

Dincă, Violeta Mihaela

Article

Knowledge management and economic intelligence in Japan

The International Journal of Management Science and Information Technology (IJMSIT)

Provided in Cooperation with:

North American Institute of Science and Information Technology (NAISIT), Toronto

Suggested Citation: Dincă, Violeta Mihaela (2013) : Knowledge management and economic intelligence in Japan, The International Journal of Management Science and Information Technology (IJMSIT), ISSN 1923-0273, NAISIT Publishers, Toronto, Iss. 9-(Sep), pp. 55-69

This Version is available at:

<https://hdl.handle.net/10419/97869>

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An official publication of The North American
Institute of Science and Information Technology

ISSN:1923-0265

INTERNATIONAL JOURNAL OF

Management Science and Information Technology



NAISIT
PUBLISHERS ■■■

www.naisit.org

The International Journal of Management Science and Information Technology (IJMSIT)

NAISIT Publishers

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The International Journal of Management Science and
Information Technology (IJMSIT)
Special Issue: knowledge strategies, decision making and
IT in emergent economies

Knowledge management and economic intelligence in Japan

Violeta Mihaela Dincă,
Academy of Economic Studies Bucharest,
Romania

Abstract

Knowledge management holds a broad range of meanings. Within this article I tried to reveal Japan's position regarding this discipline. I emphasized how knowledge is being managed on a daily basis at the state level, business, or even at individual level. Also the article emphasizes the important role of economic intelligence for an efficient knowledge management. It addresses how to evaluate the methods used by the Japanese, and exceed the usual speculation and classical assertions regarding the superiority of Japanese intelligence, what is the part of the organization or of the cultural aspect within these practices and finally if these Japanese methods are exported.

Keywords: knowledge management, Japanese companies, economic intelligence

1. Introduction

One key aspect about knowledge economy is that the economics are not of scarcity, but rather of abundance. Unlike most resources that become depleted when used, information and knowledge can be shared, and actually grow through application (Brătianu, Dincă, 2010).

Some companies imagine successful development of knowledge by breakthrough ideas, exuberant creativity or even the Nobel Prize for internal laboratory chief. The development of new capabilities in enterprises has little to do with chance, and has much more to do with systematic, hard work. Those who want to develop knowledge are always in the middle of creativity and systematic problem-solving. Contrary on the stereotype, inventions and innovations are not only programmed in laboratories or research- and development departments but can occur in all the areas of the organization and then generate success for the company (Dincă, 2011). Therefore it is more and more important to manage the knowledge resources in an efficient manner.

Knowledge management (KM) is a relatively new concept that lets us understand how knowledge is produced, used and distributed within an organization. Worldwide, several schools have been developed around this concept. In Japan KM is known as the Japanese way. Nonaka and Takeuchi, are

considered its promoters. After some research, it has been concluded that the Japanese way stood out considerably face to the KM from abroad to the extent that it is in perfect harmony with the Japanese culture.

The main objective of this paper is to study the methods of creating, sharing or keeping knowledge and business intelligence. These concepts have a strong bond with knowledge management which is a very “Japanese” scientific field.

The paper tries to explain why the role of intelligence in international relations in general has been under-studied in the Japan despite its importance. The article also intends to fill in the gap in the literature on the case of Japanese business intelligence and its correlation with the evolution of the Japanese economy and business environment.

2. Japanese economic intelligence overview

The foundations of Japan’s economic structure and development date back to the Meiji era in the 19th century which was the starting point for rapid growth and industrialization. In the early 20th century the Japanese economy instead of following the path of increased business concentration, it relied heavily on inter-firm, long-term commitments where large and small firms cooperate closely without vertical integration (Dincă, 2011).

Japan is an example of a particularly well organized society offering the best use of economic information, in the opinion of all experts, due to a close synergy between the business community and other public and semi-public entities based on strong centralization of collected information (Henri, 1994).

Thus, the business cooperation is based on a systematic sharing of information, which facilitated the success of past industrial and trade policies of the country. The private and public networks are interdependent, not allowing any monopoly position. If the state has been active in the transition periods as a flow regulator or organizer and less as a producer of information, its role is now more modest than we think. Certainly, the MITI (Ministry of International Trade and Industry) remains a particularly gifted ministry in the communication area, it also has a powerhouse of databases, the PPIS (Policy Planning Information System) (Faure, 1984), which gathers all information collected from Shingikai (deliberation councils) or from Gyokai (professional associations). However companies remain instruments used for the collection of information, but their role is often minimized in the favor of certain organisms publically more visible. One of these institutions is MITI and also its subsidiary, the

JETRO (Japan External Trade Organization), whose reputation is overrated, according to the Japanese businessmen, including those working in SMEs, who deplore its bureaucratic functioning, even if Westerners are willing to classify JETRO as the most efficient of the major information centers. Also, among the public agencies promoting the foreign trade, JETRO is a model. Since the early 90s, it had to redirect its target from promoting exports to the promotion of imports, which resulted in terms of competitive intelligence in developing a dual responsibility not only on the Japanese supply and demand, but also on those of foreign markets. For that, JETRO has shared its expertise to foreign partners who receive and welcome their experts, in some cases, in quasi-permanent programs. JETRO's network has extended, it has 80 offices abroad and 31 in Japanese provinces. In Europe, there are intentions to open regional offices and Lyon was chosen as testing ground. JETRO's strategy is to control the entire flow of information not only Japan but between countries as well. This creates the risk of a future dominant Japanese position, if the foreign devices rely too much on the support of JETRO.

3. Foreign intelligence

Because Japan relies on its superpower ally to guarantee its security, many maintain that the study of Japanese intelligence is superfluous; better to concentrate one's effort on the intelligence apparatus of the protector, the United States. But, as Michael Herman, in writing about the importance of intelligence to international relations, observes: "Defending security in this narrowest sense is only one of intelligence's rationales. The security element in national policy extends to defending overseas possessions, protecting nationals and property abroad and reacting to threats and conflicts between others." Thus, even though Japan may rely on the United States for its overall security, it provides many other aspects of security itself. In these areas such as the protection of Japanese nationals abroad, promotion of Japanese diplomatic and economic interests, and the protection of state secrets at home Japan's own foreign intelligence institutions play a role. Moreover, given the changing security landscape of post Cold War Asia, Japan may ultimately play a greater intelligence role within the U.S. Japan alliance (Herman, 1997).

As Japan's international role has increased in recent decades, its intelligence functions have expanded to deal with the additional demand put upon them. In this sense, Japan tests the argument of intelligence theorists who set a direct link between a state's international role and its intelligence capacity. While the research findings to date are too preliminary for a definitive judgment, Japan's foreign intelligence operations have clearly increased, at least since the end of the Cold War, though at a slower pace than intelligence theories would predict (Herman, 1996).

Since the end of the Cold War a decade ago, Japanese leaders have demonstrated a growing awareness of the importance of foreign intelligence. Moreover, an examination of its recent activities shows that the Japanese state maintains a greater foreign intelligence capability than commonly is acknowledged. But developments in Japan's foreign intelligence community also clearly indicate that the Japanese state has far less "intelligence power" to borrow, than states more often examined, such as the United States, the United Kingdom, and even Israel (Oros, 15).

Japan's overall foreign intelligence capabilities include military intelligence, at least as far as strategic intelligence (as opposed to tactical intelligence), economic intelligence, and espionage. The focus here is on state intelligence activities as opposed to the intelligence activities of nonstate actors, such as corporations, which perform the bulk of the economic intelligence activities of Japan. As elsewhere, Japanese intelligence is generally divided into collection, analysis, counterintelligence, and covert action. But the tricky issue of covert action is here left aside (Sheenan, 1996).

4. Group information culture

The information report of a society is not neutral. From one country to another attitudes regarding information are different and explain the variety of national systems of economic intelligence by restoring it in its cultural context. So we find ensembles of countries, such as the Anglo-Saxon, Scandinavian, or even Germany, which have, to varying degrees, a positive attitude to information regarding its circulation and marketing, and countries maintaining attitudes that can be considered more negative. While, within the Japanese and German culture, the information management relies on a collective and concerted practice, the French cultural characteristics do not allow achieving a new mindset concerning this matter (Johansson, 1997).

Experts note that "The French culture manifests distrust that hinders the dissemination of information and in France an obsession for defense and security is reflected also in matters of intelligence" [19]. This is the reason why France, the third largest producer of scientific, technical and economic information is only the sixteen user.

Ikujiro Nonaka, from Hitotsubashi University, presents an original theory to explain the predisposition of Japanese companies for performing activities of economic intelligence (Nonaka, 1983). He advances a theory of self-regeneration. The Japanese company is renewed by a permanent metabolism with its environment. An organization that regenerates produces "order" from uncertainty, confusion, and chaos by responding selectively to information from its environment. The term order also implies mental patterns such as visions, values, and conceptions. Japanese companies are constantly creating

meaning through their organization by using semantic information supported by the company intelligence (Corporate Intelligence), which is defined as the ability of an organization to create meaning from semantic information. To support his theory, Nonaka quotes a series of four explanatory factors, which we will comment:

1. The predilection of the Japanese to add more value to the feelings and emotion (semantic information) than to the logical syntactic information, as written contracts. They need to maintain by all means a harmonious and cooperative relation with their partners, whether government, customers or banks. Through these interactions and relationships, they exchange information.
2. The attitude of the Japanese about the future that they feel uncertain and unpredictable and not as a set of predictable and manageable variables. This explains their constant thirst for information, to help them adapt quickly to environmental changes. This attitude is confirmed by the taste of Japanese managers for long term vision and thinking (10 years) on the main lines of business. This exercise, often neglected if not ignored by most Western companies, is simple in Japan, it sets a focus and ambitions to the company. Indeed, the strategy is a pure logical operation of building a near future (4 or 5 years), from controlled variables, which is more suited for systemic Western mind.
3. Philosophy of business (Corporate Philosophy) which emphasizes the importance of working for others and not for itself. Through numerous case examples of companies, it shows that Japanese employees are in perpetual learning, they continue to increase their skills, regardless of specific instructions of management. Learning some new things in work represents a strong motivation for the individual. We will add a factor as the writing system based on Chinese characters which requires a very long learning and especially the constant maintenance of knowledge. The Japanese education system can learn to learn. Note that throughout their entire working life, and even in retirement, the Japanese will tend to continue this constant effort to enrich their knowledge.
4. The management of Japanese companies is based on the idea that employees must motivate themselves and this is trainable. The Japanese believe that, if a company expects its employees to do their work according to specific instructions of management, there will be no chaos, motivation, and learning. Specifically, the definitions of jobs are left in the dark in order to stimulate the initiatives. The effectiveness of the organization can be improved by a more direct approach. However, the result is self-satisfaction, which makes this type of company not surviving in the future. Arie de Geus showed that the longevity of businesses was due to their ability to adapt to environmental changes. The companies which could adapt and learn were the surviving ones, and that encouraged independent experiments (De Geus, 1997).

To these factors, we add also the fact that Japanese make use of sophisticated information, seeking a systematic correlation between evidence and impressions from a field. Marketing methods used in Japan suggest that the managers of this country favor an intuitive knowledge - the subjective information - compared to quantitative knowledge - objective information, or scientific information particularly beloved by scientists in the West.

5. Japanese companies

There are two related explanations for what drove Japan's success from the early 1950s into the 1980s. One has to do with a specific set of government policies, the other with a set of management practices common to Japanese corporations. Both explanations have had a profound impact, not only within Japan, but also on the rest of the world. Within Japan, it has been appealing to believe that Japan had invented a new and intrinsically superior form of capitalism, one more controlled and egalitarian than the Anglo-American version. Outside Japan, policy makers and business leaders have sought to emulate the Japanese model or borrow parts of it.

The notions of Japan's success come in part from the robust growth of a relatively small number of industries. The same industries—including semiconductors, machine tools, and steel—were examined over and over again. Observers looked at these cases, described what happened, and then made the intellectual leap to generalize about the entire country's success (Takeuchi, 2004).

A broader array of cases gives a different picture. Thus, Porter, Takeuchi, and Sakakibara (2000) looked beyond Japan's successes to examine its failures. The reality is that Japan has always had many uncompetitive industries, which have rarely been given much attention, but it is only by examining such failures that it is possible to distinguish between good and bad policies, at both the government and corporate levels.

The Japanese have a well-earned reputation for being world leaders in the businesses in which they compete. Their business strengths are equally matched by the ability to gather and use BI, including competitor, customer, market, and technological intelligence.

From outsmarting their competitors on international bids to devising superior competitive strategies to identifying and sourcing foreign technology for their next-generation products, Japanese companies effectively use BI as means of gaining competitive advantage over their rivals. Much of this advantage is due to the ability to collect-but not necessarily analyze-and use BI in a timely and effective manner companywide (Porter, 1999).

Currently many Japanese companies feel they are the battle to manage and use the ever-increasing amount of publicly available information generated by almost every country in the world (Nonaka, 1995).

This has led a number of Japanese business leaders to believe they need to find a more organized and systematic way of managing the BI process. This, in turn, has led Japanese companies to reach out to the American Society of Competitive Intelligence Professionals (SCIP) for both new ideas and as a stimulant for the development of more modern and powerful BI systems for Japanese firms.

Japanese companies' current BI practices have largely been developed since World War II, when the government recognized that Western technology would be needed to modernize its badly damaged industrial base. During the late 1950s, the government established two principal organizations to support the development of Japanese BI. In 1957, it created a joint venture, identified as the Scientific Information Center (SIC), to gather and disseminate information about Western industrial technology to Japan's private sector. Subsequently, the Ministry of International Trade and Industry (MITI) established the Japan External Trade Organization (JETRO) for the purpose of promoting Japanese exports. JETRO was given the added responsibility of collecting and disseminating foreign business information to Japanese firms. That mission included the responsibility for providing worldwide intelligence on how other nations run their businesses and economies. Initially, because the firms had no foreign presence and little hard currency, much of the foreign business information was gathered by the government, with organizations such as the SIC providing the means for broadly disseminating that information throughout various Japanese industries. The dissemination of foreign business and technical information by the government caused many Japanese companies to set up their own intelligence departments to fully exploit this data. By the early 1960s, essentially all large Japanese multinational companies had created their own dedicated intelligence units.

A survey conducted in 1963 by MITI identified the most effective foreign intelligence collection mechanisms, ranging from the stationing of employees abroad as "listening" posts to the use of both domestic and foreign consulting services, including the use of their related trading firms for proactive intelligence collection (Takeuchi, 2004).

It was during this period that a school, The Institute for Industrial Protection, was established by Tokyo to train intelligence agents and security officers for Japanese corporations. The school was headed by a former Japanese ambassador; it included a nine-person staff and a number of

experienced intelligence officers. Among the first 50 students at the school were some promising executives in their late 20s, who, over the four-month course, were taught a wide range of intelligence collection, analysis, and security techniques.

Today, almost all Japanese companies involved in international business and trade have their own intelligence unit. Typically, it is located in the planning or research departments. Some 10 to 20 employees are assigned these responsibilities within company headquarters, but the responsibility for intelligence gathering is companywide, with almost every employee participating (from the president to the sales force). Intelligence collection and dissemination is a well developed process at most Japanese firms. However, it is the ability-almost culturally inherent-for sharing intelligence that makes the use of BI in Japanese companies so effective (Porter, 2007).

Some of the larger companies, such as Mitsubishi Corporation and Nomura Securities, have established more comprehensive intelligence' activities in the form of think tanks, whose primary purpose is to study the total business environment in which the companies operate. These think tanks also sell their services to other companies, in addition to producing intelligence for themselves and, sometimes, for the Japanese government.

Most Japanese firms are part of a larger group called the Keiretsu, a family of mainly noncompeting companies whose various business functions cover . The Japanese word for intelligence, joho, has a broad meaning, including the collection and use of information for specific purposes. It is used by the Ministry of Foreign Affairs to identify its Intelligence Bureau and by trading companies to denote their international research departments banking, insurance, manufacturing, transportation, and sales and trading.

Intelligence gathered by the various members is traditionally shared with the trading company for broader use by all; the member bank often provides some of the more valuable intelligence. Japanese trading companies' reputation for operating worldwide intelligence networks is well deserved. Mitsui Corporation's trading company is reputed to have had such an excellent global intelligence network before World War II that it was used by the government for military purposes. These trading companies have hundreds of offices abroad, often with thousands of employees. Their basic mission is to gather competitive and market intelligence on an ongoing basis and send it back to the Tokyo headquarters' intelligence clearinghouse (Porter, 2007).

Today, Japanese trading companies are more sensitive than ever to the importance of global information, and some have stated that their goal for the 21st century is to become "globally

integrated information corporations." This future vision does not diverge much from their past: Mitsui Corporation's motto is "Information is the lifeblood of the company".

The collection and use of BI by Japanese firms is world-class. However, the analysis of the intelligence has been less developed and effective. Their ability to often collect the answer to an intelligence problem, such as their competitor's strategy or a description of the competitor's future product, has resulted in less emphasis being placed on the development of more creative intelligence assessment skills and techniques. In fact, because so much intelligence can be collected directly, it has led to problems where Japanese companies have been tempted-as in the Hitachi IBM industrial espionage case-to collect a competitor's proprietary information. This situation, however, is much more prevalent in Japan, as the recent Komatsu industrial spy scandal has revealed.

As competitor intelligence becomes more difficult to collect and as the amount of information that is publicly available grows through electronic data bases and public disclosure, the weaknesses in Japanese firms' intelligence analysis techniques are becoming more evident. The types of analysis that Japanese companies have concentrated on in the past have been mainly the examination and organization of large

amounts of data to discern competitor trends and business strategies. However, in view of the increasing amounts of information and the complexity of available data, Japanese firms will have to place greater emphasis on more sophisticated intelligence analysis to reduce the large amounts of collected information and derive useful insights (Porter, 1996).

Japanese firms believe that although they have had an intelligence advantage over their foreign competitors in the past, they are currently falling behind, particularly in the areas of organized B1 systems. They perceive that the US effort to organize competitive intelligence professionals (i.e., SCIP) is providing American companies with enhanced intelligence collection and analysis capabilities. This, in turn, has resulted in a major effort on the part of a number of Japanese business leaders and company officials, led by a major Japanese trading firm, to enlist the assistance of SCIP in organizing and developing the competitive intelligence profession in Japan.

The Japanese are very good at acquiring, assimilating, and improving upon foreign business practices, as their successful adaptation of American quality control theory proves. They will effectively adopt US BI methods and techniques to enhance their companies' overall competitiveness-probably sooner than most American companies (Porter, 1996).

6. A more advanced knowledge economy

The Japanese experience offers many useful insights into our understanding of a knowledge-based economy. Many of them are relevant to developing countries looking to enhance the knowledge-related aspects of their economies. To that end, the issues and lessons raised in the previous chapters are summarized here, in line with the four pillars of a knowledge economy: economic and institutional regime, dynamic information infrastructure, educated and skilled population, and national innovation system. The companion volume provides case studies of knowledge creation and knowledge sharing at six high-performance companies, and has its own summary (Shibata, 2006).

Economic and Institutional Regime

Japan's postwar economic system has become a mismatch with an advanced knowledge-based economy. That system is considered responsible for the slow response of both the public and private sectors to changes in the economic environment, and thus for prolonging stagnation in the 1990s. More broadly, the incumbent Japanese economic system has been a victim of its own success and other changes in the global economic environment. This means that most of the Japanese systems that contributed to the past successes are not functioning well. The systems in need of change for Japanese companies to compete successfully in growing areas include keiretsu, main bank, lifetime employment, promotion by seniority, and memorization-oriented education. Some systems have already been changing, some substantially. Others will need to change even more.

The system malfunction culminated in the 1997 banking crisis. This led to a rethinking and reforming of traditional corporate governance and incentive models that is still going on. The government has supported private sector reforms with regulatory reforms. For example, deregulation of energy and telecommunications has brought benefits.

One of the most crucial areas of reform was the financial sector. Banks suffered from ever-increasing nonperforming loans (NPLs) during the 1990s as a result of irrational lending during the 1980s asset bubble and belated actions to address the problems. Only in the mid-2000s was the peak of the NPL problem passed. This involved mergers, significant reductions in cross-shareholding, and other major restructurings.

On the government side, first financial supervision (1998), and then planning (2000), were moved from the Ministry of Finance. A newly established Financial Services Agency (FSA) assumed these powers in 2000. This new regulatory regime has made progress. The regime issues addressed in this book relate primarily to labor markets and venture capital markets. The information technology (IT) revolution, as

well as the greater involvement of India, China, and the former communist states, in the global economy are shifting comparative advantage in many industries to new systems.

Such systems are characterized by highly mobile labor markets, flexible work practices, and venture capital finance. In IT-related industries, modular production and network-based innovation have been added to the list, as well as active mergers and acquisitions (M&A) (Shibata, 2006).

The success of many U.S. IT firms both absolutely and relative to formerly strong competitors has led to codification of many of the features of what happened in the United States into models. Typical, and perhaps best known, is what is termed the Silicon Valley-type because of the geographical location of so many of the new firms. Its features are remarkably different from those that characterize the successful Japanese firms of the 1980s, generalized as a model termed the J-type firm. The consensus is that some of the defining features of the J-type firm—life-time employment, together with seniority-based wages—do not provide the flexibility deemed necessary for a dynamic knowledge economy, and thus are difficult to sustain. However, it could be feasible to incorporate more mobility into labor markets while maintaining the merits of the Japanese system in a large part of the economy.

Japan's population is aging rapidly, and the labor force has started shrinking. Policies are needed to increase labor force participation, or at least slow its decline, and to increase value added per worker (labor productivity) through knowledge and innovation. Near-term measures are, among others, an extension of the retirement age and a promotion of domestic labor force participation. Longer-term measures include providing individuals with opportunities for lifelong learning. This should promote the mobility and flexibility needed to reduce mismatches between available jobs and those looking for work or not in the labor force at all. Immigration, except for a limited number of workers in selected fields, is unlikely to increase much in the near future.

Japan's traditional labor practices, with supporting incentives and attitudes, have hindered development of venture businesses. Of particular importance is an excessively risk-averse attitude. Such aversion is a reflection of a rigid job market that rarely hires mid-career people. Although conditions are changing, it is still difficult to re-enter mainstream employment in Japan.

One of the major characteristics of economic openness is foreign direct investment (FDI). While large-scale outward FDI raised the concern of "hollowing out," the extremely smaller amount of inward FDI has led to government measures to address the imbalance. Although some increase is expected, partly through M&A, the impact on innovation will be limited in the near future. This is partly the result of past policy and practice in absorbing technology. Japan, like the Republic of Korea and—to a lesser extent—Taiwan, China, did not rely on FDI to transfer technology. Rather, they set barriers against FDI, and

domestic firms purchased technology. However, this option is no longer feasible under the World Trade Organization (WTO) and globalization. In contrast, Singapore successfully combined FDI with policies to develop human resources. Countries that rely heavily on FDI need to foster capacity development, otherwise there will be few spillover effects.

The continuously high level of outward FDI by Japanese firms has led to serious challenges. These include shrinking domestic production bases and difficulty regarding feedback from production to research and development (R&D). The latter, together with the needs to maintain skills on the shop floor and to protect important technology, are bringing some investment back to Japan (Shibata, 2006).

National Innovation System

During the postwar catch-up process, R&D expenditures increased rapidly to adapt imported technologies to domestic conditions. This was part of the fierce competition for domestic market share that characterized the period. Policies such as tax concessions, subsidies, and low-interest loans helped firms engage in R&D. Japanese industrial R&D received little funding from the government, especially relative to U.S. and European industries. Current R&D funding by the government is not well-coordinated. The increasing importance of science-based industries (SBI) as a driver of growth is leading to changes in Japan's innovation system. Historically, Japan's innovation system has been anchored by major corporations that have not had strong linkages to either universities or public research institutes (Shibata, 2006).

The traditional Japanese business system, good at cumulative technological innovation, produced the competitiveness of such industries as automobiles and digital cameras. But to promote new industries and start-ups, some aspects of a Silicon Valley-type system are needed. Most large established firms in Japan, constrained by the traditional system, have been slow to invent products and switch to new innovations, even less disruptive ones. This makes all the greater the need to increase the number of science and technology venture businesses.

Innovations cost money, not all innovators are good at business, and not all innovations are financially successful. To an extent found nowhere else, the United States has built a venture capital infrastructure to address these issues. Japan and other countries seeking to support innovative new businesses are adopting policies and promoting private initiatives to create domestic infrastructure for would-be entrepreneurs. Besides suppliers of risk capital, this includes a supporting network of professional service providers: consultants, accountants, and lawyers who are familiar with advanced technology and

IPRs. Labor market mobility, including the ability to re-enter mainstream employment if a venture does not succeed, also needs to be promoted.

7. Evolving capabilities: spy satellites

The founding of the Defense Intelligence Headquarters (DIH) marks the biggest institutional evolution in the post Cold War period. But the decision to develop a network of domestically produced and deployed spy satellites marks the biggest evolution in Japan's intelligence capability. How substantial a system ultimately will be developed and deployed remains a question, but the decision itself marks a significant departure from previous policy in particular, Japan's "peaceful use of space" policy, but also in U.S. policy toward Japan.

The idea of developing and deploying domestically produced spy satellites did not emerge only in the post Cold War period. It had been a politically sensitive issue both at home and abroad for decades. Although Japan's production and deployment of its own spy satellites was far beyond its capabilities at the time, the possibility of this happening even together with the United States led to the adoption of a Lower House Diet resolution in 1969 declaring Japan's dedication to the use of outer space only for peaceful purposes (*heiwa no mokuteki*). This resolution, and the political foundation upon which it was based, presented a significant barrier to Japanese corporate and military use of space (Ishizuka, 2000).

A series of modifications to the peaceful use of space policy over time significantly blunted its impact, however. First, in the early 1970s, it was decided, after much controversy and heated debate, that the Self-Defense Forces could use communications satellites for military communication. Next, in the early 1980s it was decided, again after much contention, that the Japan Defense Agency could purchase satellite imagery from abroad for use in military intelligence. ⁷¹ Once this precedent was set, Japanese military and corporate leaders soon argued that there was no real difference between buying the imagery from abroad or producing it at home. Surprisingly, though, the leap to development of such a system was not made until 25 December 1998, several months after a North Korean Taepodong missile overviewed the main Japanese island of Honshu. The reasons for this delay are still much debated today.

From at least the mid-1980s, government support for domestic satellite production was a goal of both private industry and MITI (Johnson, 1982). As with the United States, industry leaders saw the production of spy satellites for domestic use as a convenient way to secure government support for their commercial research efforts. Unfortunately for its proponents, U.S. trade officials also viewed Japan's production of spy satellites as support for its industry and opposed the project vehemently. A wire service headline in November 1983 signaled the trouble to come: "U.S. Japan Satellite War?". By 1990, the U.S. government using the threat of Super 301 sanctions had successfully pressured Japan to significantly reduce its support to domestic industry in this area.

Aside from economic concerns, the Pentagon also vigorously opposed Japan's development of an independent spy satellite network, due to either the increased independence Japan would gain from the United States, if successful, or to the yen it would divert from other, Pentagon-preferred programs, or both. After the Japanese government's decision to go ahead with the program over U.S. objections, Washington then exerted strong pressure on Tokyo to purchase U.S.-made satellites rather than develop indigenous technology. The American objections were motivated by the same fears that led to the initial U.S. opposition to Japanese satellite development: (1) fear of increased independence from the United States on security issues that such technology might confer, and (2) that indigenous development would be much more costly and thus likely divert defense spending on such other programs as joint ballistic missile defense research. For the sake of alliance harmony, however, the United States today outwardly supports Japan's decision, and has offered valuable support in training Japanese satellite imagery

analysts the first of whom are already studying in the United States.

In April 1999, Mitsubishi Electric Corporation (MELCO) won the \$86 million (¥ 9 billion) research contract for both of the primary systems. MELCO is also considered the front-runner for the main contractor position at the manufacturing stage, though an impending merger between NEC and Toshiba Corporation may create another strong candidate. In addition, Japan and the United States agreed that between \$120±130 million of U.S.-manufactured components will be included in the satellites (Ishizuka, 2000).

8. Reorganization to continue

Ultimately, it is too early to draw indisputable conclusions from Japan's foreign intelligence moves in the decade since the end of the Cold War. As Michael Herman has noted: "Intelligence competencies are developed over long periods and cannot be created on demand." The nearly ten years from conception to creation of the DIH showed that Japan is no exception to this rule. Most likely, another ten years will be needed to allow strong claims about whether the goals of those who crafted the DIH to centralize military intelligence have been reached, or whether it is bound for the more limited success of the U.S. The impact of less dramatic changes at MOFA and PSIA may take even longer to measure, though watching whether further strengthening of these institutions occurs in the meantime will be interesting. For example, did JETRO's budget receive a one-time post Cold War correction over the past several years, or will its budget continue to rise annually at a rate significantly higher than other government institutions? (Herman, 1996).

More broadly, intelligence reform and consolidation is part and parcel of the Japanese government's broader plans for reorganization of central government institutions. For years, the design and construction of a modern intelligence nerve center within a new Prime Minister's Official Residence was held hostage to political debates over the possible relocation of some central government functions outside of the Tokyo metropolitan area.

While it is premature to write the definitive history of Japan's post-war FIRA, however, it is time to begin the inquiry. Intelligence must no longer remain the "hidden dimension" of international relations, especially not for a rising international relations power such as Japan (Moran, 2011).

Conclusion

Paradoxically, when the superiority of the national economic intelligence and collective culture system of Japan seems universally undisputed, the Japanese consider themselves not very up-to-date regarding the scientific management of information, so, they turn more and more to the United States for a theoretical and methodological support. There is a total contradiction between the perception of Westerners on Japanese abilities to manage information and the view that the Japanese have on their lack of sophisticated methods.

The Japanese companies that have a past strategic advantage over their foreign competitors now believe they have regressed in the organization of intelligence systems. Experts reveal that generally Japanese are very good to acquire, assimilate and improve foreign business practices, as evidenced by the American theory of quality control they have successfully adapted. The future trend suggest that Japanese will adopt the methods and techniques of American intelligence (BI) to increase the global competitiveness of their companies, and this will be probably done earlier than U.S. companies.

Finally, some business and academic Japanese leaders believe that is imperative to hold specialized training in economic intelligence, because the country has a lack of in contrast with other countries such

as France, which is today a pioneer in this field, with the largest supply of training regarding this discipline. It is expected that Japanese organizations will make a qualitative progress in this field, which will represent a strategic advantage during the transition to a knowledge society.

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