Shariah-compliant Intellectual Property-based Financing

Talk by Zaid Hamzah at INCEIF
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Content

1. Objective
2. Nature of IPR (intellectual property rights)
3. Economic Context
4. Islamic Financing Parameters
5. Business & Commercial Issues
   1. Intellectual Capital and Intellectual Property Rights (IPR) and Technology commercialization
   2. Monetization of IPR
   3. Challenges (liquidity, foreclosure)
Learning Objectives

1. Understand the fundamentals of IPR-based financing;
2. How to monetize IPR and make it bankable;
3. The challenges and practical difficulties in extracting value from IPR as an asset class from an investment perspective; and
4. How to manage both the legal and financial risks involved in dealing with IPR as an asset class in Islamic financing transactions
Definition of concepts
Definition

**Intellectual Capital (IC)**  Widely regarded as the new factor of production in the innovation-driven knowledge economy, IC refers to the intellectual and intangible outputs of human creativity and includes know how and insights, intellectual property rights (such as patents and copyrights) that creates commercial value and economic wealth. The value of an enterprise comprises physical assets, financial assets & intangible assets, i.e., intellectual capital. IC conventionally refers to the difference in value between tangible assets (physical and financial) and market value.

**IP or IPR**  Intellectual property rights such as patent, copyright, design rights, trademark, confidential information. IPR is widely regarded as the 6th asset class in finance (after real estate, stocks, shares, fixed income, private equity).

**Islamic Finance**  Financing mode or structures that complies with Islamic law or Shariah with the following broad characteristics: 1. Prohibition of (i) interest/usury (ii) ambiguity or uncertainty (iii) gambling 2. Profit and risk sharing (not lender-borrower relationship) 3. Financing activities that promotes community well being and economic interests – no unethical profiteering. 4. Financing of real economic activities and avoidance of leverage.

**Private Equity/Venture Capital (PE/VC)**  PE and VC investment are investment made by acquiring companies or taking equity stakes in ventures, improving their performance and selling it off for higher returns. VC is a sub-set of private equity and usually refers to investment in riskier start-up ventures while PE deals tend to involve more mature investee companies. The ultimate purpose of PE and VC deals is to invest in companies in which the investors see as commercially promising and then to exit from the investment after a number of years to secure their returns on investment.

**Shariah**  Islamic law based on (i) the Quran (the Word of God in the view of Muslims) and (ii) Sayings and conduct of Prophet Mohammad, the last prophet in Islam.
FAQ on Intellectual Capital Investment (ICI 101)

**What is Intellectual capital investment (“ICI”)?**
ICI is investment in intangible assets such as intellectual property rights (“IPR”) in the form of patents - instead of tangible assets like real estate. Intellectual property is now widely regarded as the 6th asset class. One can invest in the creation and commercialization of IPR.

**What is the difference between investing in intellectual property rights (IPR) and investing in technology companies?**
IPR is separate from the technology but IPR often underpins a new or innovative technology. For example, if a manufacturer creates a new tablet pc, the software that runs this new innovation could be patented. It is possible to invest in IPR in itself or invest in the companies that own the IPR. IPR is a legally recognized proprietary right. Investments can be made in both IPR as well as the company that owns the IPR.

**How are returns generated from intellectual capital investment?**
It all depends on the investment structure. For example, if an investor or an Investment Fund buys a patent or fund the development of a patented technology, the patent can be sold (“assigned”) at a higher value. An investor can also buy into an IPR-rich company at the early stages of design and development and then sell off the company when the product (with the IPR embedded in it) is successfully commercialized in the marketplace.
Asset Classes, Investments & Financing
Asset Allocation and Investments

• **Asset Class**: After cash equivalents, real estate, stocks (equities), fixed income and private equity, **intellectual property rights** is emerging as a new asset class (6th)

• An **investment strategy** is usually based on four decisions:
  1. What asset classes to consider for investment
  2. What weightage to assign to each eligible class
  3. The allowable allocation ranges based on weightage
  4. What specific securities to purchase for the portfolio

• According to conventional wisdom, 85% to 95% of the overall investment return is due to the first two decisions, not the selection of individual investments
IPR is now widely regarded as the 6\textsuperscript{th} asset class
Intellectual Capital comprises human capital, intellectual assets and intellectual property rights which overlap.
Strategic Setting
Within the last quarter century, the market value of the S&P 500 companies has deviated greatly from their book value. This "value gap" indicates that physical and financial accountable assets reflected on a company's balance sheet comprises less than 20% of the true value of the average firm. Research from Ocean Tomo, a leading IPR Investment Banking firm, shows that a significant portion of this intangible value is represented by patented technology.
“The locus of technology production is shifting. In 1994, China, Japan and the Republic of Korea accounted for 7.6 per cent of international patent applications filed under the Patent Cooperation Treaty. In 2009, they accounted for 29.2 per cent of those applications. The top 5 sources of international patent applications are now in order, the US, Japan, Germany, Republic of Korea and China. The top 5 patent offices in terms of numbers of applications received are now, the patent offices of the US, Japan, China, the Republic of Korea and the European Patent Office”

Francis Gurry
Director-General, World Intellectual Property Organization
Economic transformation is already taking place

- Factor-driven economy
- Efficiency-driven economy
- Innovation-driven economy

It is easier to move from factor-driven economy to efficiency-driven economy – but it is much more difficult to move from efficiency-driven to innovation-driven economy
Economic Model
Intellectual Capital
Innovation, know-how, insight methodology, expertise,
Intellectual Property Rights

Risk Capital
VC funds, debt ventures

Value Chain Management
R&D

Go to Market - Technology Commercialization & IP Licensing

Firm level competitiveness
Market performance
Industry development

Go to Market - Ramp up sales to increase revenue especially for ready high growth companies

Higher Value
Higher Income
Wealthier Nation

Technopreneurship
Entrepreneurship

Value Capture
Challenge 1: How to leapfrog into the high value/high volume quadrant

- More higher value skills & jobs → higher pay → wealthier economy

Challenge 2: How to sustain leadership position & be ahead of the curve
## RETURN ON INNOVATION INVESTMENTS (ROI 2)

<table>
<thead>
<tr>
<th>High Investment Amount/High ROI</th>
<th>High investment amount/High ROI</th>
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<tbody>
<tr>
<td>Low Investment Amount/Low ROI</td>
<td>Low Investment Amount/Low ROI</td>
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It is all about better yield, better value from investment
The Malaysian Economic Eco-System: Clusters and Competitiveness

Macroeconomic, Political, Social, Environmental & Legal Context

Microeconomic competitiveness

ICT Cluster

Biotech Cluster

New Greentech Cluster

Services, manufacturing, Islamic finance, agriculture, mining, construction
IPR & Financing
How IPRs are monetized – IPR value chain

<table>
<thead>
<tr>
<th>Methods to Generate Revenue</th>
<th>Example</th>
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<tbody>
<tr>
<td>1 License IPR to others</td>
<td>When you buy a software from say Microsoft, you have the right to use the software in the form of a license. The underlying source codes are the copyright owned by Microsoft Inc.</td>
</tr>
<tr>
<td>2 Royalty-based revenue</td>
<td>A biotech patent can be used in commercial transaction where the patent owner negotiate its expected returns based on a certain percentage of revenue, say 1-3 per cent</td>
</tr>
<tr>
<td>3 Inject IPR as capital in a venture</td>
<td>IPR can be capitalized in a company as payment in kind and value is generated from the profits of the venture</td>
</tr>
<tr>
<td>4 Sale of IPR</td>
<td>Like tangible assets, IPR can be sold or assigned. Once sold, the seller of the IPR no longer has any legal rights over the sold IPR</td>
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### IPR & Financing

<table>
<thead>
<tr>
<th>IPR – subject matter</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. IPR can be the subject matter of an investment or financing</td>
<td>An investor finances R&amp;D to create biotechnology patents</td>
</tr>
<tr>
<td>2. IPR can be used as collateral to raise financing (ie IPR as a financing tool)</td>
<td>A company which has been granted a patent can offer the patent as security to raise money from the market</td>
</tr>
<tr>
<td>3. Returns from IPR can be securitized</td>
<td>A company with a constant licensing revenue streams can securitize such returns to raise financing through bonds</td>
</tr>
<tr>
<td>4. IPR can be injected a paid up capital in kind (in addition to cash, eqpt, land)</td>
<td>A company may get its patent valued and then use the patent as part of the paid up capital of a company</td>
</tr>
</tbody>
</table>
IPR & Islamic Finance
“As Islamic finance matures, other asset classes are being financed by Shariah-compliant structures: company shares, carbon credits, electricity, intellectual property rights and mobile telephony airtimes are just a few examples. The boundaries between tangible and intangible assets are becoming blurred, as scholars accept that certain classes of intangible assets do have a usefulness that can and should be recognized by Shariah.”
The Council of the Islamic Fiqh Academy, holding its Fifth session, in Kuwait-City (State of Kuwait), from 1st to 6th Jumada al-Oula 1409H (10 to 15 December 1988)

Having reviewed the papers presented by the Members and experts concerning “Incorporeal rights” and after having listened to the discussions on the subject

RESOLVES

• **First**: Business name, corporate name, trade mark, literary production, invention or discovery, are rights belonging to their holders and have, in contemporary times, financial value which can be traded. These rights are recognized by Shari’a and should not be infringed.

• **Second**: It is permitted to sell a business name, corporate name, trade mark for a price in the absence of any fraud, swindling or forgery, since it has become a financial right.

• **Third**: Copyrights and patent rights are protected by Shari’a. Their holders are entitled to freely dispose of them. These rights should not be violated.
An Opportunity Exist to Converge Islamic Risk Capital with Technology Innovation & Intellectual Capital Investment

Islamic Financing of Innovation Activities (R&D etc) and Technology Commercialization
Overview of Transactional Model & Deal Structure
BASIC ECONOMIC VALUE FLOW

Islamic capital

Strategic Investors (Institutional investors)
Commercial & Development Banks
VCs & Private Equity Funders

IP/Tech Fund
Fund manager
IPR Bank
Tech Licensor

Technology & IP - creating Research Institutions & Enterprise

IPR & Tech Valuers & Exchange

Commercialization Entity

Enterprises in the marketplace

Commercialization → Revenue

Marketplace (industry-driven)

New asset class

SPV: Special Purpose Vehicle
IPR: Intellectual property rights like patents, copyright
Hypothetical Case Studies*
Example of transaction structure – Investment Fund Structure

**FUND COMPANY**

- **INVESTORS**
  - Cash investment

- **Fund Manager**
  - Manage IPR / technology (investment in kind) with IPR commercialization unit

- **IP or Intellectual Capital Assets**
  - IPR Bank is created and managed by IPR commercialization experts

**Investment manager**
**Administrator**
**Custodian**
**Registrar**
**Distributor**
**Shariah Board**
Joint Venture based on musharakah principles

**Enterprise/Research Institution**
- Cash investment
- IPR / technology (investment in kind)

**Financial Investor**
- Cash investment

**Participation Note**
- Revenue from licensing

**Musharakah Principles**
- Profits based on agreed ratio (not necessarily in same ratio of investment amount)
- Losses jointly incurred based on ratio of funds
- Technology or IPR can be invested in kind & based on agreed value
- Both partners can participate in management of business project
IP is the fundamental asset of innovation and entrepreneurship in the 21\textsuperscript{st} century - with the potential to generate new wealth opportunities for investors. This paper proposes the establishment of an IP Investment Fund with the following characteristics:

- **Type of Investment** Investments will be made in intellectual property & intellectual property rich companies – these investee companies will typically have compounding business models with elements of licensing, royalties and/or subscriptions to achieve scale.

- **Sectors** The IP Investment Fund envisaged here will be diversified across industry sectors, geographies and the capital structure. The Fund’s objective is to combine leading intellectual property, compounding business or cash flow models and world-class management to generate exits and excess returns.

- **Management** The Fund is to be managed by a team with expertise in IP assessment, valuation, management, and enforcement. The Fund plans to hold a mix of investments, diversified across sectors and geographies.
IP/Tech Investment Fund Approach

The Fund will seek to provide additional value to its IP investments in several key ways:

- **Governance** - influencing the business direction and strategy of its portfolio investments through board appointments and through on-going consultations with directors and management.

- **Operations** - IP portfolio investments will have access to IP advisors and the network of experts in enterprise and entrepreneurial company management and operations.

- **Realizing value** - The Fund seeks to have a deep network of capital markets contacts, including investment banks, venture investors, hedge funds and Fortune1000 investors, and will seek timely "for value" realizations of its investments. Realizations can take the form of strategic sale, initial public offering, successful licensing or litigation, or receipt of royalty streams.
Critical Success Factors

1. The success of any investment fund would depend on the performance of the fund management team.

2. IPR as the underlying asset class in this transaction must be carefully screened and involve primarily IPR or technology in the pre-commercialization and commercialization stage.

3. The Trustee Co (TrustCo) will effectively be the Operating Company (OpCo) to manage the business of IPR and technology commercialization – the role will not just be administrative.

4. There has to be a critical mass of IPR which need not be limited only to Malaysian-owned or Malaysian created IPR - this larger base would increase the chance of market success.
The Steps

Preliminary Business Case Analysis & Feasibility Studies

Prepare Draft Structure Memorandum

Interim Fatwa & Legal Opinion (market-specific)

Due Diligence & Final Feasibility Studies

Prepare Draft Documentation

Final Fatwa & Legal Opinion (market-specific)

Prepare Investment Memorandum

Prepare Offer Documents

Execution Phase
Risk Management
1. The risk takers would primarily be the investors in the sukuk.

2. The primary risk in this initiative is the possibility of market failure where the R &D outputs to be commercialized fail to meet market demands and as a result there is no sale or license fees to be extracted from the commercialization of R&D outputs.

3. The entire IP or technology asset pool must therefore be carefully screened, evaluated, valued by independent third parties with no vested interests in these asset class.

4. Investors will be advised on the commercial risks and there will be no guarantee of market uptake of any of the products except where government users can be “encouraged” to be licensees of IPR or technology since the Government is the primary investors in the creation of these IP or technology assets in the first place.
Managing the Commercial Risks

- This initiative will focus only on this phase 2A/B to minimize the commercial risks faced by investors in the “go to market” phase of the R&D life cycle
- Technology screening for the purpose of pooling together of the underlying asset class & robust commercialization will be critical
BACK UP SLIDES

THE SLIDES FROM THIS PART ONWARDS ARE SUPPORTING SLIDES THAT ARE NOT INTEGRAL TO THE CORE PROPOSAL BUT PROVIDES BACKGROUND OR ADDITIONAL INFORMATION
IPR and the Commercial Context

*IPR : Intellectual Property Rights such as patents, copyrights, trade secrets, trade marks, design rights
Focus must be on intellectual capital value extraction leveraging on licensing as the primary model.
Process for extracting value from IPR

1. Business role for IPR
2. Initial evaluation: opportunity to commercialize or not
3. Patenting evaluation
4. Intellectual assets portfolios
5. Business strategy and tactics
6. Product market matrix
7. Round 2 of competitive assessment
8. IDEA
   - Integrated innovation management
   - R&D & other internal technology creation
9. Commercialization decision process (final)
10. Commercialization $
Governing Model
Technology Adoption Life Cycle

Pragmatists: Stick with the herd!

Conservatives: Hold on!

Visionaries: Get ahead of the herd!

Skeptics: No way!

Techies: Try it!

Pragmatists create the dynamics of high-tech market development
Financing Requirements for Technology Innovation Transactions – Sequence

This initiative will focus on this phase to minimize the commercial risks in the underlying activity.
END OF SLIDES