

## MANAGING INTANGIBLE ASSETS IN INNOVATION BASED COMPETITION ERA

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**Abstract:** This paper reviews the role of intangible assets as source of competitive advantage and how to manage their assets in innovation based competition era. Innovation based competition has radical consequences on organizational management practices; in other word innovation has become ever more central to firms competitiveness. In today's business competition, organizations are highlighting the importance of intangible assets as source of competitive advantage. It is represent significant values drivers for organization such as human capital, customer capital, information database, software, brand, patent, and business processes. In order to balance the investment between physical and intangible assets, organization have to able to identify and to calculate the value of their intangible assets. One way to manage intangible assets is through knowledge management. And the most important factor to be considered is aligning the organization intangible assets management strategy with its vision, values, organization strategy and culture, so that management will be able to reap the reward from its most valuable assets.

**Keywords:** intangible assets, innovation-based competition, intangible asset management framework, competitive advantage.

### Introduction

There is a great deal changing today in the way firm to compete. Over last decade, several driving force have emerged such as globalization of business and international competition sophisticated customers, competitor, and supplier increased technological capability, shortening of production life cycle. Among the changes, knowledge economy has probably made the most outstanding impact. Several characteristics define in are it's focused on intangible resources rather than tangible resources, it's has a hypercompetitive business environment, it's digital, it's virtual, and it's networked. In the new knowledge economy, managing intangible has become the one and only competitive advantage of a firm (Anatan, 2004).

In today's business competition, organizations are highlighting the importance of intangible assets as source of competitive advantage. It is represent significant values drivers for organization such as human capital, customer capital, information database, software, brand, patent, and business processes. In order to balance the investment between physical and intangible assets, organization must be able to identify and to calculate the value of their intangible assets by developing a framework for identifying, evaluating, and exploiting its intangible assets. Companies need to manage the strategic resources and knowledge through a

systematic thinking so that intellectual capital can give contribution to innovation strategy and it can enhance firm's performance. The most important factor to be considerate is aligning the organization intangible assets management strategy with its vision, values, organization strategy and culture, so that management will be able to reap the reward from its most valuable assets.

This paper reviews the role of intangible assets as source of competitive advantage and how to manage their assets in innovation based competition era which characterized by radical consequences on organizational management practices, in other word innovation has become ever more central to firms competitiveness. The organization of the paper will be giving as follows: Section one discuss the innovation based competition era, where knowledge as intangible assets becomes the source of organization's competitive advantage. Section two will focus on what the intangible asset is, and it's impact to organization performance based on some literature review, while Section three will discuss how to manage intangible assets through knowledge management.

### **Innovation-Based Competition in Knowledge Economy**

The current business competitions characterized by the changing in levels of customer dependency, changing composition of customers and supplier, intensity of competition and relative size of competitors, recruitment difficulties, changing levels of technology and automation, changes in the firm's ability to access finance, changing level of information use, pertinent changes in legislature and regulatory environment, and the frequency of firm search process. All of those will affect on varying level of uncertainty environmental that influence firm level innovativeness and performance.

Knowledge economy describes trends in the most advanced economies towards greater dependence on knowledge, information, high skill levels, and an increasing need for ready to access all of these aspects. Knowledge economy characterized by: the more importance of knowledge as intangible resources, the development of collaboration and strategic partnership, and the faster of strategic changes in a business networking. Table 1 explained new challenges as a result of organizational shift from industrial era to knowledge economy.

**Table 1. Characteristics of Industrial Era and Knowledge Era**

<b>Industrial Era</b>	<b>Knowledge Era</b>
Physical assets	Intangible Assets
Fragmented task	Integrated and coordinated task
Mass marketing	JIT Product
Operational efficiencies	Innovation
Management control	Common goals and objectives
Training	Lifelong learning/training

Source: Kimpeler, S., 2001 in Anatan (2007)

Knowledge has become a crucial role in economy activity to increase investment in research and development, education and training, and other intangible investment as a source of innovation activities. In this context, organization should emphasize on creating and transferring innovative knowledge

since the speed at which knowledge is effectively transferred within organization can significantly affect its competitive ability and performance. An organization's long-term viability will depends on the successful expansion and exploitation of its knowledge assets by identifying key leverage points for achieving business results.

Business environment have changed from industrial era to knowledge era, as well as information and knowledge get more attention in business process. New dynamics economics are arising in the industry, driven by interacting trends such as the increasing importance of knowledge as an intangible production factor, the formation of strategic partnership and cooperation, and the rapid change of strategy within a networked and knowledge-based economy. Traditional factors of production such as land, labor, and capital have become secondary, and knowledge is the only meaningful of resource today. Moreover, the aptitude of the worker and the firm to seek new and up to date knowledge through organizational learning is the only means of sustaining the value of the firm's knowledge resources.

### **Intangible Assets as Core Competence in Knowledge Economy Era**

Intangible assets play as most role in business today. Many executives believe that they have to replace fixed assets as the key to an organization's competitive sustainability in the knowledge economy era. Many even think innovation and relatedness intangible assets represents the core competence in the knowledge era since it provides a market differentiator through innovation leadership customer loyalty, reducing business risk with R&D investments. Those attribute will become the source of organization distinctive advantage.

Intangible assets have been a focus of management studies in recent years (Bontis, 2001). Intangible assets are also regarded as an important resource for future value creation (Daum, 2003). Generally, many researchers have been defined intangible assets from different perspective. Intangible assets are in most cases defined as being not physical and not belonging to financial assets. Mard et al. (2002) defined intangible assets as ideas, research, new way of thinking, organizational aspects, and many others. Many other companies mention that patents, brands, goodwill, reputation and other forms of protected knowledge are labelled as intangible (Seetharaman et al., 2004; as cited by Boeckstein, 2006). Moreover, according to Edvinsson (1997), intangible assets are simply part of intellectual capital. Brynjolfsson et al, 2002 (as cited by Boeckstein, 2006) have examined intangible assets related to computer hardware and the relation with organizational capital. From many definitions about intangible assets, it can be concluded that intangible assets refers to the organizational infrastructure as essential factor which enables assets to create value for organization.

Particularly, according to Ahonen (2000, as cited by Hussi, 2004), intangible assets can be divided into two classes, namely generative and commercially exploitable intangibles. These generative intangibles describe the capacity of an organization to produce commercially exploitable intangibles. The ability to generate commercially exploitable intangible requires processes and assets. The commercially exploitable intangibles consist, for example of cost effective production, immaterial property rights, customer capital, excessive demand and reliable management. It is believed that intangible assets have become the source of organization's competitive advantage as the core competence, particularly in this new competition era, the knowledge economy era.



The competitive advantage of organization lies in the business activities which the organization knows how to do well. Factories and equipment can always be bought, employees hired, and technology licensed in but unless the organization and its management know how to combine and exploit these resources effectively a viable and competitive business will not be created. In this circumstance, the role of knowledge as engine of organization survival is needed. The knowledge which the firm possesses, its "knowledge base", thus plays a key role in the survival, profitability and growth of the organization. It is easy to show the role which knowledge now plays in the competitiveness of firms. Many organizations particularly in high technology and high value added sectors show a very large gap between the stock market value of the company and the book value of its tangible assets. This reflects the value of organization's intangible assets most of which consist of the stocks of knowledge which the organization has built up or acquired.

The increasing importance of knowledge is shown by the fact that in many sectors investments in intangible assets are now much greater than those in fixed capital equipment. Thus, managers and workers now need to be much better educated and much more highly trained. The increasing speed of technological and organizational change means that employees need to be much more flexible and require much more training and upgrading of their knowledge and skills during their lifetime. There will need to be mutual commitment between organizations and their employees so that organizations will have an incentive to invest in training while employees have an incentive to acquire knowledge and skills specific to the organization in which they work.

### **Managing Intangible Assets through Knowledge Management**

Intangible assets that possessed by the organization have to be managed to optimize its benefits. In the era of knowledge, knowledge management has become an important strategy to manage the organization's intangible assets. This concept has been known in the business activity since in the beginning of the 21<sup>st</sup> century. Leaders in the organization start to understand the knowledge creation process as organization competitiveness. Through mobilizing employee's knowledge and creating learning environment which can facilitate the new economics of information (Rachmany & Akib, 2002). The objectives of knowledge management implementation are to increase and improve the operational activities in the organization to achieve organization competitive advantage, and to improve communication among top management and employees to support the process of knowledge transfer and implement compensation based on performance (Muttaqien, 2006).

Knowledge management defined as a process used by organization to find, to select, diverse, and transfer important information that needed in every activities in organization, such as problem solving, dynamic learning process, strategic planning, and decision making process (Sykrine, 2003). Generally, knowledge management is a process which coordinates the use of information, knowledge, and experience. According to its hierarchical, information comes from the data which have been process for interpretation, while knowledge is a result of the data processing with the use of a specific methodology. Data and information which have been processed to become knowledge are used as a tool or source to support

decision making process. The hierarchy of data-information-knowledge is shown on Figure 1.

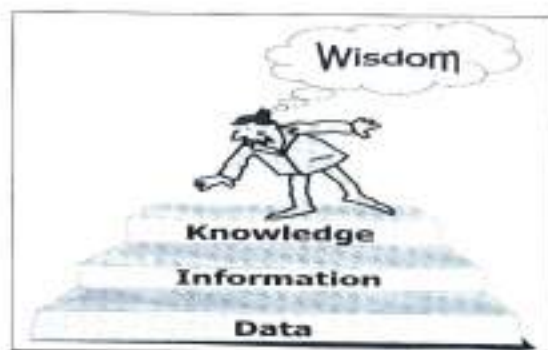


Figure 1. The hierarchy of data-information-knowledge  
(Source: Hidayatno, 2006)

Knowledge management is classified in two important areas. The first area is process which consists of utilization, storing, acquisition, distribution/sharing, and creation. The second area is structure, technology, measurement, organizational design, leadership, and culture. Both of the two areas are integrated build a knowledge management area. Knowledge as the object of knowledge management is classified in tacit knowledge and explicit knowledge. Tacit knowledge characterized as personal, procedural, soft, inside the brain, informal, include skill and ability. On the other hand, explicit knowledge is human knowledge outside the brain, includes documents, books, journals, and others, and it has code, declarative, formal, and hard (Nonaka dan Takeuchi, 1995).

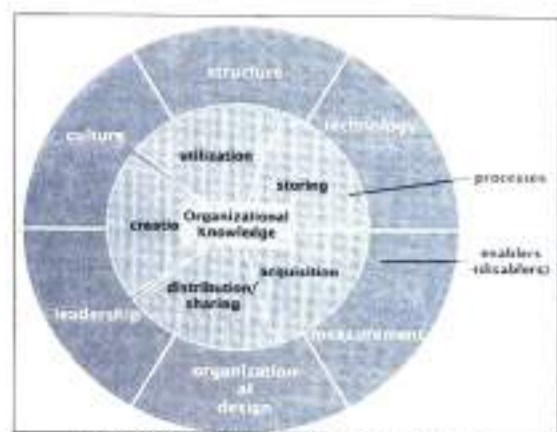


Figure 2. Knowledge Management Area  
(Source: Hidayatno, 2006)

In the development of knowledge, there is a process of knowledge transfer, which summarized in a model namely SECI Model (Socialization, Externalization, Combination and Internalization) as shown on Figure 3. Socialization is a process of information transfer among individual within organization through conversation. In other words, there is a transfer process from tacit knowledge to tacit knowledge. The next process is Externalization refers to the transfer from tacit knowledge to explicit knowledge, such as writing a book, journals, magazines, and others. Combination is a transfer from explicit knowledge to explicit knowledge, such as reviewing a book. And the last process is Internalization which refers to the transfer from explicit knowledge to tacit knowledge, for example knowledge transfer from teacher to student in the classroom. This model explains a continuous process of knowledge transfer to develop knowledge.



Figure 3. The SECI Model  
(Source: Hidayatno, 2006)

The implementation of knowledge management becomes an important strategy in order to respond the more innovative organization and competitive business environment. Through implementing knowledge management, organization will improve their products and services. According to Sykme (2003), there are several reasons to implement knowledge management; to share the best management practices that have been implemented in each organization, and to succeed the innovation strategy.

## Conclusion

Intangible asset is the key of organization success to respond the changes in business environment and the development of technology, and create new business paradigm, the knowledge society and knowledge-based economy. It refers to a trend which the economy depends on knowledge, information, and skill. In the era of knowledge, knowledge management has become an important strategy to manage the organization's intangible assets. Managing intangible assets through knowledge management can be implemented by mobilizing employee's knowledge and creating learning environment which can facilitate the new economics of information.

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