

Concluding Observations

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1. The Asian Knowledge Management Landscape: Uneven

The extent of adoption of knowledge management (KM) and knowledge-based development (KBD) among the twenty member countries of the Asia Productivity Organization (APO) has been very uneven:

- On the basis of its assessment of the extent of KM practice, APO selected only ten of the nineteen member countries for this survey project: India, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, Thailand and Vietnam.¹
- In the annual MAKE Asia award, most of the winners often come from only three countries: Japan, India and Korea. In the Global MAKE award from 1998 to 2006, the number of winners from Asia had caught up with that from Europe, but still lags behind that of North America. Many of the criteria in the MAKE award revolve around how an organization manages its intellectual capital or knowledge assets to create value.² The global trend has been a rise in the contribution of intangible knowledge assets to the market value of corporations compared to their tangible assets.³
- The same three countries, plus Hong Kong, Taiwan and Singapore, create more wealth through services, which is a very knowledge-intensive sector. The global trend has been an increase in the contribution of services to GDP in most national economies.⁴
- Professional KM associations exist in Japan, Hong Kong, Korea, Singapore, the Philippines, Malaysia, and Indonesia. Thailand has a government-supported KM Institute, and there is a KM Research Center in Taiwan.⁵
- A few Asian governments had adopted national strategies or roadmaps towards a knowledge-based economy (KBE) or society (or a broader knowledge-based development or KBD), which are often linked with the development of ICT infrastructure, education and enabling policies: e-Korea Vision 2006, Malaysia's KBE Master Plan (2002), Thailand's IT 2010 (2001), Singapore 21 (1997) and the ICT 21 Master Plan (2000) of Singapore, India Vision 2020 (2002) and e-Japan Strategy (2001).⁶ The government of India had created a National Knowledge Commission to promote KM and KBE.⁷

¹ APO was unable to recruit a National Expert for Japan and so unfortunately Japan was not included among the ten countries surveyed.

² Rory L. Chase: Innovation and Intellectual Capital Management Set the Agenda. In: *Knowledge Management, from Brain to Business*, "Proceedings of the IPC 2007 Conference, Bangkok, January 2007. The Most Admired Knowledge Enterprises (MAKE) is a global KM award run by Teleos, U. K.; Dr. Chase is the CEO of Teleos.

³ For example, see: Margaret M. Blair and Steven M. H. Wallman: *Unseen Wealth*, Report of the Brookings Task Force on Intangibles, Brookings Press, 2001.

⁴ World Development Report 2007. World Bank. (http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/09/13/000112742_20060913111024/additional/indicators.pdf); Asian Development Outlook 2007. Asian Development Bank. (<http://www.adb.org/Documents/Books/ADO/2007/ado2007.pdf>)

⁵ <http://www.ikms.org.sg/partners/index.html>. See also Boondee Bunyagidj: Knowledge Management in Thailand (in this volume).

⁶ *Moving Toward Knowledge-Based Economies: Asian Experiences*. Asian Development Bank, 2007.

⁷ See Siddharth Sharma: Knowledge Management in India (in this volume).

The other Asian member countries of APO are less active or less visible in their KM practice: Bangladesh, Cambodia, Fiji, Iran, Laos, Mongolia, Nepal, Pakistan and Sri Lanka. In any case, it is apparent that APO has to exert extra efforts to assist these member countries catch up with the rest in the practice of KM. *A capacity-building program for their NPOs* can be the start of this assistance scheme. Such a program can draw from the expertise and experience available from North America and Europe, as well as from those Asian countries which are well ahead of the others or which are strong in specific areas.

2. Specific Strengths of Asian Countries in KM

The national surveys reported in this volume show that some Asian member countries possess unique or distinctive strengths in KM that can provide the basis for *mutually beneficial collaboration and capacity-building among NPOs*.

- **India.** KM practiced by India-based global information and communication technology (ICT) players such as the Tata Group, Infosys, Satyam and AirTel Bharti Teleservices is a demonstration of the use of leading-edge ICT support systems for KM and organizational learning. About 70% of ICT companies surveyed in India practice KM – a very high proportion. India's National Knowledge Commission, established in mid-2005, is a good KBD governance model to study and emulate by other Asian governments.⁸
- **Indonesia.** The growth of KM in Indonesia demonstrates the value and widespread results from the work of many institutional champions in the government (*e.g.* Bank Indonesia), academe (*e.g.* Institut Teknologi Bandung) and private sector (*e.g.* Dunamis). The positive results of Dunamis implementing the MAKE Indonesia award system in terms of raising the nationwide awareness and appreciation of KM are noteworthy.⁹
- **Korea.** Because KM has started early and has now been widely adopted among Korean companies, many companies such as the Asian MAKE awardees Samsung Institute of Advanced Technology, POSCO and LG Electronics have much to share and demonstrate to other Asian companies trying to learn KM, especially in terms of embedding KM and organizational learning in all business processes. Korea has achieved a high level of connectivity nationwide and offers another successful model in e-governance and in government institutions, laws and regulations to support the growth of e-commerce.¹⁰
- **Malaysia.** Malaysia's progress in KM has been a demonstration of the value of national leadership and vision. The Multimedia Super Corridor is only one of many examples. Its e-government and e-commerce development programs, particularly for the social sectors, provide useful models for Asian countries concerned with narrowing the 'digital divide' as well as 'knowledge divide.'
- **Philippines.** While many institutional and individual KM champions are promoting KM in various sectors, the KM experience in the Philippines shows the crucial leadership role of the NPO – which is the Development Academy of the Philippines – in these efforts. Substantial progress in KM has been driven by international and bilateral donor institutions, and as a result, KM applications in the development and non-government sectors have progressed ahead.¹¹
- **Singapore.** e-Governance and KM in government agencies and government-linked companies are advanced and mature in Singapore. The government of Singapore is among

⁸ Siddharth Sharma: Knowledge Management in India (in this volume)

⁹ Andiral Purnomo: Knowledge Management in Indonesia (in this volume).

¹⁰ J. H. Derick Sohn: Knowledge Management in Korea (in this volume).

¹¹ Serafin Talisayon: Knowledge Management in the Philippines (in this volume).

the first to adopt a national strategy and roadmap towards KBE/KBD. Recognizing early the need to sustain its competitive advantage through innovation, the Singaporean government has established institutions and programs to promote innovation throughout Singaporean society. Its NPO – the Standards, Productivity and Innovation Board – illustrates this crucial shift in mindset from productivity to a mix of productivity and innovation.¹²

- **Taiwan.** KM is widely adopted by companies in Taiwan according to a recent survey: 47% in large companies and 28% in small and medium-scale enterprises (SMEs). The level of development of ICT support systems for KM is well advanced. The government is actively assisting SMEs in KM through the SME Administration under the Ministry of Economic Affairs. Taiwan is ahead of many Asian countries in developing KM for SMEs. Through its Industrial Development Bureau, the government has also mandated KM in government agencies.¹³
- **Thailand.** By royal decree in 2003, the Thai government had mandated public sector organizations to become “learning organizations” and adopt KM as part of its public sector reform policy being overseen by the Office of Public Sector Development Commission (OPDC). As a result, nearly 96% of government agencies are implementing KM by 2007. The government set up the Office of Knowledge Management and Development to promote KM. Under this office are several agencies which include the National Center for the Gifted and Talented, Thailand Knowledge Park, National ICT Learning Center and National Institute for Brain-based Learning. The Thai government also created and funded a KM Institute to catalyze the development of Thailand towards becoming a learning society.¹⁴
- **Vietnam.** The government of Vietnam had taken the right initiatives towards KBD: development of ICT infrastructures, support for development of knowledge assets in firms, and greater expenditure and incentives for R&D. The use of productivity improvement tools is increasing very rapidly and the next challenge is how to bring in and integrate KM with these tools.¹⁵

3. Emerging Issues and Next Areas of Development in KM among NPOs

The twenty-two case studies in this volume suggest a number of emerging issues as well as the next areas of development in KM in APO member countries.

3.1 KM is Still a Growing Discipline

Knowledge management is still poorly understood or understood differently. Equating KM with information management is quite common. This is indicative of the fact that KM is still a growing discipline. In addition, the use of the common word “knowledge” in KM practice makes it prone to many different and confusing meanings and even to debate. Perhaps another factor is that KM started from among business practitioners¹⁶ among whom practical application is more important.

Even if the term “knowledge management” may eventually fade from use, it is nevertheless clear that enduring changes in the global economy require new frameworks and tools for recognizing and managing the increasingly more important intangible assets in organizations and in societies. Most of these assets consist of, or are produced by and from, human knowledge and human creativity. Such tools for enhancing learning and innovation will be increasingly needed in the new economy, independent of how their labels may change in the future.

¹² Thomas Menkhoff: Knowledge Management in Singapore (in this volume).

¹³ Fen-Hui Lin: Knowledge Management in Taiwan (in this volume).

¹⁴ Boondee Bunyagidj: Knowledge Management in Thailand (in this volume).

¹⁵ Vu Hong Dan: Knowledge Management in Vietnam (in this volume).

¹⁶ Personal communication from Dr. Rory L. Chase.

The case studies and national surveys reveal a wide variety of terms used in KM. It is clear that NPOs and its KM practitioners need a common KM language to make effective communication and collaboration possible amongst them. There is a need to *develop a standard KM glossary among NPOs*, or a 'K-glossary' to complement the existing 'P-glossary' of APO. A basic glossary can also serve as a convenient initial list when organizations develop their own knowledge taxonomy for classifying their documents, expertise and other knowledge assets relevant to their specific organizational contexts.

3.2 Aligning KM with Organizational Goals

Knowledge is capacity for effective action (see Overview chapter). Good KM is so if it enables action that is effective in contributing to organizational goals. Yet, the causal link between KM and business results or government objectives is sometimes absent or only implicit in the planning and execution of KM initiatives. The ready availability of many ICT solutions in the market may predispose would-be adopters towards jumping ahead to ICT solutions instead of first clarifying what are the important business problems and what is the broad range of solutions, whether ICT or non-ICT, that may be appropriate to each problem.

A good *KM framework makes this linkage explicit* to decision makers who may need to be convinced of the business case for a KM proposal. A KM framework provides the basis for KM measurement. The scarcity of good KM frameworks is partly indicative of the infancy of KM as a management discipline. Our knowledge of the cause-and-effect relationships between KM interventions and enablers, on the one hand, and the corporate bottom line, on the other hand, is still incomplete.

At Airtel in India, by asking *"What problem are we solving [with KM]?"* KM managers are ensuring that the issue of linking KM to business results is addressed. Financial savings or revenue generation is part of the information required in filling up their KM best practice template. Airtel uses performance and output measures to link KM objectives to business unit objectives. *"KM and Quality at Airtel are not only for fashion but are purely for business results"* according to an Airtel executive.¹⁷

At Goldsun in Vietnam, KM drivers and KM goals were formulated in line with business goals.¹⁸ At Samsung Advanced Institute of Technology (SAIT) in Korea, KM measures are linked with business objectives and tracks knowledge content, knowledge processes and knowledge structures.¹⁹ At the Department of Health in the Philippines, identification of priority knowledge gaps was geared towards enhancing performance by its various functional units.²⁰

3.3 KM Measurements

A variety of KM measurements are employed in the nine APO member countries. It ranges from the level of individual action to the organizational level; looking at various stages: inputs, processes, outputs and outcomes; and for various purposes such as pre-KM diagnostics and KM outcomes.

Since knowledge is capacity for effective action, a common KM measurement approach is the use of key performance indicators (KPI) at the level of action, business process, project or unit in an organization. Measuring capacity for effective action and verifying the effectiveness of action is central to KM. This is the reason behind the great overlap between KM and productivity/quality improvement.

KPIs are used to evaluate the results or progress of KM initiatives at the Bank Negara Malaysia, Bank

¹⁷ Siddharth Sharma: Airtel Broadband and Telephone Services (in this volume).

¹⁸ Vu Hong Dan: Goldsun Company (in this volume).

¹⁹ J. H. Derick Sohn: Samsung Advanced Institute of Technology (in this volume).

²⁰ Serafin Talisayon: Department of Health (in this volume).

Indonesia, Techcombank and Goldsun in Vietnam and Siriraj Hospital in Thailand. Goldsun in Vietnam, for example, uses indicators to track knowledge contributed, knowledge utilized and satisfaction by knowledge users.²¹

Siriraj Hospital also uses indicators under the learning and growth perspective of the Balanced Scorecard (BSC). PT Wijaya Karya (Wika) employs a modified BSC scorecard called "Wika scorecard."²² Because BSC tracks intangible assets which cover the components of intellectual capital, it can be used for tracking the results of KM initiatives: some indicators under the learning and growth perspective correspond to human capital, those under the internal process perspective correspond to structural capital, and those under customer perspective fall neatly under stakeholder capital.

SAIT employs seven composite KM indices that track both processes and outputs:²³

- Patents: number and a measure of quality (output or product)
- "Business applicability:" business performance outcomes of an innovation (commercialization or business result)
- "R&D effectiveness:" magnitude of value added, efficiency gained and time saved in the R&D process (effectiveness and efficiency)
- "Core knowledge:" identification of "core knowledge" through internal CoPs and CoPs with customers (content)
- Customer satisfaction (value to internal customers)
- "Fusion and synergy" (collaboration)
- Idea generation (creativity)

A genre of KM measurements comprises pre-KM diagnostics – KM audits, KM readiness tests, knowledge taxonomy and knowledge gap surveys, and various types of KM maturity scales. Some of these were employed at the Department of Health in the Philippines and reported in the survey of KM in the Philippines.²⁴

Overall, the most commonly mentioned KM measurements are those that pertain to the individual, activity or business process level. Some *measurement gaps at the organizational level* are evident and as such need further research to identify and describe cases in APO member countries that could fill these gaps:

- Aside from monitoring customer satisfaction, no wider tracking of stakeholder capital was seen from the twenty-two case studies;
- Measures of impact of behavioral enablers (policies, leadership style, organizational or team culture, incentive systems) were not mentioned or are absent from the organizations studied;
- Financial impact at the organizational level was not mentioned; for example, intellectual capital accounting was not mentioned in any case study.

²¹ Ida Yasin: Bank Negara Malaysia; Andiral Purnomo: Bank Indonesia; Vu Hong Dan: Goldsun Company; Vu Hong Dan: Techcombank; and Boondee Bunyagidj: Faculty of Medicine Siriraj Hospital, Mahidol University (all in this volume).

²² Andiral Purnomo: PT Wijaya Karya (in this volume).

²³ J. H. Derick Sohn: Knowledge Management in Korea (in this volume).

²⁴ Serafin Talisayon, Jasmin Suministrado and Deanna Dolor: Department of Health; and Serafin Talisayon: KM in the Philippines (both in this volume).

3.4 Motivating Knowledge Workers: Attending to both 'Heart' and 'Head'

It is interesting that many case studies touch on the challenge of motivating knowledge workers toward knowledge-sharing and other desirable behaviors and describe the approaches that were tried out.

- **Rewards and recognition** schemes are often used. Airtel in India instituted the Knowledge Dollar (K\$) as the unit of performance credit and the Joint President's and CEO's Knowledge Management Award. A Learning Award for knowledge transfer and an Enterprise Award for intrapreneurship were established by Unilever Indonesia. Wika in Indonesia instituted ten different awards. According to Purnomo, the Learning Award resulted in *"new enthusiasm for learning, confidence in trainers to conduct sessions, new standards of module development... and preservation of knowledge not captured before."*
- Infosys uses **measurable returns** from KM initiatives to demonstrate the benefits and rationale for engaging in KM. Initial positive feedbacks on outputs/benefits of KM were encouraging and provided motivation for the continuing development of KM at Goldsun in Vietnam.
- At the Department of Health in the Philippines, members of the KM Team through a workshop surfaced their personal talents, passions and life goals and each member clarified how he or she can optimize the conscious **convergence between personal and organizational goals**.
- Management of Qian Hu in Singapore designed a **mix of informal and formal communication** modes to strengthen buy-in from employees and customers. This includes "floor walks", tea sessions and informal gatherings besides more formal modes such as seminars and focus group discussions.
- At SCG Paper in Thailand, a balance of virtual interaction and physical or face-to-face meetings is employed. **Physical spaces for interactions** are provided that can foster openness and trust among employees. Similarly, Bank Negara Malaysia redesigned its library environment to make it more reader friendly, using ergonomics furniture and encouraging a more cheerful mood using paintings and appropriate color scheme for walls and furniture.
- The importance of **senior management commitment** or executive sponsorship was mentioned in many case studies. In a survey of more than 200 organizations in Thailand this factor was ranked highest among critical success factors for KM. At Siriraj Hospital in Thailand, the CKO (Chief Knowledge Officer) was selected on the basis of commitment, leadership ability and recognition from other staff. Leadership and policy was ranked second in a study in Malaysia of success factors in KM. According to Menkhoff, JTC Corporation's managers created *"a motivational organizational culture characterized by a **caring leadership** behavior which supports active questioning and allows for mistakes... Employees are thus able to trust each other and to share their opinions about work related issues more freely."*
- Learning is a win-win activity for employees and the company. CAPCO in Taiwan established an on-line learning program for its employees, the Multimedia Cyber College. It has motivated its employees by including on-line **training and certification as part of the employee evaluation and promotion processes**.
- The motivational value of learning through **face-to-face interaction** in a team or CoP is mentioned in many case studies. Unilever Indonesia, SCG Paper and Siriraj Hospital in Thailand, and SAIT in Korea are examples of organizations that set up and nurture many CoPs. To sustain employee interest in KM activities, Bank Negara Malaysia initiated cross-functional teams, benchmarking projects and study visits or attachments.
- At SCG Paper, the **honor of being a mentor or coach** is seen as a motivating element in tacit knowledge transfer processes such as the buddy system, job rotation and cross-

functional group activities. Designating functional heads as the **knowledge champions** and setting up a **community of experts** were instrumental in gaining buy-in for KM at Airtel. Wika and Bank Indonesia created the role of “**begawan**” (sage) for mature and experienced mentors.

- “Praise Ground,” which is an avenue for **peer-to-peer public compliments for exemplary KM behavior**, is an innovative process at Samsung Advanced Institute of Technology. According to Sohn,

“A member identifies another employee who has done something worthy to be praised and writes a short, but entertaining note about it on the website. That member, then, identifies still another employee to praise and the process is repeated over and over... The Praise Ground is one of the most popular and most frequently visited website at SAIT. Most, if not all, members at SAIT consider it a great personal honor to be mentioned at the Praise Ground.”

3.5 From Productivity to Innovation

Many organizations studied are successful practitioners of various productivity and quality improvement tools, which have subsequently decided to also embrace KM and enhance learning and innovation. The effort to shift mindsets and practices from productivity to a mix of productivity and innovation is noticeable in many case studies such as SK Energy, Wika, Bank Negara Malaysia, Airtel, Bank Indonesia, Unilever Indonesia, Malampaya MMT, Qian Hu, Sunon, SCG Paper and Siriraj Hospital. How leading Asian companies are able to integrate various productivity/quality management tools with knowledge management/innovation into *one coherent framework for business excellence and competitiveness* will be an important concern for APO and the NPOs. Another important concern is how to complement the more common objective of productivity at operational levels with the more *strategic objective of innovation of business models*.

The above observation from the case studies is consistent with the observation of Rory Chase, CEO of Teleos, that winners of MAKE Asia had surpassed those of MAKE Europe in innovation.²⁵

This transition is a strategic one for many Asian organizations. According to APO Secretary-General Shigeo Takenaka,²⁶

The days of incremental or continuous improvement preoccupying corporate managers are over. It is to innovation and breakthroughs that those managers have turned their attention. For achieving innovation, the most relevant tool is no longer quality control or quality management. It is knowledge management in its broadest sense, with value creation or knowledge creation being the most relevant.

²⁵ Chase, *ibid*. See also: Rory L. Chase: Innovation and Intellectual Capital Management Set the Agenda. In: Proceedings of KM4Dev Forum, Asian Development Bank, February, 2007.

²⁶ Shigeo Takenaka: Welcome Address, IPC 2007 Conference. Bangkok, 2007.