Applying KM matrix and LCA theory to organizational development

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The purpose of this study is to examine how knowledge management has been applied in the business development life cycle. In addition, a proposed knowledge matrix is utilized in conjunction with a production pipeline. This study discusses three of the four different business life cycle stages and their related strategies. Life cycle analysis (LCA) theory is adopted in both the organizational development and knowledge management stages. The knowledge involved in running a business can be represented as a strategic resource which can help to enhance competitive advantage. However, this advantage will be eroded if the company does not continually update its knowledge. Several interesting findings are discussed in this study, such as how globalization affects the profit efficiency of firms implementing different knowledge management strategies. Moreover, this work will also consider which form of knowledge management is most important at different stages of the life cycle of a business. The contribution of this study is that it investigates whether the life cycle of the business plays a role in the use of activity-based costing, quite apart from the actual size of the business. Earlier studies report that the use of activity-based costing increases along with the size of firms. However, although those businesses in the maturity and revival phases of their life cycles are often larger than firms in a growth phase, not all of them can be considered as large companies. A case study of the Taiwanese company that sells golfing products to global market is examined, and several useful strategies are presented for managers.

Key words: Knowledge management, life cycle analysis, organization development.

INTRODUCTION

Business success is enhanced by successful knowledge management, but the knowledge-based competitive advantages obtained by companies are in need of continuous updating (King and Marks, 2008). Henri et al. highlight that technological and market knowledge should have a different effect on exploitative versus exploratory innovations and on project autonomy (Burgers et al., 2007). However, how to bring out the optimal effects of knowledge management and gain the related benefits still remains a matter of debate (Kjargaard and Kautz, 2008). This study attempts to understand which stages of the knowledge management (KM) cycle should be applied in each stage of the business development life cycle. As illustrated in a range of industries, strategic advantages depend on how organizations mobilize, combine and create knowledge.

In advanced industrial economies, this is not only transforming knowledge into high value-added products, but seeing knowledge as a core of almost every activity of the firm. This has long been self-evident in new and hi-tech industries, such as biotechnology, nanotechnology or robotics where knowledge fuels innovation. In addition, it is well-acknowledged that in established industries, such as construction or aerospace, that upgrading knowledge of design and production processes is essential for continuous improvement. As for the film and entertainment industries, the status of mathematicians...
and computer programmers is gaining an unprecedented importance. Ever-changing technologies, economic trends and regulatory regimes leave organizations struggling for any advantage they can gain in such a competitive business environment (King and Marks, 2008). Managers thus face a central dilemma: organizations are becoming increasingly reliant on knowledge at a time when knowledge-based advantages are eroding more rapidly than ever.

In response to this problem, many organizations have put increasing emphasis on specific projects as vehicles to increase their strategic advantages. Such projects are not only capable of addressing market discontinuities more rapidly than most other organizational processes, but also capable of creating revolutionary new products and services that can offer more competitive advantages. In knowledge-based environments, strategic advantages revolve around the role that projects play in exploiting and enhancing the knowledge base of the firm. But to do so effectively, these must go beyond the specific aims for which they are designed. In effect, they must also become sites and opportunities for the creation, mobilization and integration of knowledge. Finally, an OEM golf product manufacturer in Taiwan with four products in its pipeline is utilized to illustrate the concepts proposed in this work.

LITERATURE REVIEW

Here, the definition of KM will be discussed, and three phases of the four phases of the KM life cycle are investigated in greater detail. Firms in the growth phase put emphasis on growth and on expanding their market share, whereas firms in the maturity and revival phases clearly put more emphasis on minimizing production costs in mature, highly competitive markets, rather than on growth. This is because increased competition decreases the profitability of the firms in the latter two stages, and thus cost-effectiveness and profitability are more important. Consequently, firms in the maturity and revival phases focus more on formal cost controls, as they need to produce products efficiently and earn adequate profit margins in a more challenging market. Maturity and revival firms experience increased diversification in their products and markets. Increased diversification in products, markets and competition causes businesses to put more emphasis on reducing, controlling and understanding the factors driving their costs than in the growth phase.

Therefore, mature and revival firms can be expected to use activity-based costing, as this should help managers to better understand cost hierarchies and relevant revenues, and thus to achieve better financial performance. Second, the life cycle analysis (LCA) literature suggests that the organizational size of a firm is greater in the maturity and revival phases than in the growth phase. As Chenhall and Langfield-Smith point out, greater organizational size leads to greater complexity of tasks, and this requires more division of labor (Chenhall and Smith, 1998). The specialization of tasks leads to more extensive differentiation, that is similar tasks are grouped within common units. As a result, it becomes more difficult to ensure that organizational subunits are acting towards the achievement of a common purpose. More sophisticated integrative mechanisms, such as information systems, are then developed to coordinate the activities of subunits. Management accounting innovations, such as activity-based costing are examples of such systems. In addition, firms in the maturity and revival stages, due to their greater organizational size, have more resources to experiment with administrative innovations, such as advanced management accounting systems. In sum, greater organizational size and access to more resources can be expected to lead to more widespread use of activity-based costing among firms in the maturity and revival stages of their life cycle, as opposed to firms in the growth stage.

Third, the LCA literature suggests that firms in the mature and revival stages have more centralized, formal and bureaucratic organizational structures, as opposed to those in the growth stage. Moreover, organizations that adopt activity-based costing are more centralized and more formal, and thus more likely to be associated with the implementation of activity-based costing in comparison to decentralized and less formal ones (Ooi, 2009). And they also find that organizations that adopt and implement activity-based costing are more bureaucratic than those that do not. It follows from these results that the use of activity-based costing should also be more common among firms in the maturity and revival phases than those in the growth phase.

Definitions of knowledge management

The knowledge possessed by a business represents a strategic resource that can create competitive advantages (Naris and Ukpere, 2010). A firm’s knowledge is the result of years of organizational activity in which the tacit and explicit knowledge of individuals is combined into a collective whole (King and Marks, 2008). Table 1 summarizes the definitions of KM that have appeared in the literature between 1994 and 2006. Several scholars define KM as a framework, while others see it as a tool to refine business processes to reach specific objectives. The current study will define KM as processes with different goals in the different business development stages, known as knowledge capture, knowledge sharing, and knowledge integration. All three of these will be discussed in more detail subsequently.

Maier (2004) defines KM as going far beyond the storage and manipulation of data, or even of information. Sabherwal and Sabherwal, (2005) define KM as doing what is needed to get the most out of knowledge
resources, and thus it is about organizing and making available important knowledge, wherever and whenever it is needed. Sarvary (1999) define KM as a business process, noting that it the method by which firms create and use their institutional or collective knowledge. In their view KM includes three sub-processes: 1) organizational learning, 2) knowledge production, and 3) knowledge distribution. Sousa and Hendriks (2006) define KM as the policies, strategies, and techniques aimed at supporting an organization’s competitiveness by optimizing the conditions needed for efficiency improvement, innovation, and collaboration among employees. Hult (2003) defines KM as the organized and systematic process of generating and disseminating information, and selecting, distilling, and deploying explicit and tacit knowledge to create unique value that can be used to achieve competitive advantage in the marketplace. Zarraga and Falcon (2003) claim that KM can be conceptualized as a process whose input is the individual knowledge of a person, which is created, transferred and integrated in work teams within the company, while its output is organizational knowledge, a source of competitive advantage. Chait (1999) defines KM as a multidimensional process.

It requires the effective concurrent management of four domains: 1) content, 2) culture, 3) process, and 4) infrastructure. Cameron (1999) define KM as the action in which employees diffuse relevant information to others across the organization. According to Bock and Kim (2002), knowledge sharing is the most important part of KM. The ultimate goal of employees’ sharing knowledge is its transfer to organizational assets and resources. Additionally, sharing activities have to be voluntary and cannot be forced. Consequently, the means by which knowledge is shared within organizations and the factors that facilitate knowledge sharing are core issues in KM. Indeed, the terms knowledge sharing and knowledge transfer are often used interchangeably in the literature, and the research on knowledge sharing has emphasized the collective character of knowledge emerging from interaction and dialogue among individuals.

In order to analyze knowledge sharing in more detail, the properties of knowledge have to be taken into account. Because the existing knowledge is not always sufficient, businesses often have to mobilize and absorb knowledge from the environment. This mobilizing activity may be directly related to business requirements, and

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### Knowledge capture

Projects often create new knowledge, which is in different forms depending on how it is embodied in new products and services, how it is designed into new processes, or how it is institutionalized in new practices (King and Marks, 2008). This new knowledge may be created either directly from the project or indirectly through the organizational learning. For example, a new microchip design may sell well in the market, but it may also represent a significant advance in the firm’s own technological knowledge. New organizational knowledge can also emerge unexpectedly during a project. Solutions and ideas developed by team during a project management process may contribute to developing useful routines for the firm (Quinn and Cameron, 1983).

For instance, the project management expertise can embody competencies in managing a project or improve the organizational co-ordination capabilities with project members. The role of projects in knowledge capture is well demonstrated in this management process. Ordanini et al. (2008) provide an example of organizational knowledge capture by showing how experience working on projects in Italy, yielded new knowledge with regard to co-ordination, which was then used to facilitate project planning and implementation in other markets.

### Knowledge sharing

Bartol and Srivastava (2002) define knowledge sharing as the action in which employees diffuse relevant information to others across the organization. According to Bock and Kim (2002), knowledge sharing is the most important part of KM. The ultimate goal of employees’ sharing knowledge is its transfer to organizational assets and resources. Additionally, sharing activities have to be voluntary and cannot be forced. Consequently, the means by which knowledge is shared within organizations and the factors that facilitate knowledge sharing are core issues in KM. Indeed, the terms knowledge sharing and knowledge transfer are often used interchangeably in the literature, and the research on knowledge sharing has emphasized the collective character of knowledge emerging from interaction and dialogue among individuals.

In order to analyze knowledge sharing in more detail, the properties of knowledge have to be taken into account. Because the existing knowledge is not always sufficient, businesses often have to mobilize and absorb knowledge from the environment. This mobilizing activity may be directly related to business requirements, and
thus managers engage in a search for crucial knowledge inputs as part of their efforts to meet project goals. For example, businesses mobilize knowledge through individuals that become members of a project team. Team members may be recruited for their recognized skills and identifiable knowledge, but in the process of becoming part of the project they may also demonstrate valuable knowledge and expertise that had not been previously recognized by the organization. Examples of knowledge mobilization here include those studied by Burgers et al. (2007) which followed a project in which existing products were modified using licensed technology. In a similar vein, Ordanini et al. (2005) showed how the adoption of projects to launch new music at EMI, allowed different parts of the organization to mobilize useful knowledge; and Arroyabe and Arranz, (2002) analyzed technology-knowledge networks, especially the aspects relating to management control via empirical verification.

Knowledge integration

Argote’s (1999) research on organizational learning shows knowledge is retained in three different memory systems: 1) individual memory, 2) an organization’s information technologies and tools, and 3) its structures and routines. Project implementation often requires combining skills and ideas from disparate sources. In many instances, this combination is short-term and project-specific. In other words, knowledge is combined to serve the goals and deliverables of the project, but is thereafter allowed to disperse. In some instances, however, the combination produces a synthesis that is of long-lasting value to the organization.

For organizations, this does not only result in breaking down boundaries between bodies of expertise that were previously isolated from each other, but also prevents organizations from going through endless cycles of having to learn anew how to combine these bodies of expertise when the need arises. Because the knowledge base of large organizations is segmented (Quinn and Cameron, 1983), one role which projects often play is to enable the integration of knowledge between different sub-units. Burgers et al. (2007) provide a useful example of knowledge integration by highlighting the role of new business projects in integrating technological markets and technological knowledge. Ivory and Vaughan (2006) likewise examine the problems of knowledge integration; however, in their case the problems arise because producers and customers often start with different conceptions of product design and performance. Integration therefore has to begin with a clear understanding of how each group “frames” the project, and what key knowledge areas require careful management. Finney (1983) examines a similar problem of knowledge integration, but in the context of film development. Here producers, directors and writers have different conceptions of what the final film script will look like, and their disagreements often result in project failure.

Finally, Newell et al. (1983) examine some of the problems of knowledge integration at an inter-organizational level. They show how regulatory, clinical and commercial knowledge is dispersed across different projects and different organizations in the biomedical sector. Innovation therefore depends on combining and integrating these disparate bodies of knowledge. As the authors describe, this integration effort is inevitably hampered by organizational and disciplinary boundaries. Mariano (2003) establishes links and seeks connections between the contributions made to the study of innovatory phenomena and he analyzes the evolution undergone by studies on the topic of the technological innovation process. The role which projects play in accessing knowledge is not confined to activities within the business alone. Projects are situated within a web of relationships which may extend well beyond functional or organizational boundaries. Some projects do operate entirely within the organization, but others represent a joint undertaking among organizations. Similarly, projects may be unique, or they may have an explicit relationship to past and future projects.

METHODOLOGY

Here, three of the four stages of the business development life cycle are discussed. The ontological and epistemological assumptions of the study are informed by the interpretive paradigm, and accordingly the team members’ pipeline are understood as active constructors of meaning, as well as active interpreters of reality. This study divides the life cycle of KM into three phases, 1) capture, 2) sharing and 3) integration. The capture phase is when a firm retrieves existing knowledge from the operating process and then stores it in a knowledge base. The sharing phase means employees to share their personal, tacit knowledge. Finally, the integration phase is when the refined knowledge is filtered from the business process. Within these three phases of KM, another dimension, with four stages, (introduction, growth, maturity and decline), represents the life cycle of business development. This dimension is also referred to as the product life cycle theory. Therefore, the KM implementation matrix (Table 1) is designed to explore the KM life cycle in any project.

Organizational life cycle theorists (Quinn and Cameron, 1983) suggest that the characteristics of an organization will change along with the product life cycle. In the birth stage of the latter cycle, the prime distinguishing feature of firms is that they are small size and have greater flexibility, a flatter organizational structure, and faster responsive ability. For this reason, the birth stage is also referred to as an ‘entrepreneurial stage’. The founders of these firms are technically or entrepreneurially oriented, preferring to keep management activities to a minimum. Instead, they devote their efforts to developing and selling new products, and they rely on a minimal amount of information in decision-making. The growth stage occurs once the business has established its distinctive competences and has achieved some initial product-market success. In this stage, firms are characterized by rapid sales growth. Growth firms rely more on formal rules and procedures to ensure organizational and administrative efficiency. This is due to the expansion of activities and products, and their increasingly
centralized structures. Some authority is delegated to middle-managers, who devote greater efforts to collecting and processing the information needed in decision-making. Growth firms extend their product ranges, but this usually results in a more complex array of products for a given market rather than more positions in widely differing markets (Miller and Friesen, 1984).

The maturity stage follows the growth stage as sales stabilize and the rate of innovation falls. In the maturity stage, the administrative task of the business becomes more complex, which in turn leads to more formal and bureaucratic structures. In fact, Quinn and Cameron (1983) define this stage as the ‘formalization and control stage’. Mature firms place more emphasis on efficiency, profitability and strategies, rather than on innovations. Decision-making is dominated by a few key managers and structures remain centralized. In the revival stage, firms adopt divisionalized structures for the first time to cope with the more complex and heterogeneous markets that they are operating within. Revival firms focus their strategies on diversification and expansion of product-market scope to achieve turnaround and attain new growth. They also emphasize more sophisticated control and planning systems. A summary of the characteristics of firms in different life cycle stages is presented as follows.

A few recent studies have applied the Miller and Friesen typology (Miller and Friesen, 1984) to the life cycle stages of businesses in connection with management accounting. Auzair and Smith (2005) examine the life cycle stage of the business, using a self-categorization measure proposed by Kazanjian and Drazin (1990), and report that organizational life cycle, among other contingent variables, has a significant effect on the design of a firm's management control systems. Davila (2005) reports that the size and age of the firm, the replacement of the founder as CEO and the existence of outside investors are drivers of the emergence of management control systems. Finally, Moores and Chenhall (1994) explore the use of management accounting systems at different life cycle stages and find that the formality of the management accounting systems varies with time. The knowledge stages and business development life cycle matrix, presented in Table 1, is used to better understand what the most important strategy is in each stage.

**The introduction stage**

The introduction stage is at the beginning of the product development life cycle. Businesses in this stage are always smaller than in later stages, and all of the relevant knowledge is hidden, in the development of the product or in personal experiences. The most important action in this stage is to create or store knowledge for future use, ideally by codifying it. Using information technology (IT) or information systems (IS), is thus helpful in speeding up this routine work and making it more effective.

Most of the measures of organizational culture suggest that larger cultural differences exist in partnerships, so as to not yield win-win outcomes. However, at the same time, these differences are not significant.

**The growth stage**

The product life cycle literature implies that there are several reasons why the use of advanced management accounting systems, such as activity-based costing, is greater among firms in the maturity and revival phases than during the growth phase. These are due to differences in the administrative tasks, business environment, strategies and organization structures between firms in different life cycle phases.

**The maturity stage**

The maturity stage comes after the growth stage, when the administrative tasks of the business become more complex, which in turn leads to more formal and bureaucratic structures. In addition, at this stage sales are stable and the level of innovation usually falls. In this stage, mature firms place more emphasis on efficiency and profitability and on strategies, rather than on pursuing innovations.

Although firms in the maturity and revival phases are often bigger than those in the growth phase, not all of them are necessarily large. In other words, even small firms are likely to use activity-based costing, if they have a managerial need for an advanced cost-accounting system, due to where they are in their life cycle stage. Maturity firms also experience increased diversification in their products and markets, and the complexity and density of both these also rises. In this stage, businesses need more knowledge to handle all the business processes, and thus extracting extract knowledge from the existing routine processes is a necessary and urgent task.

**CASE STUDY**

The golf industry flourished from 1980 to 2000 in Taiwan, but due to the twin influences of inflation and economic depression, it is now in decline. Over the past 15 years, the golf industry has grown substantially, and is expanding in a manner consistent with the most optimistic projections. When compared with sales in other industries, those in the golf industry in Taiwan reached 62 billion NTD in 2005. Companies that purchase golf heads need to place orders three months in advance to keep up with production schedules from golf product manufacturers. O-Ta is one of the biggest golf product manufacturers in Taiwan, it was founded in 2006. It offers various products to downstream firms, primarily of four different types: 1) wood, 2) iron, 3) wedge and 4) putter. In 2007, O-Ta had about 20, 18, 15, and 13% market share for each of these products, respectively, in the US market.

The matrix shown in Table 1 is applied into O-Ta’s products in this study. Figure 1 shows O-Ta’s revenues from 1999 to 2008. It includes four pipe lines and all side products that the company produces. This study divides the firm into four business development stages. Each stage is discussed as follows. A number of authors have studied the sharing of a resource between several agents. The literature on bankruptcy problems is also extensive, such as works by O’Neill (1982), Aumann and Maschler (1985), and Thomson (2003). Here this study will not discuss this situation further because of the lower contribution. From 1999 to 2003, the first five years studied, O-Ta was in the introduction phase, and the revenue gradually increased. During this period, mass production was the main strategy that O-Ta followed, with the aim of achieving economies of scale and improving production performance.

In this stage, O-Ta utilized a titanium technique which was established to help boost their performance in 1999. In 2000, O-Ta was officially listed in the OTC market, and...
the firm's assets increased at the same time. To reduce operating costs, O-Ta closed the factory that it rented in Swatow and bought a new factory in O-Ta, China, enabling it to improve production performance to better meet the needs of customers, which duly increased market share. In 2001, O-Ta enlarged their new factory in China, and work on this was finished in November in 2002. At the same time, the firm increased its assets to 7.451 billion NTD at the same time. In this phase, knowledge was captured from the firm's alliances and vendors, such as the techniques and requirements for mass manufacturing its products.

Meanwhile, for the next stage, O-Ta made preparations to become an ODM firm, learning how to design products such as golf club heads and graphite shafts, as well as the techniques of golf club assembly. In this stage, all of O-Ta's strategies were related to economies of scale and mass manufacturing, and most of its knowledge came from customers and vendors. Consequently, little knowledge came from inside the firm, and knowledge sharing and knowledge integration were not key aims. In 1999, titanium was introduced into golfing products, and O-Ta began to focus all of its resources to produce related products.

In the beginning of this period, there was only one boiler in O-Ta's factory, which could produce 2,000 titanium wood club heads every day, although 6,000 were required. O-Ta had to outsource these excess orders, and thus it decided to invest in more boilers to increase its production capability. In addition, O-Ta changed its production line to make other titanium-related golfing products. These changes increased both the economies of scale that the firm achieved and the profits that it made. In 1999, titanium related product accounted for 30 to 50% of O-Ta's total production. O-Ta's total profits for that year was 1.554 billion NTD, and sales in the American market was around 300 million NTD.

To obtain more capital to follow its expansion plans, in 2002 O-Ta decided to become a listed company, raising 534 million NTD. O-Ta also decided to move some of their business to China in 2003, to take advantage of the lower labor costs, and in 2005 the firm had about 1,500 employees in China and 266 in Taiwan. In 2001, O-Ta's capital reached 616.9 million NTD, and it invested two subsidiaries. The investment ratio between China and Taiwan at this time was 6 to 4.

In 2003, to improve the quality of its products and international business image, O-Ta began to utilize the ISO verification system. Before using the ISO system, all management processes were unrecorded, and the firm had no formal training system too. In addition, many contracts were unsigned, being only oral agreements. After applying the ISO system, all of the processes at O-Ta became documented and standardized.

Besides improving the quality of production, this step also enabled more accurate forecasting. Two subsidiaries were established in the same year, responsible for researching, developing and designing new materials and products, in order to increase competitiveness. The second stage was from 2003 to 2005, and these three years were the firm's growth phase. O-Ta's revenues increased dramatically in this period, as they captured more market share.

The firm thus decided to set up their research and development team to improve their product and service quality, and these became their main objectives. O-Ta passed the SGS UKAS ISO 9001:2000 quality management system in 2003, and set up two more subsidiary companies, Dia Company and INDA Company. In 2004, O-Ta formed a customer service team to improve communication with customers and thus raise satisfaction. In this phase of the firm's life cycle, knowledge was shared inside the company. Most of O-Ta's profits came from manufacturing, and they captured knowledge from outside of the company and integrated it into their designs.

Consequently, some of the vendors started to ask for ODM services, and thus began another stage in the firm's
Adequate profit margins in highly competitive markets, produce products/services cost-effectively, to earn costs increased. With a fall in revenues and a rise in China had to agree to new labor contracts, its salary process in 2005. In 2007, the firm started to integrate its TOYOTA Producing System (TPS) to its manufacturing and increasing performance. Therefore, O-Ta applied the existing knowledge and techniques to apply for patents. The effect of utilizing TPS was to shorten producing process, reduce the number of staff (from 7,610 to 6,237), factory space (cut by about 3,880 m²), and inventory (by about 25%). In this phase, O-Ta started to plan its future as an ODM, and thus its main objective was not to capture knowledge from customers and vendors, but rather to share existing knowledge between the parent company and the two subsidiary companies. The third stage of the firm’s development was from 2005 to 2007, which is the maturity phase. At this time, the market was fully saturated, and so O-Ta could only hope to improve its internal processes, by reducing costs and increasing performance. Therefore, O-Ta applied TOYOTA Producing System (TPS) to its manufacturing process in 2005. In 2007, the firm started to integrate its existing knowledge and techniques to apply for patents. In addition, their assets reached 1.207 billion NTD. In this phase, O-Ta still made money from manufacturing and design, but the company began to make plans to exploit related sidelines, like golfing tours. In this stage, O-Ta demonstrated the importance of knowledge integration, and also prepared for the next, declining stage. In 2007, the R&D department of O-TA and its subsidiary developed many new products and obtained 25 patents in 2007, and 23 in 2008. Four of these new patents were for golf wood heads. In 2008, because of global economic slowdown, the golf industry faced serious declines in sales. Moreover, as its factory in China had to agree to new labor contracts, its salary costs increased. With a fall in revenues and a rise in costs, O-Ta’s profits declined substantially in 2008. In addition to exploring gold-related sidelines, O-Ta also moved into the growing bicycle market, moving into the OEM business in 2009, and developing their own brand, Volando.

DISCUSSION AND CONCLUSION

Life cycle research suggests that the use of management accounting systems depends on the specific stage of the organizational life cycle, as different systems are needed in different stages (Miller and Friesen, 1984). In comparison with growth firms, the administrative tasks of maturity and revival firms are more complex; they need to produce products/services cost-effectively, to earn adequate profit margins in highly competitive markets, experience increased diversification in their products and markets have greater organizational size, and more formal and bureaucratic organizational structures.

Consequently, the use of the advanced cost-accounting systems such as activity-based costing should be more common among maturity and revival firms than among growth firms. In this paper, we investigate the issue of whether the use of activity based costing varies in different life cycle stages.

In this paper, we have considered organizational identification as a key point in compliance with organizational KM initiatives. A managerial contribution of this study is to note that managers could use the rich empirical data presented here to guide employees towards complying with KM initiatives, even in the light of the inevitable tensions created by contexts such as dual organizational identification. Three findings of this work are as follows. Firstly, conceptual difficulties limit the development of a common vocabulary among members of the KM research community—“Unfortunately, it appears that knowledge is often formed from bonds that are hard, that knowledge that are hard to understand from the inside looking out.”

Secondly, KM is an interdisciplinary research area in which the references most frequently cited by the information systems researchers are from the management rather than information systems literature. Finally, KM is in the early definitional or theory-building stage of being a discipline. KM researchers still have to “build their field anew--- first principles, justification of concepts, questions and methods.” It is estimated that the high value products were consumed before they were regained. Besides, China market is emerging gradually. Especially after the financial tsunami, the developed country operates the financial goods in leverage, and they win the backfire. As China markets are conservative. The influences of financial tsunami were smaller than other country. Although economic growth rate was not as good as past, it was growing up still. After the financial tsunami, China market has more opportunity and the market of Korea, India, Southeast Asia and emerging countries where many business opportunities could be expected.

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