

# Critical Success Factors for Implementation of e-Business in the Public Sector : A Case Study of the Korean 'Onbid' Asset-Management System

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## Abstract

The purpose of this study is to identify the critical factors for the successful implementation of e-business in the public sector. The paper reports on a case study of the 'Onbid' asset-management system developed by the Korean Asset Management Corporation (KAMCO). 'Onbid' system is an e-marketplace for trading in public assets, including the disposition by public sale of real estate. Through this case study, the paper : (i) explores the changes in organizational culture that are required for successful e-transformation in organizations of public sectors; and (ii) identifies the critical success factors for the implementation of e-business in the public sector.

Keywords : e-Transformation, Organizational Change, Organizational Decision-making

## 1. Introduction

This study aims to identify the characteristics and critical success factors of e-business implementation in the public sector by conducting a case study of public asset disposition system, the 'Onbid', of the Korean Asset Management Corporation (KAMCO).

KAMCO is a Korean governmental agency that has been responsible for asset management of state-owned property and non-performing loans for approximately 40 years. Since 1996, it has been nominated as a delegate organization for managing the asset-management system of the Korean public sector, which is known as 'Onbid.' The 'Onbid' system is essentially an electronic marketplace (e-marketplace) that is designated for online asset trading in the public sector by participants who are formally registered and chartered by the Ministry of Finance and Economy (MFE) in Korea. The 'Onbid', a public-sector e-marketplace, has distinctive features that differentiate it from typical e-marketplaces in the private sector. In particular, the 'Onbid', as a government-owned marketplace, mainly focused on asset trading for public sectors.

The present study takes account of these distinctive characteristics of 'Onbid' in undertaking an investigation of successful organizational change in implementing e-business. With regards to such characteristics, the study investigates the background, processes, and consequences of the development of the 'Onbid' system in terms of organizational change phenomena. In doing so, the study identifies several

critical success factors for e-business implementation in the public sector.

## 2. Theoretical background

Many previous studies of organizational decision-making and organizational change have focused on the role of *senior management*. According to these studies, the outcome of strategies for change—especially radical and innovative change, such as e-business implementation—depends on how decision-makers interpret the internal and external environment of the organization [Barr, 1998; Anand and Peterson, 2000]. Senior management is thus required to be sensitive to environmental changes, and then to respond to the perceived changes appropriately [Haeckel and Nolan, 1996].

Other studies of the effectiveness of organizational change have emphasized the significance of 'inertia' among *employees* who react against innovative change. The level of any such 'inertia' among employees is said to be greater in centralized organizations with poor communication mechanisms than in decentralized organizations that have relatively flexible communication mechanisms [Corner et al., 1994; Denning, 2001].

These interactions between management and employees can be interpreted, from the perspective of mainstream knowledge management, as a process of *socialization* in an organization. In the early stages of organizational change, the initiator begins the change on the basis of tacit knowledge. As the change proceeds, this tacit knowledge undergoes a 'norm-

alization process' to become structured and formalized as explicit knowledge through active social interactions within the organization [Boisot, 1998; Konno and Nonaka, 1996; Leonard and Sensiper, 1998]. In the process of normalization, implicit knowledge becomes formalized as explicit knowledge through the process of discussion and persuasion among employees. The mutual understanding among employees thus grows through social interaction, and 'public opinion' is presented effectively with respect to organizational decision-making. Moreover, while interacting with each other, employees experience 'divergence' (clash and competition) and 'convergence' (simplification and combination) in establishing their mutual understanding. The creative tensions produced by these social interactions facilitate the optimization of organizational creativity [Leonard and Sensiper, 1998]. Furthermore, this can be a critical resource for establishing a corporate strategy.

From the preceding discussing, it is apparent that organizational change is more likely to succeed if employees understand *why they need change* and *what they can do* to implement change—rather than having change enforced by higher authority [Kwon, 2003]. However, the process requires active social interaction among members who have appropriate knowledge [Nonaka and Takeuchi, 1995]. This so-called 'social capital' is acquired from the diverse social network of relationships that exist in any organization [Brooking, 1996]. The accumulation of such 'social capital' requires mutual trust, cooperation, effective communication, expectations of the goodwill of others, and accepted norms

of behaviour. If these factors are present, the accumulation of social capital can be realized and facilitates effective operation of the organization through information-sharing and efficient decision-making. As Denning (2001) has observed, a well-established social network in any organization plays a fundamental role in the development of social capital [Denning, 2001].

The concept of a 'social network' can include external organizations as well as the internal organization; indeed, it can even extend to competitive organizations. Such an external extension of social-network relationships can benefit an organization by assisting it to understand the business domain in which the organization is operating and the segments of customers on which it should focus. In the case of the public sector, the extension of social networks outside the organization can facilitate assistance from an external authority that has the power to resolve any bureaucratic problems that the organization might encounter.

All of this has the greatest relevance to any attempts to effect organizational changes—especially if those changes involve the implementation of changes in information systems. In the early stages of the implementation of new information systems in any organization, internal members of the organization must become convinced of the need for such implementation. As this process of notification and opinion-forming proceeds, tacit knowledge gradually becomes explicit knowledge [Boisot, 1998; Denning, 2001]. Once knowledge has become explicit, it can be transferred and shared with external organizations through existing social-

network relationships.

Although the *theory* of successful organizational change and decision-making with respect to knowledge management is well established, there is a paucity of empirical studies of the *practicalities* of the process, especially in public-sector organizations. The present study therefore explores a practical example of the successful utilization of social networks at the organizational level of a Korean public-sector entity.

### 3. Case study

#### 3.1 Research methodology

This study was conducted by means of an interpretive case study involving a series of interviews with four employees who had senior executive responsibility in the Korean Asset Management Corporation (KAMCO). In accordance with research objective of the paper, the interpretive approach provides richer explanation to this study, as it is useful research approach for phenomena regarding social meaning created by users and parties in organizations [Eisenhardt, 1989; Lee, 1991]. As the study of organizational change requires close observation and description of systematic social interaction, employing interpretive approach in the investigation of this implementation of organizational change was more plausible than a positivist study [Orlikowski, 1999].

To avoid some of the inherent limitations of a single case study, this investigation involved interviews with several executives who had dif-

ferent positions and roles in the implementation of organizational change. It is observed that this approach enhances reliability and validity in conducting qualitative research [Benbasat et al., 1987; Yin, 1993].

All interviews were recorded and transcribed under conditions of anonymity and confidentiality; the transcripts were then subjected to documentary analysis [Ericson and Simon, 1984].

#### 3.2 Background to the case study

KAMCO is an agency of the Korean government that is dedicated to the disposal of the liabilities of insolvent financial institutions. In 1997, in response to the chain reaction of bankruptcies in Korea triggered by the Asian financial crisis of the late 1990s, KAMCO was charged with responsibility for ensuring the proper and effective disposal of non-performing assets, including real estate.

In the time since the establishment of KAMCO, there have been substantial changes in the economic/financial environment, including customers' needs. In response to these developments, and in accordance with its renewed responsibilities in the late 1990s, the senior management of KAMCO decided to pursue innovative organizational change in the corporation's operations by means of information technology. As part of this electronic transformation (e-transformation) endeavour, KAMCO adopted an online real-estate trading system based on the Internet. However, this initial trial was faced with severe opposition from employees who were concerned about the following issues:

- the security of online trading in real estate;
- limitations with respect to personal inspection (by potential buyers) of real estate;
- some non-computerized legacy trading procedures continuing to require manual recording;
- difficulties associated with settlement and refunds; and
- security issues with respect to information leakage, potential for computer 'hacking', false or fabricated documentation, and other forms of fraud.

Nevertheless, the Department of Knowledge and Information (which had supervisory responsibility for the project in KAMCO) was confident of the ultimate success of the scheme and continued to attempt to convince employees of the merits of the project. They emphasized the following:

- information regarding real estate and liabilities can be easily converted into digital form;
- the real estate trading industry had lagged behind other comparable industries in terms of digital technology and computerization; and
- e-transformation would enable KAMCO to focus on its core business objectives, such as (i) establishing real estate trading order; (ii) stabilizing public demands for housing; and (iii) securing private property rights.

At the same time as it was discussing these internal issues with staff, KAMCO was also faced with rapid changes in the external environment. These changes forced KAMCO to

become a highly specialized, computerized, and democratized organization, especially with respect to decision making.

To meet these internal and external requirements, KAMCO ultimately decided to implement an Internet-based e-marketplace to be known as 'Onbid', which was intended to manage all trading events involving the organization.

### 3.3 Findings of the case study

#### (1) Structure of the 'Onbid' system

The 'Onbid' system provides a bundle of services for public or government-owned asset trading (see <Table 1>). These include an e-marketplace for public auctions, a customized asset-management service, an information-search service, an expert consultation service, an online community support service, a real-estate recommendation service, and so on.

Because of technical difficulties, the public sales procedures of the 'Onbid' system are only partially operated online. As shown in <Table 2>, search, consultation and bidding procedures are provided online, whereas other services (such as inspections, access to official records, and title verification) are not. However, KAMCO intends to provide all services related to public sales online in the near future.

The procedures of the 'Onbid' system begin with registration of both potential buyers and potential sellers. Thereafter, the procedures can be considered separately from the perspective of sellers and from the perspective of buyers (as shown in <Figure 1>).

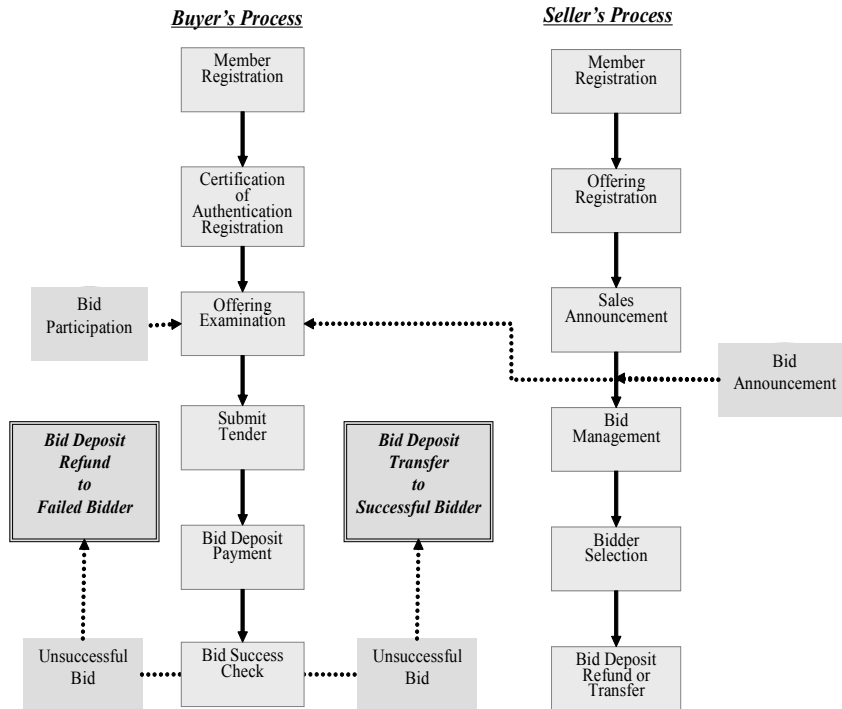
A potential buyer then proceeds through the

<Table 1> Functional services of the 'Onbid' system

	1st Tier Customer	2nd Tier Customer
Target Object	<ul style="list-style-type: none"> <li>◦ Government Agencies</li> <li>◦ Public Enterprises</li> <li>◦ Local Government</li> <li>◦ Financial Institutions</li> </ul>	<ul style="list-style-type: none"> <li>◦ Private Individuals</li> <li>◦ Corporations</li> </ul>
Services Provided	<ul style="list-style-type: none"> <li>◦ Asset Disposal Management</li> <li>◦ Sales Announcement Registration</li> <li>◦ Online Public Auction</li> <li>◦ Deposit Refund</li> <li>◦ Online Web Site</li> </ul>	<ul style="list-style-type: none"> <li>◦ Information Searching</li> <li>◦ Bid Announcement</li> <li>◦ Online Bid</li> <li>◦ Online Consultation</li> <li>◦ Offerings Registration</li> <li>◦ Other Extra Services</li> </ul>

<Table 2> Public sales procedures of 'Online' system

	Operated online	Operated Offline
Procedures	<ul style="list-style-type: none"> <li>◦ Offerings Information Searching</li> <li>◦ Consultation Results Searching</li> <li>◦ Online Bid</li> <li>◦ Other Additional Information Searching</li> </ul>	<ul style="list-style-type: none"> <li>◦ Purchasing Promotion</li> <li>◦ Offering Examination</li> <li>◦ Official Records Reading</li> <li>◦ Title Verification</li> <li>◦ Purchasing Decision Making</li> </ul>



<Figure 1> Bid process of 'Onbid'

following steps:

- First, the buyer registers a certificate of authentication (obtained from the official certification agency) for validation.
- Secondly, the buyer submits a tender offer to purchase.
- Thirdly, the buyer pays a deposit to secure his or her bid. The amount of the deposit is determined by 'Onbid' (usually 5~10% of the offer price). The deposit is refundable if the buyer's bid is unsuccessful.

A potential seller proceeds through the following steps:

- First, the seller registers a sales announcement (specifying the asset to be sold, bid type, specifications of offers to be considered, and other details).
- Secondly, bids that meet the seller's specifications are considered.
- Thirdly, the public sales process is completed.

#### (2) Obstacles to implementation of system

It is argued that organizations that are involved in the implementation of new information technology typically encounters several obstacles as it proceeds from system development to system operation. There was no exception in KAMCO's implementation of the 'Onbid' system. These obstacles that KAMCO encountered included: (i) difficulties with employees; (ii) difficulties associated with geographical location; and (iii) difficulties with government rules and regulations.

First, with regard to employees, problems resulted from the established culture of the organization, which can best be described as 'conservative and bureaucratic.' The prevailing culture among employees meant that there was inevitably opposition to senior management's desire to implement the new system. In some instances this amounted to quite significant resistance to change. The conservative and bureaucratic cultural features of public-sector organizations can be difficult to overcome, but the success of attempts to implement a new system is critically dependent on senior management obtaining the agreement and active participation of internal employees. This was not easy in the case study examined here, and opposition was encountered at many levels—ranging from low-level employees to some sections of senior management. However, there is no doubt that the determination of the senior managers who were committed to change had a positive influence in ensuring the ultimate success of the implementation. Nevertheless, these senior managers were under considerable pressure and their commitment to the project was somewhat risky in the prevailing culture of this public-sector organisation. The implementation of the 'Onbid' system and the associated e-transformation involved radical organizational change, and the resistance of reluctant employees would not have been resolved without senior management demonstrating determination and commitment to the changes required. In the case of KAMCO, the resolution of these conflicts in a relatively short time meant that organization's

resources and competences could be applied to subsequent improvement and problem-solving activities.

Secondly, it was a time-consuming and difficult task to gather employees in one place to discuss the necessary changes in organizational culture and the management system. Implementation of the new system at KAMCO therefore suffered because it was difficult to gather employees from distant locations. This detracted from the time that KAMCO could spend on subsequent problem-solving and decision-making activities.

Thirdly, the lack of explicit government policies and regulations with respect to the implementation of new information systems at governmental organizations was an obstacle at KAMCO. In particular, the need to interface with information systems in other organizations (both public and private) had not been addressed with any feasible government-sponsored plan.

### (3) System Performance

By 2003, the 'Onbid' system had a total of 30,193 registered customers (including 713 pub-

lic-sector organizations and 29,480 private individual customers). A total of 2,671 sales announcements had been posted through the 'Onbid' system, and 66 government agencies had participated in bidding with this. The success rate of bid was approximately 50% (see <Table 3>). Many bids resulted in a higher contract price than had been expected.

It was apparent that the 'Onbid' system provided enhanced openness of information, ease of participation, and reduced time and costs in participating in the bidding process. It can be assumed that these benefits to users were reflected in higher bids and higher contract prices. <Table 4> provides some examples of successful transactions using the 'Onbid' system.

### (4) Assessment of implementation

It can be concluded that KAMCO succeeded in its implementation of the 'Onbid' system. This was especially significant in view of the following:

- this initiative was a novel and prominent attempt to introduce e-business into the public asset trading sector;

<Table 3> Bid status of 'Onbid' system by 2003

(Unit : USD 1,000)

	Num. of Bid	Num. of Unsuccessful Bid	Num. of Successful Bid	Gross Contract Price	Remark (Offering Examples)
KAMCO	65	4,556	200	4,889	Government Property Seized Property, etc.
66 Governmental Agencies (including local ward office)	241	338	172	16,540	Government Property Sales Administrative Right of Public Parking Lot Supplier Selection Official Vehicle Sales
Total	306	4,894	372	21,429	



〈Table 4〉 Examples of successful transactions using the 'Onbid' system

Name of Agency	Details of Purchase/Sales
Dongbu Park Administration Office of Incheon City	<ul style="list-style-type: none"> <li>◦ Subject of Bid: Purchase of concession stands administration rights of Incheon Dongbu Park</li> <li>◦ Expected Bid Price: USD 31,500</li> <li>◦ Actual Contract Price: &lt;N/A&gt;</li> <li>◦ Profit Rate from Bid Success: 593%</li> </ul>
Eunpyung Hospital, of Seoul City	<ul style="list-style-type: none"> <li>◦ Subject of Bid: Purchase of public parking lot administration rights of Eunpyung Hospital</li> <li>◦ Expected Bid Price: USD 12,314</li> <li>◦ Actual Contract Price: USD 66,110</li> <li>◦ Profit Rate from Bid Success: 536%</li> </ul>
Daegu Metropolitan Subway Construction Headquarters	<ul style="list-style-type: none"> <li>◦ Subject of Bid: Sales of construction material worn out (Recorded the highest contract price in</li> <li>◦ Expected Bid Price: &lt;N/A&gt;</li> <li>◦ Actual Contract Price: USD 34,50 (total)</li> <li>◦ Profit Rate from Bid Success: &lt;N/A&gt;</li> <li>◦ Number of Sales Announced: 2</li> <li>◦ Rate of Sales Success: &lt;N/A&gt;</li> </ul>
Songpa Ward Office of Seoul City	<ul style="list-style-type: none"> <li>◦ Subject of Bid: Sales of government property (real estate), etc.</li> <li>◦ Expected Bid Price: &lt;N/A&gt;</li> <li>◦ Actual Contract Price: USD 11,50 (total)</li> <li>◦ Profit Rate from Bid Success: &lt;N/A&gt;</li> <li>◦ Number of Sales Announced: 6</li> <li>◦ Rate of Sales Success: 100%</li> </ul>
Seocho Ward Office of Seoul City	<ul style="list-style-type: none"> <li>◦ Subject of Bid: Purchase of a lease of public parking lot, etc. (Recorded the highest On-bid System usage frequency)</li> <li>◦ Expected Bid Price: &lt;N/A&gt;</li> <li>◦ Actual Contract Price: USD 29,70 (total)</li> <li>◦ Profit Rate from Bid Success: &lt;N/A&gt;</li> <li>◦ Number of Sales Announced: 11</li> <li>◦ Rate of Bid Success: 74%</li> </ul>

- this implementation established a precedent by attracting a government grant from the Ministry of Planning and Budget (MPB) to implement such a system in a public-sector organization;
- consensus was obtained in interfacing a sophisticated system with the IT infrastructure of external public-sector and private-sector organizations;
- the system expanded the range of participants in sales of public assets by involving government, private enterprise, and individual citizens; and
- the system enhanced the welfare of citizens by providing them with easier access to government records and information, and thus offering them a greater opportunity to acquire their own residences.

## 4. Discussion

### 4.1 Critical success factors

The present study identified the following as critical factors in the successful implementation of the 'Onbid' system:

#### (1) Organizational flexibility and cultural openness

Organizational features that facilitate comprehensive discussion and effective decision-making enable employees to understand the need for the implementation of new technologies and lead them to participate voluntarily in the decision-making and implementation processes. As noted above, a conservative and bureaucratic organizational culture prevailed at KAMCO. Moreover, with regard to the high-risk business domain in which the organization operated, the procedures of the organization tended to be methodical and cautious. Since the economic crisis of the late 1990s, KAMCO was forced to become more flexible in its procedures. This was associated with a redefinition of the nature of its business domain and the recruitment of staff members who were expert in the redefined domain.

The changed environment produced more efficient work processes, increased flexibility of thought, and, ultimately, desirable cultural change. This enabled decision-making mechanisms to shift from a traditional 'top-down' approach to a more contemporary 'bottom-up' approach. Any employee who had a creative idea or constructive opinion was encouraged to express it freely, and those with useful practical ideas were

encouraged to execute them.

This new ethos facilitated active discussion and interaction among employees throughout the organization and encouraged staff members to discuss and understand the new IT policy. Although it took some time to reach consensus, the initial resistance of reluctant employees was gradually overcome.

The development of this 'horizontal' decision-making structure, which has been unusual in public-sector organizations, enabled employees to present their own suggestions for improvement of work processes. If the suggestions were feasible, these ideas were put into practice with the support of senior management—thus providing employees with positive feedback and reinforcement of their commitment to the new implementation.

#### (2) Strategic decision-making and leadership of senior management

The senior management of KAMCO was sensitive to changes in the operating environment and accurately anticipated the future needs of the organization. This led directly to the decision by senior management to implement e-transformation with support from the Department of Knowledge and Information.

This study has found that the strategy for organizational change must fit the nature of the organization, especially with respect to the strategic position and decision-making mechanisms of the organization. The effective strategic decisions made by KAMCO were based on mutual trust between senior management and the practitioners who were responsible for the actual

implementation of the 'Onbid' system. The strong commitment of senior management to the implementation of the system and the (ultimately) positive response of the practitioners was mutually beneficial to both groups. The input of senior management, the practitioners, and the Department of Knowledge and Information in the case of KAMCO is typical of the *Sense and Response* schema proposed by Haeckel and Nolan (1996).

The significance of the strong leadership at KAMCO becomes even more apparent when considered against the backdrop of the nature of public-sector organizations and the particular business domain in which KAMCO operated. Public-sector entities typically rely on government direction in determining what the organization should do. This is especially likely to be the case in a high-risk business environment such as asset management. The achievements of senior management at KAMCO were thus significant in two ways: (i) leadership challenged the existing prejudice that real estate trading could not be conducted online; and (ii) leadership altered the prevailing organizational culture in leading employees to participate in strategic decision-making and the actual implementation of the 'Onbid' system.

### (3) Strategic use of social capital

KAMCO utilized its well-established social capital, which it had earned over 40 years as a leader in the public asset sales industry, as a critical success factor in its implementation of the new system. In particular, the social network of active personal interaction within the organ-

ization was a major strategic resource of KAMCO for the exchange of knowledge.

The successful utilization of this social capital can be summarized as follows:

- First, KAMCO empowered middle managers to change their hierarchical communication structure to a more horizontal form. The subsequent success of the 'Onbid' system, which was perceived by staff members as being 'best practice' in the industry, stimulated even more horizontal interaction in the organization.
- Secondly, in addition to formal meetings, KAMCO utilized informal gatherings (such as coffee-break meetings and informal dinner meetings) to promote the need to implement the 'Onbid' system.
- Thirdly, KAMCO encouraged the creation of a working atmosphere in which employees felt free to exchange their knowledge regardless of their hierarchical positions within the organization.

However, a social network that is limited to specific interest groups is not enough to facilitate comprehensive knowledge-sharing among entire employees. It is essential that the network not be exclusive of other persons outside the immediate network. Active interaction among diverse departments and groups must be achieved. KAMCO's practitioners were aware of the importance of active interaction with other departments for knowledge-sharing purposes. Moreover, they were aware of the need to establish extended social networks with external stakeholders from other governmental agencies. By virtue of its wide range of relationships with

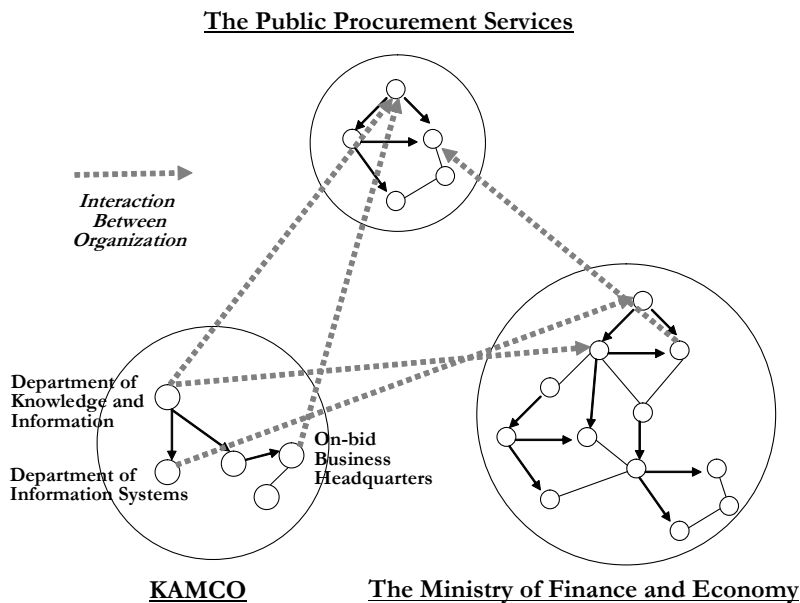
other government agencies, KAMCO was able to exchange knowledge with other agencies and achieve success in the interface between the ‘Onbid’ system and external e-government infrastructures.

From the perspective of social network theory, KAMCO has a well-established network among external organizations—for example, the Public Procurement Service (PPS) and the Ministry of Finance and Economy (MFE). In a sense, the PPS is in a competitive relationship with KAMCO with respect to the business domain of public asset trading. However, there was no evidence of a conflict of interest between these two government bodies. The relationship with the PPS helped to ensure that overcapitalization did not occur. Moreover, by clarifying the target business domains and customer segments of the two organizations, the close re-

lationship assisted in solving potential problems of conflict. In addition, the established relationship with the Ministry of Finance and Economy ensured that the ministry was able to intervene to solve any problems that did arise. <Figure 2> illustrates the internal and external arrangements among these three government organizations.

(4) Adoption of private-sector management and marketing techniques

Because many private citizens want to participate in bids for public assets, KAMCO has taken care to ensure that the development and operation of the ‘Onbid’ system facilitates the active participation of individual citizens. To achieve this, KAMCO defined the ‘Onbid’ system as ‘a customer-oriented cyber marketplace.’ It then undertook demographic analysis of poten-



<Figure 2> Internal and external interactions of KAMCO

tial customers in association with market trend analyses, classification of catalogues, and assessment of KAMCO's past transaction data. This research enabled KAMCO to configure the 'Onbid' system in a manner that appealed to its target customer segment.

Furthermore, KAMCO decided to adopt marketing approaches and techniques from the private sector, even though it was in the position of being a public-sector monopolistic enterprise (as specified by legislative charter). To achieve this objective, KAMCO held a public hearing in 2002 to discuss the implementation of electronic asset trading. It then provided briefing sessions for citizens on how to invest in electronic asset trading. In addition, KAMCO pursued an independent brand strategy using the 'Onbid' name (which was actually suggested by one of its employees). To promote its new website and brand name, KAMCO used a variety of measures. These included : (i) direct mailing to private citizens who had attended its briefing sessions for investment; (ii) promotional materials to the mass media (such as brochures and CDs); and (iii) promotional information to on-site bid participants. As a result of these promotional endeavours, KAMCO has been able to attract private investors with significant purchasing power to patronize the 'Onbid' operation from its inception.

#### 4.2 Future of the 'Onbid' system

At current stage, KAMCO's plan is to stabilize and enhance the present functions of 'Onbid' and the service it provides. However, 'Onbid'

presently stands alone as an infrastructure for asset trading, which is not optimal from the perspective of an integrated strategy for e-government. It can therefore be argued that there is a need to enhance the 'Onbid' system with a view to developing an integrated asset-management system that interfaces with taxation information, electronic registration information from legal authorities, and other information relevant to asset management. In short, there is a need to develop a nation-wide asset-management system of a single information system.

As previously noted, KAMCO is proceeding to optimize its present 'Onbid' arrangements by strengthening the stability and security of the system. However, KAMCO is simultaneously developing feasibility plans for the efficient management of nation-wide assets and the development of an integrated version of the 'Onbid' system that interfaces with the IT infrastructures of other government agencies. In pursuing such a national asset-management system, KAMCO is seeking cooperation and active support from other government agencies and enterprises.

Apart from the need for a nation-wide asset-management system, there is a growing need to resolve the problem of unrealistic speculation in real estate in Korea. In addition to legal and institutional measures to reform undesirable practices in real-estate trading, there is an urgent need to develop suitable IT infrastructure to encourage the adoption of e-commerce functions in this field. KAMCO is expected to play a crucial role in solving the problems that currently exist in real-estate trading

by virtue of its specialist knowledge of asset-trading management and its expertise in e-commerce. KAMCO can thus be expected to play an increasingly substantial role in the adoption of a 'one-stop service' in e-commerce of asset trading.

## 5. Conclusion

This study has fulfilled its intention to identify the characteristics and critical success factors of e-business implementation in the public sector through analysis of a case study of the 'Onbid' system of the Korean Asset Management Corporation (KAMCO).

This study contributes to previous works in knowledge management research by expanding the level of research from individual or single organizational level to inter-organizational level. Furthermore, it explores the role of social capital for knowledge management in a single organization as well as inter-organizations. In particular, this tried to identify unique underpinning organizational characteristics of public sector in executing knowledge management, which differentiate government organizations from other private ones.

More specifically, the study has shown that successful e-marketplace implementation requires an ongoing effort to interact actively and cooperatively with internal and external networks. This is especially the case if there is a lack of legislative support and direction from the central government and its public-sector agencies.

The study has also found that it is important

for senior management to make accurate assessments of the internal and external environment of the organization. Moreover, senior management must be totally committed to steering the project to completion through the empowerment of stakeholders and the enhancement of the social network through which they communicate.

Although this study does not cover all aspects of e-business in the public sector, it provides useful insights and practical guidelines for the adoption of e-business in the public sector. It should inspire further studies that aim to identify the critical factors for success in implementing the functions of e-business in the public sector.

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