Intangible Assets Valuation Using Excel Models

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1. Purpose and Learning Context

In today's business environment, many companies create value not from factories or machinery, but from **ideas, relationships, knowledge, and reputation**. Brands such as those in the FMCG sector, technology platforms, customer data, long-term contracts, and internally developed expertise often determine competitive success.

However, **financial statements do not fully capture these sources of value**. Accounting rules usually allow companies to record only purchased intangibles, while internally created intangibles are expensed. As a result:

- Book value is often far lower than market value
- Traditional valuation metrics appear misleading
- Investors and acquirers require separate valuation of intangibles

This learning resource prepares you to understand **how and why intangible assets are valued**, and how these ideas are translated into **structured Excel models**.

This document must be read **before** entering the Excel lab session.

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2. Conceptual Foundations of Intangible Asset Valuation

2.1 What Is an Intangible Asset?

An **intangible asset** is a non-physical resource that:

- Can generate future economic benefits
- Is identifiable or economically separable
- Often arises from legal rights, contracts, or accumulated knowledge

Common examples include:

- **Brands and trademarks** – customer recognition and loyalty
- **Customer relationships** – repeat buyers, subscriptions
- **Technology and IPR&D** – patents, software, algorithms
- **Contracts** – PPAs, licenses, franchise agreements
- **Intangible capital** – workforce skills, organizational processes

Unlike machinery, these assets:

- Do not wear out physically
- Often depend on continuous investment
- Have risk profiles different from the firm as a whole

2.2 Why Traditional Valuation Is Not Enough

A single firm-level DCF answers only one question:

What is the value of the entire business?

But in practice, decision-makers often need answers to **asset-level questions**, such as:

- How much of the acquisition premium is due to the **brand**?
- What portion of profits comes from **existing customers**, not future ones?
- How should we value **unfinished R&D** with uncertain outcomes?
- What is the incremental benefit of a **favorable contract**?
- Why does market value exceed book value by such a large margin?

Each intangible:

- Has its **own cash flow logic**
- Has a **distinct risk**
- Has a **finite or uncertain life**

Therefore, **specialized valuation models** are required.

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3. Model 01: Relief-from-Royalty (RFR) – Brand Valuation

3.1 Economic Intuition

The Relief-from-Royalty method is based on a simple but powerful idea:

If a company did not own its brand, it would have to license it from someone else.

By owning the brand, the company **avoids paying royalties**.
The value of the brand is therefore equal to the **present value of these avoided royalty payments**.

This method is widely used for:

- Brands

- Trademarks
- Marketing-related IP
- Licensed technologies

3.2 Key Conceptual Elements

Royalty Rate
This reflects what similar brands earn in licensing deals.
It depends on:

- Brand strength
- Industry norms
- Geographic markets

Brand-Attributable Revenue
Not all company revenue is due to the brand.
Only revenue that exists *because of brand recognition* should be considered.

Tax Adjustment
Royalty payments would be tax-deductible expenses.
Hence, valuation must use **after-tax royalty savings**.

Brand-Specific Discount Rate
Brand risk is not the same as firm risk.
A stable brand may be less risky than a startup's overall business.

Useful Life

- Finite life: brand value declines over time
- Indefinite life: brand generates benefits perpetually
  Decision must be justified, not assumed.

3.3 How to Interpret Brand Valuation Results

- Brand value is **highly sensitive** to royalty rates
- Terminal value often dominates total value
- Continuous advertising does not automatically imply infinite life
- Using WACC blindly reflects weak understanding

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4. Model 02: Multi-Period Excess Earnings Method (MPEEM) – Customer Relationships

4.1 Economic Intuition

Customers do not generate profits on their own.
They require support from:

- Technology platforms
- Brand trust
- Employees
- Working capital
- Physical infrastructure

MPEEM asks:

After paying all supporting assets their fair return, how much value remains for customer relationships?

Only this **residual value** belongs to customers.

4.2 Core Conceptual Components

Existing Customers Only
The objective is to value customers already acquired.
New customers represent future growth, not existing assets.

Attrition (Churn)
Customers leave over time.
This reduces both revenue and value.

Contributory Asset Charges (CACs)
Each supporting asset must earn a normal return.
Ignoring CACs leads to double counting.

Finite Life
Customer relationships always have a limited economic life.

4.3 Interpretation and Learning Insights

- High accounting profits do not imply high customer value
- CACs often remove most apparent profitability
- Faster churn drastically reduces valuation

- Customer value is front-loaded, not perpetual

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5. Model 03: Real Options / Decision Tree – Technology & IPR&D

5.1 Why Traditional DCF Is Inadequate

R&D projects are:

- Uncertain
- Staged
- Flexible

Management can:

- Continue
- Delay
- Expand
- Abandon

A traditional DCF assumes **commitment**, which ignores flexibility.

5.2 Core Economic Logic

Decision-tree valuation:

- Models multiple future outcomes
- Assigns probabilities to each stage
- Uses backward induction
- Captures **option value**

This approach is essential for:

- Biotech
- Platform technologies
- Early-stage innovation

5.3 Interpretation Insights

- Option value exceeds naïve DCF

- Early-stage uncertainty can increase value
- Salvage value limits downside
- Flexibility itself has economic worth

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6. Model 04: With-and-Without Method – Contract-Based Intangibles

6.1 Economic Intuition

A contract has value only if it creates **incremental benefits**.

Value is defined as:

Cash flows with the contract minus cash flows without the contract

Used for:

- Power purchase agreements
- Licenses
- Long-term supply contracts

6.2 Key Conceptual Drivers

- Tariff or price advantage
- Contract duration
- Default risk
- Regulatory stability
- Renewal uncertainty

6.3 Interpretation Insights

- Contract value is much smaller than revenue impact
- Risk adjustments materially reduce value
- Value declines as contract approaches expiry

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7. Model 05: Intangible Capital Reconstruction & Market-to-Book Bridge

7.1 Economic Intuition

Accounting treats investments in:

- R&D
- Training
- Advertising

as expenses.

Economically, these create **long-term assets**.

This model reconstructs intangible capital to explain:

- High market-to-book ratios
- Inflated ROIC figures

7.2 Key Conceptual Elements

- Capitalization reflects asset creation
- Amortization reflects consumption
- Adjusted ROIC is economically meaningful
- Remaining premium reflects growth options

7.3 Interpretation Insights

- High ROIC often reflects missing assets
- Adjusted ROIC provides realism
- Market premium is not necessarily irrational

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8. Common Model Logic Across All Valuations

All models follow a consistent reasoning sequence:

1. Identify the intangible
2. Isolate economic benefit
3. Adjust for tax and risk

4. Remove double counting
5. Discount appropriately
6. Validate logic using checks
7. Interpret drivers and sensitivities

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9. Application Readiness: How Students Should Think

Before opening Excel, you should be able to answer:

- Why is this model appropriate?
- What exactly is being valued?
- What assumptions matter most?
- What would overstate value?
- How does this asset interact with others?

Excel is a **tool**, not the logic.

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10. Student Preparation Checklist

After reading this material, you should be able to:

- Explain each model conceptually
- Defend assumptions verbally
- Predict sensitivity outcomes
- Distinguish accounting numbers from economic value
- Understand why intangibles dominate firm valuation
