

**DEVELOPMENT OF KNOWLEDGE MANAGEMENT STRATEGIES FOR
PROPERTIES MANAGEMENT COMPANIES IN MALAYSIA**

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Abstract

The concept of knowledge management (KM) is a common concept in management theory. It has been practised in many fields such as business, human resource management, engineering, medical and science. Although it is a common concept in management, it can practically be implemented in property management industry particularly in Malaysia. The property market in Malaysia has shown a tremendous growth due to the strong economic growth. This has put Malaysian property market in on the radar from the investors' point of view. From the global property performance, Malaysia contributes 0.7% and ranked at number 18. Real Estate Investment Trusts (REITs) has been introduced in Malaysia since August 2005 and it's contributes 0.3% of global market and 2.4% of Asian market. Malaysia is ranked at no. 14 in the world REITs market. Malaysia also listed one of the transparent property markets in the world as a result of a good performance in property sector. This indicator gives a significant impact to property management industry in Malaysia. As property sector gives a significant impact to economic growth in Malaysia, these properties needs to be managing as it will gives good implication to the industry especially in REITs business. Furthermore, property management as part of the service in property industry also affect by the rapid growth in this sector. Thus, it is believed knowledge management concept can assist property management players to gives a significant impact to the property industry. This research attempted to develop knowledge management concept among the property management companies in Malaysia. The model based on nine knowledge management strategies that have been developing through several processes as well as validated by the major respondents in this research. The strategies are identified as the major knowledge management concept that needs to be developed in the property management companies in Malaysia. The KM strategies model for property management are divided into 4 main models; knowledge management area (in concept), 4 major strategies (in concept), 9 main strategies (in details) and property management good practices. Overall, this research has highlighted the existing of the knowledge management concept in property management companies in Malaysia. With the competitive advantage of real estate business is become more challenging due to globalisation process in the future, property management companies in Malaysia needs to be evolved in order to stay in the business. It is believed; the concept of knowledge management in real estate will not only give a better way of management but also will generate more profit which is the main target in any business in the world. This research has widened the knowledge of knowledge management concept theory into real estate area particularly in property management business. The model formulated from this study will give a better idea for property management companies to strategise the KM strategies model strategic management to put into practice in organisation.

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Chapter 1

INTRODUCTION

1.0 Introduction

Malaysia is now moved towards into an era of urbanisation and rapid development. The property management fields has responded to this revolutionary trend with increased specialisation and a higher and more sophisticated level of service to their clients. Property management is closely related to business world because real estate itself can be trade. The profession of property management is both and evolving and a rapidly expanding field. The role of being just a rent collector is disappearing. Instead, property management has emerged as a highly technical and specialised managerial science. The property manager today must posses communications skills and be a dynamic and effective decision maker. He or she must act as market analyst, and advertising executive, a diplomat, and a maintenance engineer of property, prospective tenants and investors, tenants, employees, attorneys, accountants and others involved in the real estate fields (Decarlo, J, 1997).

However, in the 1980s and 1990s planned change at the process level was predicated upon the assumption that structures, processes, ICT, skills and knowledge could be all reconfigured to optimise the achievement of strategic goals (Dixon et.all, 2005). Thus, it is also change the landscape of property management businesses. The concept of re-engineering traces its origin back to management theories developed as early as the nineteenth century. The purpose re-engineering is to make all of an organisation's processes the best-in-class. Although the evidence of organisational restructuring to accompany business environment change is strong, there are often conflicting views as to the nature of the change. At the top level, the most significant issue is the change in the degree of centralisation of decision making, with attendant questions about the organisational hierarchies that support these. On top of that, information is become more crucial in business world. Companies must acquire more knowledge to ensure survivor in tight competition in real estate business. Dixon (2005), emphasized the trend was away from tangible physical assets towards intangible goods, such as knowledge and information.

In another hand, knowledge is at the basis of wealth, thus more so than tangible assets. Being invisible, it is not always recognised as just an asset but business success depends on its good management. In the rapidly changing world, we have to create new knowledge and ideas constantly. Traditionally, companies have been valued according to their tangible assets, such as property and equipment. This is still important, but the intangible assets such as knowledge, brand, and relationship with customer, are into their own. Knowledge management helps managers to relate all aspects of the organization to knowledge issues, answering questions such as how to support knowledge workers, how to transform knowledge into successful products and services, or how to maintain knowledge rich relationship with the external world (e.g. customers, suppliers, shareholders, unions, government or consumer groups).

American Productivity & Quality Center's (APQC), had come out with knowledge management framework as a whole process in knowledge management. Figure 1.1 shows knowledge management process in a context for thinking about strategies and methods of identifying, capturing, and leveraging knowledge to help an organization to compete.

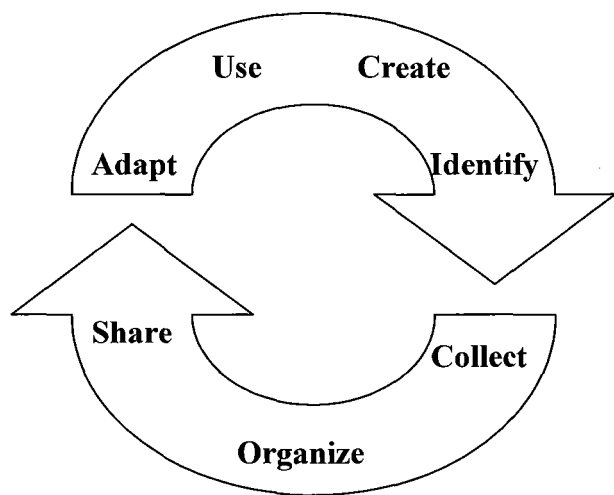


Figure 1.1: APQC's Knowledge Management Framework (Source: APQC and Arthur Anderson, 1995).

1.1 Problem Statement

Property management is always closely related to business world. This is due to property can generate revenue through property management related activities such as tenancy management, asset

management and other business competitive advantage. As business environment is always volatile and unpredictable, companies must always be ready to grow and compete. Traditionally, property management businesses are engaged with land, money, location, value, property and estate. Dixon also propagates of the new economy which now takes place in a globalisation environment, driven by technological change in alliance with other forces (Dixon, 2005). Furthermore, property management professionals should re-orientate themselves in a globalised world. Conventional textbooks suggest the motto of many real estate professionals lies in 'location, location and location'. However, time has already changed, and it should be changed to 'finance, finance and finance'. It is because, global finance capital has indeed taken the centre stage in influencing the dynamism and trajectory of real estate development, particularly in the emerging markets (Cheong, 2005). Real estate business has become globalised and is increasingly being shaped by international finance. Cheong (2005) added, if real estate professionals want to get them involved with the financial world, they have to take up a leading role in financial intermediation and asset management. On top of that, real estate world had evolved due to changes in business environment. Thus, knowledge will become most important.

Knowledge management is a way of management methods which consists of people, technology and organisation elements to capture information economy and organisation's valuable asset. Hence, it is believed to contribute for the betterment of the real estate industry. In real estate business as a whole, the biggest problems are the separation between knowledge and task. It is because real estate industry is very broad and diverse in terms of job and functions within the industry. Appraisers, loan officers, escrow offices, title associates, real estate lawyers, accountants, agents, brokers represents some of the diverse work environments in the real estate business (Chan & Kleiner, 2005). Each of the tasks has its own characteristics and involved knowledge creation and diversification. For instance, for real estate brokers, it is not an easy task interviewing potential candidate. They need to understand the different aspects of the management role in a real estate office (Chan & Kleiner, 2005). Moreover, they have to digest all information and current situation in property market to keep track the business environment. With this situation, the real estate industry has to step forward to embrace knowledge management concept. This will take place in real estate environment as intermediaries with all information, management tasks as well as external and internal attributes in real estate.

Why does real estate business need knowledge management strategy? Real estate businesses have to take the challenge in business or

emergence of the new economy. Dixon (2005) describes it as driven by globalisation and information and communications technology (ICT). He added that, the trend was moving away from tangible physical assets (such as real estate) towards intangible goods, such as knowledge and information. It is believe that ICT will pervade productivity and reduce space requirements thereby reducing the demand for real estate (Dixon, 2005). In other instances, **Bean (2000)** highlighted ICT will have profound effect on retail property values that could be dramatic as diminished sales at malls results in revenues lost from percentage leases. In addition, industrial property sector will be affected by the emergence of ICT in terms of physical scope and scale of industrial properties (Thompson, 2005). He added, computers not only changed business process radically, but dedicated computer systems have revolutionized the control and operation of physical processes. Furthermore, in property transaction, data have been available via a network of professional contact. The jungle telegraphs can work well if the surveyor has established contacts throughout the property sector and in the area in which he or she practices. However in many cases it can be difficult to access the required information, especially when firms tend to be secretive or the market is sluggish (Wyatt, 1996). Thus, it needs real estate firms to establish their own knowledge in their respective organisation especially in tight competition. McAllister (1999), in his study emphasised on globalisation, integration and commercial property in the UK which indicates several notable evidences which as follows:

- a. Diversification
- b. High returns
- c. Liability matching
- d. Promotion of business relationship
- e. Cost of diversification
- f. Risk due to management problems
- g. Taxation risk
- h. Currency risk
- i. Risk due to poor information

All of these evidences show that real estate business needs to evolve in order to meet the firm goals.

1.2 Objective

The main objectives of this study are:

- i. To identify knowledge management strategies used in property management companies.
- ii. To assess the existing knowledge management system in property management companies.
- iii. To provide knowledge management strategy application within the property management organization.

1.3 Scope of Research

The scope of this project is to design the knowledge management framework in property management companies registered with Board of Valuers, Estate Agents and Appraisers, Malaysia (BOVEA). This project will focus on elements as follows:

1.3.1 Organisation

Each of the organisations has unique characteristics. According to James **Robertson (2004)**, it can be defined by factors such as:

- i. Purpose and activities of the organisation
- ii. Overall strategic direction
- iii. Organisational culture
- iv. Size of the organisation
- v. Staff skills and experience
- vi. Organisational history
- vii. Available resources
- viii. Marketplace factors

1.3.2 Infrastructure and Technology

Infrastructure and technology are related to each other. To provide better ICT environment, organization must be supported with cutting edge technology. It may support the KM process. Reimus (2001), emphasizes on the advantages of using ICT as one of the critical success factors in KM strategy.

1.3.3 Culture

Fitzek (1999), mentioned culture is a way a group perceives, thinks and feels in relation to problems and how the group solves the problems. Property management companies in Malaysia might have different styles of work culture even when they are under one parent company.

1.3.4 Human Resources

Human resource is a crucial part in any organisation. In order to implement KM in the organisation, human resource needs to be taken into account. It is to create a strategic human resource planning i.e. high workforce turnover, motivation, knowledge worker and the sharing knowledge culture.

1.4 Sectoral and National Impact

- i. Formulation of knowledge management strategies for the betterment of Malaysian property management companies.
- ii. Consolidation of ICT infrastructures that could benefit Malaysian property management companies.
- iii. Enhance the level of application of KM strategies in property management companies to sure that they will become world class players.
- iv. Enhancement of knowledge base among academicians and personnel involved in the research on knowledge management strategies and ICT infrastructures.

1.5 Methodology

The framework of research methodology is shown in figure 1.2.

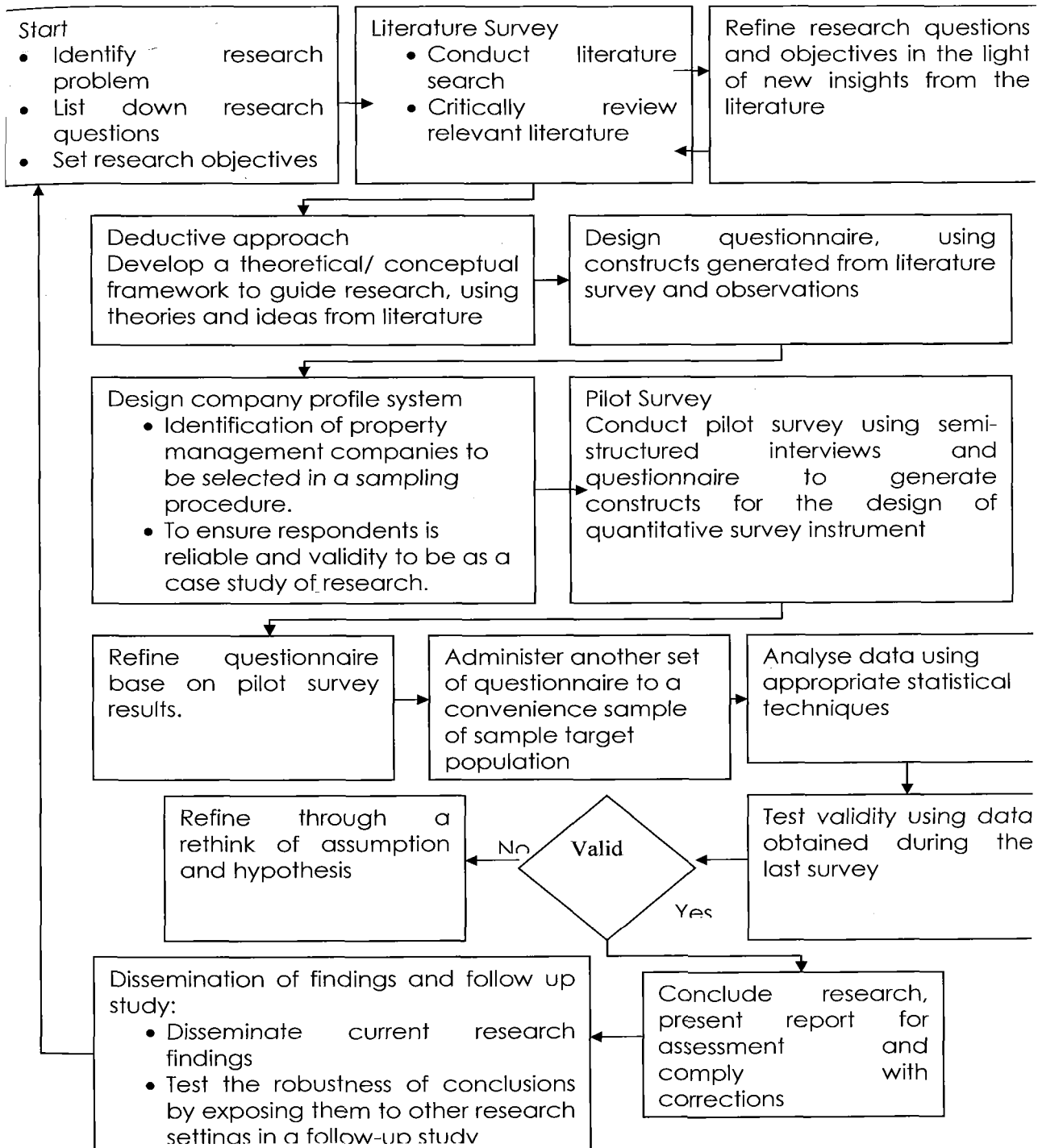


Figure 1.2: Schematic illustration of the research strategy adopted in the study.

Chapter 2

LITERATURE REVIEW KNOWLEDGE MANAGEMENT CONCEPT

2.0 Introduction

Dixon (2005), highlighted during the late 1990s, that there was increasing debate over the emergence of a 'new economy', built on major structural changes driven by globalisation and information and communication technology. He added the trend was away from tangible physical assets towards intangible goods, such as knowledge and information. Consequently, it also reflects the real estate business nowadays. Traditionally, real estate businesses are engaged with land, money, location, value, property and estate. Dixon also propagates of the new economy which now takes place in a globalisation environment, driven by technological change in alliance with other forces (Dixon, 2005). Furthermore, real estate professionals should re-orientate themselves in a globalise world. Conventional textbooks suggest the motto of many real estate professionals lies in 'location, location and location'. However, time has already changed, and it should be changed to 'finance, finance and finance'. It is because, global finance capital has indeed taken the centre stage in influencing the dynamism and trajectory of real estate development, particularly in the emerging markets (Cheong, 2005). Real estate has become globalise and is increasingly being shaped by international finance. Cheong (2006) added, if real estate professional want to get them involved with the financial world, they have to take up a leading role in financial intermediation and asset management (Figure 2.1). On top of that, real estate world had evolved due to changes in business environment. Thus, knowledge will become most important.



Figure 2.1: Value Ladder of Professional Real Estate Services (Cheong, 2006)

Knowledge management is a way of management methods which consists of people, technology and organisation elements to capture information economy and organisation's valuable asset. Hence, it is believed to contribute for the betterment of the real estate industry. In real estate business, the biggest problems are the separation between knowledge and task. It is because real estate industry is very broad and diverse in terms of job and functions within the industry. Appraisers, loan officers, escrow offices, title associates, real estate lawyers, accountants, agents, brokers represents some of the diverse work environments in the real estate industry (Chan & Kleiner, 2005). Each of the tasks has its own characteristics and involved knowledge creation and diversification. For instance, for real estate brokers, it is not an easy task interviewing potential candidate. They need to understand the different aspects of the management role in a real estate office (Chan & Kleiner, 2005). Moreover, they have to digest all information and current situation in property market to keep track the business environment. With this situation, the real estate industry has to step forward to embrace knowledge management concept. This will take place in real estate environment as intermediaries with all information, management tasks as well as external and internal attributes in real estate.

According to Callahan (2003), knowledge strategy should encompass:

- i. actions that are intended to result in anticipated business outcomes;
- ii. actions that emerge as a result of the many complex activities that are undertaken within an organization.

This research focusing on property management companies which is closely related to business world. The main target in business world is to gain more profit. The way to get more profit is depends on various organisation activities. The most important element in any organisation is management activities. Knowledge management, being one of the disciplines in an organisation, has become more important.

They are different between data, information and knowledge. Davenport and Prusak (1998), described term data as applied to a set of discrete objective facts about events. It can be describe as structured record of transaction. In contrast, information is a message, an aural or visual communication from a sender to a receiver thus affecting the receiver's judgement and behaviour. While knowledge is a changing combination of experiences, values, information, and insight that provides a basis for evaluating and incorporating fresh input. It is usually developed, applied and embedded in the minds of people and recorded in documents and other repositories. Figure 2.2 shows a knowledge process that can be divided into four processes.

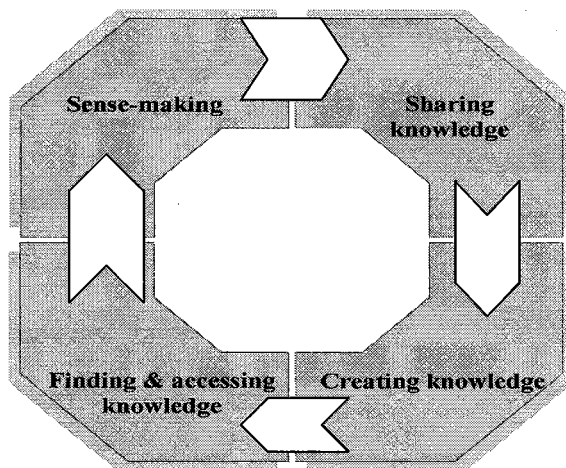


Figure 2.2 : Knowledge process in knowledge management (Adapted form Davenport and Prusak)

Snowden (2000) described the type of knowledge assets to help organization move away from a simplistic dichotomy of tacit knowledge and explicit knowledge.

- i. **Artefacts** – a knowledge artefacts results from capturing or codifying knowledge such as documents, databases and processes.
- ii. **Skills** – activity with a measurable competency. Organisations are usually good at managing skills. Skills registers are often established and training programs are put in place to increase people's competency.
- iii. **Heuristics** – Refers to methods of knowing and is especially used to refer to practical trial and error such as rules of thumb. It will help people to make decision quickly especially when they are under pressure.
- iv. **Experience** – Can be collective or individual, and is therefore a difficult knowledge asset to manage. In many cases it is difficult to identify specific experiences and, in the case if collective experience, it is sometimes o impractical to reassemble the group that has the requisite experience for the task at hand.
- v. **Natural talent** – Some people are naturally proficient in particular activities, and this natural talent is practically unmanageable. The best strategy is to identify natural talent and to nurture it wherever possible, by providing those individuals with opportunities to put their gifts to best use.

2.1 Knowledge Management – Theory

The famous guru in knowledge management is Tiwana (2000). To him the definition of knowledge management is the ability to create and retain greater value from core business competencies. It also addresses problems particular to business, whether it's creating and delivering innovative products or services; managing and enhancing relationship with existing and new customers, partners, and suppliers; or administering and improving practices and processes.

The key word in knowledge management concepts is knowledge itself. Thomas Davenport and Prusak (1997), define knowledge as;

"Knowledge is a fluid of framed experience, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knower. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, process, practices, and norms".

There are two kinds of knowledge which are explicit and tacit knowledge. Explicit knowledge can be expressed in words and numbers and share in the form of data, scientific formula, product specifications, manuals, and universal principles. It can be readily transmitted across individuals formally and systematically (Abdullah et. al., 2002). Tacit knowledge is highly personal and hard to formalise, making it difficult to communicate or share with others. It is deeply rooted in an individual's action and experience, as well as in the ideas, values or emotions in individual's embraces (Abdullah et.al, 2002). There are two dimensions in tacit knowledge which are technical and cognitive. Technical dimensions encompasses the kind of informal and hard-to-pin down skills or crafts often captured in the term 'know-how' (Abdullah et.al, 2002), for instance, knowledge gained after working for several years. If it is not documented or managed, it will be lost after the worker retires. But it is always difficult in articulating the technical or scientific principles beyond what they know. Meanwhile, cognitive dimension consist of beliefs, perceptions, ideas, values, emotions and mental models. It could not be articulated easily, but we can shape it according to the needs of the organisation.

2.2 Why Knowledge Management?

Tiwana (2000) had come out with nine reasons why we need knowledge management especially in organisation. There are:

i. **Companies are becoming knowledge intensive, not capital intensive.**

Knowledge is rapidly displacing capital, monetary prowess, natural resources, and labour as the quintessential economic resources. Knowledge is the only input that can help

organization cope with radical change and ask the right questions before attempt to find business solutions. Knowledge also will bring quality into any company's product and service offering. It can give an impact to product life cycles, in this case is property product (i.e. house, land, space etc) as well as service offering.

ii. Unstable markets necessitate 'organize abandonment'.

In volatile property market, companies might undergo radical shifts, leaving companies in a disastrous position of being with the wrong product, at the wrong time, and in the wrong place. The impact of these forces is witnessed most prominently in high-technology environments and financial markets, and increasingly in other market as well. Drucker (1999) defined this as an organization abandonment which means reshape products, get out of projects and product lines that can pull business down, and get into others that maximize growth potential.

iii. KM will lead change to any circumstances

KM is no longer need by service based business and consultants alone. Drucker (1999) had already warned that no industry or company has a natural advantage or disadvantage; the only advantage it can possess is the ability to exploit universally available knowledge. Knowledge is a window of opportunity which can describe as an evolving social trend affecting customer preferences, a new management practice, a nascent technology, or a political or economic development.

iv. Only the knowledgeable survive

In the knowledge base economy, the term 'the survival of the fittest firm' is suitable for property management companies to hand in. The ability to survive and thrive comes only from a firm's ability to create, acquire process, maintain, and retain old and new knowledge in the face of complexity, uncertainty, and rapid change. Drucker (1999) points out that knowledge is productive only if this productivity that is going to be the deterministic factor in the competitive position of any companies.

v. Cross-industry amalgamation is breeding complexity

Today, business is become more complexity, uncertainty, and ambiguity. Knowledge management will allow many

companies suite into these challenges to turn this complexity to their advantage.

vi. Knowledge can drive decision support like no other

Providing effective decision support by making knowledge about past projects, initiatives, failures, success, and efforts readily available and accessible can make a significant contribution towards convalescing this process. Four diagnostic tools for decision making that can focus are; foundation, productivity, competence, and resource allocation knowledge. KM solutions that are capable of effectively supporting collaboration and knowledge sharing enable individual knowledge worker, teams, and communities to collaboratively make better decision faster.

vii. Knowledge requires sharing; ICT barely support sharing

KM requires a strong culture of sharing that information systems do not inherently support. In the USA, they already developed water cooler culture and also in Europe they have coffee machine cultures to create systems that support social informality. This will create sharing and disseminate knowledge. Principles that have traditionally driven ICT design, though with moderate success, no longer apply in designing KM systems.

viii. Tacit knowledge is mobile

When someone leaves an organization, consequently, his or her experiences will leaves too. This knowledge, skills, competencies, understanding, and insight then often go to work for a competitor. Knowledge management can save companies from losing critical capabilities when that happens.

ix. Global competitors

In business, competitors are now become more wide and into global level. Keeping up with developments and ensuing threats or opportunities in other countries is a tedious, time-consuming and difficult process. Knowledge management technology, when given the right source feeds, can deliver relevant and timely knowledge.

Knowledge is power; hence it is more than tangible assets. It is not always recognized as an asset at all, but business success depends on its good management. Knowledge is the result of sifting, shifting, reviewing,

disseminating, sharing and discussing information. Before any goods or services can be provided, they must be sufficient knowledge to produce them. In this rapidly changing world, new knowledge and ideas are constantly being created. Traditionally, companies have been valued according to their tangible assets, such as property and equipment. This is still important, but the intangible assets such as knowledge, brand and relationships with the customer, are coming into their own. With technology moving at a gallop, and business cycle getting shorter all the time, it is the intangible assets, and in particular, knowledge, that add value to the organisation. The organisations that are driven by knowledge are the ones that will succeed. According to Bagshaw (2000) from Transformation Training Ptd Ltd UK, knowledge workers are actively involved in the six Cs:

- i. **Capability**- having knowledge and skills.
- ii. **Capture** of tacit knowledge. Knowing where it is and how to deliver it.
- iii. **Codification** of the knowledge available and making tacit knowledge explicit so that it can be used throughout the organization.
- iv. **Connection** to the communities of practice. Networks of knowledge exchange are more important than traditional communication structures.
- v. **Co-creation** of new knowledge. Using out collective brain power to give us competitive advantage.
- vi. **Conversion** of knowledge to action in a way that adds values.

Tiwana (2000) also drafted 24 key drivers that make knowledge management a compelling case for business. The drivers can be categorised into six broad areas as described below:

- i. Knowledge-centric drivers
 - a. The failure of companies to know what they already know
 - b. The emergent need for smart knowledge distribution
 - c. Knowledge velocity and sluggishness
 - d. The problem of knowledge walkouts and high dependence on tacit knowledge.
 - e. The need to deal with knowledge-hoarding propensity among employees.
 - f. A need for systematic unlearning.
- ii. Technology drivers
 - a. The death of technology as a viable long-term differentiation

- b. Compression of product and process life cycles
 - c. The need for a perfect link between knowledge, business strategy, and information technology
- iii. Organizational structure-based drivers
 - a. Functional convergence
 - b. The emergence of project centric organizational structures
 - c. Challenges brought about by deregulation
 - d. The inability of companies to keep pace with competitive changes due to globalization
 - e. Convergence of products and services
- iv. Personnel drivers
 - a. Widespread functional convergence
 - b. The need to support effective cross-functional collaboration
 - c. Team mobility and fluidity
 - d. The need to deal with complex corporate expectations
- v. Process focused drivers
 - a. The need to avoid repeated and often-expensive mistakes
 - b. Need to avoid unnecessary reinvention
 - c. The need for accurate predictive anticipation
 - d. The emerging need for competitive responsiveness
- vi. Economic drivers
 - a. The potential for creating extraordinary leverage through knowledge; the attractive economics of increasing returns.
 - b. The quest for a silver bullet for product and service differentiation.

2.3 Principles of Knowledge Management

To give a clearer overview of what knowledge management is all about, Snowden (2000), listed down the key principles as follows:

- i. **Knowledge is volunteered, never conscripted.**
 It is counter-productive to force anyone to divulge what they know. Even in circumstances in which it seems that a person is being successfully cajoled to provide knowledge, the recipient can never be sure that the information is complete or accurate. Providing an environment in which people are

encouraged to volunteer what they know provides superior results. Such an environment might involve such enablers of knowledge transfer as the development of a climate of trust and the provision of sufficient time.

ii. People always know more that they can say, and always say more than they can.

The process of converting what is known into speech or written words invariably results in the degradation of the original knowledge. To explain what is known in a conversation takes one of effort. However, to write down what is known takes an even greater effort, and significantly increases the chances of misinterpretation. This is not say that the process of capturing what people know is to be avoided. However, it must be recognised that there is a definite degradation of knowledge when such knowledge capture is undertaken.

iii. Most valuable knowledge is known only when it is needed to be known.

If a manager is asked how he or she undertakes a role, that person will be able to relate a reasonable amount of information. However, if that person is observed undertaking his or her role, it will become apparent that there exists a whole range of additional knowledge that is used to make judgment and take decision. This knowledge is brought to bear only in the context of a particular problem. It is remembered when it is needed.

2.4 Knowledge Environment

The property management companies have to create a knowledge environment in their organisation. But it requires some process to ensure successfulness. For instance, property management companies might have multiple knowledge environments such as those that support property market research extensively, or estate agency process. In order to create knowledge environment, companies must have the following element or enablers (Callahan, 2001):

- i. People – behaviour, attitudes and skills
- ii. Culture – values and beliefs
- iii. Roles and responsibilities

- iv. Strategy
- v. Workplace design
- vi. Technology
- vii. Communities and their practices
- viii. Content
- ix. Organisational structure
- x. Budget
- xi. Leadership
- xii. Incentives, sanctions and motivations

2.4.1 People

In an organisation, the workflow or daily routine of the people creates knowledge by habits of thoughts or attitudes. Some attitudes directly affect how knowledge is created, found, and shared. It is difficult to change, but it will provide a model to effect attitude change. On the other hand, people skills have an impact on an organisation's capacity to undertake knowledge processes. However, it is easier to learn new skills than to change the attitudes and behaviours, since they have greater and more persistent impact on the knowledge environment.

2.4.2 Culture

Each of the property management companies has their own distinct work culture. It existed on the first day when the business is established. Hence, it is constituted by the behaviour and norms that flow from the shared attitudes, assumptions, values, and beliefs of the people in it. Usually culture is closely related to leadership styles, organisational history, incentives and sanctions, attitudes, beliefs, and the dialogue that occurs in all parts of the organisation.

2.4.3 Roles and responsibilities

Being responsible is a crucial part in running a business, especially in the real estate industry. Each and everyone in the company must know and be able to execute their responsibilities according to the company's objectives. Roles and responsibilities within a knowledge environment can include senior personnel such as the chief knowledge officer, and also from the various people who gained knowledge through participating in the organisation's projects, or those who act as conduits for knowledge transfer.

2.4.4 Strategy

Knowledge can be valued only in the context of an organisation's business strategy. Therefore, it is vital that people in the organisation attend to the right information in a timely manner if they are to discern what is important and convert it to useful knowledge. People will be able to apply the right filters and master the complexity of a situation only if they understand their organisation's strategy as it applies to their particular roles.

2.4.5 Workplace Design

Workplace design is related to office space. During technology era, office space is become less important. However, for real estate business, it is obvious that they still need office space because the products are tangible and for customer or client contacts. The way the office layout is designed can affect the flow of information and knowledge. Today most office has been modernised with landscape features to create a pleasant environment among the people in the organisation. In addition, if everyone is segregated into separate offices the opportunity for dialogue is diminished, thus adversely affecting the knowledge environment.

2.4.6 Technology

Technology will assist knowledge management agenda in organisation. Technology can assist innovation, creation of new insight, and making sense of information including business intelligence software, mind mapping tools, whiteboards, decision support system (DSS), and collaborative technologies (chatting, video conference etc.). Furthermore, technology can accommodate to global market penetration. Technologies that support in finding and accessing knowledge include directories, search engines, expertise-location software, email, yellow pages, telephones, data warehouses, portals, collaboration software, and all forms of intranets, extranets, and internets. Moreover, knowledge process can occur with little assistance from technology. For instance, two collaborators working together in the same room can productively find, share, and create knowledge without any sophisticated tools, documents, and databases. However, if the number of collaborators is increased in multiple time zones, and if their information and data requirements are increased, the tools of information technology and telecommunication become increasingly important.

2.4.7 Communities and their practices

The nurturing of effective communities of practice can deliver significant benefits to an organisation and provide an environment where trusted members can test new ideas and discuss past failures, and thus enhance learning.

2.4.8 Content

The type and quality of information available to an organisation significantly affects the knowledge environment. The content contained in conversation is just as important as the content stored in any knowledge repository.

2.4.9 Budget

The allocation of financial and human resources significantly affects knowledge environment. Significant long-term enhancement of an organisation's knowledge environment occurs if there is an appropriate level of investment in the knowledge-management initiatives.

2.4.10 Leadership

Leaders play a major role in organizations and it significantly affects knowledge creation. The behaviours of leaders set the standard for the behaviour of everyone else in an organisation. A leader's actions in dealing with knowledge greatly affect the knowledge environment.

2.4.11 Incentives, sanctions and motivations

Applying effective incentives and sanctions is complicated by the many factors that motivate people to act. In a complex environment, barriers can be erected and dismantled to affect the flow of knowledge. The use of incentives and sanctions is a means by which designers can manipulate these flows. The model begins with an assessment of the needs of an individual or group. These needs include recognition, achievement, and perhaps, monetary reward. The second factor is the level of action required to create the end product. Next, the activity should be evaluated. An individual, a peer, or a manager can carry out the evaluation. The evaluator should be respected by whoever is being evaluated. Finally, the evaluation leads to an outcome that helps to meet the originally defined needs.

(Adapted from Callahan, 2001).

2.5 Knowledge Management Strategy

Property management companies must be ready to overcome the challenges in business world. Organisations are facing ever-increasing challenges, brought on by marketplace pressures or the nature of the workplace. Some organisations are now looking to KM to address these challenges. Such initiatives are often started with the development of a knowledge management strategy.

A KM strategy is characterised by its goals and by the methods and technique used to pursue these goals. The goals, method and techniques can be managed in a central or de-central way (Grolik et.al, 2000). Knowledge is codified using a 'people-to-document' approach. It is extracted from the person who developed or acquired it, then made independent of that person, and finally re-used for various purposes. Hansen et.al (2000), stated that corresponding electronic document, content and KM systems are established and management top down. Furthermore, extreme strategy used to manage knowledge is known as de-central way. For instance, knowledge is closely tied to the person who acquires it and networks of individuals are built to connect people so that tacit knowledge can be shared through direct 'person-to-person' contact. Management is only loosely involved in the coordination and funding of the process and does not pre-define the focus of the topics of knowledge sharing. Figure 2.3 shows correlation between business strategy and KM strategy based on in model developed by Hansen et. al (2000).

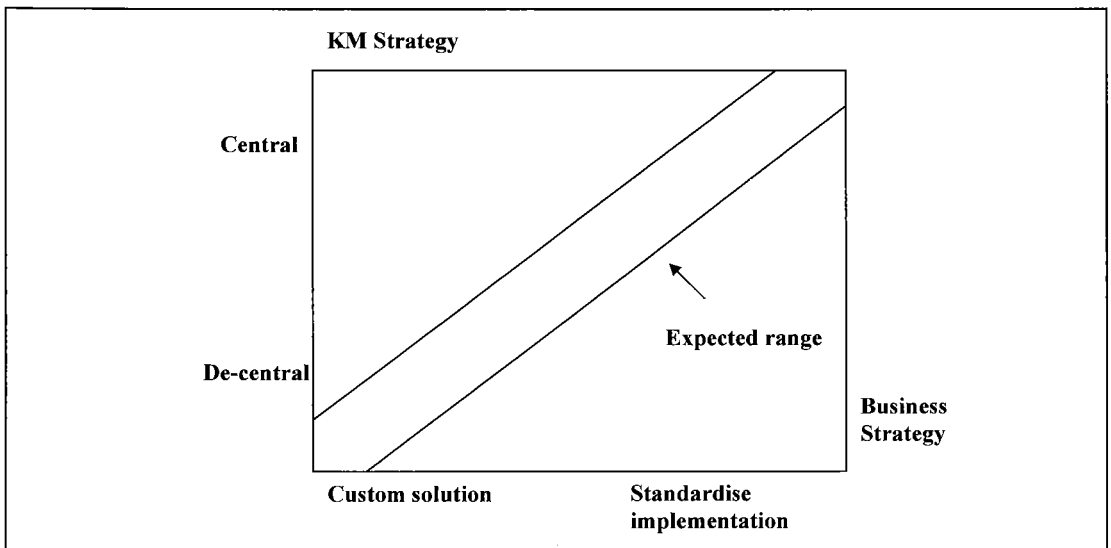


Figure 2.3: Expected correlation between business strategy and KM strategy.

In the above diagram, one would expect that, within certain limits, the level of centrality of an organisation's KM strategy is proportional to the level of standardisation in the solution it offers. It depicts the expected range in terms of business strategy and KM strategy. There are several authors who suggested a series of KM activities, effort or strategies in this concept as follows:

- i. Map sources of internal expertise; the issue is to make knowledge assets is visible, to increase managers' attention; the focus is on the personal side of the knowledge in an organisation, e.g. expert directories, skill data bases and yellow pages;
- ii. Establish new knowledge roles; create a separate organisational unit, create positions or roles responsible for knowledge-related tasks, such as knowledge broker or knowledge engineer or assigned personnel responsible for knowledge;
- iii. Create a work environment which enables the sharing of tacit knowledge; the issue is to create virtual workspace, network of knowledge workers which provide an alternative environment to the co-located workspace, thus enabling the sharing of tacit knowledge;
- iv. Support knowledge flows in an organisation; knowledge seekers and knowledge providers should be connected using systems and tools which provide for a balancing of pull and push of knowledge. KMS are needed which adapt to usage and communication patterns of knowledge seekers and providers;
- v. Knowledge management as a business strategy; KM is either integrated within the overall business strategy or treated as a separate business strategy in parallel with other strategy;
- vi. Customer-focused knowledge; the aim of this strategy is to capture knowledge about customers, their needs, preferences, businesses and reactions to actions taken by the organisation;
- vii. Intellectual asset management strategy; the aim of this strategy is the enterprise-level management of patents, technologies, operational and management practices,

customer relations, organisational arrangements, and other structural knowledge assets.

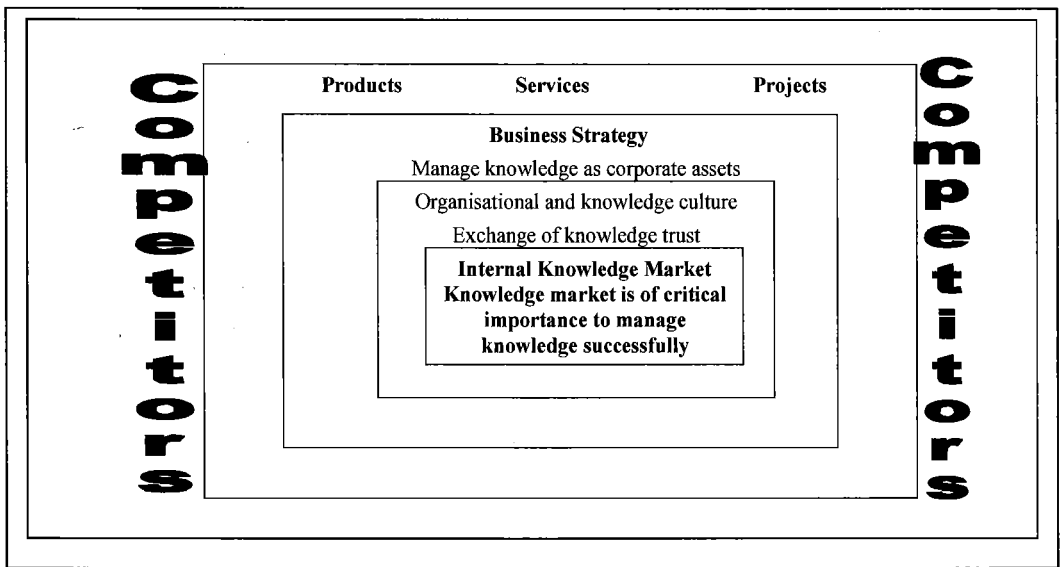


Figure 2.4: The place of knowledge management in the organisation strategy (Prokopenko, 1998).

There is another model known as Data-Information-Knowledge-Technology (DKIT) developed by Newman (1997). This model monitors the processes of producing data. These are unstructured streams of numbers or characters that only have relevance when viewed by specific context. This requires analysis to achieve, by converting the data into information, to reveal structures and patterns found within. If this information can be exploited by the organisation, it constitutes knowledge. For instance, information that contributes to lower costs, improved product and process performance, or the development of new market concepts, constitutes knowledge to the organisations. Thus knowledge may be viewed as a higher form of information, elevated by the specific nature and purpose of the organisation. It provides an opportunity for the organisation to exploit for its advantages (figure 2.5).

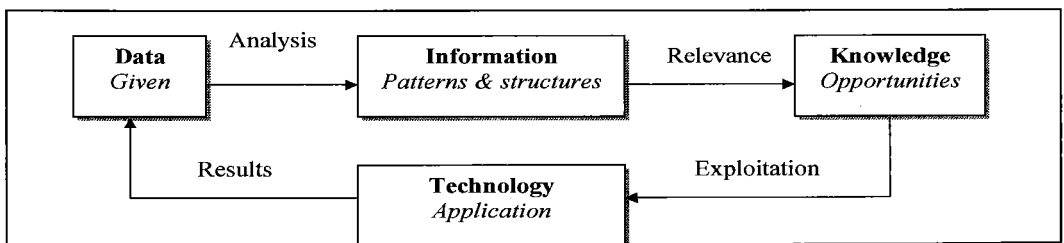


Figure 2.5: The DKIT Model of Knowledge Management Strategy (Newman, 1997).

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