

CHAPTER 3

THE THEORY OF KNOWLEDGE MANAGEMENT

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The limited number of implemented knowledge management initiatives contributes to strong theoretical arguments in literature with few practical examples. This chapter provides an overview of existing theory in an attempt to define the key aspects of knowledge management namely the *knowledge asset*, the *knowledge organisation*, *intellectual capital* and *knowledge management*.

3.1 The Knowledge Asset

'The knowledge and skills of employees is what really differentiates a firm from its competitors.'[35]

This section discusses the relationship between data, information, traditional assets and the different organisation forms in order to define the knowledge asset.

3.1.1 Knowledge vs. Information

It is essential to differentiate between data, information, and knowledge before defining knowledge management. The relationships between these entities are illustrated in the knowledge creation process (*Figure 4: Knowledge Creation Cycle*) where knowledge is seen as the product of the transformation of data and information.

Knowledge, in theory, is a product of a continuous cyclical process that starts by organising ubiquitous facts through specific stimuli into structured data and then developing information through a process of aggregation. Once information is internalised by a knowledge worker it is used to create knowledge and understanding. Once the knowledge worker externalise and express this understanding in a structured form it becomes information, e.g. advice, which is then disseminated to yet again form data and is finally dissipated to become mere facts.

Knowledge is what is learned or retained after the data or information is forgotten or the product is sold. Examples of knowledge include knowing where things are, how they can be found, understanding and comprehending as well as developing believes and values that are used to facilitate decision making. Knowledge promotes understanding and proposes action whereas intelligence is the efficient use of information to produce the knowledge as well as the efficient combination of knowledge to produce more knowledge.

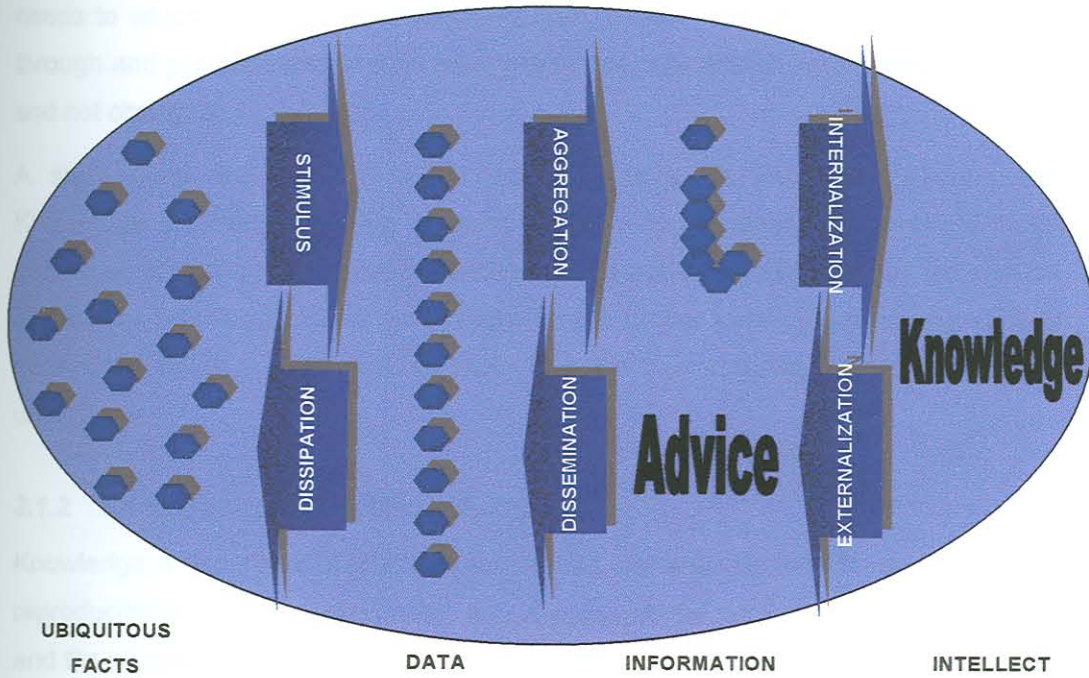


Figure 4: Knowledge Creation Cycle

A major difference between knowledge and information is in the degree of dependence on an individual's perception. Knowledge is created mentally once a person establishes a link between two pieces of information from his unique perspective. "Knowledge depends less on the amount of information than on the number of connections that link the information. A knowledge base allows you to navigate and make sense of these connections easily" [40].

The replication of knowledge is harder than that of information due to the connections that it contains. Knowledge links can exponentially increase the possible interpretation of any single document. Thus, documents must be updated and changed as the knowledge changes. An example of this where a system contains the content of a knowledge source, e.g. a document as well as the context surrounding that source, e.g. the name and contact details of the author, the date it was created, the location and the application of it.

In order to manage knowledge one needs to understand that through learning knowledge is in a constant process of change. Margaret Wheatley, president of the Berkana Institute - a scientific research foundation supporting the discovery of new organisation forms - explains that in a 'state of chaos' we experience a state of maximum information and that once we try to control information we minimise it. She continues to say that self-organised systems have the ability to constantly change according to the intelligence that it contains [2]. In the same way, the organisation

needs to sit on the 'edge of chaos' to quickly capture the information that passes through and put it to use, as new information can only disturb the constructed world and not change it.

A static corporate memory is not sufficient in a fast changing environment. Knowledge provides the ability to learn from previous experiences and to change behaviour according to current situations. This involves moving beyond experience of the past, which only gives perspective on the future, towards developing skills to handle the future. This includes skills to learn new techniques and to thrive in uncertainty.

3.1.2 Knowledge vs. Traditional Assets

Knowledge is the critical resource of the current age and due to its leveragability and reproducibility, no clear relationship exists between the cost of creating knowledge and the number of users that could receive value from it. The four *characteristics* that make knowledge different from any other resource [4] are that:

- knowledge is unlike other factors - infinite, expandable, and self-generating;
- knowledge can substitute for land, labour, and capital;
- knowledge is transportable at a dramatic speed; and
- knowledge increases on sharing.

Knowledge can be used without being consumed, it is non-subtractive, infinite and exists independent of space, but are sometimes more dependant on time than on any of the other resources.

"In order for a thought to become knowledge, it must be shared, distributed and challenged. Knowledge is not personal, it is the shared communal font from which each successive human generation drinks, eventually adding back more than it takes" [4]. When knowledge is captured in a way that allows it to be described, shared, and exploited; when it can be deployed to do something that could not be done if it remained scattered around; and thus if knowledge is packaged appropriately, it becomes intellectual capital.

3.1.3 Knowledge in the Organisation

Different levels of complexity exist for different types of organisational structures and forms. This ranges from elementary structures that operate with real facts to very complex organisation structures that operate in the ethereal domain (*Figure 5: Different Organisational Forms*).

The most elementary form of organisation structure is the one-man business that uses assets to create value for the customer, whereas the medium-size company obtains capital and uses supportive data to enable its operations. An enterprise or holding company utilises information to operate its power-base, whereas virtual organisations influence the market place and depend on knowledge to accomplish it. This does not imply that knowledge is not required in smaller organisation structures, but illustrates that increased organisational complexity requires a greater ability to leverage the knowledge asset in order to be successful.

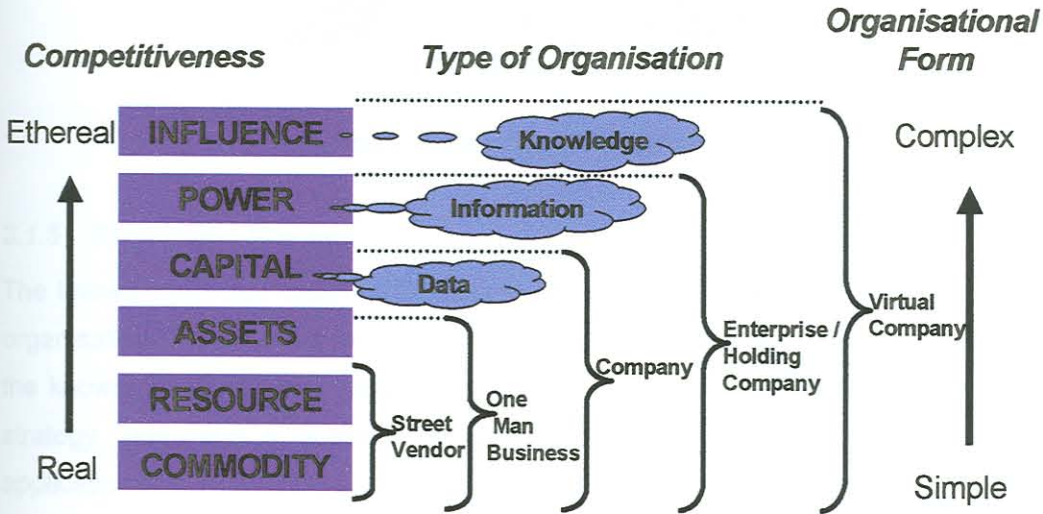


Figure 5: Different Organisational Forms

3.1.4 Knowledge Forms

Knowledge occurs in tacit and explicit forms in the organisation. Knowledge that exists in a person's mind is referred to as tacit knowledge or the ability to respond to change, whereas explicit knowledge is knowledge that is defined and available in a codified form [20].

The competitive advantage of the organisation is not situated in its explicit knowledge, because it is accessible by competitors, but rather in the organisation's tacit ability to make decisions, whilst considering a great wealth of information from various sources (Figure 6: Sources of Information).

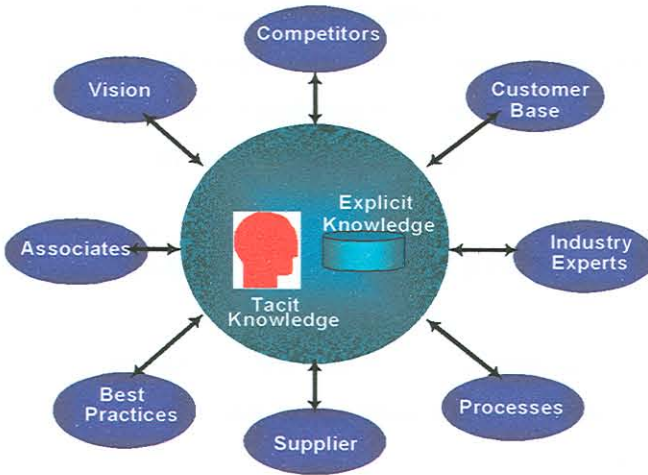


Figure 6: Sources of Information

3.1.5 Knowledge Process

The knowledge value chain in the organisation starts with an understanding of the organisation’s mission, vision, objectives and strategy. The next step is to determine the knowledge needs and knowledge availability in the organisation to support the strategy. This leads to a knowledge process that focuses on knowledge sharing, application and evaluation processes aimed at creating new knowledge. (Figure 7: Knowledge Value Chain).

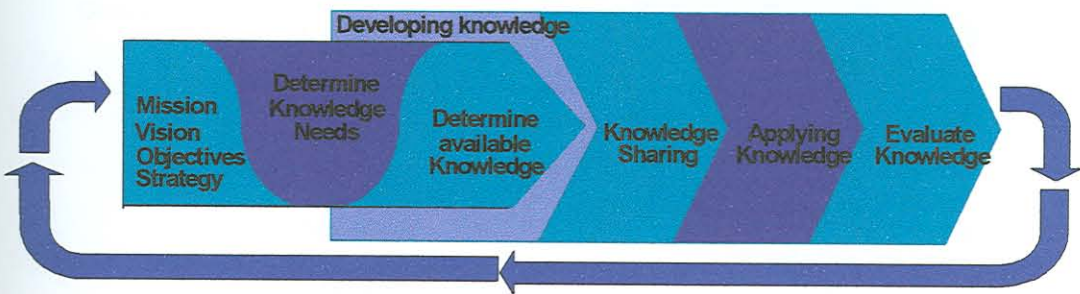


Figure 7: Knowledge Value Chain

3.2 The Knowledge Organisation

The *Knowledge Organisation* is a specific type of organisation within the service industry (see Figure 8: Knowledge Organisations in the Service Industry) [33].

The service industry consists of a spectrum of companies ranging from those totally adapted to their customers (customer intimate leadership) to companies that package their products as a predictable service to the mass-market (product leadership).

The main difference between these opposite sides of the industry is in the level of customisation of the services delivered to the client. The former type service organisation focuses on problem solving between the customer and a team whereas the packaged service solution focuses on delivering the same service continuously and reliably.

The former is called a *knowledge organisation* and provides a customised-service. The knowledge organisation develops unique and customised solutions for the client's problems. The rapport between the client and team becomes critical during the creation of a unique solution, due to the close relationship between the customer and the service provider. The team members of a *knowledge organisation* are knowledge workers and are usually highly developed or educated with experience in professions related to information technology.

Knowledge organisations are usually small in size, flexible and creative with open management styles. They are knowledge intensive and operate on economy of scope, whereas the *service company* operates on economy-of-scale by functioning as a big, productive organisation. Consequently the service organisation operates in a hierarchy with a high number of low educated staff.

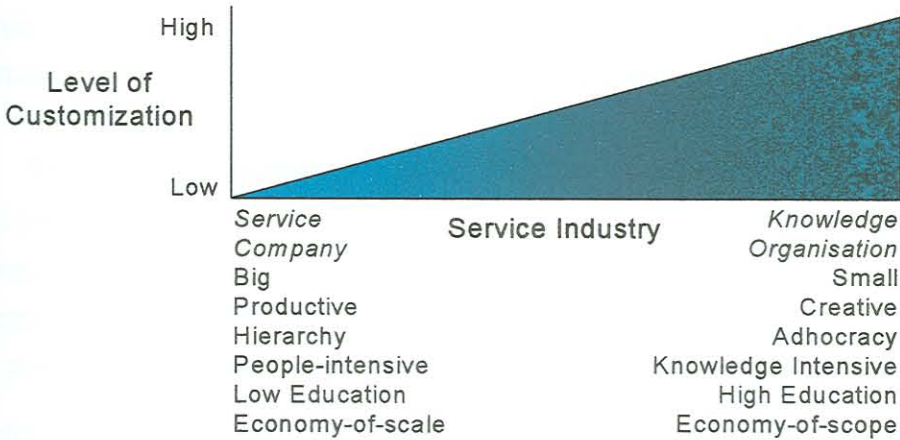


Figure 8: Knowledge Organisations in the Service Industry

Unlike the opposite end of the service industry that focuses on efficient, timeous expected service, *knowledge organisations* focus on how to manage the relationship between employees and customers in the development of unique solutions. These companies need to attract the right personnel and customers and match the capacity and chemistry between these parties. Another distinct feature of the *knowledge organisation* is that it usually owns few tangible assets, yet displays a high market value in relation to their book value due to their intangible assets (discussed in paragraph 3.4).

3.3 Knowledge Management

Professionals can no longer know everything they need to know in order to do their jobs well and compete in the marketplace. They require instant access to critical information. In the future, organisations able to provide their members with rapid access to the full repository of knowledge are the organisations that are most likely to succeed.

3.3.1 Knowledge Management Purpose

Every employee builds a wealth of knowledge through learning, skill development, and daily behaviour. Every employee possesses knowledge of beneficial value to the company, yet most of this knowledge is not leveraged to the collective benefit of the organisation.

The purpose of knowledge management is to integrate the collective knowledge of employees in such a way that the whole is greater than the sum of the parts. This information must then be made accessible to all relevant individuals within the organisation so that it may be utilised and applied to enhance the competence and competitive advantage of the organisation as a whole. In addition, knowledge management aims to provide the organisation with the ability to learn, and thus, undergo a continual process of change. With this change process comes the opportunity to improve and enhance the performance of the organisation.

3.3.2 Knowledge Management Objectives

The objective of knowledge management is *to develop a knowledge base* equal to all the employees' knowledge, skills, behaviours, perceptions, values, principles, and education within the organisation's specific culture (leadership style, management style, communication and organisational behaviour), strategy, and structure.

Following an integrated approach to identifying, capturing, retrieving, sharing and evaluating the enterprise's knowledge assets, enables the organisation to develop a knowledge base. These assets may include databases, documents, policies and procedures as well as uncaptured, tacit expertise and experience resident in the individual workers' minds.

Ernst & Young's approach is to develop generic 'knowledge objects' by removing customer sensitive information from knowledge, e.g. interview guidelines, and storing it for employees to use without having to contact the creator of the knowledge – thus achieving scale in terms of knowledge reuse [37].

Knowledge management must allow the organisation to *continually update and renew* organisation-specific assets. In order for this asset to be utilised so that it adds value, employees must be able to continually add to and update the information and knowledge. Information sources must be made available to all the relevant individuals so that it can be accessed and utilised appropriately. In turn, it will enhance the knowledge and skills of employees, which will have an impact on the performance of the organisation as a whole. Building and maintaining the knowledge base requires money, time and personnel as well as a long-term commitment to change the way in which employees work.

Another objective is to enable the organisation to *keep track of the skills and knowledge* available internally, so that the appropriate individuals are involved in decision-making and in projects that will utilise their individual skills and talents. In general this will not only add to the efficiency and performance of the organisation, but also to the sense of worth felt by individuals due to an opportunity to contribute, resulting in job satisfaction and improved individual performance.

3.3.3 Knowledge Management Defined

"Knowledge management is not about technology but is a 'multi-disciplinary' concern encompassing important aspects of cognitive science, information design, interpersonal communication, organisational dynamics, library science, motivation, training, heuristics, publishing, and business analysis as well as many technologies" [9]. Before one can define knowledge management though, one needs to differentiate between the following:

- *Information Technology* that utilise technology to transports and manage data;
- *Information Management* that adds value to data and transforms it into information;
- *Knowledge Management* that enables the use and reuse of knowledge created and developed in the tacit thoughts of employees to generate solutions for the client.

Knowledge management is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organising, diffusing, using and exploitation. It requires turning personal knowledge into corporate knowledge that can be shared widely throughout an organisation and applied appropriately.

In short it is an integrated approach *to* facilitate the knowledge creation and retention process *by* providing infrastructure *to* make knowledge available:

- at the right time,
- to the right person,
- in the right format and,
- within the right context

In summary, knowledge management is:

1. the practise of adding actionable value to information by capturing, filtering, synthesising, summarising, storing, retrieving and disseminating tangible and intangible knowledge;
2. the development of customised profiles of knowledge for individuals so they can obtain the right kind of information when they require it; and
3. the creation of an interactive learning environment where people transfer and share what they know and apply it to create new knowledge.

3.3.4 *Knowledge Base*

As mentioned in paragraph 3.3.2, one of the objectives of knowledge management within an organisation is to create a knowledge base which:

- contains organisation-specific (appropriate) information;
- is up-to-date;
- is accurate (integrity of data) and secure;
- is organised to simplify search and maintenance (ease of accessing, editing, and updating the knowledge base content);
- is cost effective;
- supports employees by providing for lessons learned and knowledge of things to avoid;
- provides the opportunity for the sharing of information, ideas and opinions.

This database will consequently speed up the recognition-, capture-, and distribution process of knowledge so that effective learning and innovation can take place throughout the enterprise, thereby enabling the rapid deployment of high-quality solutions. Practically, in a geographically dispersed enterprise, it provides the infrastructure that supports the capturing and leveraging of solutions.

Finally, such a knowledge base should not be measured in terms of cost reduction, but rather in terms of the investment made in the organisation's intellectual assets. The emphasis is thus changing from internal competition to sharing, and from revenue generation to knowledge generation.

3.4 Intellectual Capital

"Intellectual capital is the sum of everything everybody in a company knows that gives it a competitive advantage." [32]

Intelligence becomes an asset when some useful order is created out of free-floating brainpower - that is, when it is given coherent form, e.g. a mailing list, a database, and an agenda for a meeting, a description of a process. When it is captured in a way that allows it to be described, shared, and exploited as packaged useful knowledge; and when it can be deployed to do something that could not be done if it remained scattered around, it is referred to as intellectual capital [32].

The difference between the book value of a company, according to its balance sheet, and its market value, usually exists due to its intellectual assets, such as expected revenues from patents, customer relationships, brand names and the ability to exert management control. The reality is that the stock market values organisations much higher than their book value shows, i.e. the value of tangible, measurable, hard assets versus the intangible, people, name and management assets. Unfortunately, companies still have the tendency to invest more in tangible assets than intangibles, because the returns on the intangible assets are more difficult to measure.

Sveiby distinguishes between the tangible and intangible organisation's assets and the visible and invisible finances as illustrated in *Figure 9: Balance Sheet of the Knowledge Organisation* [28].

Sveiby explains that the tangible assets of the organisation directly relate to the visible finances of the organisation, i.e. the cash flow, accounts receivable, equipment and office space and are accounted for through the short- and long term debt and shareholders' equity of the organisation, as reflected in its financial statements.

The invisible finance of the company refers to the difference between the market value and the book value of the organisation and is reflective of the external and internal structures of the organisation – also called the intangible assets. The competence of the employees is not regarded as part of equity because it is not

owned by the organisation and only forms part of the intangible assets due to employees' obligation and commitment towards the organisation.

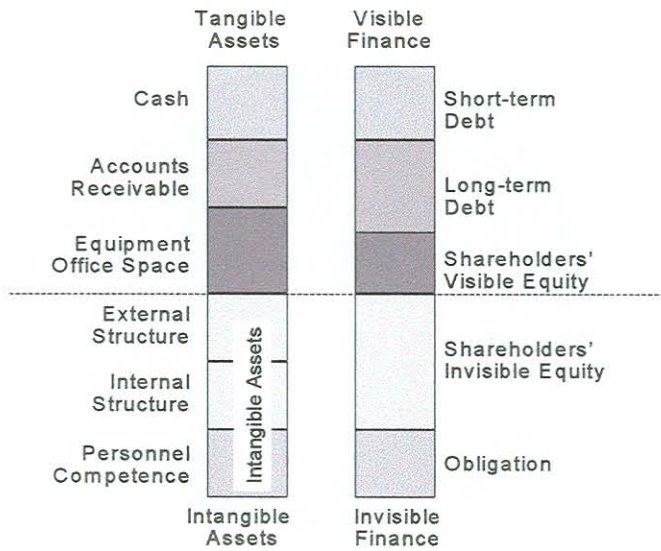


Figure 9: Balance Sheet of the Knowledge Organisation

If intangible assets are responsible for the invisible equity of the organisation and knowledge management aims at developing the intangibles rather than the physical assets of the organisation, the return on investment of knowledge management should be measured against an increase in the value of the intellectual capital of the organisation, rather than in terms of the traditional accounting measures.

Sveiby continues to say, "if we measure the new with the tools of the old, we will not see the new" and that intangible assets are essentially non-monetary and cannot be measured with traditional financial measure but should rather be measured with non-financial indicators.

3.4.1 Classification of Intellectual Capital

Similar standards have emerged for the classification of intellectual assets. These include the classifications of the balance scorecard as defined by Kaplan and Norton [17], Sveiby's intangible asset monitor [34] as well as Edvinsson's [13] intellectual capital components (see Table 1).

Table 1: Different Classifications of Intellectual Capital

Sveiby	Kaplan & Norton	Edvinsson
Internal Structure	Internal Processes Perspective	Organisational Capital
External Structure	Customer Perspective	Customer Capital
Competence of Personnel	Learning & Growth Perspective	Human Capital

If we follow Sveiby's descriptors, the intellectual assets of the organisation are categorised into the organisation's internal structure, external structure, and personnel competence (see *Figure 10: Intellectual Capital*).

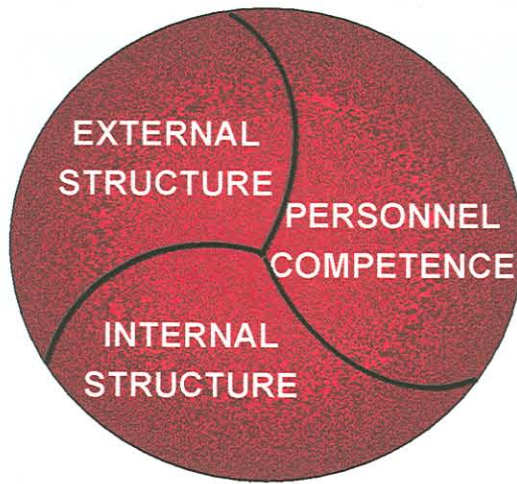


Figure 10: Intellectual Capital

- *Internal structure* - includes the tools that are used to package knowledge and permit it to be used time and again in the creation of value. It also includes the organisation's culture (corporate practice), core processes (operating guidelines), data and information (documented expertise, technical designs, R&D results), standards and procedures (corporate procedures), methodologies (manufacturing technologies), business plans and strategies (knowledge of the firm);
- *People Competence* - is the knowledge embedded in the people of the organisation, and include skills (professional, management and operational expertise), know-how (technical know-how), experience (lessons learnt, knowledge-based systems), and education; and
- *External structure* - refers to the relationship that the organisation has with its external environment, e.g. the organisation's image in the market and relationship with the its stakeholders that enhance the likelihood that the organisation's customers will keep doing business with it. It also includes market centred assets (knowledge of the market), supplier related assets, stakeholder relations, society related image, brand names and trade marks.

These organisational assets in the knowledge age can be classified as summarised in *Figure 11: The Classification of Corporate Assets* and are described in the remainder of this section.

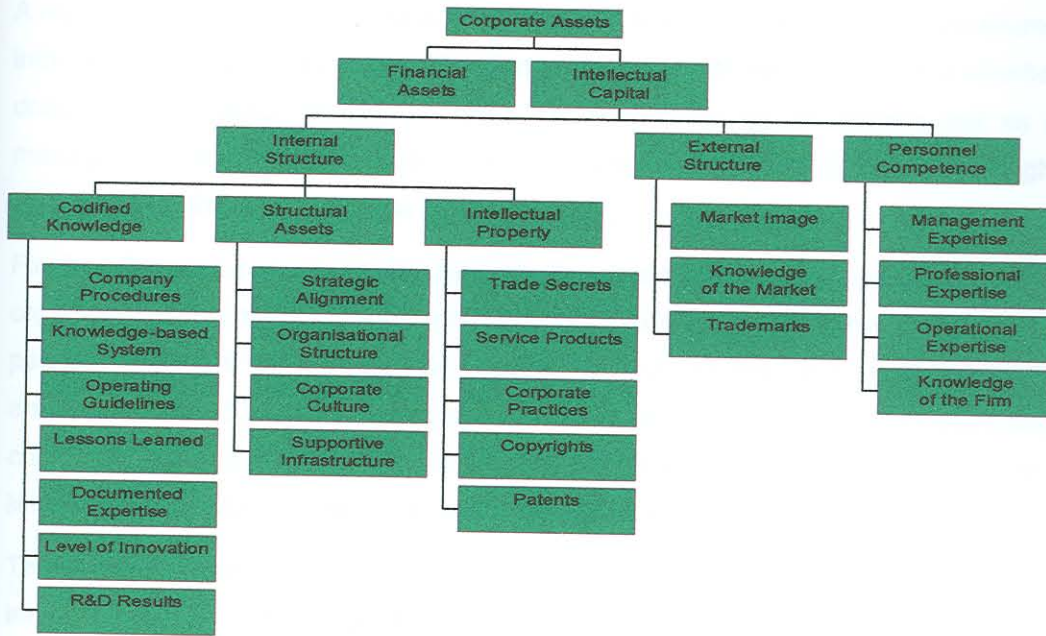


Figure 11: The Classification of Corporate Assets

3.4.1.1 Internal Structure

“Even the smartest people in the world need a mechanism to assemble, package, promote, and distribute the fruits of their thinking.”

Studies show that management spend between 15% and 20% of their time looking for information that already exists in the organisation and that a company with a 10% annual turnover of employees will lose half of their experienced workers within five years. If one considers the cost involved with searching for information and ‘reinventing the wheel’ due to limited captured knowledge sources, then the return on an investment made in the internal structure of the organisation should be high.

An internal structure establishes links to relevant information and provides the means to find information without difficulty. This includes the structuring and packaging of competencies by using technology, manuals and process descriptions. This ensures that knowledge remains in the organisation and is utilised through the continuous recycling of shared knowledge and experience. Internal structure also includes the strategy, culture, real-time networks, structures, systems, organisational routines and procedures which are far more extensive than just a codified knowledge assets.

The organisation’s internal structure shortens the lead-time to knowledge sharing and increase productivity. For this reason, a knowledge repository and corporate yellow pages are required to locate knowledge in the organisation and connect enquirers with experts.

A repository facility provides users with the ability to collect and manage unstructured information taking factors in consideration such as the Internet, Intranet, and whether document orientated, or not. It does not only serve as an archive but as a management tool that has the ability to intelligently supply (publish) the right information to the right person in the right format.

Finally, the internal structure support the transformation of knowledge into organisational property, i.e. the organisation's legal right of ownership in the form of patents, copyright of technologies, inventions, publications, and processes. As employees record their lessons learned the internal structure strengthens the whole company can do the job faster next time, without "losing the recipe", resulting in the leveraging of the knowledge asset to improve the turnaround.

There are different ways to develop the organisation's internal structure, which include knowledge acquisition and -renting, dedicated knowledge sources, as well as knowledge networking and -codification.

a) Knowledge Acquisition

A prominent feature of the knowledge asset is the difficulty of transferring it across organisational boundaries. It is dependent on time, investment, culture, political issues, and on a specific ecology for its existence. The organisation can hire employees and establish joint ventures to acquire knowledge, but the acquisition depends on the recipient's ability to internalise the knowledge. Other reasons for transfer failure include stubbornness of the recipient, resistance to change, pride, lack of time, and lack of trust in the source of knowledge as well as the medium that influences the speed of transfer and the quality or depth of knowledge.

b) Knowledge Renting

Another way to generate more knowledge stock is by renting a knowledge source, e.g. by outsourcing research and development activities, by contracting a consultant, or by licensing specific knowledge assets. This is a temporary knowledge source that requires effective knowledge transfer for successful knowledge retention.

c) Dedicated Knowledge Sources

A dedicated group of people with a specific knowledge responsibility, such as the Research and Development department or the library, generates knowledge stock. Their challenge is to transfer or diffuse their tacit, internal, and know-how type of

knowledge to the rest of the organisation, e.g. through mentoring, in order to retain and preserve individuals' knowledge.

d) Knowledge Networking

The larger the organisation, the greater the probability that required knowledge exists within the organisation, but the lower the probability of finding it. This calls for strategies to initiate knowledge fairs where 'sellers' and 'buyers' can meet to discuss the knowledge available, with sufficient time and space to collaborate and generate knowledge. The channel for knowledge transfer depends on the type of knowledge. Tacit knowledge only transfers within a relationship and sufficient personal contact such as face-to-face meetings and informal conversation, because it is only through conversation that the knowledge worker discover what he knows, that he shares it, and that he gains new knowledge for the organisation.

e) Knowledge Codification

Codified knowledge is a portable, organised, explicit, and easy-to-manage entity. However, before codification, it is important to consider the sources of this knowledge, the appropriate form of codification, and the means of distributing the knowledge entity.

3.4.1.2 Personnel Competence

Companies' intelligence depends on how well they use the mind power of their employees (knowledge creation resource). A person's mental model is the representation of his reality, frame of reference, as well as the mental processes that is used to think and solve problems. The combined result of the employees' mental models determines the company's thinking ability, whereas the quality of the decision making is determined by how well employees understand the company.

The competencies of the employees, i.e. their attitudes, skills, knowledge, and experience, are the key ingredients for success in the knowledge age. In a knowledge organisation, an employee' competencies need to be highly developed and he probable needs to be highly educated as well. These employees want to grow in competence and prefer to gain experience while working in challenging environments. The competence of the employees is not owned by the organisation and companies need to retain key personnel by developing a culture that cultivates a bond of loyalty.

There are various strategies for developing the people competency in the organisation, but as with any strategy that effects the human element of the organisation, one has to take caution to retain the trust of employees. These strategies include to:

- 'buy' – get new talent from outside;
- 'build' – develop employees by training;
- 'borrow' – consultants or joint venture;
- 'bounce' – get rid of poor performers;
- 'bind' – keep the best employees.

Finally, the traditional command-and-control management model becomes less important, diminishing the middle manager's job, because knowledge workers need to work without constant supervision and must primarily be measured on the results they achieve.

3.4.1.3 External Structure

Companies need to invest in their customers just like they invest in their employees and their internal structures, by establishing connectivity, by providing online support, and by creating sound relationships with their customers. The organisation's primary source of knowledge in the process of creating innovative products is its own customers. Empowered customers provide information about the market so that companies can respond to and thus provide a more customised service.

The company, on the other hand, develops a reputation by solving the customer's problems successfully. This reputation depends on the company's name and customer network and is ultimately determined by the customer. The reality is that the success of the customer feeds the organisation's success and at the end, monetary value is placed on the customer loyalty and value of your brand name.

3.4.2 Managing Intellectual Capital

Finally there are a number of critical aspects to consider when managing the intellectual capital of the organisation, which include [24]:

- Leveraging the organisation's information and knowledge to substitute expensive physical and financial assets.

- Focusing on the new enablers of business, i.e. the flow of information, and considering the importance of the information imbedded in the entire value chain's, especially where it interfaces with the customer.
- Recognising that organisational wealth and customer value is created around the skills of a selective group of employees that need to be invested in.
- Sharing the ownership of the organisation's intellectual capital with the employees, suppliers, and the customers, whilst protecting it with sound relationships.
- Enabling knowledge work, which implies permitting the creation of customised products as a result of sound relationships.
- Recognising the interaction between the internal and external structures as well as personnel competence.
- Developing the internal structure of the organisation to enable the flow of the knowledge stock inside the company, in order to provide for the easiest access to the most useful information on a just-in-time basis.
- Ensuring that effective connectivity exists between the customers and employees.
- Utilising the people competence effectively by using techniques such as teamwork, communities of interest, and collaborative learning to make knowledge less dependant on one individual.

3.5 Knowledge Management Concepts

A number of supporting concepts have been developed in the knowledge management domain including the learning organisation, learning process and the new organisational roles and responsibilities related to managing knowledge.

3.5.1 Learning Organisation

'The only sustainable source of advantage is the ability to learn faster than your competitors.' [3]

"A learning organisation, systematically defined, is an organisation which learns powerfully and collectively and is continually transforming itself to better collect, manage, and use knowledge for corporate success. It empowers people within and outside the company to learn as they work and to utilise technology to optimise both learning and productivity." [19] "Sharing and transfer is also tangible evidence of a 'learning organisation', one that can analyse, reflect, learn, and change based on experience." [22]

These definitions are a direct reflection of the organisation that knowledge management aims to cultivate. In the same way that the theory surrounding the learning organisation explains that the interaction between the organisation, technology, learning, people, and knowledge enables a learning organisation (see *Figure 12: Components of a Learning Organisation*), knowledge management considers the integration between strategy, people, process and technology (refer to page 38).

The learning organisation model is the result of the quality of five interrelated sub-systems of which the core sub-system is the organisation's learning ability. Knowledge Management facilitates and enables this learning capacity (process) within the organisation.

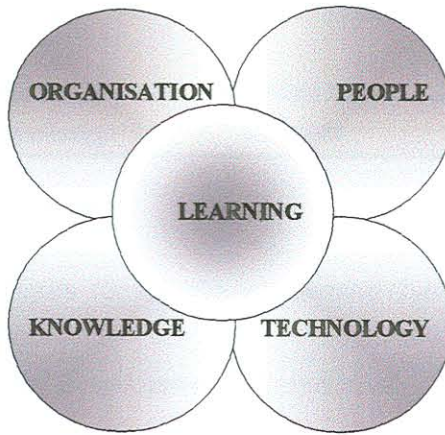


Figure 12: Components of a Learning Organisation

3.5.2 Learning Process [25]

The difference between training and learning is often compared with the difference between feeding an animal or encouraging an animal to find food for itself. Learning enables individuals to create their own solutions, which results in long-term breakthroughs rather than just small improvements. This becomes possible as the company develops the meta-cognitive skills of their employees, i.e. their ability to learn how to learn.

The social learning cycle (*Figure 13: The Social Learning Cycle*) emphasises that personal knowledge has to be codified before the collective learning cycle can take place [1]. Personal uncodified knowledge is codified into taxonomies and becomes propriety knowledge, owned by the organisation. This is then distributed and becomes textbook knowledge in the organisation, which is accessible to all. Once employees absorb it, it becomes common sense that is applied to acquire new skills to yet again create personal knowledge.

Through knowledge management, the organisation's ability to learn is enhanced, because it improves the codification-, distribution- and knowledge-access processes in the organisation. It also improves the organisation's ability to change and develop the competencies that are needed to maintain its competitive advantage.

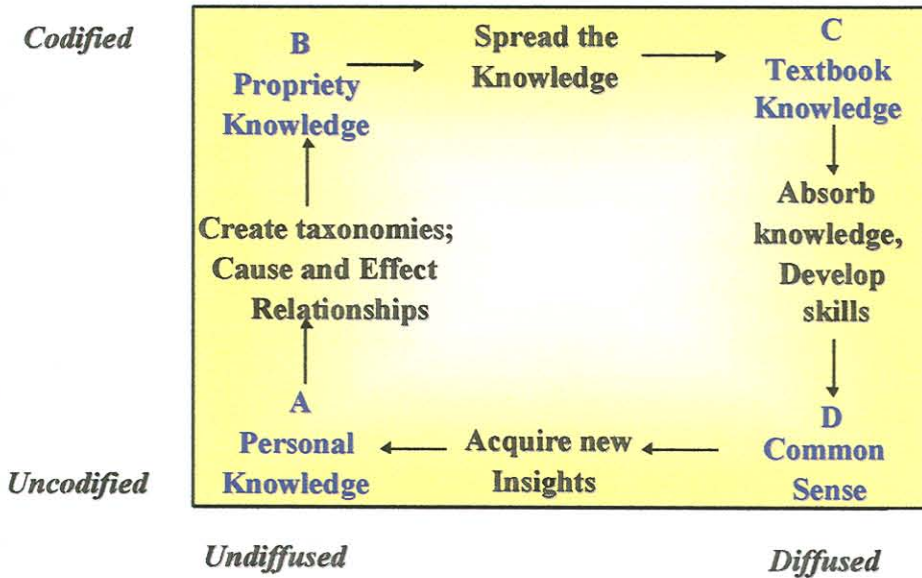


Figure 13: The Social Learning Cycle

3.5.3 The Organisational Development Perspective

It is important to understand the intent of knowledge management, and more importantly, knowledge sharing. Organisational development disciplines have inadvertently been providing knowledge sharing opportunities within the organisations for a long time, albeit focussed on sharing between individuals for a specific "other" purpose. These activities include:

- Mentoring
- Coaching
- Formal training and skill development
- Formal and informal induction processes
- Succession planning
- Formal and informal communication

In developing knowledge management within an organisation, these activities must form an integral part of the process, because these form the basis for knowledge sharing.

3.5.4 Knowledge Management Roles and Responsibilities

A number of new roles are emerging in organisations as knowledge management initiatives are introduced, e.g. knowledge workers, chief knowledge officer (CKO), chief intelligence officer and knowledge managers.

3.5.4.1 Knowledge Worker

Although there are different definitions for knowledge workers, one definition is that a knowledge worker is - 'one who uses information technology as a primary means to perform work'. Research shows that the industrial worker will form 13% of the work force and that knowledge workers as defined here, will constitute as much as 30% of the US's work force in the year 2000. The latter percentage will even increase when one defines knowledge workers more broadly as 'all those who create, document, transform, and share knowledge' [42].

3.5.4.2 Chief Knowledge Officer and Knowledge Managers [12]

Those in management positions' responsibilities are to initiate, drive and co-ordinate the knowledge management initiative and to manage the knowledge resource, by:

- developing techniques to create, protect and use knowledge;
- creating environments that are conducive to the development of new knowledge; and
- translating knowledge management objectives into implementation programs.

The CKO are ultimately responsible for addressing the following "perceived corporate deficiencies:

- inattention to the explicit or formal management of knowledge in ongoing operations;
- failure to leverage the hidden value of corporate knowledge in business development;
- inability to learn from past failures and successes in strategic decision-making; and
- not creating value or 'making money' from knowledge embedded in products or held by employees." [12]

The primary tasks of the CKO and knowledge managers are to advance the concept of knowledge management and to create buy-in across the different levels of the organisation. They perform a dual function in that they initiate investments in

information technology as well as in the social environment. Thus they must be equally comfortable as technologists and environmentalists.

The CKO, as a *technologist*, has to be informed about available technology and its functionality, understand the implementation requirements of alternative technology solutions and must be comfortable to work in a close relation with technology partners in implementing IT applications.

As an *environmentalist*, the CKO must be able to create an environment that is conducive of knowledge creation and exchange. This entails designing the space, e.g. open-space offices, chat rooms, learning centres, and creating the opportunities, e.g. knowledge fairs and markets for conversation as well as joining people with the same interest, to exchange knowledge and gossip. This area of responsibility also includes influencing human management related strategies, e.g. performance management, human development initiatives, etc. that will contribute to developing a knowledge-friendly environment in the organisation.

In addition to being a technologist and an environmentalist the CKO must own another critical skill - *entrepreneurial* ability. This is the ability to create a vision and to see the 'big picture' but also to translate it into a workable plan, i.e. the determination to create something new and to see it through. Another ability required of a CKO is that of *consultant* that can extract new ideas from various parties and persuade others of the value of it.

An aspect that contributes to a CKO's success is a broad career experience, a high level of credibility in the organisation and preferable a few years of employment at the relevant organisation.

The personality traits expected from a CKO are *emotional stability*, which relates to qualities such as being evenly tempered and optimistic as well as to the ability to handle stress. *Extroversion* seems important due to the high level of people interaction and relationship building required from the position. This links with a required *openness* that suggests a willingness to try a different approach. Lastly, studies show that a CKO also needs to be *goal-driven* but *sociable*, display a high *interest in change* yet show *tolerance*, and must be able to operate on a steep *learning curve* with limited resources.

The above-mentioned competencies and personality characteristics form a unique combination, but appointing the right person can have a direct influence on the end result of the organisation's knowledge management initiative.

The new knowledge management roles are still immature and no specific job descriptions exist, only various expectations from different organisations.

3.6 Conclusion

Theory on knowledge management argues that *knowledge* results from the knowledge worker's transformation of data and information, that the knowledge asset displays different attributes than the traditional assets of organisation and that the explicit as well as the tacit forms of knowledge are critical for managing the uncertainty of complex organisation forms.

The discipline of *knowledge management* focuses on the facilitation of the knowledge creation- and retention- as well as learning processes in the organisation and introduces new roles and responsibilities in the organisation. This new organisation form in the knowledge age, the *knowledge organisation*, refers to a service type organisation that provides customised solutions and consists primarily of knowledge workers.

Finally the primary objective of a knowledge management initiative is to increase *intellectual capital*, which include the organisation's personnel competence, relationship and structural capital.