INTELLECTUAL CAPITAL AS A
CREATOR OF WEALTH AND SHAREHOLDER VALUE FOR
AN ORGANISATION

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SYNOPSIS

Companies devote most of their time on the analysis and accounting of tangible assets, but there are no processes to analyse and measure intellectual capital. Intellectual capital has become a popular term that influences the total value of the organisation. Intellectual capital is creating wealth and adding value to the organisations.

The purpose of the research is to conduct literature study on intellectual capital as a creator of wealth and shareholder value for an organisation. The research will show the three different components of intellectual capital, which are human capital, structural capital and relationship capital. When these three components are combined they form intellectual capital.

In order for intellectual capital to be managed properly this components must be identified by the company and used effectively as these components rely on each other in order for the company to succeed in achieving their goals.

All relevant information with relation to intellectual capital was gathered from research on the Internet and from documents or sources.
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CHAPTER 1: INTRODUCTION

1.1 Introduction

Evolution has caused the movement from the industrial age to the information age. The industrial age can be considered to have started in the 1890s. The industrial age shifted its focus from just making a good product to making a decent product that could be mass-produced cheaply. Mass production and mass distribution enabled greater production and greater wealth. In the industrial age people were suddenly able to travel relatively large distances.

In the information age people can physically travel far greater distances and virtually travel even greater lengths in seconds. The concept of intellectual capital is not an easy one to comprehend; it will undoubtedly become one of the most important concepts of the information age. Over the past decade, companies have come to realise the importance of intangible assets and intellectual capital as a whole in the operation of organisations and these has led to the need to manage companies in a new way and to measure their performance in a new way. In the markets, it is now a well-known factor or argument that the dominating factor in company valuation for most companies is intellectual capital.

Through most of the 1990s, lack of communication has been one of the reasons why progress in describing companies' intellectual capital characteristics to others and managing them effectively internally has been slow. The characteristics and potential of people, known as human capital, comprises different things to different people and even at a fundamental academic level, there has been little evidence of clarity. This is not peculiar to intellectual capital management; it also appears in the area of knowledge management.
Intellectual capital are vital elements to fully understand and appreciate the value of a company’s assets and to manage, protect and increase these assets in order to create wealth for the company and its shareholders. Intellectual capital also called knowledge capital, which is the intangible asset of the company. Intellectual capital is a system that consists of three elements: human capital, customer capital or relationship capital and structural capital. Human capital is defined as "the capabilities of the individuals in an organisation to provide solutions to customers". Structural capital is defined as "the organisational capabilities necessary to meet market requirements". Customer or relationship capital is defined as "The depth (penetration), width (coverage) and profitability of the organisation’s franchise" (Kannan, n.d.: 1).

Value is created with the interaction that takes place between these three elements. For instance, when individual members (human capital) interact with customers, this relationship will determine the impact on the customer capital. Organisations devote much of their time on the analysis and accounting of tangible assets. The company makes sure that there are processes to measure and analyse tangible assets, whilst, there are no processes to measure and analyse intellectual capital or tangible assets. Intellectual capital has become the most important tool in the creation of wealth for the organisation.

Over the past decade, companies have come to realise the importance of intangible assets and intellectual capital as a whole in the operation of organisations and these has led to the need to manage companies in a new way and to measure their performance in a new way. It is not just companies seeking clarity; the effect of changes in business on national life has led to governments taking a keen interest in economic development in the "new economy". In the markets, it is now a well-known factor or argument that the dominating factor in company valuation for most companies is intellectual capital.
In the US, the dotcom companies, account for 5% of company capitalisation, that is, about $1 trillion and this valuation is not built upon profit yielding sales or physical capital but on “stories” (Pike & Roos, 2000:2). It is estimated that over 25% of companies are expected to be listed in the FTSE 100 in 2010, do not exist at present and these will be dominated by the dotcoms and hitechs (Pike & Roos, 2000:2).

1.2 Problem Statement

Companies have moved away from the industrial age to the Information but they are still not able to identify, measure and manage intellectual capital in their organisations. Companies are still managing the tangible assets instead of including both tangible and intangible assets in order to create wealth and shareholder value for the organisation.

Traditionally accepted management and accounting standards do not provide for the management of intellectual capital. They do not even know how to measure intellectual capital, which result in intellectual capital being ignored. This study is directed to assess and describe the three elements of intellectual capital as a creator of wealth and shareholder value within an organisation.

In order to create value for the organisation intellectual capital need to be visible, identified, measured and valued. Intellectual capital should be related to the strategy and goals of the company. The need to measure intellectual capital influences the total value of the organisation (De Beer, 2002:2).

The management of a company’s intellectual capital is increasingly becoming a focus for many organisations. These farsighted businesses want to gain an enhanced understanding of their potential for increasing shareholder value; they wish to identify what they know and want to discover how to exploit the knowledge that they already have within their organisations (Gray, 2001:xi).
The other problem is that we have moved away from the industrial age into
the information age and the companies are now looking at intellectual capital
as the creator of wealth for the organisation. A number of executives may
dismiss intellectual capital as yet another management theory that will
ultimately fade and die (Gray, 2001:xiii).

Intellectual capital will be important to you if you wish to create profit from
what you know and what you do well. Companies can gain value from
understanding, improving and exploiting the potential of the processes and
stakeholders particular to their own organisation. The improvement of
company processes, in order to work smarter and more cost effectively, will
inevitably come about by employees sharing knowledge about the best
practice of what works well and equally importantly, what doesn't (Gray,
2001:xi).

Intellectual capital measurement is now being seen as a rich source of
valuable information about the potential of an organisation. Intellectual capital
statements can be used to make sense of today's balance sheet and profit
and loss figures (Gray, 2001:xi).

The companies or management should ask themselves these questions:

- Can intellectual capital assure shareholders that the organisation:
  - Has the ability and capability to achieve stated goals?
  - Can adapt to changes in the operating environment?
  - How to spend on education and training programmes for employees?
  - Maintain and enhance relationships with customers and suppliers to
    ensure that a maximum benefit is achieved through partnerships?
  - Shares knowledge appropriately, learns from past mistakes and to
    improve organisational performance?
1.3 Purpose of the research

The purpose of the research is to show that intellectual capital is a matter of creating value by applying all your intangible and tangible assets appropriately and intelligently (Gray, 2001:12). Understanding what you have and how it can be used to increase your ability to capitalise on the potential of your company and understanding what you don't know can help target appropriate investment.

Normally companies do measure tangible assets by annually producing financial statements. But it is difficult to measure intangible assets, as they cannot be recorded in the financial statements even though they play an important role to a company. Information plays the most important role in a company. That is why it has to be shared among employees and it must always be accurate and efficient. These information it usually helps the relationship between the company and customers, suppliers or stakeholders or even the community as a whole.

The other objective of the research is to show whether it is good to retain knowledge or not. Companies need to be concerned about the knowledge and expertise that could walk away tomorrow. The purpose of this research is to show how management can retain knowledge and expertise in their organisation by retaining knowledgeable employees. The training of employees plays an important role in the organisation.

A company has to know how to recognise full potential of employees, which in return will create wealth for the organisation. Intellectual capital is a matter of creating value by applying all your intangible and tangible assets appropriately and intelligently. There should be an interaction between management and investors. Investors need to be given more information about the operations of the company by management. We should not only use the annual reports, as they do not reflect the intangible assets of the company.
1.4 Research Methodology

The goal and objective of this research is to conduct a literature study in an attempt to identify and confirm all the variables of intellectual capital as a creator of wealth and shareholder value. The research methodology considered for this research is qualitative research method. The qualitative method was chosen because the procedures are not strictly formalised as in quantitative research, the scope is more likely undefined and a more philosophical mode of operation is adopted (De Vos et al., 2001:105).

For example qualitative method deals with non-statistical data collection and small samples. By using this method, we will be reviewing literature only. The qualitative paradigm stems from an antipositivism, interpretative approach is idiographic and thus holistic in nature, and aims mainly to understand social life and the meaning that people attach to everyday life (De Vos et al., 2001:79).

The qualitative research refers to research that elicits participant accounts of measures experience or perceptions. It also produces descriptive data in the participant’s own written or spoken words. It includes identifying the participant beliefs and values that underlie the phenomena. The qualitative researcher is therefore concerned with understanding rather than explanation; naturalistic observation rather than controlled measurements; and the subjective exploration of reality from perspective of an insider as opposed to the outsider perspective that is predominant in the qualitative paradigm (De Vos et al., 2002:79).

The method is chosen in order to show an in-depth understanding of the literature based on intellectual capital and to compare and scrutinise literature on this subject.
Collection of Data

The following method will be used to gather information:

**Document study and secondary analysis**

In the research the primary focus will be the focus on secondary data collection methods such as books, journals and electronic information (Internet). The research on intellectual capital will be based mostly on document study and secondary analysis. Recent material will be used for this research. This method will be used in order to review literature thoroughly and be able to come up with an own view or to give an individual interpretation of the collection of data.

1.5 **Restrictions of the study**

The content of this study is limited to information gathered from the secondary resources. Therefore any assumptions that has been made is based only on secondary literature which might not be applicable for each an every organisation. However the aspects that are covered are of vital importance to the survival of an organisation in the near future.

1.6 **Division of the study**

To achieve the above-mentioned goals, this dissertation will be presented as follows. The dissertation is started with the introduction to the problem, informing the reader about the setting of the problem, the purpose of the research, the goals and objectives of the research and as well as a short background to the research methodology and research topic.

This lays a foundation for Chapter 2, 3, 4 and 5, the literature review or the theoretical framework, which aims to document baseline information required to facilitate a solution to the stated problem, and address the first goal, namely the components of intellectual capital as a creator of wealth and shareholder value.

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In Chapter 2, focus is placed on intellectual capital and the management of intellectual capital in an organisation.

In Chapter 3, focus is placed on human capital as a whole and the measuring of human capital as a creator of wealth.

In Chapter 4, focus is placed on structural capital as a whole and the measuring of structural capital as a creator of wealth.

In Chapter 5, focus is placed on stakeholder or relationship capital as a whole and the measuring of relationship capital as a creator of wealth.

Finally in Chapter 6, conclusion and recommendations of the study are dealt with.

In the next chapter, the definition and importance of intellectual capital will be discussed in detail.
CHAPTER 2: INTELLECTUAL CAPITAL

2.1 Introduction

In this chapter the main issues regarding intellectual capital are discussed. The purpose of this chapter is to document all the relevant issues pertaining to the topic of intellectual capital gathered from previous research, specialists in the intellectual capital arena and companies specialising in intellectual capital. This is not done to document all that has ever been written on the topic, but merely to provide the reader with a comprehensive background to what exists, what is being done, and what is to follow. Definitions and clarification of terminology also form an important part of this chapter.

2.2 What is Intellectual Capital?

Intellectual capital is not new; it has been around since the first vendor established a good relationship with a customer. Then it was called goodwill. What happened over the last two decades is an explosion in key technical areas including information technology, the media and communications, giving us new tools with which we have built a global economy. Many of these tools bring intangible benefits, which never existed before and which now we take for granted. The organisation can no longer function without them; their ownership provides competitive advantage and therefore they are assets.

The major problem faced by corporations today is not the allocation of scarce capital, but the bottleneck of capabilities. An organisation is made up of tangible assets, intangible assets and financial capital. Tangible assets are required for the operation of the company and they are recorded on the balance sheet. Examples of tangible assets include manufacturing plants, equipment, buildings and other elements of physical infrastructure, etc. However, it is our intangible assets (our intellectual capital) that will provide competitive advantage in the knowledge era.
Examples of intangible assets include technological know-how, customer loyalty, branding, business processes, etc.

Figure 2.1 Intellectual Capital

Source: Anon. n.d. [www.intellectualcapital.se]

2.1 Tangible and intangible assets: how do they differ?

<table>
<thead>
<tr>
<th>Tangible Assets</th>
<th>Intangible assets</th>
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<tbody>
<tr>
<td>• Readily visible</td>
<td>• Invisible</td>
</tr>
<tr>
<td>• Rigorously quantified; form an integral part of the balance sheet</td>
<td>• Difficult to quantify; not tracked through accounting</td>
</tr>
<tr>
<td>• Can be easily duplicated</td>
<td>• Have to be developed over time; cannot be instantaneously obtained, bought, or imitated</td>
</tr>
<tr>
<td>• Depreciate with use</td>
<td>• Appreciate with purposeful use</td>
</tr>
</tbody>
</table>

Source: Kannan, n.d.:2
Intellectual capital is a term given to the combined intangible assets, which enable the company to function (Brooking, 1998:12). While Gray (2000:3) states that Intellectual capital is an organisation's employee using best practice processes and resources to transform organisational knowledge and external relationships into commercial value. How to profit from what you know, whom you know, and what you do well.

Intellectual capital generally has been used to describe all of the intangible factors that contribute to the gap between the book and the market values of the organisation (Dess & Picken, 1999:9). This broad definition includes everything other than tangible assets that contributes to the market value of the company: human brainpower, employee commitment, company values, brand names, trademarks, technology leadership, business relationships, market position, customer loyalty and internal systems and processes.

Intellectual capital is the collective brainpower and experience that can be used to create wealth for a company. It is a combination of individual knowledge and experience interacting with internal and central structural capital. For most technology companies, the chief assets are clever employees by working together, they add something to a product you can't see, smell, touch or taste knowledge (Gross & Reischil, 2000:65). This does not mean that the fruits of intellectual capital of all companies are intangible as Cisco's; a company with an abundance of intellectual capital may make truck parts or canned hams.

Companies that recognise the value of intellectual capital almost always share a common approach they use the collective know-how of their employees, vendors and customers to create superior (and usually more profitable) products. They understand that brains and inspiration equal gold in the form of profits. Intellectual capital is more than the sum of employee capabilities. Intellectual capital is a company's entire network of contacts, from old college buddies to sub-contractors to customers to family members in short; everyone who can partner with them in a symbiotic sharing of services (Gross & Reischil, 2000:65).
Creating and using intellectual capital means being able to work fast. It means competing effectively in a knowledge economy thinking acting and changing direction as quickly as idea occur in the context of sensible leadership. That's because ideas and intellectual capital can have very short span of life. A good new idea worth millions today may be stale bread as early as next year. Intellectual capital is the knowledge, technology, energy, experience and degree of positive collective purpose among all these people, leavened with a high tolerance for the ambiguity of new ideas, as well as the intuitive firing of neurons. All of that combined add up to intellectual capital (Gross & Reischil, 2000:67).

Intellectual capital is the science and art of dealing with how to extract maximum value from the resources you have and the way you have chosen to deploy them. Intellectual capital can be defined as the value-added proportion of all the intangible resources of a company, and as a crucial knowledge for securing the competitive advantage of a company.

Intellectual capital includes all of the intangible resources that contribute to the creation of value for the organisation. These include the knowledge, competence and skills of people, working methods, processes and systems. It also includes the culture that supports the people, the image in the market place and relationships with customers, alliance partners and suppliers.

Intellectual capital can be regarded as the hidden value of an organisation. Intellectual capital is used to help the organisations increase the value of the organisation to shareholders and other stakeholders by:

- Revealing what the organisation's value creating resources are and what they consist of, how they interact and whether they are effectively and efficiently deployed.
- Constructing systems to measure the performance of your intellectual capital in terms of value creation for both internal and external valuation processes.
Knowledge is the fundamental driver of intellectual capital; it comes in many forms and concerns many topics of interest to the corporation. The core activity of creation, transfer and the use or reuse of knowledge is closely linked to the management of the intellectual capital. Intellectual capital is the sum of the hidden assets of the company not fully captured on the balance sheet, and thus includes both what is in the heads of organisational members, and what is left in the company when they leave. Intellectual capital is the most important source for sustainable competitive advantages in companies. An important managerial responsibility is to manage the intellectual capital of the company better.

The growth and decline of intellectual capital can be called intellectual performance and can be visualised and measured. A systematic approach to visualise and measure intellectual capital is increasingly valuable to companies regardless of the industrial, size, age, ownership, and geographical dimensions.

2.3 Types of Intellectual Capital

Intellectual capital has three primary components:

- **Human capital** - is the combined knowledge, skills and experience of a company’s employees and it looks at the capabilities of employees, contractors, suppliers and other company related people to solve customer problems. Its purpose is to increase employee knowledge.

- **Organisational or Structural Capital** - comprises of capabilities of a company, its infrastructure and organisation processes to produce products and services to the market.

- **Relationship or Shareholder Capital** - represents all the valuable relationships with customers, suppliers, and other relevant stakeholders.
Figure 2.2 Company as a whole

Source: Kannan, n.d.:3

The above diagram shows that the company is made up of intangible assets (which are human capital, relationship capital and structural capital) and tangible assets (which is financial capital).

Figure 2.3 Categories of intellectual capital

Source: Pike & Roos, 2000:3
The diagram above is only a guide to the components of intellectual capital as the elements combine and interact with each other and with traditional capital elements in ways unique to individual companies to create value.

**Figure 2.4 Market Value**

\[
\text{Market Value} = \text{Book Value} + \text{Intellectual Capital}
\]

Source: Pike & Roos, 2000:3

Figure 2.4 above is useful in drawing attention to intellectual capital, is incorrect from more than one point of view and management models and accounting schemes based upon it will necessarily be flawed since the variables are not separable as required by the equation (Pike & Roos, 2000:3). Additionally, the obvious accounting flaw is that the right hand side of the equation does not have a single set of units. Virtual and real money cannot be added to each other.

### 2.4 The Importance of Intellectual Capital

*If you think knowledge management is expensive you should try ignorance!* (Gray, 2001:11).

The idea of making better use of what we know is an old concept. Sharing and transferring knowledge enables companies to make better decisions, more quickly, with greater ease at a lower cost. It also enables a higher level of innovation that can improve organisational competitiveness and profitability.

Intellectual capital helps companies to make better use of intangible assets that have become an increasingly important source of future earnings and company value. New concepts and technology have enabled organisations to capture, store and share the knowledge with their employees, suppliers, partners and customers hold.
Companies are able to look at both tangible and intangible assets of the company and they can now measure both assets and reflect the correct value of the company.

These are some of the important facts of intellectual capital:

- Companies have taken an interest in the intangible assets.
- The benefits of looking at or measuring both the tangible and intangible assets.
- Some companies address parts of intellectual capital, for example human resources, quality, or production but not with the intent to manage or measure intellectual capital.
- Intellectual capital can be used to support growth of a company.
- Intellectual capital enables an organisation to look into every aspects of the organisation; for example it looks at the human assets, structural assets and shareholder capital.
- Intellectual capital can be used to identify, train and develop the skills of employees or the human capital of the organisation.
- Intellectual capital can be used to develop the structural assets of the organisation by identifying and researching on the processes that are beneficial to the organisation as a whole. Even improving the level of explicit knowledge available to the employees.
- Intellectual capital helps in forming good alliances or collaboration with customers, suppliers, shareholders and the community as a whole.
- Companies managing their intellectual capital outperformed companies who do not.
- The existence of a significant positive relationship of intellectual capital with business performance, and those efforts to manage knowledge and develop structural capital, has led to higher business performance.
- Intellectual capital affects employees, employers, shareholders, customers, suppliers and community.
- Intellectual capital can turn future earning potential into shareholder value.
• There are a variety of opportunities and ways in which to measure intellectual capital.

• Not only can you measure human capital using traditional human resources measurement systems; but now you can even measure the number of databases and systems that support your business; and you can measure the efficiency of your processes.

• Intellectual capital measuring can help you review the way in which you operate.

**Intellectual capital plays an important role in the following:**

• Changes in organisations,

• Intellectual capital is increasingly becoming a focus for many organisations,

• Businesses want to gear on enhanced understanding of their potential for increasing shareholder value. They wish to identify what they know and want to discover how to exploit the knowledge that they already have within their organisations.

• Intellectual capital is becoming an important part of the organisations, if you wish to create profit from what you know and what you do well.

• Companies can gain value from understanding, improving and exploiting the potential of the process and stakeholders particular to their own understanding.

• The improvement of company processes, in order to work smarter and more cost effectively, will inevitably come about by employees sharing knowledge about the best practices of what works well and equally importantly what does not.


All the above mention points show the effect of intellectual capital in an organisation.
2.5 Summary

Intellectual capital is a tool that is essential for each and every organisation in the 21st century. This concept of intellectual capital is not new and if it is used effectively it can help management to value their organisation correctly. This chapter shows that an organisation is not made up of tangible assets only but it is made of both tangible and intangible assets.

In this changing environment that is characterised by technological changes, external and internal competition and the rise of emerging markets, we need to look at both tangible and intangible assets. Therefore, companies or management should start looking at both tangible assets and intangible assets in order to evaluate their wealth correctly.

The key factors of human capital will be discussed in detail in the next chapter in order to indicate its importance as a creator of wealth and shareholder value for an organisation.
CHAPTER 3: HUMAN CAPITAL

3.1 Introduction

In every company, the employees hold a massive proportion of the knowledge. It is effectively leased to the company for the term that the person is an employee. In order for the company to put the knowledge to optimal use, it must recognise the rapidly changing environment in staff requirements, work motivation and management structures (Kannan, n.d.:6). This chapter will be dealing with the first component of intellectual capital (that is human capital). A detail discussion of human capital as a creator of wealth and shareholder value will be presented; including methods of measuring human capital.

3.2 What is human capital?

There is an old Maori proverb that says (translated in English):

*Ask me what is the most important thing in the world and I will reply it is people, it is people, and it is people* (No doubt research, 2003:2).

*What is human capital?* The short answer is your workforce. But human capital is so much more. It is your company's most dynamic asset and it is the biggest expense category on the company's profit and loss (Hatch & Burton, 2000:1) Human capital is the combined capabilities, knowledge, skills, experience, innovativeness, and problem-solving abilities of each individual's knowledge (Davis & Harrison, 2001:154). It is the single most important asset a company has access to. By definition it cannot be copied by other companies and can therefore be a source of sustainable competitive advantage. Human capital looks at the capabilities of employees; contractors; suppliers; and other company related people to solve customer problems. In other words human capital is the capability of individual employees to provide solutions to customers.
The human capital includes the collective experience, skills and general know-how of all firm’s people. The firm’s ability to focus these individuals and collective set of capabilities on customer problems allows it to create value for its customers. The human capital of a knowledge firm is one of its most important assets. Managing human capital in knowledge firms is more challenging than for non-knowledge firms because of the need to both create and extract value from this important element of intellectual capital. The management of the human capital of an organisation is concerned with the development and motivation of the employees of the company in line with the strategic direction of the business (Gray, 2001:24).

Human capital is defined as the knowledge, skills and experience that employees take with them when they leave. Some of this knowledge is unique to the individual, and some may be generic, the following are some of the examples of human capital:

- Innovative capacity
- Creativity
- Know-how and previous experience
- Employee flexibility
- Teamwork capacity
- Tolerance for ambiguity
- Motivation
- Satisfaction
- Learning capacity
- Formal training
- Education
- Vocational qualification
- Work related knowledge
- Psychometric assessments
- Work related competencies
- Entrepreneurial, innovativeness, proactive and reactive abilities, changeability (Starovic & Marr, n.d.:6-7).
Human capital encompasses the competence and motivation of each individual employee; the employee's behaviour and values; and his or her intellectual capacity and adaptability (No doubt research, 2003:1). This includes employee's ability to adapt to change and to innovate. Human capital also includes management skills.

Human capital is a source of innovation and renewal for the enterprise. The enterprise does not own or control human capital. Instead, individual employees offer the enterprise an opportunity to cultivate and extract business value from their creativity, experiences, knowledge and associations (Kannan, n.d.:6). The role of the business culture is critical to effectively extracting ongoing business value from human culture.

**Figure 3.1 Human capital**

![Diagram of Human Capital](image)

Source: Kannan, n.d.:6

The employees are the most important assets of any organisation and they hold the intellectual capital, which can place any organisations at the forefront of the market (Van Eeden, 2003:55).
3.3 Sharing

It is important that employees share knowledge and learn from others so that the human capital becomes more valuable. Sharing occurs at many levels: between employees within the company, between the company and its customers and suppliers and even between the company and its competitors (Kannan, n.d.:6)

Sharing knowledge with others, who in turn bring their own knowledge; it actually grows stronger by virtue of experience. You can think of this knowledge as an appreciating asset whose value is enhanced by experience and structural capital (information and knowledge networks and resources at the individual’s disposal) and tempered by the willingness and ability to learn.

3.4 Knowledge

Knowledge management is a discipline that promotes an integrated approach to identifying, managing and sharing all of an enterprise’s information assets. These information assets may include databases, documents, policies and procedures, as well as previously inarticulate expertise and experience resident in individual workers (Starovic & Marr, n.d.:19). It requires knowledge to put human, structural, financial, and relationship capital to generate revenues. A company needs people with knowledge but it also needs to invest in the development of that knowledge.

The firm may acquire knowledge, tacit information that resides inside employees’ heads, by any number of means. Some firms seek people with specific knowledge and offer them attractive salaries to contribute their expertise to the knowledge bank of the firm. Other firms purchase companies that already possess the knowledge they want to acquire. Still others rent it, by licensing rights to use the needed knowledge or create knowledge themselves by developing methods and processes that encourage creativity and innovation among their employees.
In the past employees were often regarded as a necessary inconvenience. Not liabilities, exactly, but not assets, either. People were regarded as cost generators. These days, in knowledge companies, people are no longer viewed strictly as cost generators. Today employees are viewed as potential revenue generators (Cross & Reischil, 2000:35).

Each employee contributes his or her knowledge; the result is a form of collective brain (structural intellectual capital) that solves problems that build a company’s bottom line. For companies to succeed in the information age, managers must tap into all available sources of information to mine for knowledge, which is a company’s true asset (Cross & Reischil, 2000:35). This means that companies must look at all employees as potential sources of knowledge.

While traditional companies relied on knowledge to be passed down from management to staff, which performed tasks much as soldiers took orders, modern corporations need to tap into every available source of knowledge available. Knowledge will grow where risk is taken. Taking calculated risks will result in innovation. Trying something new means that it is uncertain whether the outcome will be a success or failure and is therefore a risk. In case of failure, the community still gains knowledge if the lessons learned are shared so that others don't repeat the same mistake.

For many companies in the past, information was made available on the need to know basis. That is managers told employees only what they deemed necessary for them to do their jobs and nothing more. In fact, having employees who are out of the loop can be downright detrimental to a company whose fortunes rise and fall based on the quality of information available to all members. From a knowledge management perspective, the people available to any organisation are seen as the organisation’s human capital.
In general, these people have two distinct kinds of knowledge. There is the kind of knowledge which can be easily articulated and shared with others – is known as **explicit knowledge**. There are those things you know but don’t know how to articulate – is known as **tacit knowledge** (No doubt research, 2003:2). The distinction between tacit and explicit knowledge demonstrates that we know more than we can tell or explain to others.

**Tacit knowledge**

Much of our knowledge is thus tacit, that is unable to be communicated in words or symbols. This means that people often know far more than you realise. The thing about tacit knowledge is that it deals with knowledge that has become so thoroughly embedded that the holders no longer think about what they are doing but they simply do it. This is the area of study that is known as naturalistic decision making (No doubt research, 2003:3). A person when faced with a complex decision, he or she uses strategies that draw from their own experiences and judgements.

In most business situations, bulk of an individual’s valuable and useful knowledge is tacit rather than explicit. Therefore the key element of knowledge management is to find ways to turn tacit knowledge into explicit knowledge. Recognising the value of tacit knowledge leads to a recognition of the value of the people who work for any organisation.

**Explicit knowledge**

Explicit knowledge is the easy part of human capital. It describes those things that we can write down and they can be easily shared with other people. This means it is easy to store and track. The knowledge management dream has been to create some kind of exchange that allows everyone in the organisation to be able to access the collected know-how, experience, and wisdom of the entire company (No doubt research, 2003:4).
Table 3.1 The difference between tacit and explicit knowledge

<table>
<thead>
<tr>
<th>Tacit knowledge</th>
<th>Explicit knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not teachable</td>
<td>Teachable</td>
</tr>
<tr>
<td>Not articulate</td>
<td>Articulated</td>
</tr>
<tr>
<td>Not observable in use</td>
<td>Observable in use</td>
</tr>
<tr>
<td>Complex</td>
<td>Simple</td>
</tr>
<tr>
<td>An element of a system</td>
<td>Independent</td>
</tr>
</tbody>
</table>

Source: Starovic & Marr, n.d.:19

Some knowledge can be codified through a set of management and technological procedures and stored into databases or presented on intranets. Some, on the other hand, exists only in the heads of the employees or in the relationships that exist between them. Managing tacit knowledge is usually seen as the more difficult part but many companies also struggle with explicit knowledge. A simple example is intranets, which so many have got wrong. As an internal knowledge-sharing tool, their potential is phenomenal, yet many intranets lie unused, with staff relying instead on traditional ways of obtaining information such as social networks or using the phone. This shows the importance of addressing cultural as well as structural issues surrounding knowledge management (Starovic & Marr, n.d.:19).

Missing knowledge

Missing knowledge is the third category of knowledge relevant to human capital (No doubt research, 2003:4). This is the knowledge that employees need to do their work both today and in future, which they currently do not have. A company must take into account of any future knowledge needs if their business is to survive in the 21st century. Missing knowledge fit into the taxonomy of human capital in the following way:
Clearly, the challenge for organisations is to create mechanisms that enable them to transform their passive missing knowledge into active missing knowledge by becoming aware of what it is they don’t know and working to fill those knowledge gaps (No doubt research, 2003:4-5).

For companies to succeed in the information age, managers must tap into all available sources of information to mine for knowledge, which is a company’s true asset. This means that, companies should look at all employees as potential sources of knowledge. While traditional companies relied on knowledge to be passed down from management to staff; modern corporations need to tap into every available source of knowledge available. This means that companies need to tap into the collective brainpower of all their employees. They should recognise how each employee’s particular knowledge can help solve each new problem. Managers have to know how to manage knowledge, how to encourage its creation and development.
3.5 Skills

In the fast world that we are all a part of, skills learnt on one day may be out of date by the next. Different and frequently changing demands on the business means that it is necessary for employees to have the ability to adapt and apply knowledge to solve new and challenging problems. Therefore, being able to adapt and applying their experiences in different areas; and also learning new skills is an extremely important capability for all employees. Increasing intellectual ability is normally achieved through traditional educational routes (Gray, 2001:26).

Business can invest in the development of intellectual ability or skills by encouraging employees to study further, for example giving study loans or bursaries. They can even offer bursaries to undergraduate students. It is a company's responsibility to ensure that their working practices enable the individual to be given the space, the encouragement and the opportunity to use their intellectual ability to innovate.

3.6 Attitude

Having the appropriate skills and a high level of intellectual ability does not guarantee a business that its human capital will return the following day. Companies should select employees for their attitude and willingness to share what they know and apply their skills to the task at hand. All companies need to motivate their employees to give more of themselves than is being asked of them.

If an individual feels valued and trusted he or she will be more willing to share what they know with the organisation and their colleagues. If an individual’s personal values align with the company’s values he or she is more likely to have a positive attitude to the task ahead. Most people want to give their best and therefore understanding where the company is heading strategically and understanding the part they are to play in helping the company achieve its goals will motivate them (Gray, 2001:26).
Motivating staff to help the company move forward will depend on the leadership skills in the organisation. The development and enhancement of leadership capability is yet another factor in the development of an organisation's human capital.

3.7 Increasing human capital

Understanding the difference between value creation activities and value extracting activities is an important step in understanding human capital management. Value creation involves the creation of new knowledge and its dissemination. The purpose of value creation is to increase employee knowledge in order to create new or improved innovation for commercialisation. The purpose of value extraction is to leverage company innovations in order to maximise profits and improve strategic position.

There must be a balance between value creation and value extraction activities. Most firms pursue one or the other activity strongly and believe that their approach is adequate if not optimal. Most of the firms spend more time, energy, and resources on value creation than on value extracting. A company that over does creations is frequently unable to see that their intellectual capital activities are disproportionate. A company that assesses its relative strengths in value creation and value extraction will be able to determine how it should reshape its intellectual capital resources to more effectively support its business strategy and tactics.

3.8 Investing in human capital

Investments should be made in people who can adapt to new challenges and new skills. All companies should recruit people who identify and align with the values of the company and who have the capability of carrying out a variety of roles overtime. A business will need to provide learning and development opportunities to enable people to change roles, therefore an essential competency in today's knowledge economy is the ability of the individual to assimilate new information and then use it appropriately (Gray, 2001:37).
For sustainability a business needs to view recruitment as a way of increasing its human capital and balance this against the pragmatism needed to fulfil today’s vacancy. If human capital is of value to the organisation then recruitment needs to be seen as a long-term investment and not as a short-term cost. Wherever possible, businesses need to think about the long-term potential of a new recruit and not just his or her current skills, but also his or her ability, attitude and cultural fit. Where employees add little value (for example: employees do not have a direct impact on the financial value, and have easily replaceable skills) the company should view these employees as a short-term investment to the business or outsource their work to a partner supplier.

The investment in the recruitment of new employee can return immediate value, if you are able to recruit a person who possesses knowledge that does not already reside in the organisation. A company needs to develop processes whereby the organisation can learn from new recruit.

3.9 Learning and development

It is essential to invest in a company’s human capital, not by simply taking more people but by investing more in the existing employees. This can be achieved in two ways, firstly by adding skills to the workforce and secondly, by providing the workforce with the necessary means to perform in a pleasant working environment (Kannan, n.d.:6).

Recruiting flexible staff into your company is strategically sound given that you allow those employees to grow and flex with business. As with physical assets, if you do not maintain your human capital assets their value will depreciate. To overcome this decline in value, human capital assets need to be constantly developed (Gray, 2001:39). Developing your people does not only maintain their initial value to your organisation but can also increase that value.
Through training and development a company can enhance the value of employees to the organisation by training them in relevant and hard to replace skills. All businesses need to provide for relevant learning and development opportunities to enable their people to take new and more challenging roles. However, having a large training budget does not guarantee a return on investment. Many organisations recruit a person into a role, spend vast amounts on training, and then do not review the new skills, capabilities and interests that the person has developed since joining the company.

Unless your organisation understands and utilises these new skill sets you will not be obtaining maximum value from your investments in the human capital of your business. Forms of learning that you can consider (Gray, 2001:40):

- Pure classroom training
- Tutor led training
- Quit, self-contained learning stations
- Freely available books and magazines
- Internet access
- Computer based training
- Subscriptions to professional societies
- Rotation of staff through different areas of the business

3.10 Utilisation of human capital assets

Investing in the right people with most appropriate skills is only step in obtaining maximum value from the human capital of an organisation. Utilising the skills and knowledge of the staff to ensure maximum financial return is the next stage in the process. Building a skills index is necessary step to enable an organisation to determine who has the most appropriate skills and experience for a particular task (Gray, 2001:40). A skills index can be simply built as a database of people with skills that the organisation considers being relevant and useful.
The skills index can also be extended to capture the aptitude and ability of a person as well as their base skills and knowledge. Before creating a skills index you will need to carefully consider how you will (Gray, 2001:40):

- Capture and maintain the information (this can be achieved through career assessment processes, performance appraisals or even through a series of testing.)
- Store and access the information. (Choosing an appropriate and easy to administer system is essential and there is a plethora of these on the market.)

A team can add value to the organisation if they play their given roles in order to fulfil the task. They should learn to understand other people's personalities, as well as the skills. To make individuals and teams work well it is also necessary to understand how they think. Many instances where teams or even whole companies fail to perform can be traced to differences in how people think and like to behave between one part and another.

The organisation and employees need to be able to respond to market needs and new commercial challenges. Therefore, a company ought to look at how they could encourage staff to be proactive in recognising the skills that will be needed in the future and giving them the opportunity to identify their learning requirements. Sharing of both the corporate plan and future staffing needs, will enable employees to make informed decisions on the ways in which they plan their development or improve it.

### 3.11 Measuring human capital

Measuring the value of human capital potential is just one element of measuring and managing the whole of intellectual capital. Employees will be of value to a company if they have hard to replace skills; in-depth company knowledge; an appropriate behavioural attitude; and are willing to develop themselves.
To value human capital and to assess its potential to increase financial returns, the following steps may be helpful to follow:

- Determine the skills and capabilities that your human capital assets will need to help you fulfil your long-term business strategy
- Using gap analysis, to determine the need for recruitment and development
- Calculate the investment that will be needed
- Devise a measurement system to track return on investment
- Devise a measurement system to track progress against strategy

(Gray, 2001:42)

Human capital value is one of the most difficult aspects of intellectual capital to measure, and therefore any system to be created need to be well thought through and well designed. Companies must consider what they are measuring and how these measures will establish the true potential of their business.

3.11.1 Innovation

Human capital’s output is innovation, structural capital’s efficiency. There are a number of ways to track innovation. The simplest is to tally the percentage of sales attributable to new products or services—a measurement that 3M has used for years and to good effect, setting a goal that at least 25 percent of its annual sales should be from products that are less than four years old (Stewart, 1997:229). Other companies tally numbers of new products or of patents. Real innovation should command a premium. In some industries, for example information technology industry; the pace of change is so great that the measure of innovativeness is not whether you’re doing a lot of it but whether you’re doing so much so well that you can stay ahead of the industry’s fast falling price curve. Innovation can even be measured by comparing the margins from new products and gross margins from old products.
3.11.2 Employee attitudes

Studies show a correlation between high morale and superior financial performance. People who feel as if they are learning, needed, and useful will be more productive and their likely to treat suppliers, customers, and each other better, than people who are idle and uncertain of their role in the company’s success will. A company can conduct an employee survey to get information on what is on people’s minds, which can be valuable; but useful as an index of human capital they need to gather more structured data.

3.11.3 Tenure, Turnover, Experience, Learning

Another approach to measuring human capital is to maintain indexes of the inventory of knowledgeable employees. This is tricky because it can end up being illegal because the company might discriminate amongst employees. A company has to look at their employees skills and how do they add value to the organisation (Stewart, 1997:230-231).

Answering the following questions won’t result in quantitative data about human capital, but will yield a rich harvest of qualitative information:

- Which skills and talents are most admired by your employees?
- What is the difference between customers’ value and employees’ value?
- What emerging technologies or skills could undermine the value of your proprietary knowledge?
- Why do employees leave the company to accept jobs elsewhere?
- What is the company’s reputation versus competitors?
- Among the many skills possessed by your employees, which do customers value most? Why?
- What emerging technologies or skills could undermine the value of your proprietary knowledge?
• Where in your organisation do high-potential managers most want to be assigned? Where do they want to work? How do they explain their preference?
• What percentage of managers has completed plans for training and developing their successors?
• What percentage of all employees' time is spent in activity of low value to customers? What percentage of expert employees' time is spent in activity of low value to customers?
• When competitors are hiring, do they hire from you?
• Why do people leave you to accept jobs elsewhere?
• Among experts in your labour market, including headhunters, what is your company's reputation vis-à-vis its competitors?

(Stewart, 1997:232)

3.11.4 Measuring on learning and development

Measuring the skill base of a company is not necessarily an easy task. One frequently used measure is to track formal qualifications, both educational and vocational. However, this is not useful if roles are always shifting and the qualifications bear no resemblance to the task at hand. In order to measure the return on investment from the training budget learning and development strategy has to support and align with the measurable objectives of the long-term business strategy. There are two processes that a company may find useful to firstly plan, and secondly audit the success of the development programmes.

• The Balanced scorecard is a useful strategic process and tool that can be used to help determine the training needs of a business.
• The Investors In People Standard is best employed to help a company to measure the outcomes of its learning and development investment.
3.11.5 The knowledge bank

Every company builds a bank of knowledge that is research, skills, customer lists, tradecraft, and more. The knowledge bank, not buildings, is the reason people invest in your company or come to work for it.

3.11.6 Return on Investment

For most organisations the investment in people is now a large percentage of the overall capital expenditure for the business. It is imperative that a company is able to demonstrate that it is deriving maximum benefit from the investment in recruitment and development of its employees. To determine the return on your investment you will need to decide what areas of your company performance your staff directly affects (Gray, 2001:43).

Another direct business performance indicator may be to measure an individual's contribution in providing customer service and satisfaction. A number of organisations now have a customer satisfaction rating which is a contributory factor in determining an individual’s performance bonus as a percentage of the overall company performance. Whatever system the company design they need to keep in mind that it is there to enable them to understand the underlying potential of their organisation.

3.11.7 Measurement tools

There are a number of tools and methodologies that can be used to help determine the learning and development needs of the staff and to help measure and understand the return on investment in human capital.
Balanced Scorecard

The balance scorecard initially devised as the Tableau de Bord in France in the 1950s but developed and popularised by Dr David Norton and Professor Robert Kaplan, is a framework that enables the linking of objectives, initiatives and measures to an organisation's strategy (Gray, 2001:46).

The balanced scorecard is a management system not only a measurement system that enables organisations to clarify their vision and strategy and translate them into action. It provides feedback around both the international business processes and external outcomes in order to continuously improve strategic performance and results. When fully deployed, the balanced scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise.

Figure 3.3 The Balance Scorecard

Source: www.balancescorecard.org
The scorecard provides a complete view of an organisation’s potential and looks at the financial performance, customer perspective, internal business processes and organisational growth, learning and development needs. The balance scorecard can also be used to determine the learning and development needs of employees in support of individual business initiatives. The balance scorecard is designed to focus managers’ attention to those factors that help the business strategy, it adds alongside financial measures, measures for customers, internal processes and innovation.

**The Skandia Navigator**

The other measuring tool is the Skandia Navigator, which was developed by a Swedish financial service company, recognised the value of the measurement of intellectual capital as a means of managing its business and informing other about it (Warden, 2002:2). It places special emphasis on the human focus, which is seen to interact with all major areas of concern, while reading from top to bottom shows a move from focus on the past to focus on the future.

The skadia navigator, major areas of focus include financial, customers, human, process, and renewal and development.

**Figure 3.4 The Skandia Navigator**

Source: [www.skandia.com](http://www.skandia.com)
The Skandia Navigator is a collection of critical measurements that all comprise a holistic view of performance and goal achievements. It reflects four key dimensions of its business: financial focus; customer focus; process focus; and renewal and development focus. At the heart of these is human focus, which drives the whole model. The above navigator can be viewed as a house, with the human focus representing the soul of the house. The human focus includes measurements that reflect the human capital of the organisation and how the resources are being enhanced and developed. Measurement from the five focuses can then be recorded and compared from year to year.

3.12 Summary

Human capital is the most valuable asset of a company. A company knows that, people play an important role in an organisation. It requires human skills, capabilities and experience in order to function daily. Therefore, management need to retain as much knowledge in the organisation. The knowledge retained must add value and create wealth for the shareholders and organisation as a whole. They need to invest in present and future knowledge (which is called missing knowledge) because we are living in a changing environment. What is important today might not be important tomorrow.

The next chapter will concentrate on the second component of intellectual capital; which is called structural capital.
CHAPTER 4: STRUCTURAL CAPITAL

4.1 Introduction

Structural capital includes the content within the enterprise knowledge asset, as well as intellectual investment that the enterprise has made in the physical, technical and business culture infrastructures that support its activities. Structural capital serves two purposes: to create knowledge and maintain the enterprise knowledge asset; and to enable enterprise connectivity (Kannan, n.d.:5). In this chapter we will continue with the discussion of the second component of intellectual capital, which is structural capital (also known as organisational capital). The measuring of structural capital will be discussed in this chapter.

4.2 What is structural or organisational capital?

Arthur Schopenhauer (No doubt research, 2002:5) quotes “To expect a man to retain everything that he has ever read is like expecting him to carry about in his body everything that he has ever eaten.”

According to Davis (2001:154), organisational (or structural) capital encompasses the hardware, software, databases, systems, work processes, business models, organisational structure, patents, trademarks, trade secrets and all other codified knowledge. Structural capital describes those systems that are used to manage the intellect of your staff and convert it into useful products and services (No doubt research, 2003:5). It is everything left behind when the human capital walks out the door at the end of the day. The company can own it and it represents organisational knowledge. Structural capital can be either tangible or intangible, and in the cases of culture, values and processes it is peculiar and specific to the organisation (Gray, 2001:27).
Structural capital can be designed simply as the value of the knowledge inherent in an enterprise’s structures, procedures, processes, systems, databases, brand names and patents, and etc (Kongsberg, n.d.:1). Organisational capital comprises the capabilities of a company, its infrastructure and organisational processes to produce products and services to the market. Innovation capital refers to a company’s ability to innovate, improve and develop unutilised potential as well as generate long-term wealth. Structural capital consists of all tangible intangibles (for example, documentation of processes or a database of knowledge).

Figure 4.1 Structural capital

For example Microsoft has huge volumes of structural capital in the form of code libraries and marketing processes (Kannan, n.d.:5). Organisational capital are processes, systems, structures, brands, intellectual property and other intangibles that are owned by the firm but do not appear on its balance sheet. The organisational capital will establish the foundation for business stability.
According to Gross and Reischil (2000:71), a company's structures include the way it deals with clients, partners and even competitors. In turn all of these factors contribute to structural capital. While codified, structural capital is in many ways as mutable as the human capital that made it.

An organisation's human capital will develop products and patents, create and follow best practice procedures and create and evolve the corporate culture. It is this continual formation and renewal of a company's structural capital that gives an organisation its indefinable strength. Focusing on and improving the way in which business is conducted and the organisation is structured will eventually enable a company to improve its operating efficiency for increased financial return.

An organisation with fewer employees can often function with little structural capital due to the fact that employees all work in close proximity to each other, knowledge is easily shared and everyone's contribution can be instantly recognised. In a bigger organisation, it will need to formalise a small number of processes to replace the former natural interaction and informal recognition of individual contributions.

The building of structural capital is way of capitalising on the investment in the know how of the organisation. The structural capital of an organisation can have value in its own right or it can be valued on its potential to facilitate the creation of revenue. The value of an organisation's structural capital can only truly be realised when the more intangible assets help create real financial returns.

Structural capital has two distinct elements (Gray, 2001:54):

- Tangible intellectual assets such as products, patents and trademarks
- Intangible assets such as methodologies, knowledge and cultural philosophies
Intellectual assets are more tangible elements that can be sold and for which a direct return on investment can be realised. The structural capital of an organisation is built and sustained by the human capital of the business. Structural capital elements such as cultural influences, leadership and management philosophies will help motivate and therefore retain the human capital of the organisation. Structural capital value is therefore hard to measure in isolation from human capital as both influences the outcomes of each other.

Structural capital includes anything that helps turn individual know-how into knowledge or the organisation as a whole. It commonly includes things like (No doubt research, 2003:5):

- The organisational culture
- The organisational structure
- The management philosophy
- Management processes
- Quality standards
- Information resources (such as databases, corporate library, process manuals, and etc)
- Any patents held, design rights, trade secrets, and anything that is copyright.

In structural capital, many organisations thrive by creating smart systems rather than employing smart people. Or we can rather say, employing smart people alone will not necessarily make for a smart organisation.

4.3 Network

The network is the infrastructure used for sharing knowledge. It is the part of the structural capital on which knowledge is stored so that it can be used by anyone in the company. Effectively becoming not just an Intranet or Extranet, but an 'Intrallectualnet' (Kannan, n.d.:5).
Network is the infrastructure used for communications. It is the part of the structural capital on which knowledge is captured, stored and distributed so that it can be used by anyone in the company. The network may be:

- An intranet is a way of capturing, storing and disseminating.
- An extranet is a way to share company knowledge with other companies and exploit this, information to boost commercial goals (Kannan, n.d.:5).

4.4 Knowledge management

Knowledge management is about sharing and transporting of knowledge around an organisation so that the knowledge can be leveraged to provide some sort of competitive advantage. Doing this requires structural intellectual assets, and these constitute your organisation's structural capital. Both the quality of information and the way in which that information is stored and can be retrieved must be managed in order to ensure the most efficient use of the available knowledge. Databases are very useful for this purpose, but one must always keep in mind that "Garbage In - Garbage Out" is of great importance when capturing, managing and re-distributing knowledge (Kannan, n.d.:5).

The reasons why companies invest in knowledge management are that it gives them either a temporal or effectiveness or an efficiency advantage over their competitors. Organisational knowledge encompasses elements of information, experience and insight. Company information is wholly owned by a business and the challenge is to identify, capture and share that information widely throughout the corporation to improve operating efficiency and to facilitate organisational learning.

Knowledge is largely held by individuals and is only available to an organisation to the extent that effective processes are put in place to develop and share that knowledge; freedom and space is given to individuals to use their judgement; and interpretation to apply that knowledge appropriately.
Organisation learns by sharing information freely, and effective organisational learning is dependent upon the appropriate combination of people, culture, technology and working practices. Explicit knowledge is the information that can be documented. Explicit knowledge is found in company handbooks, on web pages, in proposals, in instruction manuals and in company databases. Implicit knowledge is what people know but can’t necessarily write done. Implicit knowledge is the accumulation of learning and the application of that learning to solve complex problems.

An organisation will probably have a considerable amount of explicit knowledge however it is the organisation, collation and accessibility of this knowledge that is paramount to its successful exploitation. One obvious benefit of explicit knowledge management is that it enables employees to quickly find an answer to a problem that has already been solved in another area of the organisation.

Managing the knowledge within your company will enable you not only to gain increased value from the existing knowledge but also to create new learning and knowledge in the process. The speed at which explicit knowledge is transferred; internalised and implicitly applied becomes an important factor in gaining that crucial competitive advantage. Employees need to be encouraged to share implicit knowledge in an environment of trust and mutual recognition. The value of your business will be truly recognised when your employees are able to increase their implicit knowledge and apply this learning for the good of your company.

4.5 Intellectual Assets

Intellectual assets are the codified, tangible, or physical descriptions of specific knowledge to which the company can assert ownership rights. Intellectual assets are the source of innovations that the firm commercialises. Intellectual assets include programs, processes, methodologies, documents, inventions, databases, drawings and designs.
Intellectual assets are the tangible elements of a company’s structural capital. All organisations have filing cabinets of the documents, have computer servers full of files, have databases full of information, have products and services to sell, and may have licenses and patents from which they can extract value. Unlike human capital, the company owns its intellectual assets (Gray, 2001:27).

Intellectual asset management is similar to intellectual property management in that it uses the same conceptual basis that specifies innovation and complementary assets as the primary source value for the firm. It also uses the same conversion mechanisms for converting value into profits. But intellectual asset management differs from intellectual property management in at least three significant ways:

a) The unprotected commercializable assets, when added to the protected commercializable assets, constitute a set of interactive intellectual assets that is significantly more complex to co-ordinate and manage.

b) Whereas intellectual property management is focused on current extraction from assets currently or soon to be in the portfolio, intellectual asset management is concerned with less well-defined assets that have the potential to generate income.

c) Whereas extracting value from intellectual property is tactically focused, and extracting value from intellectual capital is strategically focused, extracting value from intellectual assets lies between the two, having both tactical and strategic implications.

(Sullivan, 2000:159)

**Commercializable intellectual assets** are those that can be sold in business or the technology marketplace. Examples of commercializable intellectual assets for business use include trademarks, names, product features, and manufacturing processes. There are two kinds of commercial intellectual assets, those that are legally protected and those that are not.
Technical intellectual assets are bits of know-how that can be commercialised themselves or support another piece of commercialised technology. For example in technology companies the technology intellectual assets are of two kinds: design and operations.

Valuing intellectual assets of a business is one of the easiest aspects of intellectual capital management. Intellectual asset such as patents products and brands, tend to be the more tangible of the intellectual capital intangibles (Gray, 2001:54).

4.6 Intellectual property

Intellectual property involves legal rights and ownership. The property must be legally registered. These include patents, copyright, trademarks and trade services. Intellectual assets that receive legal protection are called intellectual property. When an intellectual asset is patented or copyrighted for licensed trading or given a trademark, the term intellectual property is applied (Gray, 2001:27). Patenting an intellectual asset it means that a business has sole right to the product or invention and excludes others from copying and selling the same product. Copyrighting is normally afforded to works which are written down and which contain the application of knowledge, for example literary works or computer programs. Trademarks are either associated with a company or a product.

To effectively manage and extract value from its portfolio the firm needs to understand that these are several dimensions to portfolio of intellectual property. Extracting value from intellectual property is accomplished most effectively when the value extraction activities meet two criteria First, they must be aimed at improving the firm’s competitive position as defined in the corporate business strategy. Second, they must become part of a systematised set of decision processes supported with information-producing activities and databases that collectively allow the firm to manage its intellectual property assets.
Knowledge firms usually think of value extraction in terms of converting an innovation into cash or profits. Any activity that increases income, reduces expenses, or both while requiring few resources do to so, may be considered an attractive value-extraction alternative. Extracting value from intellectual properties, because of its strong current time frame and tactical focus, is usually thought of as a near- to mid-term profitability opportunity. According to Sullivan (2000:133) corporation that want to extract value from or improve the profitability of their portfolios immediately have at least two courses of action available to them: (1) reduce portfolio expense by reducing the amount of patent maintenance taxes, and (2) increase portfolio income by improving the royalty income stream from out-licenses. During the mid-term period, value extracting activities focus on: increasing portfolio quality; increasing use of the portfolio in business negotiations; and expanding licensing, joint venturing, and strategic alliance activities.

Companies create intellectual property portfolio for one major competitive purpose: near-term competitive advantage. For technology based companies this translates into three objectives: protection for innovations, design freedom, and litigation avoidance. Technology-based businesses create portfolios of technology that are fundamentally a collection of innovative ideas for whose use the company wishes to be granted a legal monopoly. In most cases the individual patents, trademarks, and other protected assets are intended to generate near-term income by providing limited protection to mark, a product, or process innovative to allow its commercialisation without fear of imitation. As companies grow and produce improved and new innovations, they often build a significant portfolio of patents and other intellectual properties. Intellectual property must be properly audited so that a business can understand what it owns and what it can extract value from (Gray, 2001:28).
Patents and copyrights

A patent is a property right that does not allow other people to copy and sell intellectual inventions. However patent will only be valuable to your business if you actually utilised and exploited it. Extracting value from intellectual assets can therefore be as simple as managing and understanding the assets you already have within your business. A starting point could be to ask these simple questions:

- Do you know what patents you have registered?
- Do you know the value that your patents have returned within their lifetime?
- Do you know the value that your patents have returned over the past year?
- Does the cost of protecting the patent outweigh the value it returns to the business?
- Do you know the cost to the business of the unused patents your company owns?

(Gray, 2001:56)

Mind share (Brand)

Mind share is what every company hopes for: To have the company's brand or name at the top of peoples shortlist of known products or to have their name or product become synonymous with a (perceived) added value. If people were asked to name a brand of soft drink, Coca-Cola would love to hear their brand name come first. Creating and maintaining mind share can take enormous effort and resources (financial capital), but is considered one of the most important assets any company has. Including mind share in a company's intellectual capital valuation is both essential and complex.
Building a powerful brand is not something one can learn from a textbook; it is accomplished by a complete harmonious environment of mixed capitals, proper timing and to some extent luck. A brand is also very fragile and can be tarnished very easily in today’s networked world with ‘news’ travelling very quickly (Kannan, 2000:7). Conversely, a brand can be created virtually overnight.

4.7 Organisational structure and processes

The processes that a company employs to conduct its business are usually specific and of value to that organisation only. Processes can be categorised into those that are concerned with quality and those that are concerned with efficiency. Processes exist to control the flow of information around a business, and the larger the business the greater the need for process management.

The processes you have within your organisation, they ought only to exist to aid your business and not to hamper it (Gray, 2001:28). Process need to be reviewed on a regular basis so that the business is continually striving for improvement in both quality and efficiency. One of the building blocks of knowledge management is concerned with the identification of processes to help an organisation learn more from its mistakes and to share best practice.

A learning organisation is one where the company, as a collective of individuals, learns from its success and mistakes (Gray, 2001:28). Process review and the study of the best practice can help make any business a true learning organisation. To gain competitive advantage through the exploitation of organisational structure and business processes, companies must take time to reflect on, and if necessary improve, the ways in which they operate. Corporate culture, company structure and business processes are those elements of structural capital that are difficult for competitors to emulate wholly. Many organisations will have similar ways of operating, but it is the combination of all of these elements that makes companies individualistic in their performance.
As a competitive business you should be striving to set your own standards and incorporating best practice learning from a variety of sources. The identification of internal best practice and the monitoring of industrial best practice ought to be a high priority for all organisations. Gaining competitive advantage simply by working smarter is an attractive and obtainable goal. Best practice encompasses not only those processes that enable you to improve the productivity and the quality of your outputs but also those processes that enable your organisation to function more efficiently and therefore cost effectively. There are four basic stages in obtaining maximum value through best practice:

- Define
- Experiment
- Reflect
- Improve

(Gray, 2001:58)

In the knowledge age, business need to build internal processes that can amplify the speed of knowledge transfer throughout the organisation and therefore improve the efficiency in those working practices that are proven to create value. Improving knowledge processes will enable a company to build upon its learning and knowledge stores and therefore facilitate the future growth of the business. The processes that support the day-to-day general running of your business also need careful monitoring to ensure that they are enabling rather than hampering your operation. Your human capital is an expensive commodity and should not therefore restrain its productivity with inefficient and clumsy administrative processes.

To ensure that the best practice is continually identified and adopted an organisation needs to review how it is structured and understand how, or if, it rewards and encourages the sharing of the best practice. Managers must be seen to openly support best practice and ensure the right people are in place to implement it.
4.8 Culture and Values

The principles and the ideals on which a company is founded, and then operates from, form the cultural environment unique to that business. The relationship between an organisation and its employees is based on the trust between the two parties, and this can only be developed if the values of the individual align with the values of the company.

The building of the structural capital of a company depends heavily on two elements of a corporate culture, the co-operation and communication between individuals and groups (Gray, 2001:29). A well recognise culture is a valuable asset and one that ought to be nurtured, sustained and measured.

4.9 Products

Measuring the return on the investment in a product line ought to be part of all good business practice. Businesses should be able to predict the return on investment for any new research and development programme by creating a measurement system that takes into account the life expectancy of the new product with respect to the total cost and effort for its development.

4.10 Organisational Learning

The learning organisation is an organisation skilled at creating, acquiring and sharing knowledge, and at modifying its behaviour to reflect new knowledge insights. Organisational learning is both an outcome and a process and not only encompasses the identification and adoption of the best practice but more importantly concentrates on how to re-implement success and how to learn from mistakes so that an organisation can continually renew itself. Companies that are able to identify why they have been successful and can learn from what has failed in the past will naturally increase the value of their structural capital. The organisational learning process should capture the key elements of the experiences of individuals and teams and then proactively transfer those experiences to the larger organisation.
4.11 Structural capital measurement

4.11.1 Valuing stocks of knowledge

Structural capital takes innumerable forms and each company’s will be different. Accountants and lawyers have, developed many methods to put price tags on patents, processes, trademarks, and copyrights from work they have done licensing or selling such structural intangibles. It is harder to put value on intellectual assets, which take less, defined form. Weston Anson, an MBA and lawyer who runs a La Jolla, California, company called Trademark & Licensing Associates, Inc., has a method of identifying and evaluating structural intangibles that can be applied to some of more oddball assets as well as familiar ones (Stewart, 1997:235).

To find them, Anson thinks of intangible assets as falling into one of three groups. These are (Stewart, 1997:235-236):

- A technical bundle (trade secrets, formulas proprietary test results, etc.);
- A marketing bundle (copyrights corporate name and logo, warranties, advertising, package design and copyrights, trademark registration, etc
- A skills and knowledge bundle (databases, manuals, quality control standards, asset management processes, security systems, business licenses, non-compete clause; proprietary management information systems, etc.).

He then applies three basic tests to see if an asset has marketplace value: Does it differentiate your product or service from another’s? Does it have value to someone else? Would someone else pay a fee for it? To answer those questions, you should look at an intangible asset’s uniqueness, breadth of use, incremental profit margins, legal status, life expectancy, and so on.
4.11.2 Working Capital Turns

One way structural capital improves performance is by allowing companies to substitute information for inventory. Working capital turnover can be measured by tracking the number of times each year does working capital cycles through a company.

4.11.3 Intellectual assets

Evaluating the return on intellectual asset investment is quite simply a matter of measuring the financial return from each individual asset. For example, it should be easy to track the number of new products sold versus the number of old products sold. Measuring the return on patents and licenses is normally covered by existing accounting procedures (Gray, 2001:73).

4.11.4 Processes

To improve elements of best practice, a company needs to decide on processes performance targets at the outset. As the outcome of improving best practice is hopefully to increase efficiency and productivity, your performance targets should be design to reflect these aims.

4.11.5 Knowledge management

The first step in measuring knowledge is to create a knowledge management index to measure tangible knowledge elements. The effectiveness of knowledge management initiative can be measured by tracking how the programme has affected both the efficiency and knowledge
4.12 Summary

Structural capital is important to the organisation because it is where knowledge is stored. Structural capital is a valuable asset, as it belongs to the company. A company owns it. At the end of day it is the asset that is left behind unlike human capital. A company needs to invest in structural capital as it works hand in hand with human capital.

Without good processes, databases a company will not be able to function properly. Therefore investing in structural capital will help employees to work smarter and quickly. A company needs to invest in the best technology and try and retain as much knowledge from human capital by storing it. This will in turn make the life of employees easier. Employees will be able to access information on intranets and extranets. The information need to be updated as a company does not want to pass outdated knowledge to employees.

Structural capital cannot function on its own; it needs people (human capital) and other stakeholders. In the next chapter will look at the last component of intellectual capital, which is relationship capital or stakeholder capital.
CHAPTER 5: RELATIONSHIP CAPITAL

5.1 Introduction

Just as human and structural capital, relationships can be part of a company’s inherent value. Relationship capital can be relationship with customers (customer capital) or suppliers (supplier capital) that is often seen as a partnership. In this chapter we will discuss the last component of intellectual capital that is relationship capital, and is also known as stakeholder capital. The measuring of stakeholder capital will be discussed later in this chapter.

5.2 What is relationship or stakeholder capital?

Relationship capital is defined as all resources linked to the external relationships of the firm, with customers, suppliers, or partners in research and development. It comprises that part of human and structural capital involved with the company’s relations with stakeholders (investors, creditors, customers, suppliers), plus the perceptions that they hold about the company (Starovic & Marr, n.d.:6). It also includes the image of the organisation in the market, its social identity, and brand equity.

The company can leverage structural capital and it represents enterprise-wide knowledge. Relationship capital it represents all the valuable relationships with customers, suppliers and other relevant stakeholders. Relationship capital can also be a company’s ‘mind share’ that it enjoys in its market space (Kannan, n.d.:7). External capital includes alliances and relationships with customers, strategic partners, suppliers, investors and the community (Davis, 2001:154). Relationship capital is the business value of all of the company’s relationships with its employees, suppliers, customers, partners, and its competitors. The flow of information across such relationships expands the company’s overall intellectual capital, which enhances the company’s ability to compete in the knowledge economy (Kannan, n.d.:7).
The information based value chain that results from the active use of relationships can progressively transfer marketplace power to the company. Connectivity, particularly in the form of alliances, is critical in order to effectively extract business value from relationship capital. Relationship capital, also known as customer and supplier capital is often presented in terms of the likelihood that your customers and suppliers will keep doing business with you (No doubt research, 2003:6). In order to increase this likelihood, a company need to build a closer relationship with their customers and suppliers.

A strong relationship is built by meeting the needs of their customers and suppliers. To the extent that listening to what your suppliers and customers tell you will increase the likelihood that they will continue to do business with you, therefore, you can think of customer and supplier capital as a direct way of turning intellectual capital into profits. Interestingly, the nature of this relationship is the one intangible value that traditional accounting has always readily acknowledged, labelling it goodwill and willingly ascribed it a monetary value (No doubt research, 2003:6).

Relationship capital can also be the network you have built up in your business over the years. It includes the goodwill you’ve created based on your reputation and the reputation of your enterprise. Your relationship capital is found among current and prospective customers and clients, and your vendors and referral sources.

The following are examples of relationship capital:

- Brands
- Customers
- Customer loyalty
- Customer satisfaction
- Company names
- Backlog orders
- Distribution channels
- Business collaborations
- Licensing agreements
- Favourable contracts
- Franchising agreements
- Image
- Commercial power
- Links with suppliers
- Negotiation capacity with financial entities and environmental activities

(Starovic & Marr, n.d.:7)

**Figure 5.1** Relationship Capital

Stakeholders in a company can add an extra dimension to a business, by offering skills that you do not have, by bringing in new ideas to a company, and in some cases a company can be able to share costs of a major investment. A company that builds strong relationships with stakeholders is able to build its own identity and reputation in the marketplace. The four components of relationship capital are:

- Customers
- Suppliers
- Shareholders
- Community

Stakeholder capital is about building relationships with each of the above four components and be able to capitalise on those to their best advantage. The short-term disadvantage about relationship is that they take time to build and they have to be based on mutual trust. Managing and maintaining existing relationships is more expensive than starting a new ones and the return on these investments can be substantial. Intellectual capital management is not only concerned with looking internally at your staff, your processes and your products. It is also concerned with looking at external companies and individuals who interact with the company on a daily basis.

Those external companies and individuals are not only the people who buy the products, or invest in the company, but they are also the stakeholders who will support and work with the organisation in order to achieve strategic goals of a company. You should therefore consider all external shareholders as a potential source of new skills and a seam of untapped knowledge (Gray, 2001:81). The ability of organisations to exploit the combined knowledge of all their stakeholders will be a key factor in their ability to succeed and grow.
5.3 Customer Capital

Customer capital is the most valuable component of intellectual capital. It is the combined value of all the relationships a company has with its clients. Such a relationship could be special in the way that the company has won the complete trust of a customer company; in the way that both of the companies have a good understanding of each other's needs; and inner workings or even the procedures they have developed to do business together such as EDI (Kannan, n.d.7). In the case of the professional services industry, customer capital can be both a benefit and detriment.

For a company to service a client in a particular industry, the company need to gather knowledge about its client's processes and procedures in order to add to the company's knowledge and these will in return allow them to service other clients in that particular industry with more experience than before. It is critical for managers and executive management to tap into their organizations relationships. This in turn requires proper management of their human capital.

The manner in which you build up your customer relationships will differ depending on the business you are in. However understanding your customers, managing their expectations and having a thorough understanding of the reasons why they bought from you, or have moved to a competitor is worth measuring and tracking (Gray, 2001:29). A company may be full of talented employees, cutting edge patents and universal name recognition, but without a strong and loyal customer base, they are nothing.

There are practical reasons for wanting to nurture long-term relationships with clients and making more money ranks pretty high on the list. Companies spend lots of money courting clients; keeping them typical costs less. As the client's needs grow, so does a company's potential income. There more you learn new skills from your clients, you can use that knowledge to further relationships with other clients or form new ones.
Goodwill, or customer capital, is the most important element that keeps the network together and growing. The strength and scope of a company's network overtakes traditional hard assets in importance as we move into a knowledge-based economy and customer capital will become a precious commodity. Intellectual capital is the combination of knowledge, ideas, creativity, experience and skills that enables a company to use these assets to make money.

As competition increases market share becomes more crucial. Retaining current customers, increasing the customer base and selling more products to existing customers has become the aspiration of all those in the commercial world. Knowing the buying patterns and needs of your customer, along with their propensity to remain loyal to your business, are both important factors in helping you understand where to target future investment.

Knowing how many of your customers are repeating customers, and why, will enable you to track trends over a period of time. If a customer is well established, then knowing how much they have bought in the past and measuring their current loyalty will also be of value. Customer capital is therefore not about your current market share but about looking at the strength of the relationships with current customers to increase future market share (Gray, 2001:82).

5.3.1 Customer capital investment

Customer loyalty and individual buying patterns are not normally reported to investors; it is usually only total revenues that are traditionally accounted for. To be competitive in the market is not only about selling more products, but also about how does a company service its customers. Understanding who are your customers, knowing what it is they wish to buy, and anticipating their future buying needs means that the talk of today is not just of customer service but of total personal service (Gray, 2001:82).
A company needs to identify what it is that keeps each of their customers happy to enable them to work out how much investment to put into each individual relationship. A customer relationship can be enhanced if you know how frequently an individual customer wishes to be communicated with, and then you allow each customer to control the levels of contact. Appreciating the way in which your customers wish to interact with your business is even more important, as having a choice of interaction channels has increased with recent technological advances. Customer capital investment must now consider not only the return in attracting and maintaining customers but also the return on the investment in each of those channels to market.

The investment in attracting new customers and retaining current customers can be quickly lost if the company's human capital do not have the skill, experience and knowledge on how to service the customer's needs; and also how to maintain relationships. If this is the case, a company should channel a proportion of their human capital investment into the development of customer relationship skills. Building knowledge about customer's habits and needs can be realised through the use of appropriate knowledge strategies. Sharing knowledge and information with your customers may demonstrate to them your desire to build a longer-term relationship.

5.4 Supplier Capital

Never forget that you are also a client, and can garner great value by understanding the intricacies of managing expectations in this relationship. Supplier capital is the combined value of all the relationships a company has it's with its suppliers. This relationship could be special in the way that the company has bargained extremely low prices, or that the supplier works in close co-operation with the company to find solutions for problems (Kannan, n.d.:7). Employee suppliers and outsourcing companies can also be seen as 'suppliers'. Particularly these categories of suppliers need to be managed very closely, for they will not only walk out of your door with a lot of your customer capital memorized but they could go straight to your direct competitors.
Supplier should be viewed as another business that is helping you to satisfy your own customers. Building a relationship and helping your suppliers deliver a better service to you is becoming a common practice in large companies. Many businesses rely on their suppliers to supply them in a timely and in a cost efficient way so that they can continue to function and build competitively priced products for their own customers. Building trusting relationships with suppliers should mean that they would provide your business with a better service and be willing to help your business in times of unusual demands (Gray, 2001:84).

To form relationships with suppliers’ takes time and it is can be expensive to invest in the strengthening of those relationships. A company wants a supplier to remain loyal to their business and not disappear if another customer offers more favourable financial terms. The cost of finding a new supplier and building another relationship will often outweigh the investment in maintaining the existing relationship. When a company outsource part of their services to a supplier (service provider), there should be a greater level of collaboration and a stronger trusting relationship will have to be established.

5.4.1 Supplier Capital Investment

The initial investment in supplier capital will be the time spent identifying the suppliers who are able to provide the products and services to your exacting requirements. If your investor is unable to give you a competitive price because they have inefficiencies in their own organisation, you could consider helping them to improve their business processes. A company could also invest in their supplier by either giving them access to their facilities or offering them the opportunity to train alongside their staff. Developing knowledge sharing opportunities in this way could also increase the knowledge in your own organisation. Supplier capital investment should therefore be used to build supplier relationships in order to help your business achieve its own strategic goals (Gray, 2001:84-85).
5.5 Shareholder capital

Maintaining good relationships with shareholders and major investors can help sustain the company in the long term. The better the relationship and the trust between an organisation and its shareholders will mean that, any major decisions that need to be taken by a company will be better supported and understood by the shareholders. This could manifest itself through support for the reinvestment of profits, backing for a merger or acquisition, or a request for an increase in share option allocations.

Allowing a business the freedom to function and to take far-reaching decisions will depend on the level of trust and understanding that a company is able to build with its major investors. Having a high turnover of investors or having shareholders that wish the board to act in the interests of short-term gains could be detrimental to the longer-term strategic direction of the company. An intellectual management strategy therefore needs to consider how to keep investors better informed about the long-term prospects of the company. Investors will want information that will enable them to make decisions about their future relationships with a company. The return on this investment should be realised in better market valuations and in the support the company obtains in raising financial capital (Gray, 2001:85).

5.5.1 Shareholder capital investment

For many companies the only contact they have with their shareholders is once every year at an annual general meeting (AGM). If a company wishes to invest in their shareholder capital, they should investigate the ideal way to communicate with their investors; and in return the investors needs to build an understanding of the kind of contact and information they wish to receive from the company. Investment in shareholder capital is therefore concerned with communication, which is how often does a company communicate, the quality and sensitivity of the information that is provided and the mechanisms used to enable feedback to the organisation (Gray, 2001:85).
5.6 Community capital

Building and managing your relationship with the local community may be fairly low on your intellectual capital priority list. However, the local schools contain your employees of the future and therefore nurturing this relationship could pay dividends in the long term. Community work is also an excellent way of developing your staff through mentoring schemes, through the giving of presentations and through taking on responsibilities they may not have the opportunity to take within the business. Building trust with the local community and giving them pride in your business achievements will, hopefully, enhance your brand and may open whole new pools of potential employees.

Businesses should see themselves as having a responsibility to the communities in which they exist. The level of responsibility will differ depending on the extent of influence that a business has on the world. For smaller companies, their contributions may be local, working with local schools and the local community by offering employment opportunities, or by the giving of their time to fulfil community needs. For large, multinational organisations, their responsibility may extend to cover a national program, for example, working with underprivileged children, or creating a policy of employing mothers returning to the workplace. Community capital will therefore mean different things to different companies.

Building relationships with all areas of the local community will take time. The return on investment in working with the community ought to be realised as more local people apply to become employees, as new business opportunities are identified, and as staff undertake work that helps their personal development.
5.6.1 Community capital investment

Working with and supporting community capital is not something that can be done in an ad hoc way. Investment can be in the form of financially supporting local events or in the giving of time and effort to helping with community initiatives. Working with the community can give staff developmental opportunities. Outside of the workplace employees can develop their customer relationship, facilitation and mentoring skills. Whatever community programme you decide upon it must based within the context of what it is you are trying to achieve as a business.

5.7 Relationship capital measurement

Intellectual capital management can help with the measurement of the cost of maintaining those relationships and valuing the benefits that those relationships have brought to the company. Stakeholder capital can therefore be built into the totality of your overall intellectual capital management strategy. Relationship capital is concerned with building trust and loyalty with each of the company’s stakeholders, investing in sustaining those relationships, and measuring the impact of those relationships on the business goals. Intellectual capital management should enable the company to review the measurements for each stakeholder and then relate the results to areas of human and structural capital.

5.7.1 Customer capital measures

Customer capital is the easiest to measure because revenues come from customers. A company is able to track market share, price sensitivity, market size, seasonality and so on (Brinker, n.d.: [9]). All businesses should be able to produce figures to show the number of current customers and the revenue generated by that customer base. Customer capital measurement is concerned with the quality of the customer relationships and the potential of those relationships to generate future business.
The creation of customer index should therefore consider the investment directed to building those relationships and measuring the return on the investment. Although customer loyalty is reasonably intangible, it is an asset and ought therefore to be measured.

5.7.1.1 Customer satisfaction

Customer satisfaction is too complicated to measure by means of an unscientific sample's knee-jerk rating on a scale of one to five. Happy customers should exhibit at least one of three measurable characteristics: loyalty (retention rates) increased business (share-of-wallet) and insusceptibility to your rivals’ blandishments (price tolerance) (Stewart, 1997:240). There should be a link between increased customer satisfaction and improved financial results.

5.7.1.2 Measuring alliances

Customer capital is jointly owned by you and your customers. There are a number of financial and non-financial ways to see if you’re creating it. Quality data, information on savings (for both parties) from shared process such as inspection or electronic data interchange, figures on inventories (again, for both buyer and seller) and availability all help establish the value of intimate relationships between you and your customers or your suppliers (Stewart, 1997:240-241). It is also worthwhile keeping record of your customer's financial strength and growth and your share of their business. For example if the company is a key supplier to a big and strong customer, therefore they have a valuable asset.

5.7.2 Supplier capital measurement

Supplier capital measurements are more difficult to put in quantifiable terms, as the level of investment will differ greatly across all business. However measuring the cost of services or products provided against what competitors pay, or tracking the cost of products or services provided against what
competitors pay, or tracking the cost of products from a particular supplier over a period of time should be common to all.

The levels of investment on your supplier capital will dependent on the ability of your suppliers to add value to the offerings to your own customers. Measuring the turnover of your suppliers may tell you more about your organisation value as a customer than about the quality of your suppliers. Another aspect of measuring the investment in your supplier capital could be to determine how a joint initiative has improved the results in your customer capital index (Gray, 2001:88).

5.7.3 Shareholder Capital Measurement

A good stockbroker ought to be able to give you statistics on the turnover rate of your shareholders, how long a particular investor has held shares, and how many new investors have been attracted to the holding. Through communication with the major shareholders you could establish other measurements, such as satisfaction with the last dividend payment and the potential for growth of a particular holding.

5.7.4 Community Capital measurement

As your community programme becomes more sophisticated and the relationships become wider and more varied you should ensure that the investment is helping to fulfil your original objectives. A number of companies already produce community measurements in their annual reports.

5.7.5 Other methods of measuring relationship capital

While the commonly used and abused balanced scorecard approach addresses only the needs of two stakeholders, that is investors and customers; the performance prism goes further and considers employees, suppliers, intermediaries, regulators and communities. It also addresses both stakeholder satisfaction and contribution.
It drills down from strategies to processes and then to underlying capabilities; the performance prism achieves a comprehensiveness and wide-angle view that is lacking in other business performance measurement frameworks. The result is much more realistic picture of the drivers of business success (Adams & Neely, n.d.:1).

**The Performance Prism**

The performance prism (see figure 5.2) is a second-generation performance measurement and management approach developed by Cranfield School of Management in collaboration with consultancy Accenture (Starovic & Marr, n.d.:9). The performance prism addresses the strategies, processes and, importantly the capabilities that are needed to satisfy the wants of the organisation and the needs from stakeholders.

The performance prism consists of the following five facets:

- Stakeholder satisfaction
- Strategies
- Process
- Capabilities
- Stakeholder contribution

The weight given to each will depend on the particular strategic objectives of the deal. The fundamental questions to ask are (Adams & Neely, n.d.:1):

- Who are our key stakeholders and what do they want and need?
- What strategies are we pursuing to satisfy these wants and needs?
- What processes do we need to put in place to achieve these strategies?
- What capabilities are necessary to operate and enhance these processes?
- What do we want and need from stakeholders to maintain and develop those capabilities?
Figure 5.2  The Performance Prism

Prism facet one: Stakeholder satisfaction
The performance prism makes a broad range of stakeholders, including employees, customers, suppliers and regulations, the focus of measure design.

Prism facet two: Strategies
The key elements of a business combination's strategy will typically be to:

- Leverage the merged companies' brands, products and services to customers
- Strengthen market share or competitive positioning
- Improve net cash flows through substantial cost savings
• Deliver the benefits anticipated to a business unit level
• Manage budgeted costs of the post-merger integration.

The performance prism enables relevant monitoring to determine whether strategic goals are being met and to provide the data informed executive decisions.

**Prism facet three: Processes**
Business processes play a vital role cross-functional role. They are the engines that enhance value:

• Supporting revenue generation through integration
• Spurring cost reduction through shrinking headcount and facilities
• Optimizing procurement and logistics channels

**Prism facet four: Capabilities**
Capabilities are the combination of people skills, business practices, leading technologies and physical infrastructure that create value for stakeholders. They are the fundamental building blocks of a corporation’s ability to complete distinctively and thus present many challenging issues for post-merger integration implementation teams.

**Prism facet five: Stakeholder Contribution**
The performance prism addresses not only what all stakeholders want and need from the newly merged enterprise, but also what the company reciprocally wants and needs from them. Most importantly:

• A stronger investor profile
• A positive response from securities analysts and business media
• Retained employees loyal to the new enterprise
• No erosion of its combined customer base by opportunistic competitors.
5.8 Shareholder Information

In order to communicate with stakeholders outside the company, you must have information to communicate and that the information is in the form and language that the stakeholder understands. Communication with stakeholders now requires a deeper understanding of the attributes of value from the point of view of the stakeholder groups. For the company this means that the management's strategy must be more sophisticated and the levers that management pull to improve their business that much more numerous and complex (Pike & Roos, 2000:9).

For a long time the only information that seems to have been required by stakeholders to be reported in a standardised form in most companies has been company performance in financial terms. In the knowledge era, the concept of stakeholder or even shareholder value extending beyond simple financial performance measures is a crucial change. To communicate with stakeholders now requires a deeper understanding of the attributes of value from the point of view of the stakeholder groups. Internally in the company this means that the management's strategy must be more sophisticated and the levers that management pull to improve their business that much more numerous and complex (Pike & Roos, 2000:9).

The following are the tests and requirements of a truly comprehensive intellectual capital management and measurement scheme. Although some approaches come close to providing a holistic approach, only HVA come close to providing it (Pike & Roos, 2000:9).
Table 5.1  Other methods of measuring intellectual capital

<table>
<thead>
<tr>
<th>MAIN CRITERIA</th>
<th>TEST</th>
<th>Financially based, e.g. EVA</th>
<th>1st generation IC and BBS</th>
<th>2nd generation IC e.g. C Index</th>
<th>3rd generation IC HVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditable and reliable</td>
<td>Data meets a standard</td>
<td>Yes</td>
<td>No</td>
<td>Partial</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Data addresses looks at the right time frame</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Overhead and ease of use</td>
<td>Low measurement overhead</td>
<td>Yes</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Easy to initiate and use</td>
<td>Yes</td>
<td>Yes</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Strategic management</td>
<td>Allows multi-level management</td>
<td>Partial</td>
<td>Does not allow trade-off decisions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Measures stock, flow and influence</td>
<td>Stock</td>
<td>Stock</td>
<td>Stocks and influence</td>
<td>Stock, flow and influence</td>
</tr>
<tr>
<td>Shareholder information</td>
<td>Provides data all levels in the company</td>
<td>Partial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Engages all value attributes of all stakeholders</td>
<td>No</td>
<td>No</td>
<td>Partial</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Pike & Roos, 2000:9
HVA – HOLISTIC VALUE ADDED

HVA is a technique that combines a navigator model of the business with measurement theory and axiology to generate a non-dimensional view of company as seen from the point of view of any stakeholder. The output of this analysis is combined with a navigator-driven financial model to provide an indicative measure of a dollar value for the company. The HVA model is different from all the others in that it is a generic measuring instrument rather than an assessment process.
As such, the methodology is more rigorous and complete. The entire process is one that displays the benefits of being transparent, axiomatic, and auditable and yields the same result regardless of who does it. Figure 5.3 outlines the HVA approach in the context of valuing business. Input from senior management level is required to initially identify key stakeholders and to outline the organisation's strategic intent, the role it plays and values it delivers.

5.9 Summary

Relationship capital is important because it looks at the external relationships that have been formed with the company. It looks at the external resources such as customer, supplier, shareholders and community. A company needs to form alliances and collaboration with the external resources in order to create wealth and shareholder value for the organisation.

Relationship capital cannot work on its own without the internal resources such as human capital and structural capital. This three components need to work hand in hand in order create wealth and shareholder value for the organisation. In order for a company to succeed in the 21st century, there should be communication between the company and its shareholders. Companies should no longer hide information from investors but try to give them as much information about the company.
CHAPTER 6: SUMMARY, CONCLUSION & RECOMMENDATIONS

6.1 INTRODUCTION

Understanding what you have and how it can be used to increase your ability to capitalise on the potential of your company and understanding what you don’t know can help target appropriate investment. The research has revealed that in order for intellectual capital to work we need to look at the three components (human, structural & relationship capital). These three components they work together. As a company you should pay more attention on all of them as one component’s failure will affect the other components.

Intellectual capital shows that these three components are more valuable to the company as they can create wealth and shareholder value for the company. Human capital consists of skills, knowledge, capabilities, experience, and problem solving abilities. A company does not own human capital but can invest in human capital by improving their skills and knowledge. Structural capital consists of hardware, software, databases, systems, work processes, business models, organisational structure, patents, trademark, and trade secrets. Unlike human capital a company owns human capital. A company should invest in the best work processes and systems in order to enable the employees their work more productively. Structural and human capital form part of the internal capital.

Relationship capital is an external capital that includes alliances and collaborations with customers, suppliers, investors and the community. A company needs to build good and strong relationships with their external counterpart in order to succeed. A company needs not only financial capital but also human, structural and relationship capital in order to function properly and create wealth and shareholder value for the organisation.
6.2 SUMMARY

Every business generates value in some form or another, otherwise it would not exist. This research has shown us that in order for intellectual capital to create wealth for the organisation, the company needs to know how to manage their acquired knowledge. Knowledge management is an activity to support a paradigm to manage our intellectual capital. Intellectual capital management is the tool that will value and measure our business components and register the intellectual assets as an intangible benefit (this is the future). There is a growing communication gap between firms and users of business reporting and many managers feel their firms are under valued by capital markets. Users call for more forward-looking information, describing the strategy and the drivers of future earnings. They are however relatively content with the financial reporting of estimating short-term performance.

Intellectual capital has a very strong impact on the drivers of future earnings, but is largely ignored in financial reporting. Besides the amount of money in the bank (financial capital) and the money spent on things like desks (structural capital), a company also has the combined experience of its staff (human capital) and relationships with its customers or suppliers (relationship capital). The combination of these four different types of capital makes up the capital of a company. Only by examining all these types of capital can one begin to deal with the new issues that the information age has created.

Intellectual performance, that is growth/decline of the intellectual capital of the company, is increasingly interpreted as an early warning signal of subsequent financial performance. Simply because they say more about future earning capabilities, we are convinced measures of intellectual capital will increasingly be at the forefront in discussing the health and value of companies, inside and outside the organisation.
The other critical point that management needs to take note of in the measurement of intellectual capital is that measurement schemes tend to grow uncontrolably. Two dangers emerge from over measurement. The first is that the cost of data collection far outweighs the benefits of having it and that its collection also causes considerable irritation amongst those doing the measurement and those being measured especially if the redundancy of the measurement is obvious. The second is that management based on over measurement leads to justified accusations of micro-management and the tendency to instil unwanted behaviours. This latter point arises since people tend to want to improve performance and will tend to focus on many trivial elements in an over-elaborate measurement system. In doing this they loose sight of the bigger and more important picture.

The final point is that the intellectual capital approach illuminates important performance measurement issues. Usually what is measured in companies is also what is managed. But what can be measured is not always important, what is important cannot always be measured. Interestingly, as the business society has developed, the key step in value creation has ascended an intellectual staircase. The key elements have evolved through just being there, to physical capital dominated to organisational capital dominated and now to human capital dominated. Management models have also evolved but there has been a key difference in the transition to the knowledge economy. The difference is not that yet further items have been added to the balance sheet or recorded as costs in the profit and loss statement but that people are now also assets with an indeterminable value as far as standard accounting is concerned.

6.3 RECOMMENDATIONS

The objective of this study was to emphasise the importance of intellectual capital in an organisation. It has been discovered that companies can no longer rely on financial capital only but it has to look at both tangible and intangible assets in order for a company to survive in the 21st century.
To conclude this study taking cognisance of the literature research, the following recommendations can be made:

- A company should enhance knowledge sharing and learning at all levels (individual level, the organisational level) which will in return accelerate the company’s capabilities. This is done by building a knowledge infrastructure, because:
  - Learning enhances business competencies.
  - Companies will have a superior ability to understand and detect what’s going on in the marketplace (where preferences are shifting rapidly)
  - They can transfer skills across the organisation and expand our markets faster
  - They can generate new opportunities for the organisation before the marketplace has discovered they are required.

Finally the following steps need to be done by a company if they want to manage their intellectual capital effectively.

**Step 1 Identify Intellectual Capital**

Identifying intellectual capital is the first step in the understanding of the nature and content of the intellectual capital of the organisation. Organisations may have a lot of intangible assets but still be poor in the intellectual capital.

| Intellectual Capital = Corporate Sustainability |

**Step 2 Develop an Intellectual Capital Policy**

Once the organisation understands the nature of its intellectual capital, a policy is required for growing and maintaining it. The objectives of the intellectual capital policy are:

- To ensure that corporate goals can be met
- To ensure that intellectual capital resources are in place as and when they are needed.
To ensure that every member of the organisation understands this process and the part they play in its success.

Tasks that can be undertaken in order to design the intellectual capital policy include:

- Mechanisms to review strategic goals and threats
- Methods to identify missing and redundant intellectual capital
- Identification and design of feedback mechanisms to ensure that intellectual capital is meeting corporate requirements.
- Mechanisms to develop and acquire intellectual capital
- Organisational policy on intellectual capital management
- Training employees and collaborators.

Step 3  Audit Intellectual Capitals

The management process should include status report on intellectual capital and recommendations for intellectual capital restructuring. An intellectual audit looks at all intangible assets in the company and documents their existence, current state and maybe their value. For employees we would document their education put each one through a set of psychometric and personality tests to discover the potential of very employee. We need to look at intellectual property rights, all trademarks and all know-how. The end result would be an immense knowledge about intangible asserts. This will enable us to determine how many people had tertiary education, how many people had been with the company for more than ten years, how many customers we had, how many patents we had and what cost to maintain them. In short it will help us to generate statistics that may or may not be useful information.

Why undertake and intellectual capital audit? Knowledge of intellectual capital is a rich source of information about the organisation and is of particular value in the following scenarios:

- Validating the organisation's ability to achieve goals
- Planning research and development
- Providing background information for re-engineering programmes
• Providing focus for organisational education and training programmes
• Assessing the value of the enterprise
• Expanding an organisational memory.

Step 4  Document and store of intellectual capital
Companies who are serious about deriving maximum benefit from their intellectual capital need to store information and knowledge about their capital on computer system where those who require access can have their own interface customised.

Step 5  Guarding of intellectual capital
Guarding of intellectual capital is concerned with the protection of intellectual, market, human and infrastructure assets. Each type of intellectual capital requires different types of protection and has associated professionals who are the best individuals to undertake the task. For example:
• Market assets are guarded by Intellectual property rights
• Intellectual property assets are guarded by registration of patents, trade marks, design rights and copy rights
• Human capital is guarded by growth opportunities in a well-rewarded and interesting work, which provides the employee with job satisfaction and the knowledge that their position represents a worthy contribution to the enterprise.
• Infrastructure Assets are guarded in part by management who dictate philosophy and design management processes that in turn dictate corporate culture.

Step 6  Growth and renewal of intellectual capital
Intellectual capital management team is not responsible for the growth itself, but for its management to ensure it complies with organisational policy.

Step 7  Dissemination
The responsibility for dissemination of information about intellectual capital by way know-how is the responsibility of the IC management team. Feedback
mechanisms should indicate how successful their role is. The methods of dissemination will be via use of the knowledge base or via the intellectual capital report.

6.4 CONCLUSION

Why intellectual capital important in an organisation? Traditionally, capital could be viewed in purely financial or physical terms. It showed up in the buildings and equipment owned, and it could be found in the corporate balance sheets. Recently, the emphasis has switched to an intangible form of asset, which is called intellectual capital. The challenge for the companies lies in the management of their intellectual capital.

*Intellectual capital is important to both society and organisations. It is a source of competitive advantage for businesses and stimulates innovation that leads to wealth generation.*
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