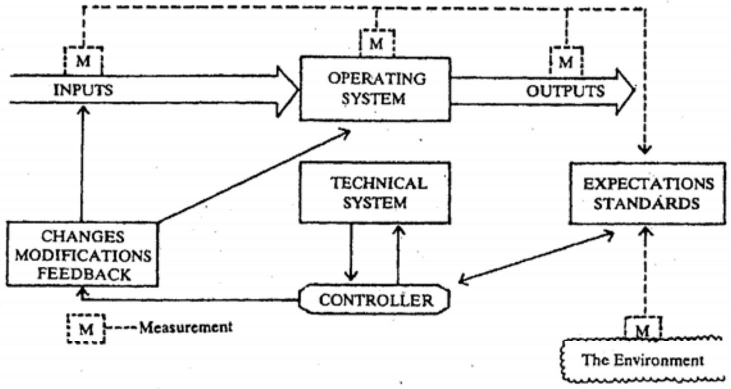

Figure 3.1 Structure of Control in an Organisation.

The annual accounts or financial statements of a business comprise balance sheet and profit and loss account. Sometimes they also include the fund flow statement.

All these statements have only historical significance since they relate to an accounting period which has already expired. However, balance sheet and profit and loss account provide valuable information linking the profit to investment or assets used in business. We try to measure organisational performance using this information.

The idea of relating profit to asset use can provide a basis for judgement about the efficiency of an organisation. As business often operates in an environment of uncertainty, estimation of `normal' profit is not easy. By making the best use of accounting information of the past in relation to the expectations of future, we try to make integrated financial plan for an organisation. Such plan includes projections about level of activity, resource, profit, financial assets, and car resources.

From Figure 3.1 it is obvious that controller (or accountant) and managers obtain such information which enables them to diagnose the situation and to identify and define the problem at hand.

Let us try to identify and define a problem in a hypothetical setting. Suppose you are managing a firm which sells three products p_1, p_2, p_3,. You are confronted with a problem that the profit of your firm is decreasing. Now falling profit may be due to many reasons. The first thing that you would like to do is to identify the problem more precisely before you set about solving it, Some of the possible hypotheses are: which of the three products is losing money? Are all of them losing money? If all of them are losing money, are they losing money to the same extent? Is the firm losing money due to increasing cost or decreasing prices? Many such question would enable you in diagnosing the problem more accurately. In general, such questions enable a manager to specify the causes of the problem.

Let us examine how the accounting information could be helpful in identifying a problem of this nature. The following table is the summarised profit and loss account of a firm whose situation has been described above.

Figures in Rs.

Year	2002		2003	
Sales		1000		1000
Less:				
Cost of goods	400		500	
Depreciation	200		200	
Other operating expenses	100	700	100	80
Profit		300		200

From the above, it is clear that in one year the profit has declined by Rs. 100. An examination of the profit and loss account would show' that sales have remained the same and all expenses other than the cost of goods sold have also remained the same: We are now in a position to state the problem thus:

Problem : Decrease in profits during the period has come about as a result of overall increase in the cost of goods sold.

If the organisation was dealing with a single product, the problem is easily identifiable. But as it is dealing with three products, you have to answer the question: Which product is losing money? The product-wise accounting information with respect to . sales and costs can help us in identifying the problem better.

Year	2002				2003	
Products	P_1	P_2	P_3		P_3	P_3
Sales	300	300	400	400	400	200
Less: Cost of sales	150	150	100	200	200	100
Gross Profit	150	150	300	200	200	100

(Please recall that other costs which are common to all the products did not change) With the above additional information on different products you can now redefine the problem more precisely

Problem: 1 Sales of P1 and P. have increased. Cost of sales retains the same relationship with sales.
2. Sales of P_3 had decreased. Cost of sales in relation to sales had doubled.

What we have done is nothing but a very simple use of accounting information to pin-point the problem so that we could initiate action.

3.4 PROFIT AND CASH BALANCE DISTINGUISHED

How do we evaluate the results of a firm ? The answers could be many depending on what your interests are. But there is no difference of opinion regarding two important aspects.

1. What is the worth of the business?
2. How much does it earn?

The results of-these two inquiries usually become the basis for several decision of the management and their action plans. The initiatives the management takes in connection with improving the profitability of the enterprise and its worth will, in a large measure, be a reflection of managerial effectiveness.

Illustration

Shyam decided to start a small casting and machine shop. He undertakes job orders . for castings. He hired a shop floor with a backyard, bought the necessary equipment and hired a few workers. Shyam though he had very successful operation during the first year, because he was engaged throughout the year.

He tried to prepare his accounts and discovered that his collection from customers was Rs. 24,000 and he had borrowed Rs. 30,000 from the bank. He had spent Rs. 72,000 for running the business. He had run down his savings substantially (Exhibit 3.1). Shyam discussed the situation with his friend who is a graduate student of management. He worked out Shyam's operating results for the period (Exhibit 3.2).

Exhibit 3.1
Shyam Enterprises
Summary of Cash transactions

Figures in Rs.

Receipts		**Payments**	
Receipts from bank loan	30,000	Wages to employees	12,000
Collections from customers	24,000	Materials purchased	36,000
		Payment of installment for equipment purchased	5,000
		Electricity charges	1,000
		Withdrawals for personal use	15,000
		Other Payments for Expenses	3,000
	54,000		72,000
Excess payments over receipts	Rs. 18,000		

Shyam's friend with the help of Exhibit 3.2 could convince Shyam that the situation not very bad. For proper appreciation of the situation he gathered several pieces of

information, as given below:

1. He made sales of Rs.36,000 (at selling price), one-third of it (Rs.12,000) is yet be collected. In other words, on an average 4 month's sales remain uncollected.

2 Even though he purchased materials worth-Rs. 36,000 he consumed only one-half of it for- production and sales. In other words, materials sufficient for one yea consumption remain in inventory.

3. Cash generation during the year was Rs.54,000 whereas the need for payment amounted to Rs. 72,000

Exhibit3.2
Shyam Enterprises
Operating Summary

Figures in Rs.

Collections from sales			24,000
Sales yet to be collected			12,000
			36,000
Less:			
Cost of sales:			
Purchases of materials paid	36,000		
Inventory at close	18,000	18,000	
Wages		12,000	
Electricity		1,000	
Other expenses		3,000	
Total expenses			34,000
Net profits			2,000

Exhibit 3.2 is based on the additional information presented above and shows that shyam has made a profit of Rs. 2,000 on sales of Rs.36,000. You will appreciate that there is a fundamental difference in approach and utility of information contained in the two Exhibits. While Exhibit 3.1 looks at the problem purely from the viewpoint a increases and decreased in cash. Exhibit 3.2 summarises all the revenues and expensed which belong to the period of one year irrespective of whether or not all the revenues have been received in cash and whether or not all the expenses have been paid in cash In fact, in doing so we are making practical use of Accrual Concept (discussed in the preceding unit) and principles of revenue recognition (discussed in unit 5). You may note that cash balance is not synonymous with net profit earned by the business. A business firm might have earned a profit and still be short of cash and vice-versa. In this particular example you have seen that the business has earned a profit of Rs. 2,000 but without cash balance showing any surplus. In fact, payments, as shown in Exhibit 3.1, have far. exceeded in receipts. The excess of payments over receipts amounted to Rs.18,000 and this deficit was financed through the personal savings of Shyam. Since payments can never be more than receipts, the deficit must have been made good through Shyam's personal sources. This subject will be further expanded in Unit 6 dealing with funds flow and cash flow analysis.

3.5 USES OF EARNINGS INFORMATION

The earnings information is useful for (1) measuring accomplishment, (2) deciding how much could be withdrawn from the business without impairing its current level of operations, (3) identifying the problems. and (4) determining a market value for the enterprise.

Accomplishments : Profit is an important indicator of the accomplishment of business. Other things remaining the same, higher the profits greater is the accomplishment. Accomplishment of Shyam's enterprise can be summarised as follows:

It has earned a net profit of Rs. 2,000 during the year (Exhibit 3.2)

At the same time, it should be seen from Exhibit 3.1 that there is a severe cash constraint. Understandably, it was the start up situation which might have been responsible for the cash constraint.

The profit earned in the very first year of operations shows that the business could be viable. But Shyam will have to predict several aspects such as whether sales can increase, whether costs remain the same, whether the earnings rate remains the same, and so on. At the same time, he will have to ensure better management of his cash resources.

Appropriation Decision : An important question with which owners of a business are often confronted is: How much money can be withdrawn without impairing its current level of operations? This question in fact is concerned with appropriation decision. A prudent management would not only like to maintain the capital or the present capability of the enterprise intact but would also plan for future growth. The maximum amount that the owners can withdraw from business for their personal expenses should be I limited to the amount of earnings which remain after making good all the resources that have been used (or consumed) in the process of generating those earnings. In other words, it is the net profit after charging depreciation and all other losses incurred in the course of business operations that is available to the owners for withdrawal, provided the business has no tax liability. In case the business has tax liability the amount that can be withdrawn will be reduced by the estimated amount of tax liability. Thus, the remainder is the amount which is available for withdrawal without impairing its current level of operations. However, if business has any plan for future growth, the amount available for withdrawal by or distribution among owners shall be further reduced by a portion of profit (or cash) needed for future growth depending upon the judgement of the management . in this context, the withdrawal by Shyam of Rs.15,000 against a profit of Rs.2,000 cannot be defended.

Problem Identification Using Earnings Data: From the earnings data several problem areas can be identified. This is best done by computing ratios i.e, by examining the relationship of one item of earnings statement with another item. This will be taken up in details in a subsequent unit. At this stage it may only be stated that the lower earnings may be on accounts of excessive cost of inputs, excessive expenditure on overheads or low margin of profit on sales or excessive piling of inventories or other unanticipated losses. Insofar as Shyam's enterprise is concerned, we can identify two problems even from the very limited data that we have regarding his business. They are:

1) The inventory acquisition was not in tune with production and sales. This has led to large amount of accumulated inventory to the tune of one year's consumption.
2) Credit granted to customers, shown by credit sales, amounts to four months, sales. This shows either grant of credit on liberal terms or slow collection of receivables.

However, an analysis of operating summary along with cash summary will show that the business is facing a cash crisis since the present cash needs and cash availability are not in tune with each other.

Determining the market value of a Firm: You will recall that we have viewed the business as a distinct operating entity. The economic value of the firm is determined by the size and reliability of the stream of earnings (cash flows) produced by the business. Let us attempt the valuation of a hypothetical firm. Bharat Kitchenaids, which was incorporated as a company in 1998 by four non-resident young Indians to market a simple but revolutionary cooking gas lighter invented by one of its founders. In order to conserve its limited capital the company opened its business in rented premises with Rs.80,000 worth of equipment used mainly for research and development work. Arrangements were made with an established manufacturer to make the gas lighter on order under rigid supervision of one of the members of the young team. Because the gas lighter was able to meet a long felt need, the company reported a modest profit in its very first year of operations.

The four-man team was remarkably well balanced combining talents in engineering research, marketing and management. In the next two years they developed three more appliances that were well received in the market. By 2003 the turnover had grown to about Rs. crore and net profit amounted to Rs. 14 Lakhs. At this point the total investment (or equity) of the owners amounted to Rs.32 lakhs. Annual earnings, therefore, represented an after tax rate of return of approximately 44 per cent of the equity. The high return could be attributed to using the facilities of other manufacturers rather than building their own, the patents that the company registered and the scientific and managerial skill the team possessed.

An interesting development then took place. A large manufacturer in the household goods sector wanted to acquire the company and offered the owners a very attractive price. The four owners wanted to consider the offer (and make a decision) but asked for a few weeks time to make up their mind.

The owners knew that they had established a solid position in the industry and had no doubt that they would be able to maintain this position. They, however, felt that the potential for further growth was limited . They drew very good salaries which they would continue to enjoy even if they were to sell the business.

To work how much equity in the Bharat Kitchenaids was worth to them so that they . could take a decision on the price offered, the four men started by forecasting the company's future profits or cash flows(we shall assume here that the figures of profits and cash flows are the same). They believed that the net profit would continue to be around Rs.14 lakhs each year for the next 10 years. Further, if they did not sell out in 2004, they could sell their interest in business (that is their equity) 19 years later for about Rs.50 lakhs. In accordance with these estimates the anticipated net earnings from continued ownership would be as follows:

Year	Earnings
1 to 10	14 lakhs a year
10	50 lakhs

You know that money has time value. You attach more value to an amount to be received now than the one to be received, say, a year or two later. Rs. 14 lakhs of profit to be received in the second year will be of lesser value to you than Rs. 14 lakhs to be received in the first year. Similarly Rs. 14 lakhs to be received in the third year will be of lesser value to you than Rs.14 lakhs to be received in the second year, and so on. In other words, the value of amounts to be received in future will progressively decline as time passes by. The process of reducing the future earnings to present values is known as **discounting,** but for this purpose a **discounting rate** is required. The discounting rate is nothing but the return which the owners desire to earn on their investment. The desired rate of return in a way is a rate of return which satisfies the owners of investment.

The owners in this case thought that the rate of 15 per cent after taxes was a satisfactory return on investment for the type of business they were engaged in. The question before them was how much the anticipated earnings were worth presently at this rate. A t 15 per cent desired rate they calculated the present value of the stream of earnings of Rs. 14 lakhs a year for ten years plus Rs.50 lakhs they were to receive at the end of 10th year. They found that the present value was Rs.82.62 lakhs. You must be wondering how they calculated this figure. The mechanics of calculating the present value of future earnings (or cash flows) will be explained in Unit -15 (Block-4). Till then we ask you to hold your inquisitiveness. However, in accordance with the concept of present value that we have just explained, you will agree with us that the present value of earning of Rs.140 laths to be received over a period of 10 years and lump sum of Rs. 50 lakhs to be received at the end of 10th year. i.e., a total amount of Rs. 190 lakhs, must be considerably less than this amount.

Under these assumptions, therefore, the owners would not accept an offer of an amount less than say Rs. 80 lakhs which is the present value of the business or their equity. However, if the owners feel that Bharati Kitchenaids would continue to produce Rs. 14 lakhs a year indefinitely if it is managed adequately, the present value can be calculated simply by dividing the annual earnings by the desired rate of return:

$$\frac{14 \text{ lakhs}}{0.15 \text{ lakhs}} = 93.33 \text{ lakhs}$$

On this basis the value of owner's business would be 93.33 lakhs. The process of ascertaining the value of business with the help of earnings and a desired rate of return is also known as the **capitalisation of earnings.** It means that if Rs. 93.33 lakhs is paid for infinitely long series of payments of Rs. 14 lakhs a year, the rate of return on investment will be 15 per cent:

$$\frac{14 \text{ lakhs}}{93.33 \text{ lakhs}} = 15\%$$

3.6 USES OF BALANCE SHEET

The balance sheet is a summary of a firms' assets and liabilities, including share capital and reserves **at a defined moment in time.** That is why it has been described as a snapshot or still picture of the financial position of a business entity. It is also called the position statement.

In addition to profit and loss account, the various groups interested in the company can also draw useful inferences form an analysis of the information contained in the balance sheet. Shareholders usually have twin interests: an interest in receiving a regular income and an interest in the appreciation of their investment in shares. The market worth of their shares depends not only on the dividends they receive but also on the extent of retained earnings which the company has accumulated over the years. The materialisation of the shareholders' expectations regarding bonus shares also depends on the retained earnings built up by the company. Investment decisions of the prospective investors and disinvestment decisions of the existing investors are influenced by the composition of assets and liabilities shown in the balance sheet.

The main interest of the trade creditors, centres on the liquidity position of the company. They would like to make an assessment as to whether the company will be able to meet its obligations when the occasion arises. They are, therefore, concerned about the working capital available with the enterprise and its cash resources. All this information can be gleaned form the balance sheet. The interest of long-term creditors lies in two things; they are interested in the regular servicing of their debts (that is payment of periodic interest) and repayments of their loans after the expiry of stipulated period.

They are interested not only in the profitability of the enterprise but also in its long-term solvency and financial viability. A study of the balance sheet of the company over the past several years can yield a lot of useful information to such long -term investors.

Similarly, other interested parties like regulatory and developmental agencies of the Government, consumer and welfare organisations can derive useful conclusions from

a study of the balance sheet about the working of the corporate sector and its contribution to the national economy.

It should be emphasised here that it is not the profit and loss account and the balance sheet in isolation with each other but both of them in conjunction with each other that can yield a harvest of information for the interested parties or analysts. All this pertains to the broad area of analysis of financial statements which will be taken up in details in a subsequent unit.

Activity 3.3

1 Mention four important uses of earnings information.

i)……………………………………………………………………………….

ii)………………………………………………………………………………

iii)……………………………………………………………………………...

iv)……………………………………………………………………………...

2. Mention the three parts into which net profits are usually appropriated.

i)……………………………………………………………………………….

ii)………………………………………………………………………………

iii)……………………………………………………………………………...

3. Value of a firm is determined mainly on the basis of ……………of earnings.

3.7 SUMMARY

Accounting information system addresses itself to three important business related problems, namely, score-keeping , attention-directing and problem-solving . Accounting information acquires relevance only in the context of an organisation. In this context accounting is closely related to control, Accounting helps in the process of guiding actions of the organisation into desired directions. In the process of initiating control actions, it helps the whole gamut of activities involving planning, organising and controlling.

There may not necessarily be an exact correspondence between cash balance and the profit earned during an accounting period.

The earnings information is useful for several purposes. It helps in measuring achievement of business and its management. It provides a basis for appropriation decisions and for determining the market value of the firm. It helps to identify the problems currently faced by the enterprise.

They balance sheet reflects the financial position of the enterprise. It provides useful information to various users of information who might be interested in the firm. A proper analysis of the information contained in the balance sheet can enable them to draw conclusions which in turn help them in taking decisions.

3.8 KEY WORDS

Problem-solving role of accounting consists of supplying such information as would be useful to managers for taking a variety of routine and non-routine decisions.

Profit and loss Account is a summary of the revenues and expenses, including gains and losses from extraordinary items of a business unit for an accounting period.

Balance Sheet is a statement of financial position of a business unit disclosing an. given moment of time its assets, liabilities and ownership equities.

Appropriation of net profit means the (allocation) disposal of net profit for various purposes. In the case of non-corporate entities, the net profit is distributed to the owners. In the case of corporate entities usually a part of the net profit is provided for estimated tax liability, a part is retained in business to strengthen its financial position and for, future growth, a part is distributed to shareholders in the form of dividends and any amount left is carried forward to the next ,period.

3.9 SELF-ASSESSMENT QUESTIONS/EXERCISES

1. What are the purposes of accounting information? Explain briefly. What purpose, in your opinion, is the most important and why?

2. "Accounting is closely connected with control". Elaborate the statement and discuss the role of accounting feedback in the process of control.

3. Explain the uses of earnings information. Can you think of uses other than the four uses mentioned in this unit?

4. What is a Balance Sheet and what information it conveys to an outsider?

5. What groups of people would be interested in accounting reports and why?

6. "An outsider, who reads the data relating to the business as revealed by the accounting statements, tends to assume that accounting gives an exact picture of the business." Utilising your understanding of accounting concepts, including the limitations imposed by such concepts on accounting information, discuss the above statements with your fellow students/accounting colleagues/office friends.

7. Ram invested Rs.20,000 of his own money in small service business and borrowed another Rs. 10,000 from a bank, also for business use. At the end of his first year of operations, he found that there was Rs.34,000 in the enterprise's bank account. He owed his suppliers Rs. 6,000 and had not repaid the bank loan. His business assets other than cash were negligible. During the year he had paid himself his salary of Rs. 12, 000.

   a) What conclusions would you draw about his first year's operations?

   b) For what decisions would this information be used? What additional information would the decision makers be likely to call for in making these decisions?

Answers to Activities

Activity 3.2

1. External, management accounting.

2. (i) Score-keeping, (ii) attention-direction and (iii) problem-solving.

3. Records of actuals, comparison.

4. Decisions.

5. Information, solutions.

Activity 3.3

1. (i) Measuring accomplishment,

(ii) Profit distribution

(iii) Identifying problems

(iv) Market valuation of the firm

2. (i) Taxation

(ii) Distribution to owners

(iii) Retained earnings

3. Future stream

3.10 FURTHER READINGS

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