Why is our FMVC course one of our most popular? As another IFAP batch comes to a close and yet another begins, we look back on some of the more technical aspects of the Financial Analysis course. Along with intermediate and advanced excel sessions, which cover Goal Seek, V look up, and Macros, Financial Modeling is one of our key technical courses.

Analysts throw around the word- 'Financial Modeling' a lot. You ask them what they're doing as they are buried deep in music and excel sheets and they respond- I'm building a model. You go- huh? Is it forecasting; is it inputting data?

Here's my definition adapted from the one Wikipedia gives you. Financial Modeling is the process of building an abstract representation that simulates the variability and outcome of a real life financial situation.

Let's break the definitions down. What do you mean by abstract? We are not talking about Paul Klee here but a summary representation of a situation or a transaction. We are summarizing a financial situation into an excel sheet and creating enough sensitivities and variables within that sheet to simulate outcomes which will help us arrive at a solution- more often an answer to the question. Should I invest in Dr Reddy's? Should I merge with Viacom? Should I make this TV network or should I buy it like Reliance bought Network 18. All these questions were answered by predictive modeling, in combination with other aspects such as strategy and industry dynamics, all of which can be built into robust models.

Financial models vary in complexity and can be anything from a single sheet DCF calculation to a complex derivative valuation or leveraged buyout model. In the fields of accounting, finance and valuation, models are used in the following areas:

- Business valuation, especially discounted cash flow, but including other valuation problems
- Scenario planning and management decision making ("what is"; "what if"; "what has to be done")
- Capital budgeting
- Cost of capital (i.e. WACC) calculations
- Financial statement analysis (including of operating- and finance leases, and R&D)
- Project finance and of course Mergers and Acquisitions (i.e. estimating the future performance of combined entities)

The effectiveness of a financial model can be distilled into three major elements:

1.     of input data- If the base historical data used to anchor forecasts is incorrect, it is obviously going to lead to misleading answers

2.     Assumptions/drivers used to forecast information- Understanding the dynamics of businesses or products are critical to building assumptions. For instance if you want to understand the viability of the car business, it's important to understand population growth and perhaps the trend of family

     car ratios and built in flexibility to see what would happen if ratios changed.

3.     Model design and hygiene- Even if your data is perfect and your assumptions are spot on, your model fails if it's cumbersome and clumsy. For instance, hard coded cells need to be a different color from formulae cells.

FMVC students learn how restate financials and forecast them, not just by dragging historical data but understanding external and internal dynamics. They learn how to build up cost and revenue and build in assumptions.

**Limitations of financial models**
While robust models help to understand possible outcomes by building in drivers we know, it fails to build in the unexpected.

A great example of this was the 2008 crisis where no model seemed to take into consideration what would happen if housing prices fell. It was an assumption that housing and land appreciate, forever and ever.

Two, no manager should rely on a model without considering the subjective elements that go into any transaction. It's hard to model in behavior. So the synergy model we built for an M&A transaction takes no consideration of integration issues, leading to overvaluation of an asset.

Finally, Confucius did say, 'Study the past if you would define the future', history has shown us that it is not a guarantee, so while a robust financial model can greatly help simulate possible outcomes helping us arrive at a conclusion, it cannot be the sole factor on which a decision is made.