Foundations of Accounting & Finance

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Week - 01

Lecture - 05

Interaction Between Income Statement and Balance Sheet

Introduction

In the previous session, we discussed the Profit and Loss (P&L) statement, balance sheet, and cash flow statement, although I briefly mentioned them without elaboration. We also touched on the concept of a financial year and the components of the income statement, which include revenue and expenditure. Further, we explored the accrual concept, and I provided examples to illustrate it. Then, we spent some time on the timing of preparing the income and expenditure statement, emphasizing that it covers a specified period. This statement accounts for all accrued revenue and expenditure during that timeframe, which we discussed in relation to the accrual concept.

Next, we discussed the balance sheet, clarifying that it represents what an entity owns and owes as of a specific date. When we say own and owe, we say own and owe with regard to the specific entity. When discussing a company, we refer to its assets and liabilities, distinct from the personal assets and liabilities of the proprietor.

Moving forward, we will illustrate some examples to reinforce these concepts. The aim is to emphasize on the impact of every transaction on both of these financial statements. In essence, every transaction affects the balance sheet and income statement, underscoring the interconnectedness of these financial statements.

Example Showing Interaction Between Financial Statements

Let us consider the balance sheet of XYZ company on a particular day. The income statement for XYZ covers a specific period. Now, imagine today is the day the business starts.

Transaction 1

Suppose two partners contribute 10,00,000 each to the business, forming an entity called XYZ. It is an independent entity that collects 10,00,000 from each of us, totaling 20,00,000.

Transaction Analysis

So now, what happens? We are discussing what you own and what you owe. When I refer to assets, I mean what you own, and when I mention liability and equity, I am basically referring to what you owe. At this moment, the entity XYZ has collected 10,00,000 from each partner, totalling 20,00,000. The entity owes that money back to the partners when it decides to wind up. This represents the capital they have contributed, and when the entity decides to close down, it owes back that money to us. The amount of 20,00,000 will be shown as capital under the heading equity.

Imagine that the 20 lakhs contributed is either in the form of hard currency or deposited into a bank account. For instance, each partner opens an account named XYZ and deposits 10,00,000 into that account. This account is owned by the XYZ company, not by partners. Partners are merely signatories for the cheque, and the account is owned by XYZ.

Currently, there are 20,00,000 either in the bank account of XYZ or as cash in the cash box of XYZ. The entity owns this money, whether it is in the bank or in cash. Therefore, the amount will also show under the assets side as cash or bank.

Every transaction that occurs will be reflected in either the profit and loss statement or the balance sheet. It is important to note that this 20,00,000 is not revenue earned by the company; it is capital that has been contributed. Therefore, it is not reflected in the revenue side of the profit and loss statement.

Transaction 2:

Immediately after acquiring the capital, partners proceed to purchase machinery for XYZ. The machinery, which costs about 50 lakhs, is acquired through a combination of 5 lakhs paid in cash or cheque and a promissory note for the remaining 45 lakhs, which will be paid at a later stage.

Transaction Analysis

By purchasing the machinery, XYZ, as an entity, now owns machinery worth 50,00,000. Although the full payment has not been made, ownership of the machinery has been transferred to XYZ. Similar to buying a car with a loan, where the purchaser owns the car despite the loan obligation, the machinery is owned by XYZ. Therefore, this will be treated as an asset for the company.

As of now, only 5,00,000 have been paid in cash towards the machinery. This reduces the cash balance from the previous 20,00,000 to 15,00,000. However, XYZ owes the remaining 45,00,000 to the seller of the machinery, which will be paid off at a later date. Therefore, the remaining amount will be reported as accounts payable under the liability side of the balance sheet.

In short, this transaction is reflected in the balance sheet, with assets showing the value of the machinery (50,00,000), the cash on the balance sheet reducing by 5,00,000 for payment made and

liabilities indicating the outstanding amount owed for the machinery (45,00,000). Thus, each transaction is accounted for in the balance sheet.

Transaction 3:

On the same day, XYZ rented a factory shed for a monthly rent of 30,000 by paying an advance amount of 2,00,000. The monthly rent of 30,000 is payable at the end of the month.

Transaction Analysis

Although the firm XYZ rented the factory shed, there is no transaction occurring immediately. The rent payment of 30,000 is due at the end of the month, so no transaction is recorded at this point with regard to the rent. However, the company has paid an advance of 2,00,000, which affects XYZ's current financial statements.

By paying the advance of 2,00,000, the available cash or bank balance decreases by that amount. The firm had 15,00,000 after the earlier transaction, but it has now reduced to 13,00,000 after paying the advance.

The 2,00,000 paid as an advance for the factory premises is also considered an asset. Even though the firm does not physically possess the 2,00,00, the firm is still entitled to receive it back if it decides to vacate the factory premises. Therefore, the 2,00,000 paid as an advance are recorded as part of the assets, indicating that they are owed back to the firm. i.e., the firm's money is with the provider of the factory premises.

Transaction 4:

XYZ made a purchase of raw materials worth about 5,00,000 on a 30-day credit basis.

Transaction Analysis

The raw materials are now in the firm's possession, and the ownership has transferred to XYZ, making it an asset for the organization. Although no immediate payment was made, the firm is liable to pay the supplier of the raw materials 5,00,000 within 30 days, creating a liability known as creditors.

Transaction 5:

XYZ utilized 1,00,000 rupees worth of raw material to produce an end product, which XYZ sold for 1,50,000 on a 30-day credit basis.

Transaction Analysis

This transaction resulted in a reduction of XYZ's raw material inventory from 5,00,000 to 4,00,000, with the utilized amount 1,00,000 being considered as an expenditure.

Simultaneously, revenue worth 1,50,000 accrued from the sale of the final product despite not receiving the payment immediately. Since the ownership of the finished goods transferred upon sale, the revenue has accrued, and the firm is eligible to receive the 1,50,000, making it an asset for XYZ.

The Profit or Loss Calculation

Subtracting the expenditure from the revenue gives us the profit before tax. Since we are not considering taxes at the moment, the profit after tax is the same as the profit before tax. We will keep dividends at zero for now, and we can address dividends later on.

In the current scenario, the profit is estimated at approximately 50,000. This profit rightfully belongs to the capital providers, who, in this case, are the individuals who have each contributed 10,00,000 to the business. The capital providers invest in the business with the expectation of earning a profit. However, it is essential to note that if the business were to incur a loss, the capital providers would bear the loss, resulting in a reduction of their invested capital.

In the event of a profit, XYZ is obligated to distribute the profit to the capital providers. This obligation is reflected as an addition to the equity provided by the capital providers because the profit essentially belongs to the capital providers, thus constituting a liability for the business.

The appearance of profit as an addition to the equity in the balance sheet might seem counterintuitive, given that profit is generally considered beneficial. However, this is logical because the profit is owed to the capital providers and needs to be paid back to them. By understanding this principle, the balance sheet will be balanced.

Retained Earnings

Retained earnings represent the profit retained within the company until distributed as dividends. Until distributed, these earnings are considered retained within the company and contribute to its overall future financial investments.

Transaction 6

XYZ purchased office equipment, with half of the payment made in cash and the remaining half on credit, totaling 300,000.

Transaction Analysis

The office equipment worth rupees 3,00,000, upon purchase, becomes the assets of XYZ. Despite the spending of 150,000 in cash for the equipment, it is considered an asset rather than an expenditure. This is because the benefits of the purchase will not only be realised in one financial year but in future FYs also. Therefore, the office equipment is recognized as an asset on the balance sheet.

As a result of the cash payment, the cash balance decreases by 150,000, while the remaining 150,000 payment is recorded as a liability to be paid for the office equipment. This liability indicates the remaining amount owed for the purchase.

Transaction 7

A dividend of 10,000 is paid to the shareholders

Transaction Analysis

10,000 out of the profits of 50,000 is designated for payment to shareholders. This means that 40,000 is retained within the company, while 10,000 is distributed as dividends. When dividends are paid, the cash balance of the company worth rupees 10,000 decreases by the amount of the dividends paid.

Double Entry System of Bookkeeping

The concept emphasizes that every transaction affects at least two aspects among assets, liabilities, revenue, and expenses. For example, when office equipment is purchased on credit, assets increase (due to the acquisition of the equipment), and liabilities increase (as part of the payment is made on credit). This principle ensures that all financial transactions are accurately recorded and reflected in the company's financial statements across various categories, such as assets, liabilities, equity, revenue, and expenditure.

Transaction 8

XYX withdraws 1,00,000 from the bank to meet day-to-day cash expenditures (petty cash expenses)

Transaction Analysis

The bank balance decreases by 1,00,000 due to the withdrawal, impacting the asset side of the balance sheet. Further, the withdrawn amount, 1,00,000, is now held in the company's cash box. Since XYZ owns this cash, it increases the cash balance by 1,00,000, again impacting the asset side of the balance sheet. This transaction demonstrates the double impact on the asset side of the balance sheet: the bank balance decreases while the cash balance increases.

Transaction 9:

For the next 28 days, there has not been any other business activity. On day 30, a couple of things happened: XYZ needed to pay salaries for their workers, and they had to pay rent for the factory premises.

Firstly, XYZ paid the factory rent of 30,000 by issuing a cheque.

Transaction Analysis

When the company pays rent through cheque, the bank balance is reduced by 30,000. Typically, unless it is a petty expenditure, all transactions will be processed through the bank. Therefore, all transactions will be reflected in the bank unless they are very minor expenses.

As a result, XYZ's bank balance has decreased. Since the company enjoyed the benefits of using the factory space for one month and pays 30,000 in rent, it is considered an expenditure.

With a rent expense of 30,000, the profit decreases to 20,000. Consequently, retained earnings also decrease to 20,000 automatically in this particular case.

Transaction 10:

XYZ hired two casual laborers to operate the machines since it is a new company. XYZ pays each of them a salary of 15,000 rupees per month, totaling 30,000 rupees for both casual laborers for the entire month.

Transaction Analysis

This payment is considered an expenditure because they have worked for the company throughout the month, even if they might have had idle time.

When the company makes this payment, XYZ’s bank balance decreases by the same amount. Therefore, the bank balance becomes 9,90,000 rupees. The retained earnings become negative 10,000 rupees. This indicates that the company has started making a loss of 10,000 rupees.

Net Worth and Accounting Equation

The net worth of the business is determined by the accounting equation, which states that assets minus liabilities equals capital or capital plus liabilities equals assets.

Example

To illustrate this concept, let us consider an example where all assets are sold: the machine is sold for 50,00,000, the office equipment for 300,000 rupees, the bank balance remains, the advance payment from the owner of the premises is received back, the raw material is sold, and money is collected from the creditors. XYZ was able to raise a total of 71,40,000 rupees. Out of this amount, XYZ allocated 45,00,000 to machinery, 1,50,000 to office equipment, and another 5,00,000 to creditors to whom the company owed. The remaining amount, which is 19,90,000 rupees, represents the net worth of the business.

To reiterate, the net worth of the business includes the capital as well as any funds belonging to the shareholders. In this scenario, after selling all assets and settling liabilities, XYZ is left with 19,90,000 rupees as its net worth.

Initially, the capital was 20 lakhs, but now it stands at 19,90,000 rupees. This decrease in capital indicates that during the operation of the business, a loss of 10,000 rupees was incurred. Therefore, the current value of the business is 19,90,000 rupees.

In summary, after selling assets, paying off liabilities, and considering the decrease in capital, the net worth of the business is determined to be 19,90,000 rupees.

Transaction 11:

On day 30, a sudden windfall gain occurred with a new order. The company utilized 50,000 worth of raw material for this order and sold the product for 75,000, receiving immediate payment into the bank account.

Transaction Analysis

This transaction resulted in a decrease in assets (raw material inventory) by 50,000 and an increase in bank balance by 75,000. Consequently, retained earnings became positive, indicating a profit of 15,000 rupees. The net worth of the business increased to 20,15,000 rupees from the initial capital contribution of 20,00,000 rupees.

The profit calculation reveals a revenue of 225,000 and an expenditure of 210,000, resulting in a profit of 15,000 rupees. As long as dividends are not paid, the profits are retained within the company.

Transaction 12:

In another scenario, on day 31, the company purchased raw materials worth 5,00,000 on a 30-day credit

Transaction Analysis

On the 30th day, the company needed to pay the suppliers. Upon payment, XYZ's bank balance decreased by 500,000, and the liability to creditors will be cleared, reducing both assets and liabilities. In this transaction bank balance decreases (-500,000) and creditors' liability decreases (-500,000).

Additionally, if a customer pays 150,000 for a previous sale on the same day, the bank balance would increase by 150,000. This transaction would increase bank balance (+150,000) and a reduction in accounts receivable (-150,000), impacting the asset side twice.

Overall, each transaction affects at least two out of the four: assets, liabilities, equity, revenue, and expenditure, demonstrating the principles of double-entry bookkeeping.

Equity and Equity Share Capital

Equity represents the ownership interest in a company and is a form of capital contributed by shareholders. Equity can be divided into shares, which are units of ownership in the company. In the context of equity shares, they represents ownership in the company and entitles the shareholder to certain rights, such as voting rights and dividends.

Example

To illustrate, let us consider a scenario where a business needs a capital of 10,00,000 rupees. This capital can be divided into smaller units called shares. For example, the business may decide to issue 100,000 shares with a face value of 10 rupees each. This means that each share represents a fraction of ownership in the company and is worth 10 rupees.

When these shares are issued, they are referred to as equity shares. Shareholders who hold equity shares are the owners of the company and have a stake in its profits and losses. They also have the right to vote on important company matters and may receive dividends if the company distributes profits.

Characteristics

Equity shareholders possess several key characteristics:

1. **Decision Making Authority**: Equity shareholders are decision-makers of the company. They hold voting rights in the company, allowing them to influence company decisions such as strategic directions, management appointments, and significant business activities.

2. **Ownership**: Equity shareholders are owners of the company to the extent of their shareholding. For example, if there are 1,00,000 equity shares and an individual holds 50,000 shares, they effectively own half of the company. Ownership rights include voting rights, dividend entitlement, and participation in the company's profits and losses.

3. **Voting Rights**: Each equity share typically carries one vote in company decisions. Shareholders with more significant shareholdings have proportionally greater voting power. For instance, if an individual owns ten shares, they have ten votes, and if another shareholder owns 100,000 shares, they have 100,000 votes.

4. **Profit/Loss Participation**: Equity shareholders are entitled to a share in the company's profits and bear a portion of its losses. Profits are distributed to shareholders in the form of dividends, which are proportionate to their shareholding. Conversely, if the company incurs losses, the value of equity shares may decrease, impacting shareholders' wealth.

5. **Limited Liability**: Equity shareholders' liability is limited to the extent of their investment in the company. If the company faces significant losses or becomes insolvent, shareholders are not personally liable for the company's debts beyond the value of their shares. Their personal assets remain protected from company liabilities.

6. **Risk and Return**: Equity shareholders bear the risk of potential losses if the company performs poorly, but they also have the opportunity for higher returns if the company succeeds and generates profits. The return on investment for equity shareholders includes capital gains from increasing share prices and dividend income.

Form of Return for Equity Shareholders

Equity shareholders are indeed owners of the company, and they possess voting rights. Now, how will equity shares generate income? They will yield returns through dividends and capital gains.

Capital gains refer to the profit made by selling equity shares in the stock market, such as NSE (National Stock Exchange) or BSE (Bombay Stock Exchange). The price of a 10-rupee share can fluctuate in the market, selling for amounts like 1000, 10,000, 20,000, or 40,000 rupees. Why would someone buy a 10-rupee share at a higher price? It is because they anticipate the company will perform better, yielding increased profits resulting in higher capital gains and/or dividends in the future. This anticipation of future profitability and dividend payouts drives up the share price, resulting in capital gains for shareholders.

Equity represents a form of capital, and shareholders are considered the owners of the company. In the financial structure of a company, equity is paired with liabilities. However, equity is not considered a liability unless the company is winding up.

The share capital, or equity capital, is determined by subtracting all liabilities from the company's total assets. Therefore, it is calculated as assets minus liabilities.