



Intangible valuation

Introduction

- ▶ Valuation of intangible is very complex and require the following:
 - Attention to detail
 - Deep understanding of the industry that is being valued
 - Ability to think outside the box to perform some of the valuation and its potential cashflow
 - Knowledge of the local laws regarding IPR and IA
 - For financial reporting the knowledge of local accounting regulations



Common Types of Intangibles

Marketing-related

- ▶ Trademarks, Trade names, brands
 - Derived from either sales of very successful products or services and / or by extensive advertising / public relations campaigns.
 - Exists as a result of brand loyalty for a particular product identified by a trademark.
 - Premium pricing.
- ▶ Service marks, certification marks
- ▶ Internet domains
- ▶ Non-competition agreements
- ▶ Trade dress (unique color, package design, etc.)

Artistic-related (IPR)

- ▶ Compositions, advertising jingles
- ▶ Pictures, photographs
- ▶ Video and audiovisual material

This is the new issue on Indonesia as the government has finally allowed the utilization of IPR as a loan collateral, MAPPI is drafting a separate regulation in cooperation with the ministry of tourism & creativity and ministry of Law and human rights.

Technology-based

- ▶ Patented technology
 - The value of a patent comes from the rights of the owner to exclude others from using the protected property which is secured by the laws of the subject country.
 - A patent would have questionable value if the covered innovation were available for common exploitation
- ▶ Computer software
 - Consider replacement cost new to determine fair value for each category of software and a functional obsolescence factor.
 - Consider installed software, proposed for future software and software that is highly specific to an industry.

Technology-based

- ▶ Unpatented technology
- ▶ Trade secrets
 - Proprietary knowledge and or process that is kept secret from others and provides a unique advantage to its owner.
 - Trade secrets constitute all the confidential information and know-how that gives a company its competitive advantage.
 - Once a trade secret becomes publicly known-by any means-the value of the intellectual property is significantly reduced.
- ▶ Registration
- ▶ Database

Contract-based



- ▶ Licensing, royalty, standstill agreements
 - By acquiring a company along with existing licenses, permits and rights, a prospective purchaser would be able to avoid the costs (including time delays and regulatory uncertainties) associated with acquiring such permits.
- ▶ Lease agreements
- ▶ Construction permits
- ▶ Franchise agreements
- ▶ Operating and broadcasting rights
- ▶ Employment contracts
- ▶ Advertising, construction, management & service contracts
- ▶ Supply contracts
 - Rights accrue to an individual or to a business entity as a result of a written, legally
 - enforceable contractual arrangement.
 - Changes in general industry or economic conditions subsequent to the original consummation of a contract can increase or decrease the value of the contract.



Customer-related

- ▶ Customer lists
- ▶ Order or production backlog
- ▶ Customer contracts and related customer relationships
 - Every business has customers, but not every business has customer relationships.
 - Consider existence of an identifiable income stream generated from customers along with rationale (typically based upon historical performance) for the continued expectation or renewal of that income stream over an expected life or duration.
- ▶ Non-contractual customer relationships

In Process R & D

- ▶ The proprietary knowledge or processes being developed or purchased by a company provide, or have the potential to provide, significant competitive advantages or product differentiation.

Branches	Typical Intangibles expected
Retail & Consumer Industry	Customer Relationships, Brands, Technologies, Favorable Contracts
Industrial Products	Technologies, Patents, Licenses, Customer Relationships, Brands, Order Backlog, IPR&D
Financial Institutions	Customer Relationships, Brands, Internet-Platforms, Core Deposit Intangibles, Core Overdraft Intangibles, Software, Call Center, Service Rights
Pharmaceutical Industry	IPR&D, Trade Secrets, Brands, Patents, Licenses, Order Backlog, Technology
Telecommunication	Licenses (eg UMTS/GSM), Customer Relationships, Brands, Software (eg Billing), Roaming Agreements (Inbound, Outbound), Interconnection Agreements, Infrastructural Rights
Energy and Utilities	Customer Relationships, Favorable Contracts, Brands, Rights (Exploitation Rights, Routing Rights, Emission Rights)



Method of Intangible Valuation

Identification of Intangible Assets

Characteristics of Identifiable Intangibles

Identifiable intangible assets should ¹:

- ▶ Be subject to **specific identification** and **recognizable** description
- ▶ Be subject to **legal existence** and **protection**
- ▶ Be subject to the **right of private ownership**, and the private ownership should be **legally transferable**
- ▶ Coincide with some **tangible evidence** or manifestation of the existence of the intangible asset (e.g., a contract, a license, a registration document, a computer diskette, a listing of customers, a set of financial statements, etc.)
- ▶ Have been created or have come into existence at an **identifiable time** or as the result of an **identifiable event**
- ▶ Be subject to being destroyed or to a **termination of existence at an identifiable time** or as the result of an identifiable event

1. *Valuing Intangible Assets*, Robert F. Reilly and Robert P. Schweih's 1999

Remaining useful life (“RUL”)

- ▶ The period over which an asset is expected to contribute to future cash flows.
- ▶ Determine RUL based on analysis of:
 - Expected use of the asset by the acquirer and target.
 - Expected useful life of another asset or a group of assets to which the useful life of the intangible asset may relate.
 - Legal, regulatory, or contractual provisions that may limit the useful life or enable renewal or extension of the asset’s legal or contractual life without substantial cost.
 - Effects of physical deterioration, functional obsolescence, technological obsolescence, and economic obsolescence.
 - Level of maintenance expenditures required to obtain the expected future cash flows from the asset.
 - Estimation of the future benefit derived from the technology.

Method of valuation

Income Approach

Based on the present value of future cash flows

Cost Approach

Based on the hypothetical cost to replace

Market Approach

Based on comparable asset transaction multiples

Income Approach – best

► Methods:

- Multi-period excess earnings method
 - Estimate total business cash flow
 - Determine required cash flow on tangible assets
 - Determine remaining cash flow attributable to IA
 - Calculate net present value of IA
- Relief from royalty method
- Incremental cash flow method
- Direct cash flow method
 - Forecast revenues and expenses
 - Determine discount rate
 - Calculate net present value of entire business
 - Subtract net tangible assets and business goodwill to determine IA value

Income Approach

Sample - Customer contract & relationship

- ▶ It is generally accepted that in order for a business relationship with a customer to rise to the level of an intangible asset, there must be a reasonably identifiable relationship with a specific customer characterized by:
 - Identification of a specific customer;
 - Identifiable income stream generated from the customer;
 - Rationale for the continued expectation or renewal of the income stream; and
 - Rationale for an expected life or duration of the income stream.
- ▶ Customer relationship value drivers include:
 - High-inertia customer relationships; and
 - The amount of information available about the customer.

Income Approach

Sample – Customer contract & relationship



▶ Excess Earning Method

- Estimate
 - Annual attrition rate and remaining useful life.
 - Annual revenue attributable to the customer relationships.
 - Operating expenses and EBITDA attributable to the customer relationships based on projected results.
- Identify contributory assets and estimate appropriate capital charges for use of the contributory tangible and intangible assets.
- Calculate the after-tax annual excess earnings attributable to the customer relationships.



Income Approach

Sample - Customer contract & relationship



▶ Lifting analysis

- Because customer relationships are a wasting asset, it is necessary to conduct a lifting analysis.
- Various methods may be used to determine the life of an asset, but typically consider.
- Nature of the relationship, including rationale for renewal and probability of renewal (e.g. contractual or non-contractual, contracts go out for competitive tender annually, degree of competition, etc.).
- An analysis of the average life of existing customers.
- An analysis of historical customer attrition patterns.
- Ease of customer / contract renewal.
- The current and probable future operating environment.

Income Approach

Relief from royalty approach

- ▶ Estimation of the royalty rate
 - Royalty rate is the amount that a licensor and a licensee would negotiate if both had reasonably and voluntarily attempted to reach an agreement.
- ▶ Considerations
 - Prevailing royalty rates for similar intangible assets in the industry (analyze internal and market-derived information).
 - Prospective profits to be realized, costs to be saved, or return on assets to be used in the business.
 - Advantages over existing products in the marketplace.
 - Availability of substitutes.
 - Royalty payments as a percentage of revenue for technology vary widely, depending upon the profitability of the product and the industry and market being served.

Royalty rate database / info sources

- ▶ RoyaltyStat (<http://www.royaltystat.com/>) – an online database
- ▶ Royalty Source (<http://www.royaltysource.com/>)
- ▶ LexisNexis
- ▶ Thomson Research
- ▶ 10K Wizard
- ▶ Chicago Royalty Database
- ▶ Compact D SEC Database

Cost Approach – 2nd best

- ▶ Methods:
 - Reproduction costs method
 - Replacement costs

How

- ▶ Replacement cost is upper limit
- ▶ Cost savings / avoidance approach – measures value to purchaser
- ▶ May be only approach that can be used
- ▶ Discount early stage projects
 - rush to patent office
 - obsolescence
- ▶ Cost plus a return may be reasonable

Market Approach (3rd best due to lack of data)

- ▶ Market price on active markets
 - Identify comparable deals and companies
 - Isolate value drivers:
 - cash flow, R&D, costs, revenue
 - Calculate technology value
 - market capitalization less cash
- ▶ Analogy method
 - Use as a check on an in-depth valuation
 - Examples
 - Mutual Fund and Other Asset Management Businesses – % of assets under management, less net tangible asset value
 - Canadian Newspapers – Multiple * Revenue or EBITDA, less net tangible asset value

Real Option Pricing (OJK not approved)

- ▶ *As Aswath Damoradan noted, “the most difficult intangible assets to value are those that have the potential to create cash flows in the future but do not right now.” These assets have option characteristics that make them suitable to be valued using option pricing models and include undeveloped patent and undeveloped natural resource options, among others. (source : CFA institute)*
- ▶ Black Scholes
- ▶ Monte carlo simulations
- ▶ Binomial



The End, Questions??

Source of Material

- ▶ Book 2 of Indonesian Society of Appraisers (MAPPI), September 2007, By **Jim Horvath**
- ▶ **Other sources**