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AN INSIGHT INTO KNOWLEDGE SHARING PRACTICES IN QUANTITY SURVEYING FIRMS IN MALAYSIA

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Knowledge is increasingly being recognized as a vital organizational resource that provides competitive advantage. Managing knowledge assets can be a challenge, especially in the construction industry, where short-term working contracts and temporary coalitions of individuals can inhibit knowledge sharing. Knowledge sharing in organizations is the act of making knowledge available to others within the organization. It is the process by which knowledge held by an individual is converted into a medium that can be understood, absorbed, and used by other individuals. Knowledge sharing is important as it provides a link between the individual and the organization by 'moving' knowledge that resides within individuals to the organizational level, where it is converted into economic and competitive value for the organization. This degree of importance attached to knowledge sharing is heightened in a knowledge economy, where knowledge is seen as a valuable resource for innovation and for gaining competitive advantage. However, increasing evidence points to a paucity of research that has investigated the nature of the different approaches to improving the effectiveness of knowledge sharing, the appropriate organizational factors at play for knowledge sharing to be fully exploited, and its benefits to Quantity Surveying (QS) Firms. Therefore, this paper purports to provide an insight into knowledge sharing in Quantity Surveying (QS) Firms in Malaysia. Through literature reviews the key issues associated with knowledge sharing in organizations were listed and opinions on these were sought from quantity surveying firms from Malaysia. The paper presents some key aspects of the findings and offers targeted conclusions and recommendations for the benefit of organizations, industry and academia.

Keywords: knowledge management, knowledge sharing, quantity surveying, Malaysia.

INTRODUCTION

Knowledge is the most important strategic resource in organizations (Drucker, 1993). Knowledge has to be managed in ways to make sure that the implementation and sharing of the knowledge is accomplished. Another important issue is the usage of knowledge, which ideally, must be captured, shared and used. Methods on how to capture valuable knowledge will depend on the type of knowledge, tacit or explicit. Knowledge exists at multiple levels within organizations. De Long and Fahey (2000) divided this into individual, group, and organizational levels. Roos and von Krogh (1992) added the levels of departments and divisions. People are very important in organizations to leverage knowledge because it is people, who actually can create, share, and use the knowledge. Leveraging knowledge is only possible when people can share the knowledge they have and can build on the knowledge of others.

Knowledge sharing is the act of making knowledge available to others within the organization.

Knowledge sharing provides a link between the individual and the organization by moving the knowledge that resides within individuals to the organizational level, where it is converted into economic and competitive value for the organization (Hendriks, 1999). Davenport (1997) defined sharing as a voluntary act and distinguished it from reporting. Reporting involves the exchange of information based on some routines or structured formats whilst sharing implies a conscious act by an individual who participates in the knowledge exchange even though there is no compulsion to do so.

QS services are becoming more complex and complicated. To be more competitive QS firms must enhance their skills and store them in a manner to speed up the work. Ways and means are proposed to prepare our professionals to meet the challenges ahead and to pave the way forward (Lim *et al.* 2006). In practice, the lack of knowledge sharing has proved to be a major barrier to the effective management of knowledge in organizations (Davenport and Prusak, 1998). Based on this reason, knowledge sharing is viewed as a main driver for QS firms to be competitive. A survey of United Kingdom engineering and construction firms revealed that one of the main drivers for knowledge management in construction is to share valuable tacit knowledge (Robinson *et al.*, 2001).

Currently, there are only 310 registered QS firms in Malaysia (Board of Quantity Surveyors Malaysia). Malaysia's high level of economic growth and its aspiration to become a developed and industrialized nation has created the environment for growth and stimulated changes in construction industry (Abdullah *et al.*, 2004). For this reason Malaysian QS firms have been selected for this study as this is the right time to have an insight into the implementation of knowledge sharing in QS firms within Malaysia. It is hoped that the aim of the research to improve the implementation of knowledge sharing in organizations will be achieved.

RESEARCH METHOD

This paper is part of an on-going PhD research entitled "The impact of effective knowledge sharing initiatives on QS service provision in the Malaysia construction industry". The PhD research will employ a combination of both qualitative and quantitative approaches. However, this paper is primarily based on a thorough review of relevant literature in the areas of knowledge sharing, organizational culture, and structure from Quantity Surveying firms' perspectives. The articles reviewed in this paper have come from journals, text books, conference proceedings and websites.

KNOWLEDGE SHARING BETWEEN INDIVIDUALS

Hendriks revealed that knowledge sharing implies a relationship between at least two parties – one that possesses the knowledge and the other that acquires the knowledge while Cohen and Levinthal (1990) proposed that interactions between individuals who possess diverse and different knowledge enhance the organization's ability to innovate far beyond what any one individual can achieve. Knowledge sharing also leads to the dissemination of innovative ideas and is considered critical to creativity and subsequent innovation in organizations (Armbrecht *et al.*, 2001).

Knowledge sharing between individuals is a process that contributes to both individual and organizational learning (Andrews and Delahaye, 2000). Organizational

knowledge is recognized as a key component of organizational learning (Dodgson, 1993). Huber (1991) identified four knowledge concepts that contribute to organizational learning; these are knowledge acquisition, information distribution, information interpretation, and organizational memory. The voluntary act of sharing knowledge by an individual contributes to knowledge distribution, and the process of sharing may result in knowledge acquisition by other individuals within the organization. Knowledge sharing between individuals thus results in individual learning which, in turn, may contribute to organizational learning. A possible concern in this approach to managing knowledge is that much organizational knowledge is controlled at the level of individuals (Staples and Jarvenpaa, 2001). Lam (2000) mentioned that individuals using the knowledge they have in their daily activities at work and organizations should facilitate the sharing of this knowledge with others. Weiss (1999) emphasized if individuals stay with the organization, the full extent of their knowledge may not be realized and utilized unless there are opportunities for the individual to share that knowledge with others in the organization.

Individual knowledge
Lam (2000) defined individual knowledge as "that part of an organization's knowledge which resides in the brains and bodily skills of the individual". It involves all the knowledge possessed by the individual that can be applied independently to specific types of tasks and problems. Lam (2000) also added that individuals have cognitive limits in terms of storing and processing information. Individual knowledge tends to be specialized and domain specific in nature. Polanyi (1958) emphasized that tacit knowledge can be generally understood as the form of knowledge that exists within an individual, and is intuitive and unarticulated. Tacit knowledge has been conceptualized by a myriad of academics from differing perspectives. According to Collins (1995) there are three types of tacit knowledge that present challenges to the epistemological concerns of management. Firstly, embodied knowledge describes a type of knowledge that is a function of the physical environment. It cannot be easily transferred from one brain to another. Secondly, embrained knowledge describes a type of knowledge that is specified by the exclusive physicality of an individual brain. Finally, encultured knowledge describes a type of knowledge that is embedded within a social context and cannot exist apart from it. Nonaka and Takeuchi (1995) argued that organizations cannot create knowledge without individuals, and unless individual knowledge is shared with other individuals and groups, the knowledge is likely to have limited impact on organizational effectiveness. Thus, knowledge is created through the interaction between individuals at various levels in the organization.

KNOWLEDGE AND QUANTITY SURVEYING (QS) FIRMS

According to Carr-Saunders (1966) a profession may perhaps be defined as an occupation based upon specialized intellectual study and training, the purpose of which is to supply a skilled service or advice to others for a definite fee or salary.

Similarly, QS firms are knowledge-intensive organizations that provide expert advice and professional knowledge to clients (Løwendahl, 2000). The organizational assets reside in the experience and knowledge of staff, rather than in plant and equipment. There are four essential characteristics of QS firms (Fong and Choi, 2009).

1. Knowledge-intensive nature.
2. Advisory nature.
3. Competence governed by institutions.
4. Code of conduct.

1. Knowledge-intensive nature

A higher educational qualification is an element required by professions (Lowendahl, 2000). This is reflected in the common belief in the industry that a body of knowledge originates from academic study and practical training in QS firms. Quantity surveyors' skills and expertise are thus the talent of quantity surveying firms and also contribute highly to firms' reputations. As a result, practitioners in these firms are associated with impressive academic backgrounds, supported by either accreditation of professional status from professional institutes or academic achievement in recognized academic institutions.

2. Advisory nature

It is claimed that altruistic and specialized services to clients are the core services of professionals (Becher, 1999). Quantity surveying firms in Malaysia are mostly private practices that seek to offer consultancy to clients in construction projects. The scope of their services is stretching beyond the traditional framework to suit clients' ever-increasing demands. In contrast to these firms there are basic service and also additional service (Abdullah and Haron, 2006) quantity surveying firms that have to shape their service to adapt to different clients and business scenarios. Hence, the quality of situation-specific decisions (Bots and Bruijin, 2002) is a useful indicator to reflect the competence of a professional organization. To discharge their professional duties, quantity surveyors have to apply their knowledge and expertise to provide impartial and objective advice and analyses to clients. The quality of their decisions depends to a large extent on the appropriate exercise of their expert discretion and professional judgment in relation to cost control and contract administration for construction projects. As a result, with clients' needs well communicated between clients' representatives and quantity surveyors in advance, clients generally receive an excellent professional service from quantity surveyors (Fong and Choi, 2009).

3. Competence governed by institutions

It is essential for a professional service that a governing professional body is established to maintain the competence and control the standards of conduct of the profession (Bennion, 1969). Therefore, the title of chartered member is taken as a recognition of professional competence. The competence of professionally qualified quantity surveyors in Malaysia is well established and regulated by the professional institution, The Board of Quantity Surveyors Malaysia (BQSM). Although many practitioners claim to be quantity surveyors, the title of chartered quantity surveyor is only awarded to those who have passed the professional competence test set by the appropriate institutions. Clients, therefore, have some assurance of the standard of the intangible service they are purchasing under this system.

4. Code of professional conduct

Quantity surveyors are often involved in managing confidential information, such as tender sums submitted by contractors in construction projects and payments to contractors for work done on site. They have to be fully aware of, and abide by, provisions in the standards of conduct and professional ethics. The Quantity Surveyors Act 1967 (Quantity Surveyors (amendment) Rule, 2004) highlighted that only registered quantity surveyors are permitted to practice as consulting quantity surveyors by the Board. Similarly, the qualification of practitioners in quantity surveying firms is well controlled and recorded under the registers of the institution. Quantity surveying firms offer cost and contractual expertise to clients. The heavy reliance on the expertise and knowledge of staff sets a standard for outsiders to imitate. Freidson (1994) described these kinds of professional services as esoteric.

ROLES OF QUANTITY SURVEYOR

According to Willis and Ashworth (1987), the Quantity Surveyor is the person who has major skills in: (1) Economic knowledge – associated with the assessment of value for money and cost effectiveness in design; relying upon analysis and evaluative techniques necessary for costing, measuring and valuing in order that clients may be advised correctly; (2) Legal knowledge with a general knowledge of law and a specialist knowledge and interpretation of the law of contract. (this is used in producing contract documentation and in the advice and settlement of contractual matters, disputes and claims); (3) Technological knowledge – a knowledge of the construction process and the methods used in the construction of buildings and other structures, together with an in-depth knowledge of the industry. (This provides a basis for developing other skills); (4) Managerial skills – the ability to organize the work associated with the construction project and to influence others in the procurement of buildings and structures, together with skills of an administrative function.

According to Abdullah and Haron (2007), there are many roles where a quantity surveyor will apply his/her knowledge in a QS firm, either in their basic roles or additional roles. Their services include: 1) Preparation of preliminary estimates and cost plans; 2) Preparation of Bills of Quantities/tender documents; 3) Valuation of works for interim valuations' certificates; 4) preparation of final accounts; 5) Cost analysis/planning; 6) Contractual advice; 7) Additional services provided such as project management, value management and facilities management.

KNOWLEDGE SHARING PRACTICES

Due to the business environment today, organizations are facing challenges of global competitiveness. Challenges rely on the identification of crucial knowledge that improves the business process. Knowledge sharing is viewed as a main driver for an organization to be competitive. Despite the large amount of literature about knowledge sharing practices from researchers and practitioners, knowledge sharing mechanisms are still required to be understood (De Long and Fahey 2000). It is recognized that knowledge sharing mechanisms are highly complex processes to promote in an organization (Allix, 2003). Indeed, knowledge sharing hostility is perceived as a phenomenon that widely dominates organizational reality.

McDermott and O'Dell (2001) mentioned that knowledge management initiatives are the mechanisms that align knowledge sharing with the organization's culture. However, according to Bishop *et al.* (2008), KM initiatives are organizational approaches to managing an organization's knowledge. Furthermore, Sveiby (2001) echoed that KM initiatives are an organizational approach that dictates how companies create value from their intangible assets. There are ten (10) types of knowledge management initiatives that are implemented in the UK (Wong and Aspinwall, 2005). Due to the implementation none of the organizations investigated had implemented all of the initiatives. The implementations of initiatives are: a)Capturing knowledge electronically in a repository, b)Using information technology to share and transfer knowledge, c)Using the intranet to publish and access information, d) Building and maintaining employees' expertise and skills, e) Identifying internal or external best practices, f) Creating a supportive environment for knowledge sharing, g) Developing strategies for knowledge management, h) Appointing knowledge management leaders and teams, i)Rewarding employees who contribute and share knowledge, j)Measuring the value of intellectual capital.

Robinson *et al.* (2005) revealed that in implementing knowledge management, an organization has to consider the following factors: 1) The need to develop a strategy which clearly defines the objectives of KM implementation; 2) Resources, including a budget and management support, are essential for KM implementation success; 3) Recognition that necessary reform such as organizational culture needs to be addressed to facilitate KM implementation; 4) A KM strategy needs to be supported by both IT and non-IT tools to be successful; 5) It is important to link KM to existing performance measures; 6) There is a need for a KM maturity scale to enable organizations to objectively benchmark their KM implementation efforts.

However, Davis *et al.* (2007) pinpointed that there are seven critical aspects when developing a KM system in an organization. They are: a) Describe what is required from the KM programme. b) Draw up a strategy. c) Understand the organization's current knowledge. d) Enable a knowledge sharing culture. e) Manage the knowledge content. f) Use enabling technology. g) Measure and review the results.

Furthermore, Chong *et al.* (2006) came up with five success factors for KM implementation. They are business strategy, organizational structure, knowledge teams, 'knowledge mapping' and 'knowledge audits'.

Knowledge management (KM) strategy
The primary goal or motivation for KM varies from seeking best practices in all business activities to providing a better service to clients. However, the overall objective is to improve project or business performance and indirectly to increase profitability. Ninety per cent (90%) of the knowledge captured in two main areas of expertise of the firm will be lost if the people involved leave the organization (Robinson *et al.*, 2005).There is the reason to highlight the need for a KM strategy to address both tacit and explicit knowledge. There are two distinct strategies identified for developing KM systems: codification and personalization (Hansen *et al.*, 1999). A codification strategy revolves around explicit knowledge captured and leveraged using IT tools i.e. software such as expert systems, artificial intelligence and data mining tools. Personalization, at the other extreme, revolves around tacit knowledge using non-IT tools or human interactive systems such as peer tutoring, regular meetings and training, a supervision/mentoring system, a reward system and lessons that are learned (Davis *et al.*, 2007). In a codification strategy, IT can be used to make intelligent decisions, whereas in a personalization strategy, IT provides communication support.

Organizational culture
Organizational culture is considered one of the most crucial factors contributing to the success of a KM project, and "perhaps the most difficult constraint that knowledge managers must deal with" (Davenport *et al.*, 1997). Furthermore, organizational culture is a key barrier in most organizations (Robinson *et al.*, 2005). There is a need to proactively tackle organizational culture and associated barriers such as people's fears, attitudes or resistance to knowledge sharing. Robinson *et al.* (2005) stated that other barriers identified include initiative overload, bureaucracy associated with KM, poor IT infrastructure, lack of top management support, conflicting priorities between KM and other business functions and the difficulties associated with communicating the benefits of KM.

Information technology (IT) and non-it tools
There is a perception in some organizations that information technology is central to knowledge management (KM). However, according to Robinson *et al.* (2005) there is evidence that most organizational knowledge is in people's heads and processes and

IT is not capable of capturing some tacit knowledge without losing its context. As such, as new ways of transmitting knowledge within an organization is personal, context-specific and difficult to write down (Davies *et al.*,1998)), thus more effort should be directed in setting up and enhancing systems to facilitate person-to-person and person-to-organization interaction.

Performance measurement
Performance measurement has been defined as the `characteristic of outputs that are identified for the purpose of evaluation' (Euske, 1984) while others have defined them as a `tool' to compare actual results with a pre-set target and also to measure the extent of any deviation (Fortuin, 1988). It has been suggested that performance measurement is `the reflect contribution of each team or process to the organization goal' (Turney, 1993).

The development of performance measurement can be split into three stages (Ghalayani and Noble, 1996): a)The first phase which is deemed to have started in the 1980s, focused heavily on financial measures such as profits, return on investment, and productivity. b) The second stage of measurement is characterized by non financial measurement (i.e, foster improvement rather than just monitor performance, based on company strategy) c) The third stage is characterized by the integrated use of financial and non financial measurement (i.e, Balance Score Card, Measurement Model).

According to Robinson *et al.* (2005), their case study showed that the Balanced Scorecard and the Excellence Model can be used as frameworks for business improvement and providing a basis for developing KM. However, according to them the learning and knowledge dimension of both models are often overlooked in practical applications.

Publicizing the results of KM initiatives can help maintain KM as a high profile activity and increase the level of awareness, even after the initial interest has waned. A full-scale measurement framework could be developed as an organization evolves to a stage where KM implementation is mature, well co-ordinated and sustained. However, it is recognized that organizations at lower levels of KM maturity may need to start with basic qualitative performance measures to monitor and review the benefits (Dent and Montague, 2004).

BENEFITS OF KNOWLEDGE MANAGEMENT

There are high expectations for an organization when it is pursuing knowledge management. Practical experiences with systematic and explicit KM reported by advanced and early adopter organizations indicate that benefits can be substantial. Most direct benefits tend to be operational while tactical and strategic benefits often are indirect and take longer to realize. According to Liebowitz (2000); Beckman (1997) and Wiig (1999), the benefits of KM are: improved service quality, rapid and effective enterprise-wide problem solving, improved decision-making, increased revenue, business growth, increased innovation, practice and process improvement, higher levels of expertise and knowledge, increased customer satisfaction, enhanced employee capability and organization learning, increased employee morale, creativity and ingenuity, employee stimulation and motivation, increased flexibility and adaptability and raising the company's professional image.

CONCLUSIONS

Knowledge is a critical factor affecting an organization's ability to remain competitive in the new global marketplace. Knowledge sharing is the corner-stone of many organizations' knowledge management strategy. Knowledge sharing in an organization is the act of making knowledge available to others within the organization. In undertaking their roles, quantity surveyors face many challenges that inhibit the implementation of knowledge sharing initiatives within QS firms. Many of the challenges that organizations face in managing their knowledge assets are influenced by the culture of the sub-unit and/or by the culture of the organization. The companies that successfully implement knowledge management do not try to change in order to fit in with their knowledge management approach but they build their knowledge management approach to fit their culture. As a result, there is not one right way to get people to share but many different ways depending on the values and style of the organization. In implementing knowledge sharing in an organization there are many factors to be considered. The potential factors to consider include the development of a KM strategy, organizational culture, IT and non-IT tools and also performance measurement. Organizations are keen to exploit any mechanism that encourages better performance. Knowledge sharing is now seen as a contributory factor in business improvement.

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