



**Asia-Pacific
Economic Cooperation**

Synthesis

Strategic Intellectual Asset Management for Emerging Enterprises

Capacity Building for Successful Entry To the Global Supply Chain

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Background

Strong intellectual property rights (IPR) protection and enforcement are recognized as important conditions for trade and investment liberalization and economic growth. APEC has endorsed new Model Guidelines under the APEC Anti-Counterfeiting and Piracy Initiative to inform citizens of the importance of IPR protection and enforcement, and to secure supply chains against counterfeit and pirated goods. Most of these efforts so far have been concentrated on public sector enforcement, in addition to some awareness raising campaigns targeting the consumers. APEC leaders called on its members to continue addressing the IPR protection and enforcement challenges in the region in close consultation with the private sector.

In the past, intellectual property issues tended to focus on the protection of established brands and technologies mainly owned by large corporations in developed economies against counterfeit products from developing economies. In recent years, because of the fast economic development in the APEC region, companies in the emerging economies and “emerging” small and medium scale enterprises (SMEs) in developed and developing economies have effectively utilized indigenous technologies and innovative designs to enter the global market place. However, their own unique products or processes are often without full intellectual property (IP) protection.

The strengths of these enterprises are not limited to their technologies alone. Other intangible assets that entrepreneurs and managers of these companies are usually not fully aware of contribute to their companies’ competitiveness. It is generally accepted that intellectual assets represent a huge untapped “invisible capital” for SMEs.

With this as background, the project entitled “IPR Strategies for Emerging Enterprises - Capacity Building for Successful Entry to Global Supply Chain,” under the auspices of the Asia-Pacific Economic Cooperation (APEC) Human Resources Development Working Group - Capacity Building Network (HRDWG-CBN) was developed with the following objectives:

First, the project sought to identify the issues and challenges of emerging enterprises in recognizing and maintaining their intellectual assets, and

Second, the project aimed to develop a prototype capacity building program and relevant training materials for the program.

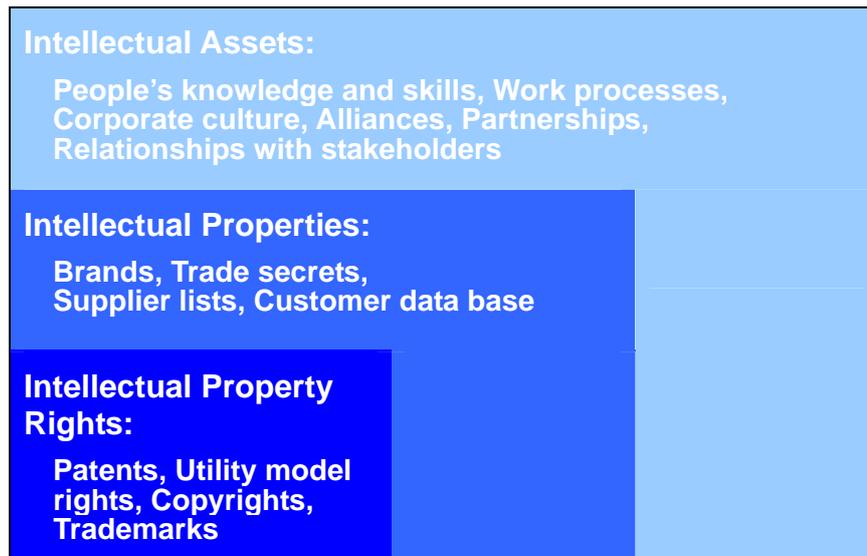
A total of 10 cases from eight APEC economies were developed. The issues highlighted in the cases varied, addressing the complexity of real-life challenges in intellectual asset management. Using the newly developed cases, a prototype capacity building program was designed and successfully tested in Manila, Philippines.

This paper synthesizes the lessons learned from the process of developing and teaching the cases, and the sharing of knowledge and experiences among the experts, trainers, owners and managers of SMEs and government officials throughout the implementation of this project.

Definition of Intellectual Assets for the Project

The project was originally conceived to address intellectual property rights (IPR) in emerging enterprises. However, at the initial experts' meeting it was decided that, given the interest of the target audience, it would be more appropriate to redefine the project scope to cover all kinds of intellectual assets, not just IPR.

The following diagram shows how intellectual assets, intellectual property, and intellectual property rights relate to one another.



(Adopted from *Keys to Intellectual Asset-Based Management Evaluation & Finance*, Ministry of Economy Trade and Industry, Japan 2009).

The project has thus defined a firm's "intellectual assets" or "intellectual capital" as all its "*resources without physical embodiment utilized to create future value*" (Vincent Leung, *Investing in Intellectual Capital*).

Intellectual assets can be classified into the following categories:

- 1) Human capital: the qualities of people's competencies, knowledge, experience, skills, commitment and resources. (Examples: Know-how, Education, Vocational Qualification, Work-related knowledge & competencies, Entrepreneurial Spirit, Innovativeness, Changeability, Proactive abilities - Guthrie, 2001, p.35).
- 2) Relational capital: the firm's external relationships with stakeholders - customers, partners, allies, suppliers, government contacts, banks, etc. (Examples: Brands, Customer Loyalty, Company Name, Distribution Channels, Business Collaborations, Licensing and Franchising Agreements, Favorable Contracts)
- 3) Structural capital: elements that harness and convert tacit knowledge into explicit knowledge, including intellectual property, organizational knowledge and processes, control and information systems, etc. (Examples:

Patents, Copyrights, Trademarks, Corporate Philosophy & Culture, Business Processes, Management & Information Systems, Networking Systems, Financial Relations)

The following table further describes and lists specific examples in each category:

Table 1. Categories of Intellectual Assets

Categories	Meaning	Specific Examples
Human Capital	Valuable knowledge assets held in the heads of the enterprise's staff and available for use to create wealth for the enterprise	<ul style="list-style-type: none"> • Professional competencies • Work experience • Motivation and behavior • Expertise arising from academic and pre-employment study and work experience • Effective teamwork within small groups, enhanced by regular team-building efforts • Good staff communication skills
Relational Capital	Value-creating relationships	<ul style="list-style-type: none"> • Relationship with shareholders • Relationship with suppliers • Convenience of retail outlet • Relationship with professional and regulatory organizations • Government relations • Customer support group • Cooperative management and worker relations
Structural Capital	Systems and practices of the enterprise that add value and create wealth for the enterprise	<ul style="list-style-type: none"> • Quality control system • Financial control system • Registered trademarks and designs • Training programs • Work manual • Rule-based incentive scheme system • Registered IP rights • Customer database • Software management system

(Diagram adapted and modified from *Put Your Enterprise Knowledge To Work: A Guide to Intellectual Capital Management*: Intellectual Capital Management Consultancy Programme, March 2009 Hong Kong, China.)

Framework for Strategic Intellectual Assets Management: Key Challenges, Tasks, and Core Competencies

A Framework for Strategic Intellectual Asset Management (SIAM) was developed based on discussions at the initial meeting of the experts, analysis of the issues, challenges and practices of companies in the cases written for the project, as well as ideas drawn from the SIAM Seminar held on 1 - 2 September 2010 in Manila. The purpose of the SIAM Framework is to guide SMEs, especially those entering the global supply chain, in leveraging their intellectual assets for long-term growth and profits.

The SIAM framework covers: 1) the major issues and challenges SMEs need to address; 2) the “cycle of tasks they need to perform well; and 3) the core capabilities they need to build in order to manage their IAs strategically and derive maximum value and competitive advantage from such assets.

1. The Foundation - A Clear Business Strategy

SIAM is based on a clear definition and understanding of the firm’s business strategy, especially the firm’s primary customers and its unique selling or value proposition. The value of intellectual or intangible assets is a function of how much the IA contributes to the creation or delivery of the firm’s unique selling proposition. The more the firm’s unique selling proposition depends on an intellectual asset, the more strategically valuable that asset is.

2. Identify, Analyze and Report Intellectual Assets

This requires an understanding of intangible, intellectual assets and its various types (beyond intellectual property rights) so the firm can list, classify, assign weights or ratings (based on the IA’s importance as a driver of the firm’s strategy), and keep a record or inventory of the intellectual assets for reporting to creditors, investors and other stakeholders.

3. Value Intellectual Assets

This involves identifying and evaluating the firm’s options for obtaining or creating economic or financial value from its intellectual asset/s. It also requires an understanding and application of the various methods or approaches for valuing a firm’s intellectual asset/s.

4. Protect Intellectual Assets

SMEs must also be able to identify, analyze and manage the risk/s their intellectual assets are exposed to. They must also know how best to protect these intellectual assets legally (e.g., through patents, copyrights, trade marks, etc.) and through other means.

5. Leverage Intellectual Assets for Strategic Advantage

Probably the most important management challenge for SMEs is aligning IA with the firm’s business strategy and leveraging a specific intellectual asset or mix of assets to establish and sustain a unique competitive position for long-term

growth and profits.

Just as important are the tasks of measuring the firm's performance in leveraging its IAs for strategic advantage as well as continuously investing in innovation and the development of intellectual assets to ensure sustainability.

SIAM Issues and Challenges Highlighted in the Cases

Ten cases were developed under this project. The cases present real-life intellectual asset management situations and the various strategic issues and challenges faced by the entrepreneurs and managers. They were written to serve as teaching materials for discussion in a capacity building program for SMEs on Strategic Management of Intellectual Assets.

Presented below are brief abstracts of the cases developed under the project.

Magna International, Inc (Canada)

This case is on Magna International Inc., a leading auto parts and assembly company in Canada with manufacturing facilities in 25 economies. Magna became a leader in the design of automotive parts and manufacturing processes. Innovation was a core corporate strategy and intellectual property protection was an important part of its management strategy. Its unique relationship with the large automobile manufacturers required Magna to extend licenses to its competitors. Magna however enjoyed an advantage in tacit knowledge of the production techniques involved.

The case highlights an equally important form of intellectual property which is trade secrets, a broad range of knowledge within the corporation which has a degree of value, however small. Managing trade secrets involves maintaining confidentiality and imposing obligations on employees who may transfer to a competitor. The case describes some of the practices Magna utilizes for protecting its intellectual assets, particularly in doing business outside of its own culture and society where the legal process and attitudes toward enforcement are different. The case can generate discussion on a company's option to exercise its legal rights in view of costs and benefits.

Nanhainan Co. Ltd (China)

The case on Nanhainan Co. Ltd, an emerging Chinese private enterprise, illustrates how the company entered the international supply chain by creating and managing intellectual assets, and how it had developed its core competencies and pursued sustainable development in the past two decades. Nanhainan's growth was closely related to the economic environment in China while its international operations were largely influenced by conditions in the international market. Nanhainan's intellectual assets management became the main source of its core competencies in the midst of various business environments.

This case focuses on the intellectual assets management (IAM) capacity building of Nanhainan. It highlights the company's experience in managing its

intellectual assets and describes the various elements of its IAM system. The case also illustrates how IAM becomes the basis of an effective enterprise development strategy and enhances the business prospects of an enterprise.

Hong Kong Institute of High Performance Computing (Hong Kong, China)

The Government of Hong Kong Special Administrative Region, in collaboration with the business community, launched an “Intellectual Capital Management (ICM) Consultancy Programme” in March 2009. The programme offered free consultancy services to enterprises, especially small and medium enterprises (SMEs), to help them cultivate and manage their intangible assets for the long-term economic benefits of Hong Kong.

This case highlights how ICM had successfully inspired The Hong Kong Institute of High Performance Computing (HKHPC) to discover and commercialize its intellectual capital into a profit-making business, thus transforming HKHPC from a purely research oriented enterprise to a commercially viable one.

Previously, awareness of ICM was low in the Hong Kong business community. Like other entrepreneurs, Dr LAM Wai-kin, the founder of HKHPC, did not expect much from this free government consultancy programme. However, following several rounds of dialogue, self-assessment and hours of discussion with the two ICM consultants, Dr Lam Wai-kin was able to do a mapping of the intellectual capital and hidden value of HKHPC. This shifted his mindset on how to run HKHPC in a more efficient and sustainable manner.

Because the programme was a government initiative, the consultants were allowed to provide only strategic options but not strategic or legal advice. HKHPC showed a great deal of entrepreneurial spirit in searching for ways to reach its business goal as it uncovered the hidden intangibles of the enterprise. The founder, however, had foreseen the difficulty and the bumpy road ahead for a small enterprise like HKHPC as it pursued its aim to play a significant role in the arena of supercomputing.

PT Apora Indusma (Indonesia)

As a leading provider of space-frame products that had delivered projects to more than 24 economies around the world in the past two decades, it can be said that APORA was already good at identifying or creating intellectual properties (IP). The fact that it had registered patents in China, Chinese Taipei and Indonesia indicated that the entrepreneur knew how to protect its intellectual properties.

Like many other companies, however, APORA had not fully realized that intellectual assets (IA) went beyond IP. The entrepreneur was not aware of the sources and the most strategic use of the company’s intellectual assets as well as what could be done to mitigate any potential risks of the current system and make the business more sustainable. APORA’s immediate challenge was how to leverage its IP rights to win more business. By securing patents for the invention, APORA expected to attract more customers, command price premium, drive sales volumes, enable clear product differentiation and positioning and hopefully reduce marketing

cost. But things did not automatically turn out that way. The case enables the reader to identify the reasons for the lackluster growth of the enterprise and to generate ideas for mitigating potential risks that it faces.

Tanikei Manufacturing Ltd (Japan)

In the case, Mr Taniuchi, the president of Tanikei Manufacturing Ltd in Japan and the inventor of a safe can top, considered the best way to maximize the value of his intellectual properties and to ensure that his technology would be widely used globally.

Mr Taniuchi had to determine the terms with which to negotiate with Heinz, a US giant food processing company that was very interested in his can top technology. He obtained an IP professional's advice on different valuation methods to evaluate his IPs. While he tried to use the three valuation methods (the cost approach, the market approach and the income approach), he also had to consider other elements before he could sit at the negotiation table. The case can be used to generate other issues and considerations for negotiation and various ways to ensure that the interests of the inventor are protected.

Malaysia Plastic Sdn Bhd (Malaysia)

Malaysia Plastic, a well-established and privately owned polypropylene woven bag and fabric manufacturer in Malaysia, was facing a challenging time when its profits deteriorated due to the fierce competition from local as well as regional manufacturers brought about by the liberalization of the regional trade. The new Managing Director called on his middle managers to formulate a plan to turn around the company and to build up its capability for future growth and sustainability.

The case illustrates the business environment, competition and technologies in the domestic and regional markets. In formulating the business strategies, various intellectual assets of the company have to be taken into consideration.

Icebreaker Limited (New Zealand)

This case presents the experience of Icebreaker Ltd, a New Zealand-based merino wool outdoor garment manufacturer. With design offices in Portland, Oregon, USA and factories both in Shanghai, China and North Carolina, USA, Icebreaker had successfully integrated its supply chain from the sheep farms in the New Zealand Southern Alps to their distributors in over 30 economies.

The process of Icebreaker's intellectual assets identification could be categorized into two distinct phases. First was the company's adoption of an innovative approach and second was the careful selection of its business partners throughout the supply chain by means of the so-called "narrow and deep philosophy," which effectively helped amplify its innovative approach.

Besides providing an analytical description of the two phases, the case describes how Icebreaker's explicit ethical commitments have been incorporated into its processes throughout the supply chain. It also analyses the challenges that Icebreaker's growth had brought to the company. The case can be used to illustrate

the strategic decision-making process of a global enterprise.

Pictor Limited – Taking Diagnostics to the World (A) (New Zealand)

Drs Sarita and Anand Kumble established Pictor Ltd to commercialize the technology they discovered, which miniaturizes and multiplexes the commonly used enzyme-linked immunosorbent assay (ELISA) technology for laboratory tests. The technology would enable the use of diagnostic tools even in remote areas or in the developing economies at much reduced costs.

Dr Sarita Kumble had to make some key decisions on three major aspects: making current product development a priority; raising sufficient funds to take Pictor to a new level of manufacturing; and recognizing that the company would depend largely on forthcoming contracts and the IA valuation to raise those funds

The case describes the point of differentiation of Pictor technology, which allows identification of the intellectual property rights to be protected legally. It further discusses the course of action taken in the context of international intellectual property protection and the associated processes and costs. Lastly, the case discusses the reasons for attempting to assess the value of the IA from both a commercialization perspective and the eventual sale of the company.

The case deals with one discrete aspect of biotech company development. It is suitable for use in asset protection, commercialization of technology and preparing the technology for sale.

Pictor Limited – Taking Diagnostics to the World (B) (New Zealand)

This is the sequel to case (A), where the management had decided to do their own manufacturing of the products. The assessment of the amount required to pursue their strategy and their evaluation of different funding sources are presented in the case. The case can be used for assessing the funding sources and the potential benefits and constraints of the funding decision.

Universal eXchange, Inc (Chinese Taipei)

This case addresses the intellectual assets (IA) management of a company that established financing services on the Internet. It emphasizes the measurement of IA from a strategic perspective to cope with the development of an emerging enterprise.

Financing usually occurred with business transactions, and credits and loans among the business enterprises and financial institutions had to be managed. UXB2B launched its unique business model in the first decade and intended to grow its business to the next level.

A review of the IA of the company was conducted in which the financial, customer, human, process and innovation aspects were included. It appears that the UXB2B successfully emerged as a financing platform during its first phase. However, applying such a model for a new set of customers required a leading player as the center of trading activities. It was apparent that large corporations eligible to be

the center preferred to have their own system and associated intranet for trading purposes, and might be less likely to participate in an independent platform to serve such needs. The IA evaluation of UXB2B took place while the company was considering leaping to the next business scope. How to sustain the company's development with an IA strategy is the main consideration of the top management in planning its next move.

The particular issues, knowledge and skills in the SIAM Framework covered by the cases are indicated in Table 2 below.

Table 2. SIAM CASES - ISSUES, KNOWLEDGE & SKILLS FOCUS

Economy	Case Titles	The Foundation -Formulating/ Clarifying Business Strategy	Identifying, Analyzing & Reporting Intellectual Assets	Valuing Intellectual Assets	Protecting Intellectual Assets	Leveraging Intellectual Assets for Strategic Advantage
Canada	Magna International, Inc.	x			x	x
China	Nanhainan Co. Ltd	x	x			x
Hong Kong, China	Hong Kong Institute of HPC	x	x			x
Indonesia	PT Apora Indusma	x	x		x	x
Japan	Tanikei Manufacturing Ltd			x	x	x
Malaysia	Malaysia Plastic Sdn Bhd	x	x			x
New Zealand	Icebreaker Limited	x	x		x	x
New Zealand	Pictor Limited – Taking Diagnostics to the World (A)	x	x	x	x	
New Zealand	Pictor Limited – Taking Diagnostics to the World (B)	x		x		
Chinese Taipei	Universal eXchange, Inc.	x	x		x	x

Observations and Insights on Strategic Management of Intellectual Assets by SMEs

The following observations and insights on strategic IA management by SMEs were drawn from analyses, presentations and discussions of the cases by participants and experts during the seminar on SIAM held at AIM, Manila. These observations and insights are presented following the SIAM Framework described earlier.

Identifying, Analyzing, and Reporting Intellectual Assets

- Many entrepreneurs and SME owner-managers are not aware of intellectual assets and do not appreciate their value to the business. As a result, they do not manage their IA strategically or protect them properly.
- The value of intellectual or hidden assets typically 100% to 600% of the value of visible or tangible assets. There needs to be greater awareness of how much more economic value can be created if companies (and even economies) harnessed the power of their intellectual assets more fully and managed these for strategic advantage.
- Ideas need to be transformed into IAs before they can be used to create value.
- Intellectual assets go beyond IPR (i.e., patents, trademarks, and copyrights) and other “structural” IAs; intellectual assets also include “human” and “relational” assets (e.g., organization’s tacit knowledge, work processes, and partnerships and alliances).
- Reporting various types of intellectual assets (to supplement financial assets) has enabled SMEs in Hong Kong to gain more access to financing and better, cheaper terms from banks and investors. (CK So)
- Generating information on the firm’s intellectual assets and sharing this with stakeholders often result in a higher valuation of the business.

Valuing IAs

- The various valuation methods result in different numbers. For methods that involve estimating future cash flows, the value of the estimate depends on the reasonableness of the assumptions and soundness of the manager’s judgment.
- In the absence of a widely known market price, the price or value of an intellectual asset will ultimately depend on the circumstances and alternatives of the buyer and seller.
- It was observed that buyers (particularly Chinese) will readily pay for physical or tangible products, but not for intangible/intellectual assets. (SJ Liu)
- The challenge may be how to transform intangible intellectual assets into physical or tangible products to increase or better realize their value (e.g., PT Apora’s design software, packaged knowledge products, etc.)
- The discussion on methods for valuing of intellectual assets (Tanikei case) was of great interest to participants. Valuation of IA was deemed to be important and challenging. More sessions should be devoted to this topic in future training programs.

Protecting IAs

- Most emerging, small and medium enterprises lack the experience, know-how and resources to protect their intellectual assets.
- Identifying what risks their IAs are exposed to, what IAs to protect and how to do so legally and when to take legal action require a good understanding of the various costs involved.

- Professional advice is critical in determining the best way to protect intellectual assets.
- Continuous innovation is the best and perhaps the only way to protect IA in the long run. IAs tend to become obsolete with time as well as with technological and environmental change and competition. IPR protection is not good enough by itself.
- Innovation often involves building on simple technologies that are well known.
- IPR fundamentally means the “right to exclude others from access or use of the asset” and the “right to go to court.”
- Only a few people make money from IPR lawsuits (except for the lawyers). Some 90% of all lawsuits involving IPR get resolved out of court. (Charles M. Gastle)
- Tacit knowledge or “learning by doing” is an intellectual asset that can be protected as a “trade secret.” The reason Magna International agreed to develop the Ford electric car even if they would lose money on it was the expectation of getting the future contracts. Non-compete agreements (for x years) are a good idea. (Charles M. Gastle)

Leveraging IAs for Strategic Advantage

- Intellectual assets are important, not only because of their commercial or market value (which is often much bigger than physical or financial assets), but more importantly, because of their strategic value. IAs drive the company’s growth and profits by enabling it to create a superior competitive position and deliver unique value to its target customers.
- Different types and mixes of IAs are needed at various stages of the company’s life cycle. For example, different kinds of human capital are needed for the organizational change processes that occur in the transition between the various stages. (This could be gleaned from the Icebreaker, UXB2B, and Malaysia Plastic cases).
- SMEs should also evaluate their performance in managing intellectual assets. Measures of IA management performance include: 1) input or “lead” measures, e.g., investments in R&D, skills training, brands, patents, etc. (HKHPC case) and 2) output or “lag” measures, e.g., revenues earned, contracts booked. (UXB2B case)
- Changes in strategy may require the firm to build on, acquire, or rely on a different type or mix of intellectual asset/s. For example, the decision of Malaysia Plastic company to shift from one type of product line to another or to change from selling products to selling solutions, required the company to rely more on its “relational” capital than its “human” capital.

Pilot Training Program on SIAM

The basic topics and tentative design of a training program for SMEs were developed at the initial meeting of experts held prior to the case writing activity. The initial design was based on the training situation in the APEC economies represented at the meeting and considered the resources of the target audience. Unlike large corporations, SMEs and emerging enterprises had limited financial and human resources.

The program had to be interesting and worthwhile enough to convince entrepreneurs and SME owner-managers to attend.

Special emphasis was also placed on the value of the program for APEC. The program would not only raise awareness of key IAM issues and problems, but also cultivate essential skills, provide alternative tools and techniques, and inculcate the right values and attitudes toward intellectual assets, particularly with regard to intellectual property and intellectual property rights.

After the cases and accompanying teaching notes had been written, the initial design of the SIAM training program was modified and transformed into a 2-day pilot training program for SMEs, named “Seminar on Strategic Intellectual Asset Management: Discover, Protect and Profit from your Firm’s Invisible Assets.”

The pilot seminar was also to be used to test and improve the new cases on SIAM written for the project.

The pilot seminar was conducted on 1 - 2 Sept. 2010 at the Asian Institute of Management in Manila, Philippines with 32 participants including 14 females: 15 from SMEs, 13 from government agencies, 3 from the academe, and 1 from an NGO.

The purpose, process and benefits of the pilot seminar were as follows:

LEARNING GOALS & OBJECTIVES

In line with the APEC’s goal of building the capacity of SMEs in “emerging” economies to successfully enter the global supply chain, the pilot seminar aimed to develop leaders among entrepreneurs, owners and managers of SMEs who could better appreciate the importance of intellectual assets and create, protect and manage these intangible assets for strategic advantage. This would enable them to ensure a fair return on their intellectual asset investments and collateralize intellectual assets effectively.

In line with APEC’s goals, the pilot seminar was designed to provide the following competencies or learning outcomes among the participants. At the close of the seminar, it was expected that the participants would be able to:

1. Identify intellectual assets and understand their strategic importance
2. Estimate the value of these intellectual assets
3. Learn how to protect the firm’s intellectual assets
4. Generate superior growth, profits and competitive advantage with their intellectual assets.

SEMINAR PROGRAM & ROAD MAP

The pilot seminar was designed around the “cycle” of management tasks described in the SIAM Framework: 1) Identify, Analyze & Report, 2) Value, 3) Protect, and 4) Leverage Intellectual Assets for Strategic Advantage. The seminar took the participants on a journey through the various areas of knowledge and skills in intellectual asset management in “building block” fashion, albeit very rapidly, given the time constraints the group had to work with (See Exhibit 1).

Eight of the 10 cases on SIAM were presented and discussed during the pilot seminar. The wide variety of intellectual asset management issues, settings, and challenges presented by the cases contributed greatly to the high level of interest and learning experienced and expressed by the participants and facilitators.

FEEDBACK FROM PARTICIPANTS

- The participants said that they gained a clearer understanding and awareness of the various types of intellectual assets and their importance. Many said they were eager to use this knowledge to make an inventory of the intellectual assets in their firms as soon as possible.
- They also gained a greater awareness of how intellectual assets could be valued. However, most of them also wanted more exercises and specific training on valuation; they said more time should be allocated to IA measurement and evaluation.
- Case discussions were rated most effective in making the lessons clear and relevant to the participants' own concerns. Most of the participants asked for more time to prepare and digest the cases however.
- They liked the mix of "excellent" experts and facilitators.
- They recommended that the seminar be offered again soon and more frequently. They also said that follow-up seminars/training programs should be considered.
- Participants were also interested in the potential use of documentation and reporting of intellectual assets for financial evaluation.
- Participating experts were keen on replicating the pilot seminar design in their own economies or regions.

LESSONS LEARNED

- The APEC experts, with their different areas of expertise and geographic origins, contributed much to the rich variety of perspectives and ideas in the seminar discussions.
- The case discussion methodology made learning in the pilot seminar richer and more interesting as it encouraged participation and sharing of ideas among the participants.
- Cases presented real-life issues and challenges in IA management, making the learning relevant and more exciting.
- Skilful handling of discussions was an important element in the program.
- The 2-day format of the seminar was adequate for an introduction to the topic - to elicit the interest and appreciation of entrepreneurs and SME owner-managers in IA management.
- More in-depth, follow-up programs should be offered to enable the participants to actually apply what they learned in the 2-day introductory course and produce real value-added for their businesses and economies.

The Way Forward

Based on the experience of implementing the IAM project, which drew on the resources, knowledge base and diversity within APEC, the experts involved recommend

the following future actions for consideration by APEC and its members:

Replication of the Pilot Seminar

The pilot seminar and case teaching materials should be replicated and disseminated to other members of the APEC community as an introductory course or training program on IAM. Feedback on the pilot seminar has indicated that the program design, methodology, contents, case materials and duration were effective in raising the awareness and interest of the entrepreneur-managers on SIAM. The SIAM Framework was also proven to be easily understood and applied by SME managers and entrepreneurs.

In order to carry out replication of the pilot program and dissemination of the case teaching materials effectively, it is recommended that the APEC community support these efforts. The capacity building program may be replicated in cooperation with the Intellectual Property Experts Group (IPEG) and SME Working Group within APEC as well as with other organizations outside APEC, such as government agencies, NGOs and private organizations/groups engaged in SME capacity building and development.

Development of a Next-Level Training Program on IAM

There should also be an effort to develop a more in-depth, application-oriented training program on SIAM, with special attention devoted to Valuation, Commercialization, and Protection of IAs. Likewise, training materials should be expanded to cover other types of intellectual assets that were not covered in the project, such as brands and trademarks, industrial designs, and indigenous technologies (e.g., herbal medicine, nutrition, and others). This more advanced training program can be provided to SMEs that have already started IAM in their respective companies.

Development of SIAM Toolkit and Other Documentation Tools for IAM

The expressed interest of participants in the pilot seminar to do hands-on documentation and reporting of IAs in their own enterprises with some supervision should be encouraged and supported. For a start, a SIAM Toolkit for SMEs should be developed. This Toolkit can help guide SMEs through the process of identification and documentation of their IAs, as well as assist them in managing their IAs effectively in a sustainable manner.

Setting up Information Sharing on IAM

To support future IAM development efforts, it will be useful to have an information sharing platform for collecting and disseminating knowledge links on a website. The initiative of IPEG called “iPac” may be tapped for this purpose. Useful information may include current guidelines, contract forms and terminologies, consultancy services, government assistance, and advanced training programs on IAM.

Exhibit 1

APEC Pilot Seminar on Strategic Intellectual Asset Management

Day 1

Part I - Discovering and Unleashing the Value of Intellectual Assets

Introduction and Orientation

Intellectual Asset-Driven Supply Chain and Business Model

Small Group Discussion – Case: Ice Breaker

Plenary Case Discussion: Ice Breaker

Framework for Intellectual Asset Management

Presentation-Discussion – Case: Hong Kong Institute of High Performance Computing

Part II - Valuing and Protecting Intellectual Assets

Estimating the Value of Intellectual Assets

Small Group Discussion – Case: Tanikei Manufacturing Ltd

Plenary Case Discussion: Tanikei Manufacturing Ltd

Commercializing Intellectual Assets

Presentation-Discussion – Case: Pictor (A)

Protecting Intellectual Assets

Presentation-Discussion – Case: Magna International

Wrap-up and Assignment for Day 2

Day 2

Review-Preview

Part III - Leveraging Intellectual Assets for Growth & Profits

Strategic Management of Intellectual Assets

Small Group Discussion – Case: Malaysia Plastic Sdn. Bhd.

Plenary Case Discussion: Malaysia Plastic Sdn. Bhd.

Evaluating the Strategic Use of Intellectual Assets

Presentation-Discussion – Case: UXB2B

Sustaining Strategic Advantage from Intellectual Assets

Small Group Discussion – Case: PT Apora Indusma

Plenary Case Discussion: PT Apora Indusma

Wrap-up and Assessment

Appendix

References and Resources

A selected list of resources, useful websites, and references are included below:

Intellectual Capital Statement, Hong Kong: 2009

http://www.ipd.gov.hk/eng/pub_press/publications/IC_Statement.pdf

Various reports and guidelines, Japan

http://www.meti.go.jp/policy/intellectual_assets/english.html

Guidelines for Survey and Research Report on Intellectual Asset-Based Finance

http://www.meti.go.jp/policy/intellectual_assets/pdf/Survey%20and%20Research%20Report%20on%20Intellectual%20Asset-Based%20Finance.pdf

Intellectual Asset-Based Management Manual

http://www.meti.go.jp/policy/intellectual_assets/pdf/ManualE-2.pdf

Why intellectual asset management is crucial

http://www.meti.go.jp/policy/intellectual_assets/pdf/Japan%20METI.pdf

Perspective of Intellectual Assets Based Management Reports and Empirical Analysis and Research of Disclosure

http://www.meti.go.jp/policy/intellectual_assets/pdf/report-E.pdf

Guidelines for Disclosure of Intellectual Assets Based Management

http://www.meti.go.jp/policy/intellectual_assets/pdf/GuidelineforIAM.pdf

List of Intellectual Capital Reports available from the internet

Finland ``C Creadesign Oy ``C IC Report 2005

http://nhki.si.is/media/nhki/Creadesign_IC.pdf

Denmark - Oracle - IC Report - 2005

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http://www.oenb.at/en/presse_pub/period_pub/unternehmen/wissensbilanz/wissensbilanz.jsp

Germany - MFG - AnnualReport_2007 - ICS

http://www.mfg-innovation.com/fileadmin/_mfginno/downloads/MFG-AnnualReport_2007.pdf

Belgium - Cowi - IC Report 2008

<http://www.cowi.com/menu/publications/cowisownmedia/annualreport2008/Documents/Intellectualcapitalreport.pdf>

Sri Lanka - People Leasing Co Ltd - HC Report 2008

http://www.plc.lk/pdf/annual_report2008/human_capital_management.pdf

Relevant Harvard Business School Notes and Cases

Product #9-801-192 Note
Intellectual Asset Valuation

Product #9-704-493 Note
Intellectual Property and Strategy

Product #9-802-161 Note
Legal Aspects of Entrepreneurship: A Conceptual Framework

Product #9-309-024 Note
Note on Trade Secrets and Covenants not to Compete: Comparison of Law in the United States and the European Union

Product #9-396-412 Case
Skandia AFS: Developing Intellectual Capital Globally

Product #9-610-085 Case
Carrot or Stick? Getting Paid for Innovation at Tessera Technologies

Product #9-803-095 Case
Sheila Mason & Craig Shepherd

Product #9-309-112 Case
The DiagnoFirst Opportunity

Product #9-603-064 Case
Collabrys, Inc. (A)--The Evolution of a Startup

Product #9-803-063 Case
Dr. John's Products Ltd

Product #9-610-057 Case
From Imitation to Innovation: Zongshen Industrial Group