

CHAPTER 15¹

AN INTELLECTUAL CAPITAL PERSPECTIVE ON EAST MALAYSIAN DEVELOPMENT

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INTRODUCTION

The three chapters presented in this section address very different economic sectors. Seen as a case, each one illuminates a common understanding about the changing nature of economic development that is especially relevant for the 21st century. Moreover, each in its own way recognises the critical importance of infrastructure, and especially telecommunications, as an enabling technology for development. While industrial parks (IPs), the focus of chapter 12, are not directly involved in either the development or delivery of telecommunications services, their tenants rely on the infrastructure provided by the park operators and the host government. As noted by the authors, sound telecommunications links with suppliers and buyers allow park tenants to manage their supply chains. Chapter 13 examined the potential for information technology to enhance relationships among local authorities and the people, through the useful metaphor of an “electronic government” (EG) that accelerates the development process. The strategic role of telecommunications is even stronger and this was unveiled in chapter 14. In our global village, an offshore financial market is viable only when it is connected to the global information infrastructure, in this case through Malaysia’s planned Multimedia Super Corridor.

Economic Development and Knowledge

Of course, telecommunications infrastructure merely provides channels through which information flows. The next significant theme from these three chapters addressed the content that these channels carry in the service of economic development. All three chapters, therefore, illustrate the serious effort required to shift remote economies based on agriculture, fishing, and extractive industries to higher value-added activities in the global economy.

According to Toeffler (1990), distinctions, such as north and south, or communist and capitalist, are no longer relevant and must be replaced with a world split between fast and slow wealth-creating economies. The shift from a slow-growing to a fast-growing economy will demand a corresponding shift in the way knowledge is managed, not only within, but across sectors. Because the development of advanced capacity to manage knowledge is one of the factors that is critical for successful development, this model is used as a lens through which to view the chapters contained in this section.

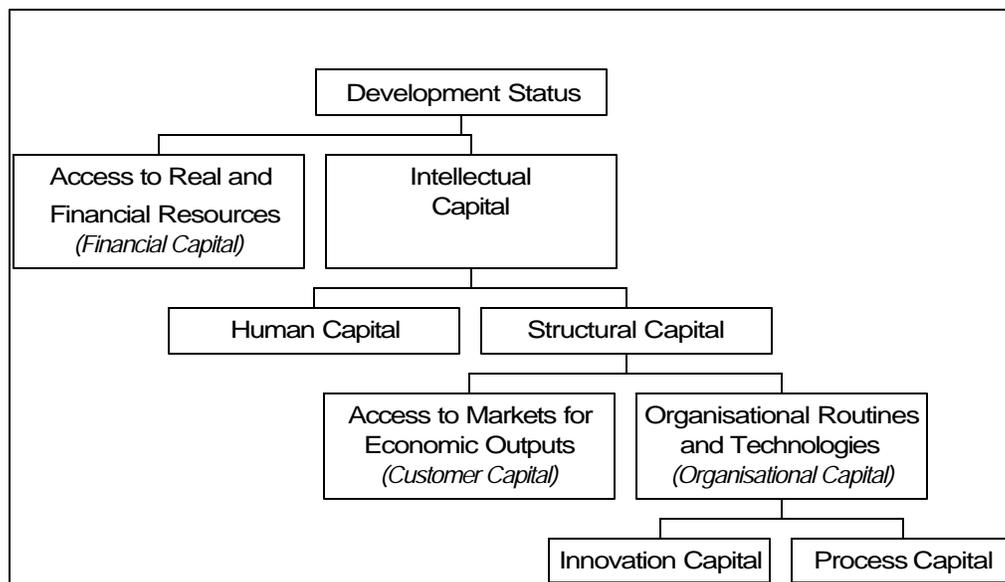
¹ *Business Opportunities in Sarawak, Sabah and Labuan*, Williams, et al, Prentice Hall, 1999.
<http://www.nanyangbiz.com>.

Knowledge as Intellectual Capital

The intellectual capital model (Edvinsson and Sullivan, 1996) used by the Skandia insurance firm is a useful framework for understanding the management of knowledge in its various forms. This model is a tool that was designed to help measure, understand and manage the value of intangible assets in the firm (Stewart (1998)), Sveiby (1997)). It requires only a minor adjustment in order to apply it to the task of understanding the concept of development. This involves a minor remapping of the labels for the stocks that make up the entities in the model. The term “market value” is replaced by “development status”; the term “financial capital” is replaced by “access to real and financial resources”; the term “customer capital” is replaced by “access to markets for economic outputs”; and the term “organisational capital is replaced by “organisational routines and technologies”, with all the other terms remaining identical. Figure 15-1 illustrates the modified model. By adapting the content (while retaining the logical structure) of the model from its industrial origins to the broader economic context, the intellectual capital model can be used as a lens through which to view development trends in East Malaysia.

FIGURE 15 – 1

Skandia Model of Intellectual Capital



Source: Adapted by the authors from Edvinsson and Malone (1997)

Development Status

As noted in previous chapters, Malaysia is categorised as a “newly industrialised country” (NIC). However, local economies in the more remote Eastern Asian region have developed more slowly, and are still dominated by agriculture and extractive industries. This is not due to a lack of available resources but, rather, is a consequence of the diminished flow of resources in the local economies. From this perspective, economic development is a matter of accelerating the local economic engine. This requires an economic structure that provides access to physical (real and financial)

capital, develops and fully utilises human resources, adds value to these assets, and delivers local outputs to the global economy.

Access to real and financial capital is available in the form of generating renewable agricultural, forest and ocean resources plus mineral resources that can be extracted through mining and drilling. While a temporary decline in foreign direct investment (FDI) can be expected due to the current economic woes, it will accelerate with recovery in the regional economy.

In Malaysia, the federal government is responsible for most education, except adult education and industrial training. State governments assume the responsibility for managing service delivery (i. e., requiring the development of organisational capital) and cross-border economic activities such as attracting tourism and FDI (both involving process and innovation capital).

Thus, each chapter in this section can be read as a case study of the interplay among physical, human and structural capital in the context of what is termed the intellectual capital model of development.

THE IP AS A FOCAL POINT FOR KNOWLEDGE DISTRIBUTION

An IP site is a type of physical capital, to which intellectual capital adds complementary value. When the intellectual capital level is high (as with a Science Park), the capacity to create wealth is greater. IPs provide a means to manage the state's human capital, that is, to cluster and make best use of the talent of people, resulting in increased innovation. Moreover, it provides a means to solidify this growing knowledge so that it becomes part of the state's structural capital, and can be more easily reproduced and shared.

In what ways is this happening in East Malaysia? Lee, et. al., in Chapter 12, demonstrated the contributions of IPs to Sarawak and Sabah. Specifically, they began with a discussion of how IPs have marketed themselves as manufacturing hubs in the two states. Implicitly, both states understand the importance of fomenting intellectual capital to nurture innovation and growth in manufacturing. The authors then analysed the suitability of several specific IPs in these two states.

Sarawak has identified five major industry clusters including timber, petrochemicals, agriculture, electronics and biotechnology. These sectors, implicitly, were considered to be important from a strategic standpoint—the greatest likelihood of wealth creation. IPs provide a conduit through which to develop these strategic industries. Ultimately, access to markets for economic outputs is desired and, therefore, IPs play a critical role in the growth of this kind of capital *via* the interplay with organisational capital.

The chapter highlighted three main advantages of investing in Sarawak: strong government supports, full commitment by the government to industrial projects and a very stable political climate. The authors further revealed how Malaysia's economic and development policies are geared to foster process and innovation capital growth. For example, *Bumiputra* entrepreneurs and companies can become part of the larger wealth-creation process through the strategic deployment of IPs.

Sabah's strategic thrust has been to convert its plentiful agricultural commodities and unprocessed timber into higher value-added consumer-oriented goods. Again, the notion of intellectual capital illuminates this issue. Former Chief Minister Datuk Yong Teck Lee, in a 1998 speech, noted that "It is accessibility to resources and knowledge

to efficiently export timber into value-added products which are in demand in the market” (*The New Straits Times*, 25 April 1998). Moreover, he noted that “IPs, specifically to promote the wood-based manufacturing sector in Sabah, need to be established to ensure that timber resources are properly used”.

Sabah’s flagship Kota Kinabalu Industrial Park (KKIP) underscores the state’s commitment to the long-term industrialisation of Sabah. More generally, the state is committed to accelerating the building of KKIP and improving existing IPs (*Borneo Bulletin*, 24 January 1998). Sabah IPs also enjoy a free zone status.

Lee, et. al. examined the interaction among physical infrastructure (I.e. seaports, airports, telecommunications, water supplies, electricity supplies and other key factors and IP activity). They found that both states are supplied reasonably well with infrastructure, certainly sufficient to support the strategic food processing, high technology, petrochemical and timber sectors.

Finally, Lee, et. al. profiled an evaluation of the competitive advantages of the East Malaysian IPs. First, they are located within the dynamic BIMP-EAGA economic region, the heart of ASEAN. Secondly, there is a conscious effort on the part of both state governments to cluster new activity via these IPs. This should accelerate factor accumulation and foster the emergence of the mutually supporting structures that nurture wealth creation. Hence, IPs provide a means for manage the states’ emerging organisational capital.

EG AS A MECHANISM FOR KNOWLEDGE SHARING

The EG visions expressed by government leaders both two states provide cues about radically new business processes, with the internal focus on greater efficiency, in stark contrast to the external theme of “closer to the people”. Yet from an intellectual capital perspective, both targets are highly complementary. The policy goal of the external focus is on responsiveness which adds value to the populace while the policy goal of increased efficiency leverages on the scarce human resources available to the state government.

These thrusts are enabled by the deployment of emerging capabilities ensuing from the convergence of computing and telecommunications technologies, and the sustained increases in price-performance of these technologies over the past 30 years. The fundamental concept is to deploy information technology (IT) as a tool to transform the operations of the state government in three distinct action domains : within and among the various agencies of the state government; among these agencies and organisations in the private sector; among these agencies and members of the general public.

These local policies are necessarily linked to the federal government’s Multimedia Supercorridor (MSC) programme, discussed in more detail elsewhere in the volume. As a package, transformation via IT will serve to foster the growth of structural capital. Indeed, Sarawak’s administrative operations were enhanced recently with Lotus Notes software by Sarawak Information Systems Sdn. Bhd. (SAINS) in order to improve productivity and foster closer communication among governmental agencies within the state (*Newsbytes*, 18 December 1997). Clearly, at an intuitive level, the Sarawak government understands the interplay between human and structural capital. These two factors are mutually reinforcing.

The role of EG in Sarawak and Sabah was discussed ably by Ang, et. al., in chapter 13. First, they provided an overview of the current status with regard to the

development of EG in Sarawak and Sabah. Secondly, they explored potential business opportunities emerging in this area.

Sarawak has been developing IT applications for administrative operations since the formation of the Sarawak Information Systems Sdn. Bhd. (SAINS) in 1992 and with the development of the Sarawak IT Master Plan, penned in the same year. Manifestations of the vision articulated by SAINS were in the form of various initiatives, including office automation, instilling in public servants a paperless culture, reaching out to remote regions and the setting up SarawakNet (I. e., the Sarawak Government Network), in 1997. SarawakNet provides structural capital needed to reinforce the interplay among government agencies and, ultimately among them and major stakeholders in the economy. It does so by providing the fundamental information infrastructure upon which higher level applications and software (e.g., the Lotus software mentioned above) can be deployed. The projects include the Industrial Applications Monitoring Systems, Fund Investment Management System, Voucher and Cheque Management System, and the Scholarship Information System. Some projects have even served as pilots for country-wide initiatives. Recently, the Federal Territory Syariah Court purchased a court electronic system called SEMEK (Sistem Elektronik Mahkamah) from SAINS for RM45,000 (*The New Straits Times*, 12 October 1998). SEMEK was developed for the Kuching Syariah Court in 1996.

Sabah has followed a similar path with the deployment of a statewide network (called Sabah.net), launched in 1997, in accordance with the Sabah IT master plan. The first phase consisted of an Internet-based network connecting different government agencies (*The New Straits Times*, 23 April 1998). This phase provided the interconnectivity needed to establish an EG network for 28 locations, 21 located being within Kota Kinabalu. Indeed the first application of Sabah.net was providing the information infrastructure for Sabah's EG system to provide for applications such as electronic mail, video-conferencing and online access to government announcements (*The New Straits Times*, 23 April 1998).

The second phase (announced in 1998) of Sabah.net linked the public to the network, a law network as well as a network for education which will eventually link all 1,300 primary and secondary schools (*The Business Times*, 14 September 1998). Future access will take the form of electronic commerce, human resources management, land use systems, tourism product management, office automation, electronic tendering system, financial management and control, social services, physical infrastructure management and rural information access (*The New Straits Times*, 23 April 1998). Other projects discussed by Ang, et. al. included sustainable tourism management, digital libraries, electronic communities and lifelong learning.

The common theme running through both states' network initiatives is that they embody, empower and support infrastructure for human capital (Edvinsson and Malone (1997)). Indeed, it is interesting that the heart of Sabah.net is the Kota Kinabalu IP Communications data centre (*The Business Times*, 8 September 1998). Moreover, both networks and IT master plans are closely aligned with the states' strategic development plans.

Ang et. al. wrapped up with a discussion of how some of the goals embodied within the states' visions offer investment opportunities. From an intellectual capital perspective, it should be noted that fertile areas have to do with building structural capital, specifically in the domain of access to markets for economic outputs. Both states want to nurture this form of capital as it is key to the development process and wealth creation. Indeed, investments by Telekom Malaysia Bhd., 3Com Malaysia, Sun Microsystems, Oracle Systems Malaysia and Cybertouch Sdn. Bhd. will liaise

with local IT vendors to create state expertise jointly (*The Business Times*, 8 September, 1998). More generally, the authors discussed investment opportunities in network infrastructure, technology and applications. Finally, they rounded out their discussion by touching on challenges of EG as well as regulation, guidelines and incentives for IT investors.

THE OFFSHORE FINANCIAL CENTRE AS A REMOTE KNOWLEDGE INDUSTRY

We shift focus slightly to examine Labuan's potential in becoming a leading international offshore financial centre (IOFC). Loh, et. al. discussed this potential in chapter 14 within the context of a hyper-competitive environment and the vision implicit in the Malaysian MSC. They began by sketching a brief history of Labuan, noting that by 1986, the Malaysian government was committed to developing it into a fully-fledged IOFC. By 1997, over 1,683 companies and 64 offshore banks were registered in Labuan.

The authors then discussed the strengths and weaknesses of Labuan. In summary, the strengths lie in its location within the BIMP-EAGA, financial support, direct access to the federal government and credibility in offering Islamic financial instruments. The weaknesses include the fact that, in an age of information technology, geographical location can be rendered useless as a competitive advantage. Others are the lack of well-developed financial services except in the area of fund raising, delays in passing laws affecting the industry and attracting talent. A recent article noted additional weaknesses including the fact that the local population is too small to drive the local economy and tourism is not being adequately exploited (*Asia Pulse*, 4 December 1997).

Loh, et. al. next viewed the offshore financial market industry from a hyper-competitive perspective. First they noted that all IOFCs must focus on providing tax incentives, asset protection, secrecy, anonymity and minimal red tape and compliance. They noted that key elements differentiating one IOFC from another is the ability to harness responsive, creative and flexible administrators who can readily innovate to sustain the attraction of offshore investors. They also require a pool of talented and efficient professional service providers including lawyers, tax advisors and accountants. Lastly, they require a modern and fully functional infrastructure, complete with telecommunications, airport and world-class living conditions. A hyper-competitive environment implies that there is no such thing as a sustainable competitive advantage. On the contrary, the way to gain a competitive edge is to actively disrupt the marketplace and exploit temporary competitive advantages (D'Aveni, 1995). The authors then analysed the IOFC industry from the perspective of several of the "New Seven Ss" suggested by D'Aveni. Generally, they foresee the creative and knowledgeable use of IT as being a strong possibility.

The IT theme was continued with a subsequent discussion of the Malaysia MSC initiative. Specifically, the authors believe that Labuan can possibly leverage on the MSC to gain a competitive advantage in offshore financial markets, bringing to bear vastly superior forms of communication than are now currently practiced in Labuan.

Finally they capped their discussion with a profile of business opportunities in Labuan, given a hyper-competitive environment and given the potential offered by the MSC. One serious strategy would be to foster the growth of the Labuan International

Islamic Money Market and do so with an eye towards leveraging on the MSC to foment Islamic banking partners around the world.

Other business opportunities lie in the direction of IT vendors working to automate financial work processes and developing linkages to the MSC. Linking to the MSC more fully offers an opportunity to tap into telehealth and teleschools, thus to enhancing the quality of living and reducing the amount of foreign talent actually residing in Labuan.

Conclusion

Each chapter in this section portrayed how various forms of structural capital play a critical role in supporting and adding value to the relatively scarce human resources. Structural capital moves the economy away from its traditional reliance on abundant physical resources and toward the intellectual capital model of development. Since traditional economic models do not consider the intersection among tangible and intangible (“atoms and bits”) resources, scholars of the development process may find this model more useful in the current era of information-led development. Most importantly for Sabah, Sarawak and Labuan, the global investment community is searching for the window of opportunities emanating from exactly this kind of model.

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