**Financial Modeling: meaning, objective and How to build financial modeling**

Financial modeling is the process conducted to create a financial representation of the entity. It is through this financial model that the financial analyst tries to forecast future earnings and performance of the company. The analysts use numerous forecast theories and valuations to recreate business operations. The financial model once completed, displays a mathematical depiction of the business events. The primary tool utilized to create the financial model is the excel spreadsheet.

## Objectives of Financial Modelling

Financial modeling assists the management not only in the decision-making process but also in the preparation of [financial analysis](https://efinancemanagement.com/financial-analysis).

The following are the objectives of creating a financial model:

1. Valuing a business
2. Raising capital
3. Growing the business
4. Making acquisitions
5. Selling or divesting assets and business units
6. Capital allocation
7. [Budgeting](https://efinancemanagement.com/budgeting) and forecasting

## How to build a financial model?

The following is the step by step breakdown on building a financial model:

### Historical Results and Assumptions

The first step of building a financial model is to extract the previous three years financial statements of the entity. The statements are then converted into the excel format. This will serve as a base to frame assumptions for the forecasted period.

### Make Income Statement

The forecast assumptions assist in the calculation of the [income statement](https://efinancemanagement.com/financial-accounting/income-statement) including revenue, operating expenses, and [gross profit](https://efinancemanagement.com/financial-analysis/gross-profit-margin).

### Make Balance Sheet

The income statement then helps in the preparation of the [balance sheet](https://efinancemanagement.com/financial-accounting/balance-sheet-definition-and-meaning). Calculations for accounts receivable and accounts payable should be done.

### Build the Supporting Schedules

A schedule of debts and interests are prepared. The debt schedule extracts historic data and increases debts and subtracts payment made. Interest is then calculated on the remaining debt balance.

### Complete the Income Statement and Balance Sheet

The income statement and [balance sheet](https://efinancemanagement.com/financial-accounting/balance-sheet-definition-and-meaning) can be completed with the information obtained from the schedules. [Net income](https://efinancemanagement.com/financial-accounting/net-income), taxes, and earnings before tax are calculated. Shareholder’s equity is also determined.

### Build the Cash Flow Statement

After completing the balance sheet and income statement, the reconciliation method can now be used to build the [cash flow statement](https://efinancemanagement.com/financial-accounting/cash-flow-statement).

### Perform the Discounted Cash Flow Analysis

The business valuation and [free cash flow](https://efinancemanagement.com/working-capital-financing/free-cash-flow) should be derived on the basis of the three statements. The free cash flow is prepared considering the opportunity cost is borne and the required rate of return for the entity.

### Add Sensitivity Analysis and Scenarios

[Sensitivity analysis](https://efinancemanagement.com/investment-decisions/sensitivity-analysis) is incorporated into the financial model. This is an essential step in determining the risk involved in the investment or the business planning process.

### Build Charts and Graphs

Good financial analysts prepare a clear communication of the results obtained. The executives do not pay much attention to the inner workings of the financial model, thus charts need to be prepared. The results of the financial model can be conveyed precisely with the help of various graphs and charts.

### 10. Stress Test and Audit the Model

Auditing tools must be used to reassure that the excel formulas are giving accurate results. A stress test can be conducted by developing extreme scenarios and determining if the financial model is functioning as per expectations

**Applications of Financial Modeling**

1. **Investment Banking / Equity Research:**
Financial Modeling is the basic tool for fundamental analysis and valuations. Investment banker use it to arrive at a valuation in M&A or fund raising transactions. Equity Analysts use it to value stocks and come up with buy/sell/hold recommendations.
2. **Project Finance/Credit Rating:**
Financial model help bankers, credit analysts to project future revenues and costs and to make an informed judgment about a projects viability. They are then able to decide if they should extend loans or what the credit rating of a project or company should be.
3. **Corporate Finance:**
Financial Modeling is used by companies to assess their own finances and projects.  It is hence an input in creating funding plans for corporate projects.
4. **Entrepreneurs/Private Equity:**
Entrepreneurs use Financial Models to present their plans to potential investors as much as to plan their strategies. Running different simulations can often be an important tool in avoiding potential risks

### Advantages of Financial Modelling

Some of the major advantages of using financial models are as follows:

1. **Better Understanding of the Business:** Developing a financial model requires an intricate understanding of the business. The process of model creation forces the business to think about and list down the drivers which impact the various aspects of the business. The process also forces the business to think about the various changes that may happen internally as well as in the external environment.
2. **Helps Decide on a Funding Strategy:** When companies develop financial models, they are able to clearly understand what their cash flow situation will be. The cash flow requirements that the company would face as well as the ability to borrow and make interest payments can be easily ascertained. This helps the company choose an appropriate funding strategy. For instance, start-up firms have uncertain revenues. However, their expenses are more or less fixed. Using financial modeling, they can decide on the amount of money that they need to have on hand in order to ensure that they survive till the revenues start flowing in. Therefore, start companies are able to ascertain the amount of equity stake they should sell so as to reach the next milestone.
3. **Helps Reach the Correct Valuation:** Financial modeling allows companies to understand their true worth. In the absence of modeling, the worth of a company is decided by using discounted cash flow models. Some of these models assume linear relationships between revenues and expenses, which are just not true.

### Disadvantages of Financial Modelling

The process of financial modeling is riddled with disadvantages as well. Some of the important ones have been listed below.

1. **Time-Consuming:** Firstly, it is important to understand that financial modeling is a time-consuming exercise. This is because creating a financial model is a project which requires several tasks to be done. The data needs to collected, the underlying factors have to be identified, and the model needs to be tested for financial as well as technical irregularities. This model then needs to be made intuitive and user-friendly.
2. **Inaccurate:** In many cases, financial models have proven to be woefully inadequate. The subprime mortgage crisis of 2008 is widely quoted while trying to explain this point. However, it needs to be understood that inaccuracy is built into the model itself. Nobody has the knowledge required to predict factors such as interest rates, tax rates, and market shares with utmost precision. If a person did have such an ability, they would make a killing by trading in the stocks and derivatives market and would not need to create financial models!
3. **Soft Factors Not Considered:** Lastly, many mergers have failed because of soft factors such as difficulties integrating the culture of the two acquired companies. It is impossible to build such factors into financial models. On the one hand, models take into account synergies which will be created by reducing expenses as a result of the merger.