

## IP VALUE

Generally, IP assets are difficult to value because of the following reasons:

- Historically, no public trading markets (eg property)
- Terms & Conditions vary widely.
- IP assets are inherently dissimilar
- IP transfers are often motivated by unique strategic considerations
- Details of IPR transfers are usually not widely disseminated

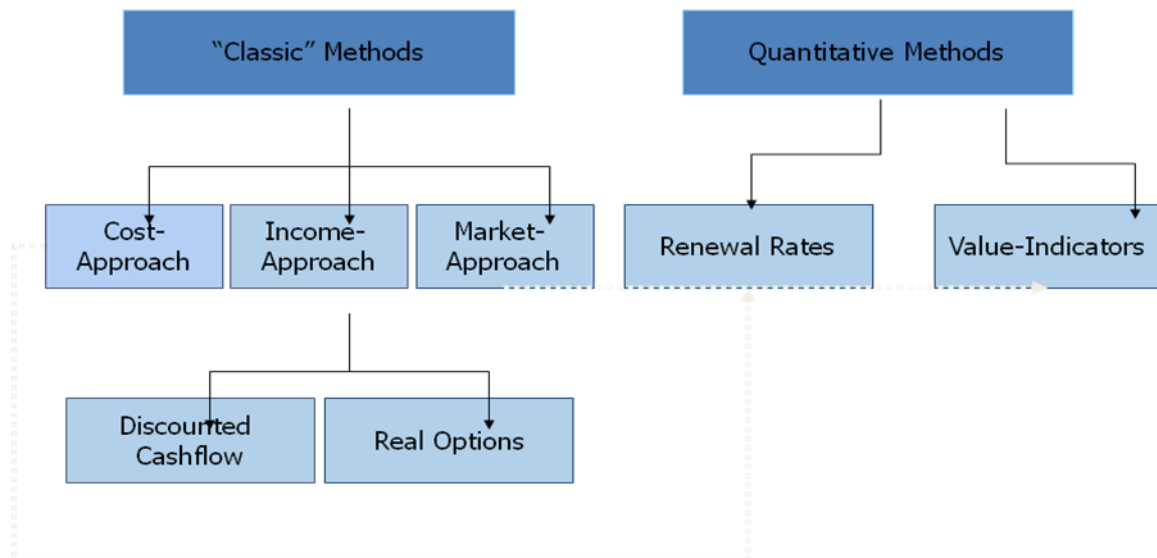
IP Valuation is not so much a matter of science but rather a matter of external judgement. The Foundation of IP valuation analysis consists of four constituent blocks, each with an associated question:

- **Purpose** – Why are we valuing the asset?
- **Description** – What is the asset?
- **Application** – How will the asset be used?
- **Standard** – Who is the assumed buyer of the asset?

There are many IP valuation methods in the markets as summarised in Diagram 2.7 below:-

Diagram 2.7

### Evaluation Methods



In a nutshell, the most common valuation methods are based on one of the three methods below:-

**A. Cost** - Based on cost to replicate, (less functional or economic obsolescence) *that is the cost to create or recreate the asset; we look at what we spent on developing the IP and what another company might spend if they were to invent it from scratch.*

**B. Market** - Based on market transactions involving *comparable assets* (with adjustment for differences) *that is the sales of comparable IP, where a "somewhat" similar deal could be used for the purposes of comparison.*

**C. Income** - Discounted Net Cash Flow (royalties/profits/savings) *which is based on the future economic benefits produced by the intellectual property; where we look at the projected incremental profits or cost savings from using the IP.*

For the purpose of discussion, we shall look at the Discounted Net Cash Flow Method.

The Discounted Cash Flow Method involves a summation of the net cash flow derivable from an IP assets over its useful life and discount the value to the present day value using an effective discount rate. To do that, we need to

- (a) Determine the overall cash flow of a company from P&L account
- (b) Disaggregate the business segment and product line ( Diagram 2.7.1)
- (c) Disaggregate the earnings of the relevent product line to derive the earning attributable to the intangible assets ( Diagram 2.7.2)
- (d) Disaggregate the intangible assets earnings to arrive at the earning attributable to a particular IP asset. ( Diagram 2.7.3)

(e) The value of an IP Asset can be deduced using the formula:-

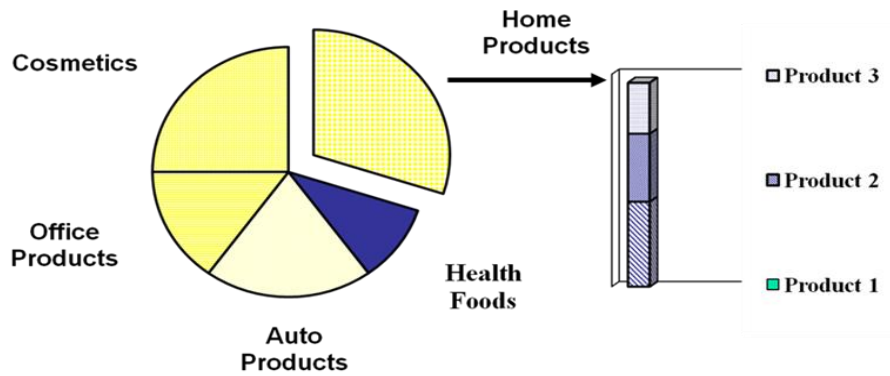
$$\frac{x}{(1+r)^n}$$

1. Identify incremental cash flows (x) for each period (n)
2. Select appropriate discount rate (r)
3. Calculate net present value

Diagram 2.7.4 gives an example of the application of the formula

(f) Perform cross checks and Appropriate for identifiable cash flows of a defined period

Diagram 2.7.1



Disaggregating the Business Segment & Product Line

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Disaggregating the Earning

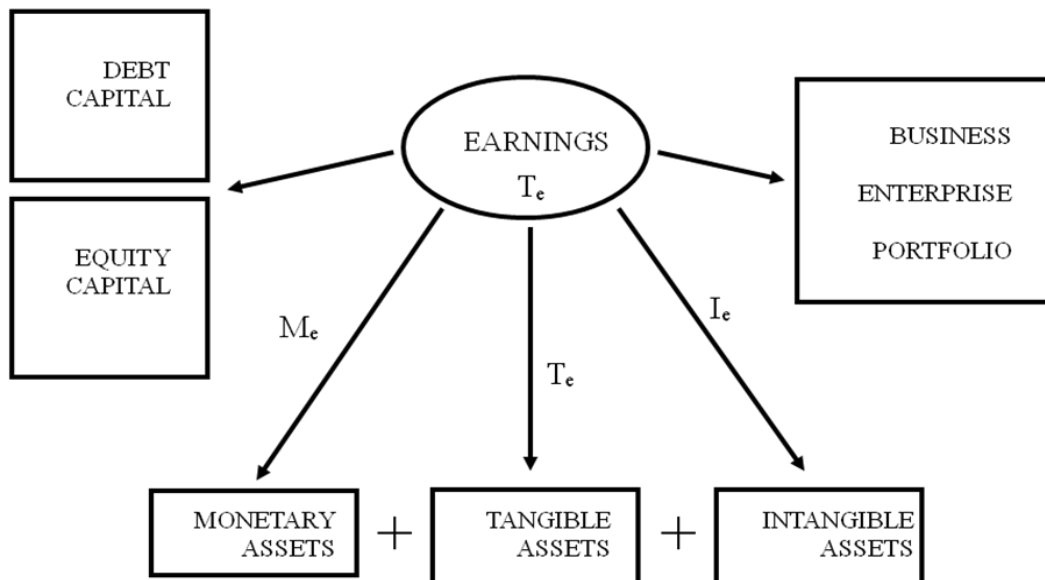


Diagram 2.7.2

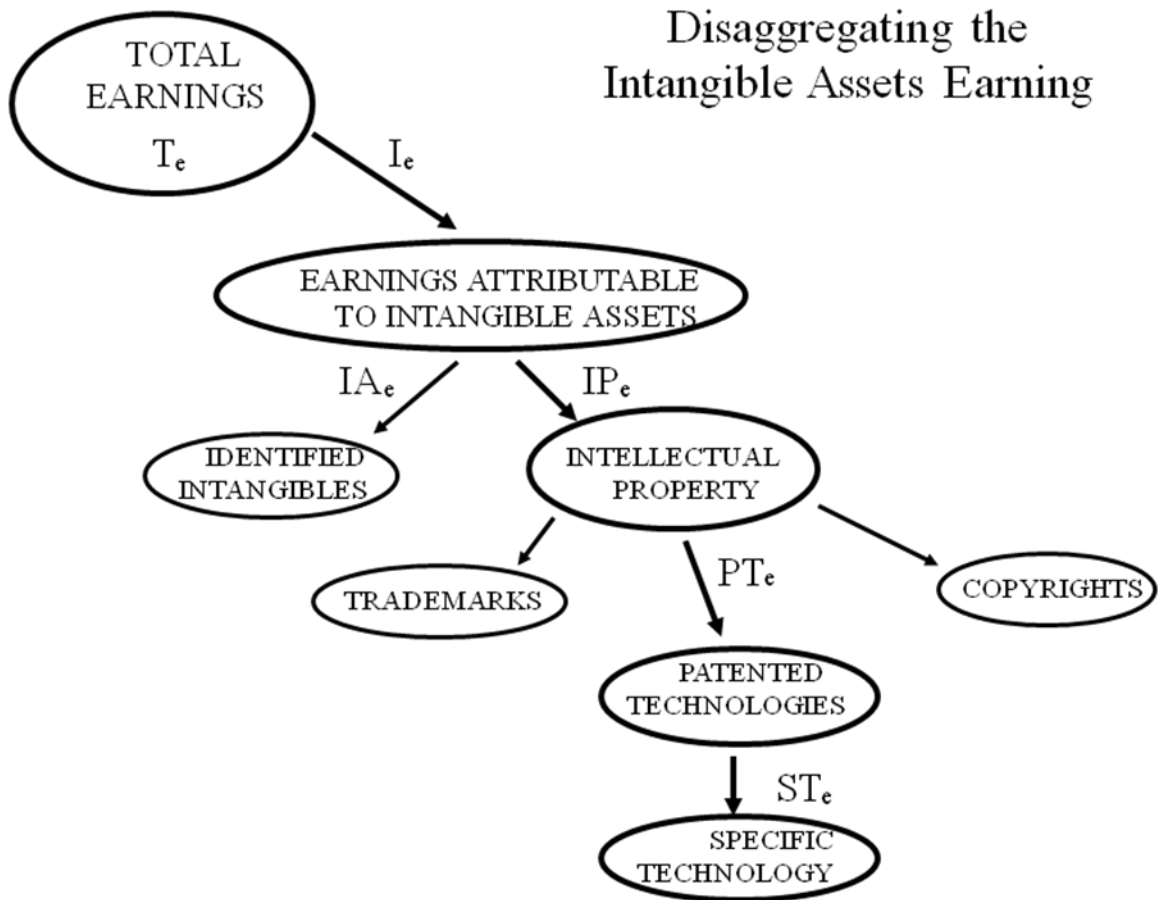
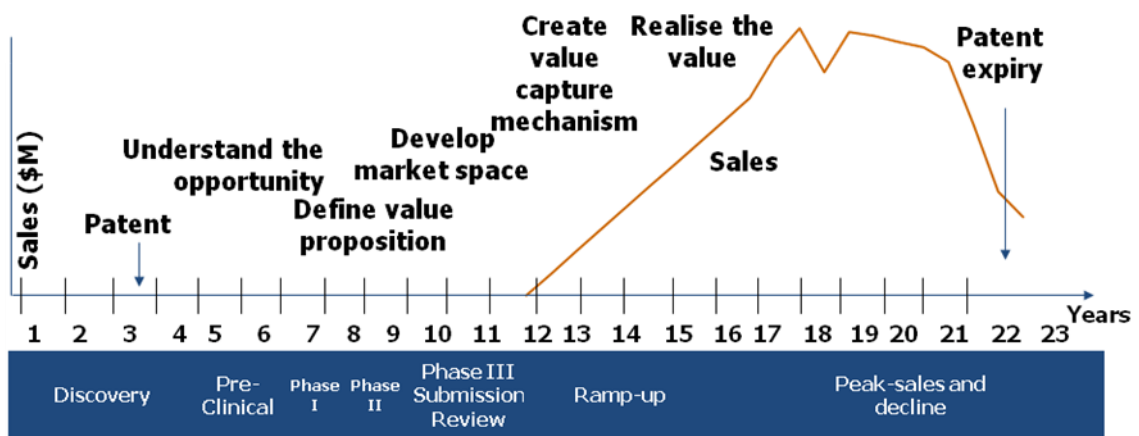


Diagram 2.7.3





	Year 0 (Present)	Year 1	Year 2	Year 3	Year 4
Sales			2	30	360
R&D costs	(800)	(1,200)	(400)	(50)	
Production costs			(5)	(20)	(150)
Net cash flow	(800)	(1,200)	(403)	(40)	210
Discount factor (r = 10%)	■	■	■	■	■
DCF	(800)	(1,091)	(333)	(30)	143

$$NPV = DCF_0 + DCF_1 + DCF_2 + DCF_3 + DCF_4 = (2,111)$$

Diagram 2.7.4