

Proposal Paper for Knowledge Management Commission

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ABSTRACT

The purpose of this paper is to put forward the need for FIG to consider the development of a separate Commission or a widen of an existing Commission's terms of reference to incorporate the study of Knowledge Management (KM) and its integration as a founding part of Surveying practice world-wide. The paper will endeavour to identify the need for this approach at a time when KM could be identified as a passing fad rather than the organisational strategy that it actually is and needs to be.

The paper reflects very early work in this area, and seeks to develop associations between the various factors mentioned. It does not purport to offer a definite solution, but to examine the context of effective knowledge management strategies presented in a paradigm for further empirical study.

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1. INTRODUCTION

The purpose of this paper is to put forward the need for FIG to consider the development of a separate Commission or a widening of an existing Commission's terms of reference to incorporate the study of Knowledge Management (KM) and its integration as a founding part of Surveying practice world-wide. The paper will endeavour to identify the need for this approach at a time when KM could be identified as a passing fad rather than the organisational strategy that it actually is and needs to be. The objectives of KM are:

- to make the organisation act as intelligently as possible to secure its viability and overall success
- to otherwise realise the best value of its assets

One of the key first steps to understand is that KM is broad, multi-dimensional and covers most aspects of an organisation's framework, being directional in its aspirations and subsequent strategy. To achieve the goals identified above, an organisation must create, sustain and develop a balanced intellectual capital portfolio. It must also define the processes by which the company values its knowledge resource and seeks to manage it effectively i.e. the art of creating value from an organisation's intangible assets.

The mid 1980's saw the growth of KM especially in the USA when organisations began to understand that the emergence of a more global market brought consequences, namely increasing and more effective markets together with an emergence of greater competition. *Wiiig (1997)* identifies that in 1989, several Fortune 500 CEO's agreed that knowledge was a fundamental factor behind an enterprise's success and all its activities. This led to the consensus that enterprise viability hinges directly upon competitive quality of a company's knowledge assets and their successful exploitation within the organisation.

The move from the industrial age to the information age has meant that the skyline of an organisation's assets has changed dramatically. The new economy has distinct characteristics with industry becoming more knowledge intensive, products smarter, higher information to weight ratios, value in intangibles, trade in intangibles, and portability and mobility. As surveyors are we ready for this market place? If we are, can we respond quick enough to survive? European e-commerce is set to grow ten fold with revenues from e-commerce totalling \$118.6 billion by 2003 (www.nua.ie), although the reverse of this growth can be seen with Fortune 500 companies set to lose \$31.5 billion in revenue by 2003 (www.nua.ie) due to cumbersome knowledge management systems. There are valuable lessons here. This together with the growth of e-commerce, business to business (b2b) and business to customer (b2c) exchanges set out a new playing field for business strategy and service provision. Other market changes include the introduction of a single currency to all but a handful European

countries and new land codes in Russia. For some, the new code is merely symbolic. Sergei Riabokobylko, director of real-estate firm Stiles & Riabokobylko, a Moscow-based associate of Cushman & Wakefield (US), says that the code will give foreign investors extra security by clearly enshrining the principle of private land ownership in federal law, rather than burying it in a confusing mix of presidential decrees and local regulations. What existed *de facto* has simply been made *de jure*. Hermann Schmitt, a real-estate lawyer at Clifford Chance Punder (UK), believes that most of the commercial land that is now leased will eventually be privately owned. (*The Economist Intelligence Unit 2002*)

Further, the sheer size of the Chinese market, the World Trade Organisation, the Olympics; the value of the country's trade with the rest of the world this year will total more than \$200bn, and total revenues from e-business are projected to grow from \$2.6bn in 1999 to \$20.3bn in 2004 (*The Economist Intelligence Unit 2000*) and the government's commitment to using IT as an economic growth lever have prompted central- and provincial-level authorities to invest in capacity and technology making China very promising. Even though electronic transactions in China are complicated by the limited interconnectivity between domestic banks, the lack of credit-card infrastructure, and restrictions in services such as insurance and logistics there is vast opportunities for commercial and innovative surveying practices to find a foothold within this market.

With the growth of these differing markets, and e-commerce it is clear that the starting point for surveying services is an understanding of the client business and the marketplace rather than the physical asset. As surveyors, our whole professional development has centred on the serving of a physical asset via the delivery of technical competencies. This now has to change. The provision of years of technical and financial services has in itself provided valuable knowledge within the organisation. The knowledge now needed to service our clients extends further. We however need to revisit how this affects our organisation's strategy for the delivery of professional services. Our perspective of focusing on the finishing line i.e. the building should now change to focusing on the starting line – the Boardroom and the client's unfolding business strategy. We cannot achieve this unless we embrace KM.

With this market change there comes a need to redefine an organisation. There is an ongoing need to reduce costs and increase productivity, an increase in challenges from competitors with devise ranges of services with earlier starting points for fee commissions. This is matched by changing and higher expectations from clients; a need to add value to existing services; a need to minimise risk and a need for speed. These organisational changes can be summarised as a need to:

1. be resilient
2. be responsive
3. be adaptable
4. be innovative
5. be able to create real value.

Figure 1 identifies the 'pressure sandwich' of new environments and new technologies that affect or structure and strategies and how or organisation could change.

Tom Watson Jr., former President of IBM indicated (*People Management 1999*) that the value of his company was in its people. Remove the buildings and plant and keep the people and the information files and the organisation would be as strong as ever. This is not to say that the building as a facility is not important, it however does represent a small percentage of the true analysis of the meaning asset, more a 'direct' or 'tangible' asset. The key is to understand and identify the 'indirect' or 'intangible' assets, within the market perspective, which are the foundations to commercial success. The indirect assets of any organisation can be identified as 'Purchaser', 'Process' and 'People' assets, with knowledge being the glue between all of them. From this vantage point you can begin to develop strategies that provide solutions that meet the business needs and challenges. The acid test is whether through the loss of one or more of the above could the organisation survive. When adding the direct asset to the equation, the supposition does not mean one should be at the expense of the other,

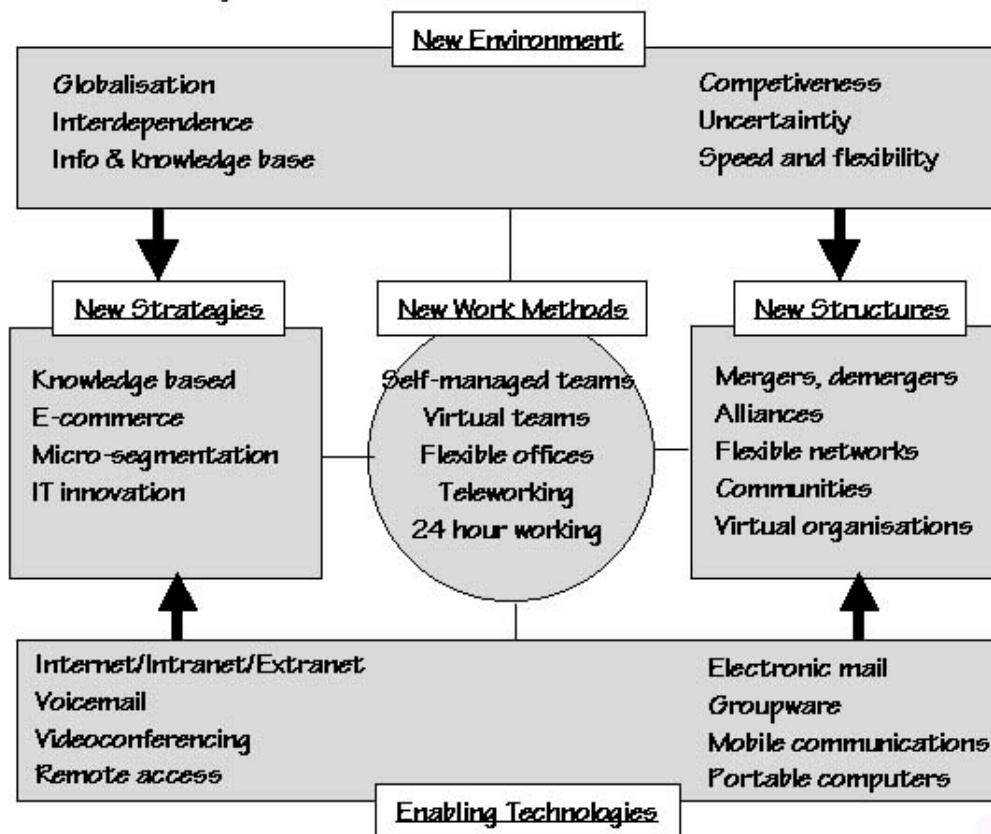


Figure 1. Organisational responses to environmental and technology changes (*Source: Skyrme 1999*)

rather than ownership and significance of the assets is not always equal. The balance between direct and indirect assets within the market context will be a key factor in creating a KM environment. As KM develops within our client world together with the market and technology changes all highlighted by this paper will we see their need for buildings reduce and therefore will the need for our current services reduce? This paper would suggest the need to adapt our services and become more innovative. A comprehensive approach to and

understanding of our knowledge and of the knowledge that is around us is the key to our survival. Enter stage right KM.

What can KM do for surveyors? Within this context it is important to understand the principle already identified in this paper of refocusing on the starting line of a clients needs rather than just the building, which in most cases is an outcome of an organisations business strategy and may as previously discussed be a reducing commodity. A few brief case studies below identify how KM has been implemented within different commercial sectors.

2. CASE STUDIES

2.1 Management Consultancy Firms

'Kworld' is the knowledge management framework at KPMG. It tracks peoples attributes based on their business area, industry focus and location and relates it to information from internal and external sources. This enables staff to have a picture of all the information and its relation to people and their jobs. In a test run of the system they created a hypothetical project relating to a fast moving merger between two major clients. The analysis of the test identified that the team were able to provide recommendations based on information drawn from the system in an hour, which would normally have taken eighty hours.

Peter Chilvers their Chief KM Officer states *"although it's just a mechanism for transferring knowledge to end users, we also want it to steadily increase the amount of direct access users have to their own information, so that they can carry out a measure of personal research and analysis, but then supplement it by providing them with links to more knowledgeable industry and product specialists elsewhere in the company."* (Management Consultancy 1999)

Andersen Consulting before its split had 'The Knowledge Exchange', ('The KX') disseminates knowledge – essentially a mix of computer information, customer wins, methodologies, best practice, training materials and presentations to 65,000 staff around the world. Ernst Young has a similar system called 'The Knowledge Web' ('K Web') contains a mix of information accessed by 85,000 staff.

2.2 Ford Motor Company

The company has developed an integrated knowledge creation and sharing framework, which they are trying to make part of the company culture. Named 'Best Practice Replication' system it has been implemented within the company's vehicle operations division – 37 plants where vehicles are assembled and painted.

Each week every plant receives via the company Intranet 5 – 8 best practice ideas. Each plant manager appoints a production engineer to be a 'focal point' for best practices. There may be more than one focal point where plants are divided into specific operations. They receive and enter best practice data. The online ideas are in a concise report form, identifying where the idea originated, a brief description of the practice, savings achieved a name and number of a contact that can provide additional information.

There is usually a picture and video is soon to be added. The 'focal point' makes an electronic record of the response to the best practice idea, by identifying 'adopted', 'under investigation', 'previously adopted', 'not applicable' or 'too costly'

The plants are not obliged to adopt but are to respond. Once an idea is adopted the 'focal point' is responsible for logging costs and savings made. As these ideas can then be replicated within all or some of the 37 plants savings soon mount up. In one year Ford saved \$34 million. The system has now been applied to the customer service and product development departments.

A quick analysis of the Ford system could identify that the reason why it has been so successful was that the organisational culture worked with the knowledge sharing philosophy. Further the knowledge transfer system suited the users and the knowledge being transferred, At Ford there was also a similarity between the originator of the knowledge and the receiver. This is an important aspect in terms of ensuring a KM strategy suits the host organisation and its environment. Note the previous reference to the Fortune 500 companies predicted loss of \$31.5 billion due to poor KM systems.

3. KM & SURVEYING PRACTICE

As surveyors, our methods of organisational structuring have been resistance to knowledge sharing, especially within the private practice. A number of large contracting firms have started to see the need for KM as part of their corporate strategy, however the balance is still towards the squirrel mentality. Many large organisations create departments or partner led teams, which have little methodology or processes built in, to share across the organisation. A simple example can be seen in the office layouts of many practices, which do not encourage frequent opportunities to discuss and debate. Further issues include a tendency to view that knowledge predominantly exists outside the individual, the inability to disentangle knowledge from its uses and to downplay experimentation. The main argument against this is resources and time, admittedly smaller practices do have these inhibitors. Even at its simplest level not many organisations actually understand or know what knowledge exists within their walls. There can be a tendency also to place false hope in information technology. This is a vital part of KM and its delivery and growth but should not be a replacement for clear strategy.

Holthouse(1999) discusses ten knowledge domains, necessary to enable a knowledge driven company, many basic in their aims but difficult in their implementation. The factors centre on sharing, capturing, refining, reusing knowledge and embedding knowledge in products processes and services. Further, using knowledge generation for innovation and for mapping knowledge within the organisation. Other writers develop similar themes with emphasis on cultural, operational and technical infrastructures with *Demarest(1997)* highlighting four categories for knowledge creation namely Imperatives; Patterns, Rules and Scripts forming a network around and within an organisation to generate, retain and distribute knowledge. *Wiig(1997)* further identifies five knowledge centred strategies necessary for successful KM implementation. The *knowledge strategy as business strategy; intellectual asset management*

strategy; personal knowledge asset responsibility strategy; knowledge creation strategy; and knowledge transfer strategy. The term strategy clearly denoting the level at which KM should be instigated, i.e. the boardroom.

4. WHY MANAGE KNOWLEDGE?

The challenge of deploying the knowledge assets of an organisation to create competitive advantage becomes critical due to:

- the marketplace is increasingly competitive
- the rate of innovation is rising
- organisations need to focus on creating customer value
- the reducing size of workforce
- the dichotomy of knowledge requiring time to acquire against reduced time to undertake task
- high employment turnover and earlier retirement resulting in the lost of corporate knowledge.

5. RECOMMENDATIONS

This paper has attempted to set the case for including KM as part of ongoing FIG work to research areas of surveying practice which encompass the changing and emerging world markets. It is therefore proposed that a FIG Commission should embrace the area of KM and utilise the infancy of the KM market within the built environment sector to consider research in the following areas, this list is not exhaustive and the writer would value debate in terms of other areas.

1. Research the premise that current Surveying practices are not conducive to knowledge generation and sharing and innovation
2. Quantify the value of intangible assets
3. Explore the importance of entrepreneurial versus technical capabilities
4. Explore the coloration between knowledge, generic inputs, idiosyncratic inputs and profitability
5. Research the organisational structure types and competencies necessary for KM incubation
6. Research into KM case studies within the built environment e.g. large contracting organisations
7. KM has economic value for surveyors?

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