BUILDING INDUSTRY AND ORGANIZATIONAL FITNESS:

NATURE, MEASUREMENT AND DEVELOPMENT

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Declaration

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and has not previously in its entirety or in part been submitted at any university for a degree.

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Abstract

It is well understood that the advancement in information technology and increasing globalization has led our business environment to become much more complex and uncertain. Similarly the appropriateness of a firm's strategy can be defined in terms of its fit, match or congruence with the environment or organizational contingencies facing the firm. Thus at the turn of the 21st century, the concepts of industry and organizational fitness play a significant and predominant role in ensuring survival.

The study presumed that, although various models and tools related to measuring and building industry and organizational fitness have been contributed by various authors, there exists an absence of comprehensiveness and coherence between them. Thus it aimed at investigating and analyzing different contemporary strategic management approaches and tools, so as to describe the comprehensive nature of industry and organizational fitness and find all-inclusive areas of measuring and building organizational fitness.

According to the analysis done it was found that a significant level of overlap and bewilderment exists in differentiating the elements and components of industry fitness and organizational fitness. Moreover, although no considerable disagreement and deviation was detected between the various contemporary approaches and tools related to measuring and building organizational fitness, there is a high degree of replication and disintegration between them. In addition to this most of the approaches have a partial coverage of the important factors that influence organizational fitness and attempt to deal with problems from limited perspectives.

On the bases of the analysis and findings, recommendations are provided for improving the understanding of the concepts and the nature of industry and organizational fitness. Moreover, suggestions for integrating and cohering the various strategic management approaches and tools of measuring and building organizational fitness are given.

Opsomming

Dit is welbekend dat ons sake omgewing baie meer kompleks en onseker geraak het weens die vooruitgang in informasietegnologie en toenemende globalisasie. Die geskiktheid van 'n firma se strategie kan gemeet word aan hoeverre dit pas by die omgewing en die gebeurlikhede wat die firma mee moet deel. Aan die begin van die 21ste eeu speel konsepte van industrie en van organisoriese fiksheid 'n oorheersende en betekenisvolle rol in die bepaling van oorlewing.

Dar is gevind dat, alhoewel daar al baie geskryf is oor verskillende modelle en metodes om industrie en organisoriese fiksheid te meet en te bou, daar tog 'n gebrek is aan volledigheid en samehangendheid. Dus ondersoek en analiseer hierdie studie die eietydse benadering tot strategiese bestuur en die metodes wat gebruik word. Die doel is om die aard van industrie en die fiksheid van 'n organisasie omvattend te beskryf en om metodes te vind om dit te meet en uit te bou.

Die analise toon dat daar 'n groot mate van verwarring en oorvleueling bestaan in die uitkenning van die elemente en komponente van die fiksheid van 'n industrie en 'n organisasie.

Alhoewel daar nie groot verskille of afwykings tussen die eietydse benaderings en metodes is nie, is daar wel baie herhaling en disintegrasie. Die meeste benaderings dek ook net gedeeltelik die belnagrike faktore wat 'n organisasie beïnvloed en benader die probleme vanaf beperkte perspektiewe.

Op die basis van die analise en bevindings word aanbevelings gedoen sodat die konsepte en aard van die industrie en organisoriese fiksheid beter verstaan kan word. Ook is daar voorstelle vir die integrering van die verskillende strategiese bestuursbenaderings en die metodes vir die meet en opbou van organisoriese fiksheid.

To my parents, Mukhtar and Zeineb, whose support and care is my fuel to success

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CHAPTER ONE: INTRODUCTION

1.1 PREAMBLE

One of the significant events that have occurred in the business environment is the near-demise of Encyclopaedia Britannica, one of the strongest and best-known brands in the world (Evans and Wurster, 1997). Similarly, newly emerging companies such as Microsoft, Intel, Canon and Amazon.com are becoming the world's success stories, while relatively older and bigger companies are fading out. During the 20th century, Japanese firms began to out-compete Western companies in the automobile and electronics industry. Greater environmental and ethical requirements have also been imposed on companies, causing higher survival risks for firms such as Monsanto (Barrett, 2000). The 21st century business world was also affected by the disastrous events of the attacks on the World Trade Centre in September 2001. These are only few of the events that have occurred in the past decades to increase the levels of unpredictability, complexity and turbulence in the world. Given these factors, therefore, the problem of industry and organisational fitness and survival becomes one of the main factors needing deep evaluation and analysis.

Moore (1993) attests that, in today's world of business, it does not matter which particular business ecosystem stay alive; it only is essential that competition among them is fierce and fair - and that the fittest survive.

At the turn of the 21st century, the concept of organisational and industry fitness is receiving recognition as a major means of ensuring survival. This study therefore focuses on this crucial and prevalent issue to explain and analyse the concept of fitness and ways of measuring and building it. The study also explores different contemporary strategic management models and concepts to explain the key attributes of fitness and to search for measuring and building methods.

Finally, the researcher provides some conclusive remarks on building industry and organisational fitness and recommends areas for further research and analysis.

1.2 BACKGROUND

The appropriateness of a firm's strategy can be defined in terms of its fit, match or congruence with the environment or organisational contingencies facing the firm (Zajac and Bresser, 2000:429). If one uses the analogy that an organisation is a contestant in the business Olympics, it becomes clear that it is important to know in what shape it is and how it can win the marketing marathon (Maruca, 2000:24).

1.2.1 Definition of Fitness

The term fitness is commonly used in the natural and social sciences. For instance, body fitness has become one of the basic health issues in the developed world today. Similarly, the concept of social fitness (Shyness Clinic, 2000) is one of the newly emerging notions. The public's political fitness (Potier, 2001) is another example of applying fitness to the field of the political and sociological sciences. In the business world, fitness can be viewed in two ways – industry fitness and organisational fitness.

Industry fitness relates to the interplay and interaction within and between industry members in broader terms and provides an overview of how they influence and are influenced by the business environment, while organisational fitness relates to the specific organisations and their internal and external adaptations. Organisational fitness is the foundation of the broader industry fitness.

According to Perrin (cited in Van Nieuwenhuyzen, 2001:7), organisational fitness is the ability of an organisation to combine clear goal definition with an understanding of the capabilities required to achieve those goals and to align and flex the organisation as a whole

to create those capabilities. In other words, there needs to be a sense of agility in strategic and tactical decision making, leading to the marshalling of resources and execution. The components are difficult to acquire, but constitute what makes the difference between winners and losers.

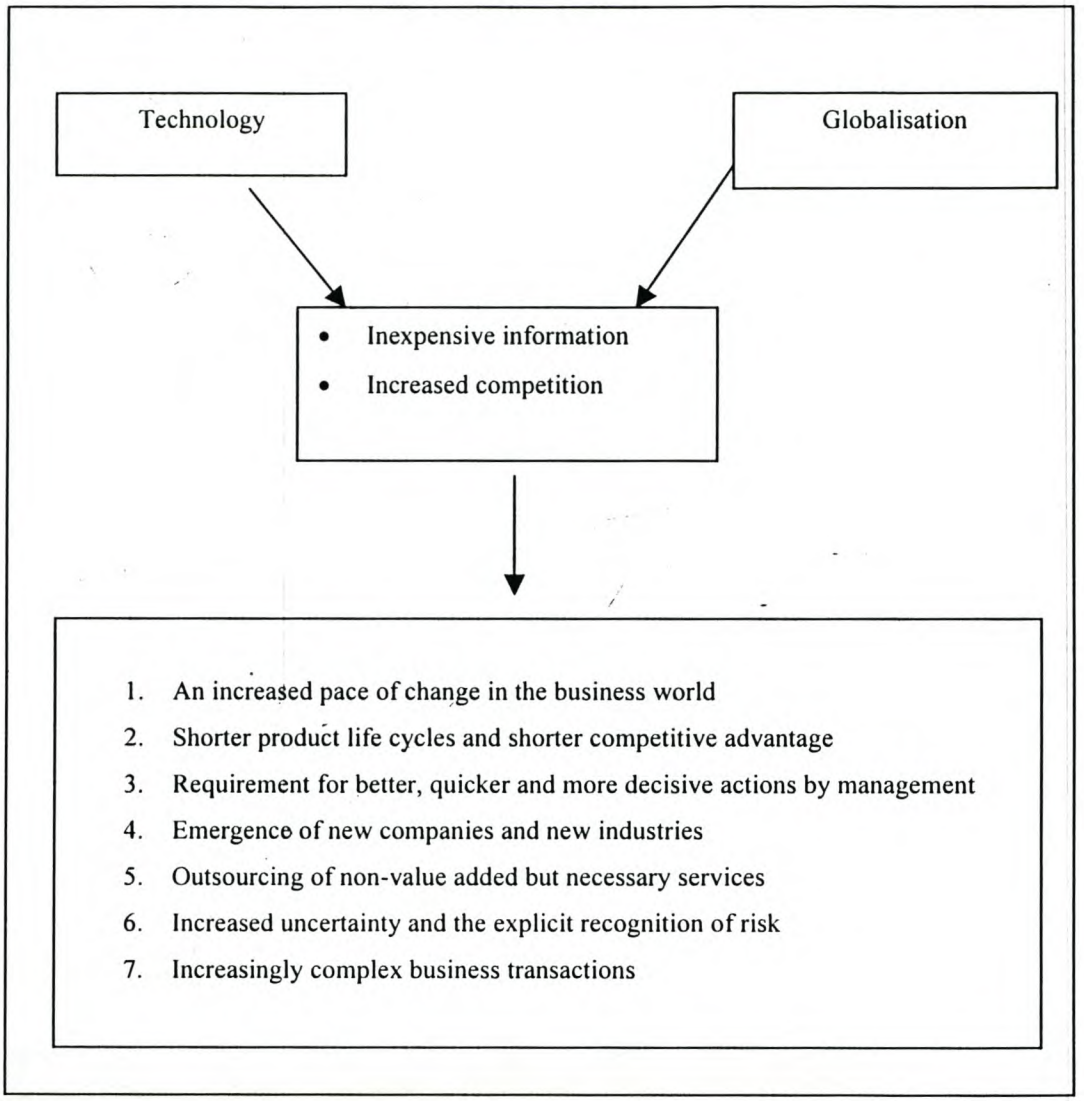
The Centre for Organizational Fitness (www.orgfitness.com) describes a "fit" organisation as one that possesses the capabilities to successfully implement its strategy. These capabilities include coordination, commitment, competence (technical, management and leadership), communication, creativity, capacity management and allocating resources to fit the strategy.

1.2.2 Changes in the Business Environment

Management is always confronting new challenges. Sometimes these are simply yesterday's challenges presented anew in a slightly different context. But, from time to time, new challenges emerge that have no close precedent. In the new economy, the continuously changing business environment has become the major challenge for managers.

According to Albrecht and Sack (2000:11), at least two major developments have occurred that have changed the business environment dramatically. Figure 1.1 elaborates how these developments, namely technology and globalisation, have influenced the world of business.

Figure 0.1 : Forces of Change in the Business Environment



Source: Albrecht and Sack (2000:11)

1.2.2.1 Technology

Technology has been developed that has made information preparation and dissemination inexpensive. This technology has taken the form of low cost, high speed digital and cable video and data transmission hardware that produce information quickly and easily (Albrecht and Sack, 2000:11). With this technology, time, space and other temporal constraints to obtaining information have been reduced and, in many cases, eliminated. Moreover, technological progress has led to reduced costs and greater productivity. The advances in information technology (IT) also have enabled firms to achieve greater process flexibility and

increased economies of scope, i.e. the ability to switch cost effectively from one product to another. Developments in IT have also led to the shift of power from organisations to customers and to the reduction of barriers to new entrants.

1.2.2.2 Globalisation

Faster methods of transportation, together with instantaneous information, have allowed the world to become one giant marketplace. The distance and spaces between organisations, customers, suppliers etc. is shrinking more and more. Local firms no longer have the authority over their local markets as more foreign companies have started to invade these markets.

Overall, the advances in information technology and increasing globalisation have led the business environment to become much more complex and uncertain. The challenge that managers should tackle therefore is to effectively manage this chaotic environment, enable their organisations to compete within a context of cooperation and to create a system that becomes increasingly complex while extremely flexible (Leibold, 2001).

1.3 PROBLEM STATEMENT

Different authors have contributed a number of models and tools related to measuring and developing industry and organisational fitness, but only few have treated organisational and industry fitness in a comprehensive and holistic manner. In fact, most of the approaches entail only partial emphasis and coverage of the issues related to industry and organisational fitness. Moreover, there seems to be vagueness and a considerable degree of difference in the approaches to these concepts.

1.4 OBJECTIVE OF THE STUDY

The primary objective of the study was to analyse and link the various strategic management approaches of industry and organisational fitness. On the basis of the analysis, therefore, this study

A. provides a preliminary, comprehensive explanation of the nature and elements of industry and organisational fitness

B. discusses the different approaches to measuring and building organisational fitness and explains the similarities and differences between these approaches. Furthermore, it recommends approaches that require further research and growth

C. presents the different constraints encountered in dealing with industry and organisational fitness.

1.5 SCOPE OF THE STUDY

The concept of industry and organisational fitness is broad and embraces many aspects of strategic management. This study therefore will cover all concepts that have relevance in measuring and building organisational and industry fitness. However, given that the concepts of industry and organisational fitness are recent and intricate, it will be a preliminary study that will provide ideas for further in-depth research and analysis.

As can be deduced from the title of the thesis, the study comprises both industry and organisational fitness. Owing to the fact that organisational fitness is the basis for industry fitness and that, in most aspects, the two concepts overlap; more emphasis is put on the analysis of organisational fitness.

1.6 RESEARCH DESIGN AND METHODOLOGY

The study is descriptive in nature, focusing on the empirical and textual analysis and evaluation of strategic management models, concepts and tools that help to measure and build organisational and industry fitness. The study is based mainly on secondary sources, such as contemporary strategic management print journals, books, newspapers and the Internet.

1.7 STRUCTURE OF PRESENTATION

The study has six basic chapters:

The first chapter, the introduction, provides general information about the study and background to the concepts of industry and organisational fitness. The objective and scope of the study, organisation of the study and the methodologies used are some of the topics covered in this section.

The second chapter provides an overview of the *concept and nature of* ***industry*** *fitness*. In this chapter, the definition of industry fitness and the different components of industry fitness, such as industry ecology, the fitness landscape and the evolutionary cycle of the industry, are covered.

The *concept and nature of* ***organisational*** *fitness* are covered in the third chapter. This chapter provides a definition of organisational fitness and includes a thorough discussion of the elements of and barriers to organisational fitness, as well as factors that influence it.

Techniques of *measuring organisational fitness* are discussed in the fourth chapter. In this chapter, different tools, such as the intellectual capital index (Roos et. al., 1997), the balance scorecard (Kaplan and Norton, 1996), balance sheet, intangible asset monitor (Sveiby, 2000), human resources accounting and economic value added, are analysed.

The fifth chapter provides an analysis of the different approaches to and tools for building organisational fitness. New business strategy concepts and models such as the dynamic capability approach, Porter's diamond model, and complexity and chaos management theories are discussed. Moreover, this chapter discusses strategic management tools and techniques, such as the creation of new market space (Kim and Mauborgne, 1999), corporate universities (Rosen, 1998; Gerbman, 2000; Rademakers and Huizinga, 2000), strategic alliances and collaboration (Leibold and Slabbert, 1994), and rejuvenating intellectual capital (Gibbert et al., 2001) that help in building organisational fitness.

The last chapter provides the Summary, Conclusions and Recommendations.

CHAPTER TWO: THE CONCEPT AND NATURE OF INDUSTRY FITNESS

2.1 INTRODUCTION

In the 21st century, purely "bricks and mortar industries" (Bellman, 2001:21) are fading away and are being replaced by service and information industries. Similarly, one of the major occurrences is the birth of new industries, such as cable communications, computers and e-business. Moreover, most of the traditional industries have shown a shift to a more advanced and complex structure. Many industries traditionally considered to be non-blendable, such as the wine and tourism industries for instance, are being observed to create fine harmony with each other. These changes and shifts are the result of various incidents and the reactions of industry players in response to trends in the business environment.

This chapter analyses and evaluates a broad spectrum of industries to explain the concept, nature and relevance of industry fitness and its elements.

2.2 DEFINITION OF THE CONCEPT OF INDUSTRY FITNESS

According to the Encarta World Encyclopaedia (encarta.com), an industry, in a general sense, refers to the production of goods and services in an economy. The term industry also refers to a group of enterprises (private businesses or government-operated corporations) that produce a specific type of good or service—for example, the beverage industry, the gold industry, or the music industry. Some industries produce physical goods, such as lumber, steel, or textiles. Other industries—such as the airline, railroad and trucking industries—provide services by transporting people or products from one place to another. Still other industries, such as the banking and restaurant industries, provide services such as lending money and serving food

respectively. Industry therefore includes the activities and organisations involved in the process of producing goods and services.

Even though no specific definition is given to industry fitness, the meaning can be derived from the above-mentioned explanation. Industry fitness is related to the activities and actions taken by members of a specific industry in adapting themselves to the rapidly and unpredictably changing business environment. It also focuses on the interdependence and interaction existing between and within industries in influencing and reacting to the fitness landscape.

The first step to understanding industry fitness therefore is to study its nature and explain its different elements and the interplay existing between them.

2.3 THE NATURE OF INDUSTRY ECOLOGY

Ecology is generally defined as the air, land, water, plants etc. of a specific area. In the business world, the term organisational ecology refers to the organisational entries and exits within an industry (Amburgey and Rao, 1996:1265), or to the birth, growth and mortality of an industry population (Barnett, 1990:31). In broader terms, industry ecology can be defined as the activities and relationship existing between the industry players – organisations, customers, governments etc. Evaluating the organisational ecology enables us to examine and understand

- structural inertia within industries, i.e. the process and contents of changes to match environmental conditions (Ruef, 1997:837)
- the organisational founding, mortality, adaptation and selection processes (Amburgey and Rao, 1996:1266)

- mutualism and competition within and between industry populations (Barnett, 1990:34)
- the process of co-evolution in the business ecosystem (Moore, 1993)

Amburgey and Rao (1996:1268) have outlined four important issues relating to organisational ecology. These are density dependence, organisational founding, organisational mortality, and adaptation and selection.

2.3.1 Density Dependence

According to Hannan (cited in Amburgey and Rao, 1996:1268), there is a U-shaped relationship between population density (the number of organisations within an industry) and the failure rate of organisations, and an inverted U-shaped relationship between population density and the founding rate of organisations.

Furthermore, Delacroix and Rao (1994) argue that empirical support for density dependence on death rates was weaker than the support for density dependence on founding rates. While this is true, they also accentuated that the density effects should be unbundled and examined, and proposed two different effects

- institutional infrastructure, such as relational density
- vicarious learning

Baum and Oliver (cited in Amburgey and Rao, 1996:1270) state that the number of formal relationships between the members of a population and the key actors in the population's environment diminish death rates and increase founding rates, as they lead to greater cooperation and mutualism between the organisations. In addition, overlap and non-overlap density, that is the proportion of members with similar characteristics and acting in the same line or concentration of members in specific fields, plays a major role in the mortality and

birth rates of populations. It is argued that overlap density inhibited founding rates and increased death rates, whereas non-overlap density increased founding rates and diminished death rates (Amburgey and Rao, 1996:1268). The key for the entry and sustainability of organisations therefore will be to maintain non-overlap density by improving their market differentiation. Moreover, as proposed by Ruef (1997:841), an organisation's ability to improve its market differentiation decreases in proportion to population density within its niche. It has been observed that population density has a significant impact on mortality and birth rates and intra-industry population activities. However, it is important to remember that organisational attributes, for instance the strength and reputation of the organisations and organisational competencies, have to be considered together with the density to obtain a full-scale observation.

2.3.2 Organisational Founding and Mortality

As discussed above, the death and birth of organisations seem to be highly influenced by the level of inter-firm interaction and relations existing within the industry. In fact, Moore (1993) argues that populations co-evolve to ensure sustainability and that every member should pass through four inevitable evolutionary stages – birth, expansion, leadership and self-renewal or death.

The founding rate can be influenced by at least three factors. First, as described above, the number of existing (incumbent) organisations and their reputation can either encourage or hamper the founding of organisations. The second factor, which is equally important, is the level of mutualism and complementarity between existing members and new entrants (Barnett, 1990:33). If there is a reasonable level of supplementary similarity or complementary differences, the founding rate will be higher. The new entrant's ability to out-innovate incumbents may be considered as the third factor that influences founding rates.

Similarly, Moore (1993) attested that members could ensure their survival as long as they were capable of renewing themselves through continuous innovation. In addition, Amburgey and Rao (1996:1269) emphasised that members' ability to take risks and their commitment to their stakeholders have an influence on organisational survival and performance. It is also pointed out that the level of inter-firm links plays a great role in reducing death rates. Networks created between members and strategic alliances and joint ventures can help to minimise mortality.

2.3.3 Adaptation and Selection

Apart from the intra-organisational capability to change and adapt to environmental changes, Baum and Oliver (cited in Amburgey and Rao, 1996:1273) emphasise the effect of inter-organisational links on the rates and effects of change. Hansen et al. (2000) support this idea, stating that, as micro-communities, network organisations can be viewed as incubators for creating new organisations and adapting existing subunits. Moreover, a commonplace proposition in organisational theory is that organisations learn from experience, as the organisation and population level learning process facilitates adaptation and diminishes mortality (Amburgey and Rao 1996:1274).

In assessing the mentioned factors, Hannan and Freeman (1994) point out that the crucial element in population ecology is the population of organisations and the first assumption is that organisational populations can be defined as having a unitary character. However, there should be a clear description of the members that should and should not be included.

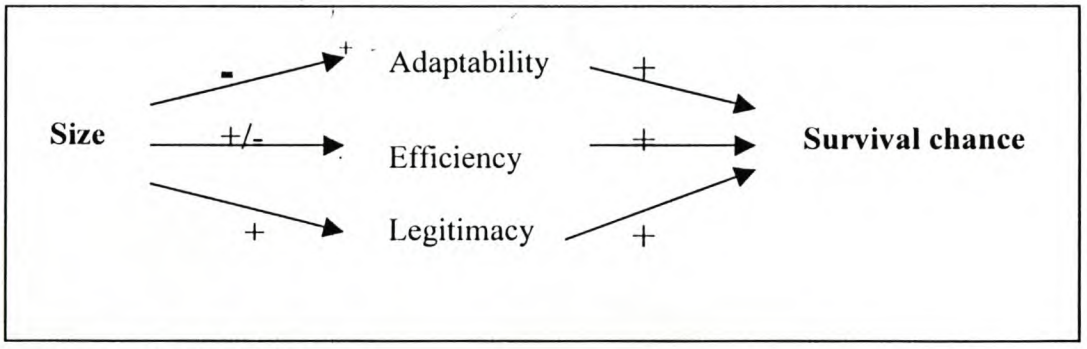
2.3.4 Influence of organisational size and age on industry fitness

Ruef (1997) provides two organisational attributes that have a great influence on organisational survival – the size and age of the population members.

2.3.4.1 Size

According to Ruef (1997), larger organisations have less of an ability to adapt their position in the social production space than do smaller ones. The main reason for this is that larger organisations encounter greater difficulty in changing their complex and intricate structures and internal routines. Moreover, the size of an organisation has an effect on at least two other latent processes that are linked to survival, namely the technical criterion of efficiency and the institutional criterion of legitimacy. Their relationship to size and their influence on organisational survival is explained in Figure 2.1.

Figure 2.1 : Countervailing Influences of Organisational Size on Survival



Source: Ruef (1997:842)

As observed in Figure 2.1, the size of the organisation has both a positive and a negative influence on efficiency through the economies and diseconomies of scale. A positive association between size and legitimacy has been noted through the heightened visibility and social status that size conveys with respect to both the general public and other influential organisational actors (Ruef, 1997:842).

Overall, it is assumed that industries that are composed of a higher proportion of large-sized organisations will experience greater difficulty in adapting to environmental changes than those with a higher percentage of small organisations. Smaller organisations are considered to be much more flexible and efficient.

2.3.4.2 Age

Just as is the case with organisational size, Ruef (1997:842) argues that the organisational ability to adaptively reposition itself declines with time. This is because older organisations have a lower ability to monitor market competition.

Hansen et al. (2000:80) support this idea, stating that even though older organisations (incumbents) have the ability to attain scale and scope economies, they lack the crucial element for organisational survival, namely entrepreneurial drive, which is the ability to pursue risky and disruptive innovations.

In addition to age and size, the complexity of organisational arrangements and the mission that organisations strive to pursue have a significant impact on an organisation's ability to adapt. It is believed that organisations with a larger scope, i.e. generalist operations, possess greater flexibility and adapt more easily than specialist, small-scope organisations. This is because specialist organisations do not have a geared-up infrastructure and resources that allow them flexibility to adapt to newer business positions. Furthermore, utilitarian organisations, e.g. organisations for profit, have a higher ability to devote resources toward identifying strategic positioning opportunities that allow them to exploit new market niches than purposive organisations such as social organisations.

2.3.5 Mutualism and Competition

According to Oliver and Roos (2000:94), there are two main types of relationship and influence between organisations. The first is mutualism, according to which organisations help each other to advance. Sometimes this relationship becomes so important that either one or both parties can come to depend on the other one for survival. The second form of

relationship is competition, whereby organisations strive to eliminate each other or at least become better than the other.

Within the organisational ecology there is high level of interaction and interdependence between members as long as they are standardised and differentiated. On the other hand, competition is expected when organisations are technologically incompatible and non-complementary.

Barnett (1990:34) describes the difference in the degree of technological competition and mutualism existing in two opposite systems, namely uniform systems and differentiated systems. In uniform systems (industries), standardised organisations can work together in the same technological system. However, organisations not conforming to the same standard have incompatible technologies, which mean that products or processes cannot work together. In this way, organisations with incompatible technologies reduce each other's viability. In ecological terms, such organisations are said to compete. This issue is often discussed as if the standards themselves are in competition; however, it is a mistake to interpret the problem solely in terms of competing, substitutable standards. Especially early in an industry's development, competition may result from a lack of any standard. Non-standardised organisations fragment an industry, making it less likely that any set of organisations can work together technologically. As a result, organisations throughout the industry are less viable than they would have been otherwise. In this way, organisations with non-standardised technologies generate diffuse competition throughout a technological system (Barnett, 1990:35).

For differentiated systems, differences brought on by technological change make organisations complementary. As a result, such organisations mutually increase each other's viability. For instance, computer hardware is a differentiated system, since hardware components are complementary. Brock (cited in Barnett, 1990:36) contends that, as

technological changes have spawned a greater variety of manufacturers, the population of such manufacturers as a whole has become more viable. However, Barnett (1990:36) stresses that organisations can be technologically complementary only if their uniform systems are standardised. In the previous example, the producers of computer components must also be standardised to the same operating system for their technologies to be complementary. Hence, organisations that are dissimilar in the differentiated systems work together, since each can compensate for an inability of another as long as they work under a standardised, uniform system.

Competition and mutualism therefore will occur within and between industries as long as standardisation exists. However, the basic factor needed for survival, as described by Leibold (2001:15), is to create a win-win scenario in which members compete cooperatively. This could only happen when there is higher degree of mutualism, as those members that are differentiated will complement each other, whereas those that are not will compete.

Case 2:1 Wine Tourism in Margaret River

According to Jolley (2002), against the background of stagnant domestic tourism growth and concern that the majority of regional areas are missing out on Australia's international tourism boom, Australia's winegrowing centres have shone out as success stories. It is estimated that wine tourism contributes more than $500m to rural Australia each year. The potential for further rapid growth is high if more effective domestic wine tourism strategies can be implemented.

Among the Australian winegrowing centres, Margaret River has become very successful in attracting visitors from within and outside Australia. Tourist surveys indicate that the picturesque scenery, the feeling of going back to nature, the wines and the ability to escape were the main appeal of the region. The natural scenery, consisting of beaches (with famous

surfing locations), the coastline and magnificent native forests, have considerable appeal. The tourism package that needs to be sold more widely and more effectively is nature plus food and wine culture. Events tourism is a further important factor in wine tourism in the region. The Leeuwin Estate Concert has attracted worldwide attention. The conference industry is beginning to develop in the region with the provision of high quality conference facilities. Opportunities for other types of tourism exist in relation to backpackers (note the high reputation of Margaret River among experienced surfers) and rural/farm tourism.

Linkages between wine tourism and local gourmet food can be strengthened in the future, given the diverse agricultural base of the South West region. Local production includes beef and dairy cattle (the region is a producer of prime beef and exportable cheese, cream, yoghurts and dairy desserts), orchard fruit (principally apples, including the internationally popular Australian Pink Lady variety, but also pears, nectarines, plums/prunes, avocadoes, peaches, nashi fruit, cherries, mandarins and oranges, with smaller quantities of strawberries, kiwifruit and small berries), and the emergence of new industries such as deer, emus, ostrich, buffalo and goat production. There is a high level of interest in olive production, both for oil and pickling. Local aquaculture also has tourism appeal, with maroon, rainbow and brown trout being farmed. A big mussel farming operation is also located in the region.

As can be inferred from the Margaret River case, a high level of mutualism between the different members of the industry and their ability to complement each other's efforts to attain new business has led to the sustainability and survival of the industry in general and of the organisations in particular. Moreover, the cooperation between members leads to the evolution and rebirth of the industry, giving it a wider and stronger existence in the business environment. The fact that Margaret River redefined itself from being merely a winegrowing region to a wine tourism centre is a good example of what can be achieved.

2.4 THE CONCEPT OF FITNESS LANDSCAPE

One of the best ways to understand and explain the trends in the business world and of making sense of the complex competitive environment is to use metaphors and images. Metaphors and images help to easily elaborate the non-explicit but relevant trends and phenomena of strategic management.

Fitness landscapes are generally the subject of discussions in evolutionary biology and ecology, but also have implications in the business environment (Loest, 1998). Nowadays, fitness landscapes have become common expressions in strategic management and the business environment, being used as a metaphor to explain the activities as well as interdependencies and interactions of industry players.

2.4.1 Meaning and importance of fitness landscapes

The following synonyms for the word landscape can be described: scene, scenery, outlook, view, aspect, prospect, vista, panorama and perspective.

Before defining the industry fitness landscape, it will be helpful to clarify the two important concepts that build up its definition, namely industry ecology and business ecosystem.

Industry ecology, as defined earlier, is related to the activities of and relationship between industry players. The business ecosystem, as explained by Moore (1993), is a collection or community of interconnected, interdependent and co-evolving business elements or players, such as customers, government bodies, companies, suppliers, partners, competitors and intermediaries.

The same as a photographer taking a picture or an artist painting a picture of a landscape with its mountains, rivers, plants, rocks, clouds etc., or of a city with its buildings, roads, cars,

lights etc., the industry fitness landscape will enable us to obtain a framed image or map of a business ecosystem and its ecology.

A fitness landscape portrays the process of co-evolution and trade-off among members of a population. Members of a certain landscape are highly interdependent in their struggle for survival and strive to attain sustainability by changing their genetic codes.

By means of a fitness landscape, we can map the terrain in which the struggle between conflicting constraints occurs (Oliver and Roos, 2000:33). According to McCarthy and Tan (2000:347), adaptation is thought to be similar to "hill climbing", during which minor variations of the species (from one generation to the next) result in a move towards a peak of high fitness on a fitness landscape.

Oliver and Roos (2000:33) contend that successful genetic changes give the species temporary advantages over its competitors and that these will tend to be retained. It is as if the species (member) has taken a metaphoric step onto a peak in its fitness landscape. If such a change reduces the viability of the species, however, the species can be considered to have taken a step down from a fitness peak.

The advantage of picturing the models as a landscape is that it reduces them to a familiar space and makes us rely on the dimension we feel most comfortable about manipulating (Lissack and Roos, 1999:66). Landscape images help us frame events, just as photographers create powerful images by framing each image with their lens. Landscapes as interface serve the same purpose as the interface on our computer screen or telephone, inducing a comfortable metaphor so that we can forget about the tactile qualities of the model we are manipulating and pretend, instead, to manipulate the things modelled.

In general, fitness landscapes help managers to improve their strategic decision-making by providing metaphors of how they can mutate their genetic codes to become more fit or sustainable (Oliver and Roos, 2000:32)

2.4.2 Characteristics of Fitness Landscapes

In many aspects, the industry fitness landscape is similar to that of ecological or evolutionary landscapes, although there also are some characteristics that make it different from the latter landscapes. Three characteristics of industry fitness landscape can be described – multi-dimensional and non-physical, co-evolving, and acts and acted upon:

2.4.2.1 Multi-dimensional and non-physical

Loest (1998) describes a fitness landscape as having at least three dimensions – valleys, plains and peaks. These characteristics make it appear similar to a geological landscape. But the industry fitness landscape is not a frozen physical landscape, but rather is dynamically changing and evolving. In this respect it is similar to biological (evolutionary) fitness landscapes.

Industry fitness landscapes grow continuously, disappear, pop up elsewhere, change shape or size and move around before our eyes. This is impossible in a frozen landscape, where we can make maps that are still good the next day or even the next year. On the other hand, they may change slowly enough for us to see what is happening in time to avoid obstacles and select the best route, but too fast for maps to do us any good.

2.4.2.2 Co-evolving

As discussed by Moore (1993), just like evolutionary landscapes, the industry fitness landscape has the characteristic of co-evolution, with interdependent components (species)

evolving in an endless reciprocal cycle. When a certain species changes its behaviour, it causes others to change as well. For instance, the invention of a new car that uses water for energy can influence the entire petroleum industry – from extraction to delivery, including the automobile industry, foreign currency and export rates of the exporting country, creation of a new market for refinement and delivery of water etc. Moreover, Loest (1998) states that our entire social, legal and institutional structures change in ways that are sometimes obvious, at other times subtle, in order to adjust, but that things never go back to where they were.

2.4.2.3 Act and acted upon

Landscapes not only influence the actions of organisations or industries, but every single action performed by an organisation may change or influence the entire landscape in unpredictable ways. In addition, the effect lessons with distance, i.e. those further away from the change-causing member are influenced less than those nearby (Loest, 1998).

The concept of fitness landscapes helps to mode the relationship among the different investment sectors, assisting in providing some insights about where to invest, what to avoid and where the greatest opportunities lie.

2.5 THE INDUSTRY EVOLUTIONARY CYCLE

In the previous topics we discussed the relationship and interconnection between industry players and how they depend on each other. Similarly, we reviewed the industry fitness landscape and its elements. As a next step, it becomes very crucial to assess the causes of the emergence of some industries, such as e-commerce, and the death of other industries, such as the "bricks and mortar companies".

The concept of the industry evolution cycle seems to answer the above-mentioned issue. The different stages of industry development and growth are discussed in two models of industry evolution – the ecosystem model (Moore, 1993) and the industry clusters model (Porter, 1998).

2.5.1 Ecosystem

According to this concept, we consider an industry as a component of an ecosystem that consists of the interplay of different stakeholders – companies, partners, consumers, government agencies, NGOs, labour unions, shareholders, suppliers and intermediaries – that passes through four evolutionary stages, i.e. birth, expansion, leadership and self-renewal.

Just as the natural ecosystem, the industry's ecosystem initially emerges due to either an external pressure or to actions taken by members to ensure survival and sustainability. As proposed by Moore (1993), the major cause of the birth of an ecosystem is a revolutionary invention or the creativity of the members of the industry. For instance, the creative invention of the Internet has caused the emergence of e-business.

At its expansion stage, the ecosystem starts to obtain a wider range of acceptance and expands by adding more supplementary innovations. At this level, companies will increase their effectiveness and efficiency.

During the third stage, i.e. leadership, all the expansion and growth capabilities of the industry are saturated. The struggle becomes to maintain the existing positions. The ecosystem will strive to protect its leadership by increasing its bargaining power, creating loyalty etc. This will not last long, however, since protectionism is very vulnerable to creative innovations.

The last stage is very crucial to the existence of the ecosystem. The industry should either renew itself or will face the consequence of its obsolescence, which is death. Industries renew themselves by tracking new trends that may upend the ecosystem. This is achieved through higher level of entrepreneurship and venture creation. For instance, the business machine industry of the 1960s and 1970s, which was dominated by typewriters, bulky electronic calculators and manual cash registers, has now been replaced completely by the computer industry. Therefore, members who stick with traditional business activities accelerate their death rather than grow, and those that adapt themselves and renew their business will transfer themselves to and renew themselves in the next stage.

2.5.2 Industry Clusters

The industry cluster model focuses on the geographic concentration of interconnected organisations and institutions in a particular field and, similarly to the concept of the ecosystem, assumes that clusters pass through three evolutionary stages – birth, evolution and decline (Porter, 1998:84).

Porter (1998:84) provides five main reasons for the birth of a cluster. These are

- historical circumstances
- unusual, sophisticated or stringent local demand
- prior existence of supplier organisations or related industries
- innovative companies stimulating the growth of many others
- chance events creating some advantageous factor

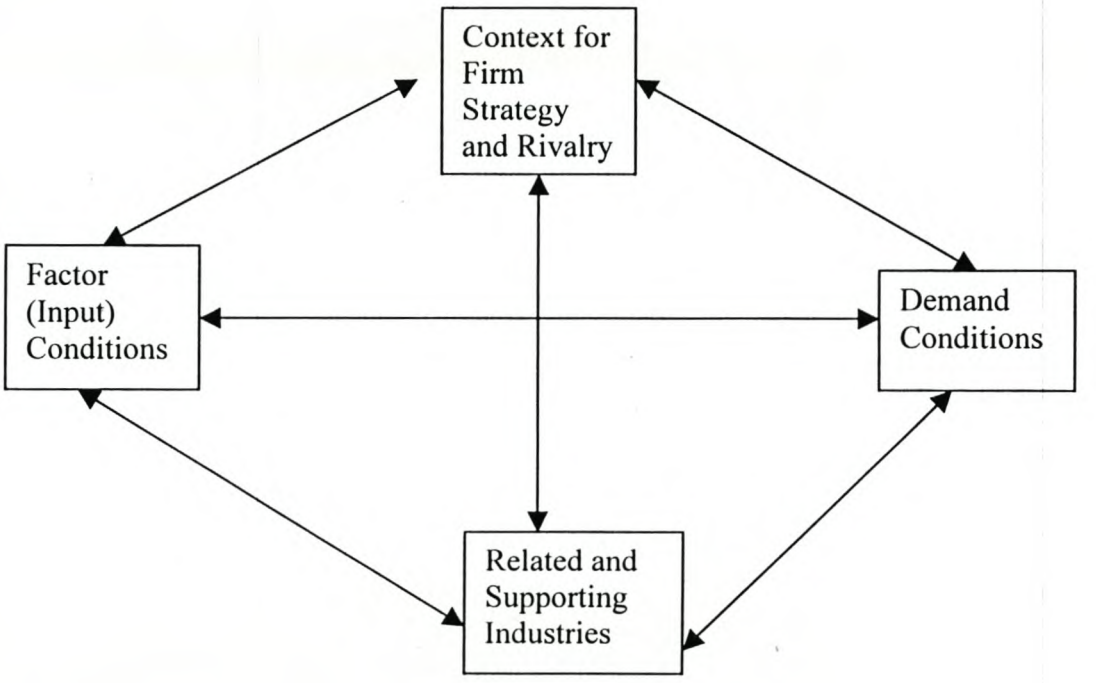
Once a cluster begins to form, a self-reinforcing cycle promotes its growth, especially when local institutions are supportive and local competition is vigorous. As the cluster expands, so does its influence with government and with public and private institutions. The growing

cluster signals opportunity and attracts the best talent through entrepreneurs, individuals with relevant ideas and skills, specialised suppliers, specialised training and research, and infrastructure. As a result, the cluster broadens to include other industries (Porter, 1998: 84).

Clusters evolve with the ecological activity of companies, but can lose their competitive edge due to both external and internal forces. For instance, technological discontinuities may cause the cluster's assets to become irrelevant. Similarly, the quality of education and universities or regulatory inflexibilities may restrain the cluster's growth. Porter (1998:85) states that, over time, however, a location will decline if it fails to build capabilities in major new technologies or in supporting firms and institutions that are needed.

There are four key elements (players) that influence the evolutionary stages of the cluster.

Figure 2.2 : Porter's Diamond of National Advantage



Source: Porter (1998, 12)

As can be seen in Figure 2.2, the four elements on the diamond constitute a system and are self-reinforcing. To begin with, a country creates its own important factors, such as skilled resources and a technological base. However, the stock of factors at a given time is less important than the extent to which they are upgraded and deployed. Moreover, local disadvantages in factors of production force innovation. Adverse conditions, such as labour shortages or scarce raw materials, force firms to develop new methods, and this innovation often leads to a national competitive advantage.

On the other hand, when the market for a particular product is larger locally than in foreign markets, the local firms devote more attention to the product than do foreign firms, leading to a competitive advantage when the local firms begin to export the product. Similarly, a more demanding local market leads to a national advantage and a strong, trendsetting local market helps local firms to anticipate global trends.

A further point is that when local supporting industries are competitive, firms enjoy more cost-effective and innovative inputs. This effect is strengthened when the suppliers themselves are strong global competitors.

Finally, local conditions affect firm strategy. Local rivalry forces firms to move beyond the basic advantages that the home country may enjoy, such as low factor costs.

To explain the interdependence and interplay existing between the elements, Neven and Drog (2001) state that domestic rivalry for final goods stimulates the emergence of an industry that provides specialised intermediate goods. Keen domestic competition leads to more sophisticated consumers, who come to expect upgrading and innovation. Similarly, chance also plays an important role in the model. Random events can either benefit or harm a firm's competitive position. These can be anything from major technological breakthroughs or inventions, acts of war and destruction, to dramatic shifts in exchange rates.

Furthermore, when there is a large industry presence in an area, it will increase the supply of specific factors (i.e. workers with industry-specific training), since they will tend to get higher returns and experience less risk of losing their employment. At the same time, suppliers and intermediaries will invest in the area.

Finally, attracted by the good set of specific factors, supporting firms and producers in related industries (i.e. those who use similar inputs or whose goods are purchased by the same set of customers) will also invest. This will trigger subsequent rounds of investment and rivalry.

Governments play a great role in influencing the competitiveness and sustainability of clusters (Porter, 1998:15). As catalysts and challengers, governments encourage - or even push - companies to raise their aspirations and move to higher levels of competitive performance. According to Porter (1998), the influence on the four elements can be explained through action taken by governments, such as

a. Subsidies to firms, either directly (money) or indirectly (through infrastructure).
b. Tax codes applicable to corporation, business or property ownership.
c. Educational policies that affect the skill level of workers.

2.6 SUMMARY

This chapter has reviewed the concept and nature of industry fitness. An explanation of the meaning of industry fitness and an overview of industry fitness elements, such as industry ecology and fitness landscape, are provided. Industry fitness is the process and activity undertaken by industry players in adapting themselves to the changing business environment.

The interaction and relationship between industry players was explained under the concept of industry ecology. This is influenced by elements such as the density of the population, the level of competition and mutualism, founding and mortality rates and organisational attributes such as age and size.

One of the basic concepts in industry fitness that is inherited from the geological and evolutionary sciences is the fitness landscape. The industry fitness landscape helps in mapping and framing the business ecosystem and provides us with a clear image of the competitive and collaborative hills and peaks, organisational ups and downs, environmental gaps and obstacles, as well as bridges and ladders. The industry fitness landscape is multidimensional and non-physical, co-evolving and acts on and is acted upon by others.

Finally, from the analysis done in this chapter, it can be inferred that the concepts of industry ecology and fitness landscapes explicitly show the level of fitness of an industry within its business environment. However, an important aspect to be understood is that the industry's ecology and fitness landscapes rapidly and unpredictably change with the turbulent business environment. Therefore, managers should be very keen and fast, not only in describing the industry ecology and fitness landscapes, but also in making sense of the business environment and understanding the trends that enable them to modify and shape their ecologies and landscapes promptly. The different methods of building such capabilities are discussed in Chapter 5.

CHAPTER THREE: THE CONCEPT AND NATURE OF ORGANISATIONAL FITNESS

3.1 INTRODUCTION

According to Beer (2002), of the 500 companies in the original S&P 500 list in 1957, only 74 remained on the list by 1997 and, of these, only 12 outperformed the S&P 500. Just as we need to exercise our bodies to stay fit, organisations need to stay fit as well. In the face of increasingly demanding business environments, organisations must carefully examine themselves to assess their "fitness" to compete and to sustain success within their marketplaces. With the world increasingly becoming complex and changing rapidly, unfit organisations – those that do not adapt to fit new circumstances – do not survive.

To understand the level of fitness of a certain organisation within its business environment, an important aspect that a manager should know is the different elements or factors that influence the organisation's performance and adaptability. Similarly, an understanding of the barriers to fitness is also crucial. In addition to this, managers should know and make sense of the trends in the external environment.

This chapter therefore takes the above-mentioned issues into consideration to provide insight into the elements of organisational fitness and how they are influenced by the external environment. An in-depth discussion of the barriers to organisational fitness is also provided.

3.2 DEFINITION OF THE CONCEPT OF ORGANISATIONAL FITNESS

There is no widely accepted definition of the term organisational fitness. Different authors provide differing meanings, depending on the situation and the context.

Organisational fitness, according to McCarthy and Tan (2000, 347), is the organisational capability to achieve competitiveness, effectiveness, profitability, a higher return on investment and customer satisfaction in the business environment. Moreover, it is the organisation's ability to survive by inheriting, imitating and searching for solutions that provide desired outcomes that are both measurable and non-measurable, such as profit, organisational goal and purpose etc.

Beer (2002) refers to organisational fitness as the organisation's capability to learn and change. It is the process of organisations' natural evolution and the change of their design – work systems (structure), management processes, human resource systems, principles and values and leadership behaviour – to "fit" their business environment and their chosen strategy within that environment. By achieving such an alignment, the organisation develops the organisational capabilities needed to compete successfully.

Organisational fitness is the capacity of a firm to adapt organisational design, behaviour and culture to fit new circumstances, which depend on the organisation's capability to confront and learn from internal tensions.

From the above definitions we can derive the following general descriptions of organisational fitness:

1. Organisational fitness is an organisation's ability to adapt and survive in the ever-changing business environment and is achieved through natural evolution and change and continuous learning.
2. Organisational fitness refers to the organisation's capability to realise continuous changes in its internal designs, structures, processes, systems, values and principles.
3. Organisational fitness is the change and adaptation attained by organisations as a result of changes in external circumstances and the business environment.

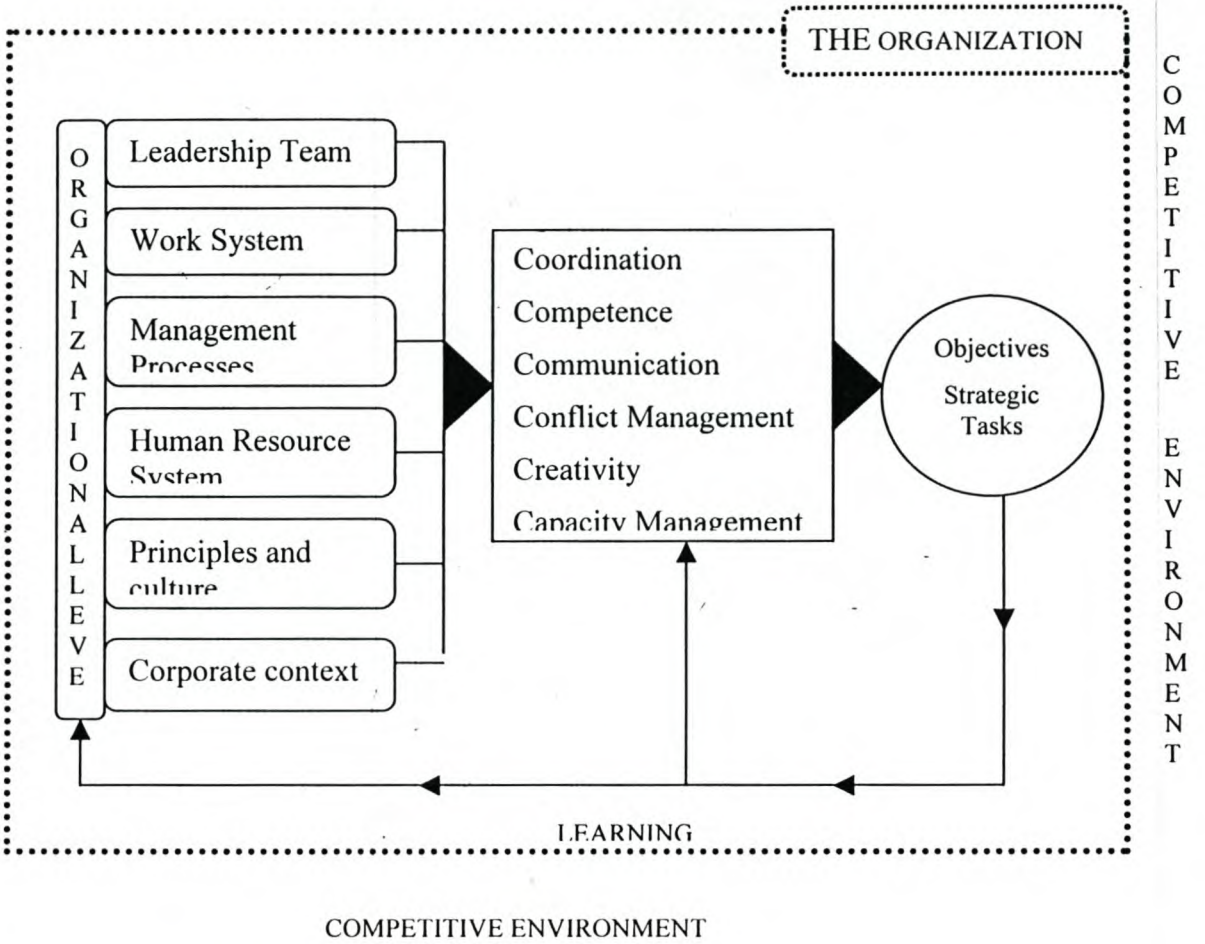
3.3 ELEMENTS OF ORGANISATIONAL FITNESS

Maruca (2000:24) describes the general elements of corporate fitness to be the following: mission and vision, corporate culture, planning and intelligence, technical resources, marketing operations, international strategy, performance, market strategy, innovation, human resources, organisation and systems and customer orientation. The interaction and interdependence between these elements leads the organisation to adapt itself to the changing external environment. The organisational fitness cycle (Beer 2002) and organisational fitness dynamics (Zajac and Bresser, 2000:430) models explain the relationship between these elements.

3.3.1 Organisational fitness cycle

Beer (2002) describes six essential organisational activities and processes, known as organisational levers, that have an influence on the organisation's capability to fit into the changing business environment. As depicted in Figure 3.1, the interplay of these activities and systems influences the organisation's capabilities and culture, i.e. the attitudes, skills and behaviour needed to compete successfully. The alignment between these elements is necessary if the organisation is to develop effective capabilities.

Figure 3.1 : Elements of Organisational Fitness



Source: Beer (2002)

As firms meet the challenges in their environments, they respond by developing management and business practices. These "habits of the business" become institutionalised through the processes of recruitment, selection, promotion and attrition that sort people into and out of the firm based on their fit. Over time, a culture (a pattern of beliefs and values) is developed that reinforces historically successful business and administrative practices (Beer, 2002). Leaders play a great role in reinforcing and sustaining the organisational culture and capabilities.

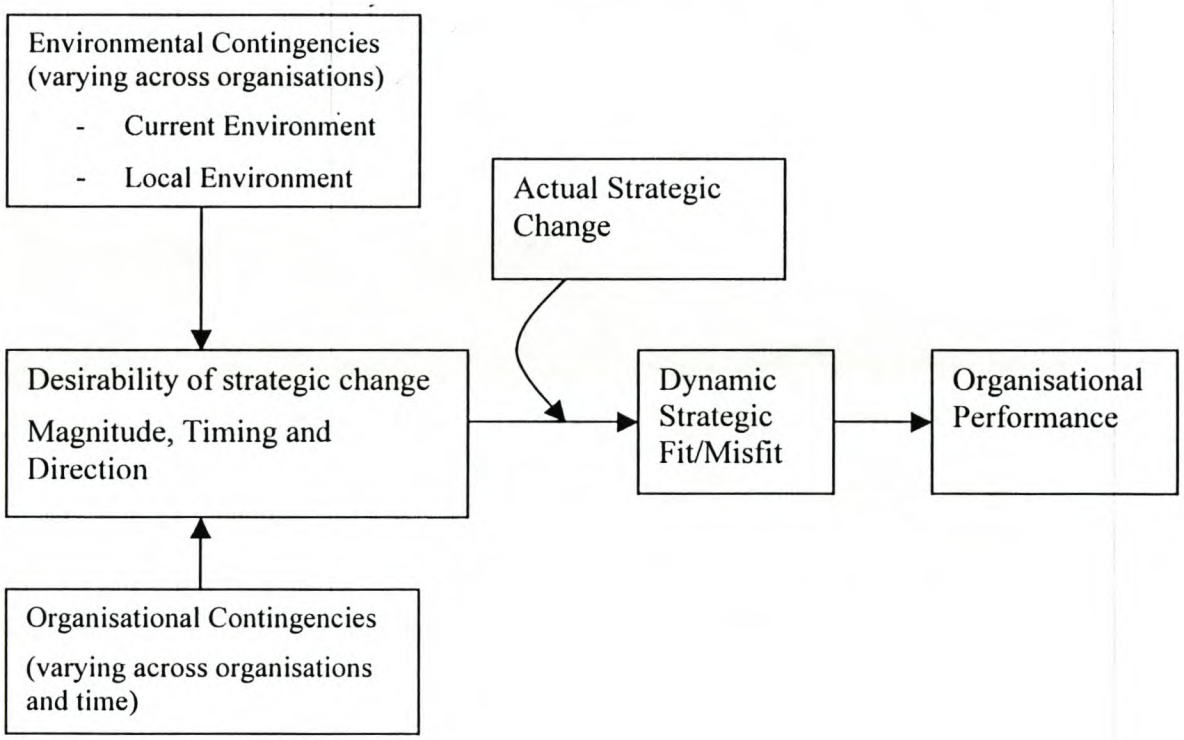
Organisational fitness is a circulatory system in which events in the competitive environment influence the existing organisational objectives and strategic tasks to become non-compatible, thus requiring a redesigning of the six organisational levers. The redesigning and restructuring of the levers will then lead to the development of organisational capabilities that are

compatible with the environment. This process will continue for as long as the organisation exists in the business environment. This circulatory process is referred to by Beer (2000) as the organisation's ability to learn and change incessantly (see Figure 3.1).

3.3.2 Organisational fitness dynamics

Zajac and Bresser (2000:442) strengthened the concept of strategic organisational fitness as a continuous process by developing the model of dynamic strategic fitness (see Figure 3.2), which stresses the "logical incrementalism" of organisational fitness rather than it being events occurring at certain points in time.

Figure 3.2 : The Model of Dynamic Strategic Fitness



Source: Zajac and Bresser (2000: 432)

According to this model, strategic changes are the core of dynamic organisational fitness. In fact, it provides a wider view of the factors that necessitate the need for strategic change, by dividing them into two broad categories. These categories, known as strategic change

contingencies, are environmental contingencies such as shifts in consumer preferences, changes in government policy, competitor's actions and technological shifts, and organisational contingencies (internal resource base) that are related to the availability of organisational competencies and resources.

On the other side, there are the actual strategic changes instituted by the organisation. These changes are compared to the desired strategic changes, which are derived from the contingencies leading to either strategic fit or misfit. According to Zajac and Bresser (2000:440), some organisations change as much as they should, others do not change as much as they should, yet others do not change and should not change and, finally, others change more than they should. The relationship is depicted in Figure 3.3.

Figure 3.3 : States of Dynamic Fit or Misfit

		Does Strategic Change Occur?	
		Yes	No
Is strategic change needed to establish dynamic strategic fit?	Yes	Beneficial strategic change (dynamic fit)	Insufficient strategic change (dynamic misfit)
	No	Excessive change (dynamic misfit)	Beneficial inertia (dynamic fit)

Source: Zajac and Bresser (2000:433)

The first quadrant, i.e. beneficial strategic change, represents a situation in which an organisation faces a necessity to change due to environmental and organisational contingencies and changes as needed, resulting in a performance benefit. At this level we can argue that the organisation has achieved dynamic fitness. In the second quadrant, which is insufficient strategic change, the organisation faces the necessity to change but fails to

respond adequately, resulting in detrimental performance. Organisations may be unwilling and unable to change their strategies, leading to misfit. Organisations in the third quadrant, beneficial inertia, face no (or little) need to change their current strategy and do not change, enjoying a performance benefit as a result. It is rare to find such a situation in today's world of business, in which contingencies change dramatically. The last quadrant, excessive change, occurs when the organisation's environmental and organisational contingencies do not suggest the need to change, but the organisation does so anyway. This arises when organisations undertake a well-intentioned but miscalculated search for strategic fitness. One of the main causes for this can be the organisation's emphasis on certain contingencies while ignoring others, causing an overall strategic misfit.

Situations that are beneficial at some point in time may not stay that way at later stages. Therefore, organisations should not remain relaxed even if they lie in the two beneficial quadrants, referred to by Prahalad and Oosterveld (1999:36) as "zones of comfort", but rather should transfer themselves to "zones of opportunity", where they always are keen and make sense of their future contingencies. Similarly, it is crucial to understand that strategic fitness is unique to every organisation that is highly organised and time specific.

3.3.3 Comparison between the models of organisational fitness

The organisational fitness model developed by Beer (2000) and the model of dynamic strategic fit of Zajac and Bresser (2000:429) are greatly complementary. As can be observed from Figures 3.1 and 3.2, the organisational fitness model (Beer, 2000) concentrates on the internal changes necessary to achieve organisational fitness, while the dynamic strategic fit model (Zajac and Bresser, 2000:449) covers more of the derivatives of organisational change.

The organisational fitness model limits the competitive environment to being the only driver of organisational change. But, as provided by the model of dynamic fit, organisational

changes are not derived only from the external environment, but organisations rather may introduce change as a result of their internal resources and capabilities. On the other hand, the organisational fitness model provides a good explanation for the internal elements of organisational fitness by describing the interplay between organisational forces (levers), organisational capabilities and strategic goals and tasks, whereas the dynamic strategic fitness model generalises them under organisational performance. Both models agree that organisational fitness is the result of an ongoing and dynamic process of logical incrementalism (Zajac and Bresser, 2000:450) and continuous learning from feedback.

Moreover, the organisational fitness model assumes that organisations initiate change when they observe that the existing goals do not fit the competitive environment and this, on the other hand, leads to changes to and adaptations of the organisational levers necessary to develop the capabilities required to achieve the strategies and goals. The concept of dynamic strategic fitness extends this notion further, stating that organisations can also introduce changes derived from other factors, such as internal resources and capabilities. The main issue to be evaluated, however, is whether the change they introduce is relevant when all contingencies are taken into consideration. Such a change is termed the desired strategic change. Therefore, by providing a framework of comparison between the actual change and the desired change, organisations will determine the additional change they need to fit the different contingencies.

Case 3:1 Waking Up IBM

According to Hamel (2000, 137), International Business Machines Corporation (IBM) went from being one of Fortune's most admired corporations in the mid-1980s to a company in dire need of saving by the early 1990s. IBM's pro-change chief executive officer, Lou Gerstner, and creative IT advisors Grossman and Patrick saved the company from collapse and enabled its revival. This was achieved by implementing an ambitious and realistic strategy known as

the 'Get Connected' Manifesto, which advocated IBM's Global Network by building a home page and putting their Web address on everything.

IBM's small band of activists and keen management developed a clear and ambitious vision to make their organisation fit the changing trends of the Internet world and computer science. Their change-oriented and risk-taking decisions supported them to develop organisational immunity to the rapidly changing computer world. Moreover, instead of imposing change from the top, IBM let ideas, initiatives, and enthusiasm evolve from below. This ambitious vision was supported by a holistic change and collective participation by all stakeholders, which enabled them to develop effective strategies that are built up on the basis of unique internal capabilities. This decision has enabled the company to transform itself from the level of dynamic misfit to the level of strong dynamic fitness.

Case 3:2 BRL Hardy's New Business Model in the Global Wine Industry

The management of BRL Hardy closely studied trends in the business environment and the demands of customers to evaluate the organisation's strategy and objectives. This helped them to obtain insight into the wine industry and, accordingly, to develop business strategies that change the rules of the game on both the demand and supply sides.

Traditionally, BRL Hardy distributed its Hardy label wines to retailers through local agents and sold bulk wine directly for private labels. This was also the strategy followed by all the producers in the industry. The result of was confusion on the side of consumers and fragmentation among the producers, whose small scale of operation prevented them from building brand strength or distribution capability. Moreover, it created an opportunity for major retailers to exploit the confusion of the consumers and capture more value themselves by buying in bulk and selling under their own label. BRL Hardy's new strategy broke this trap

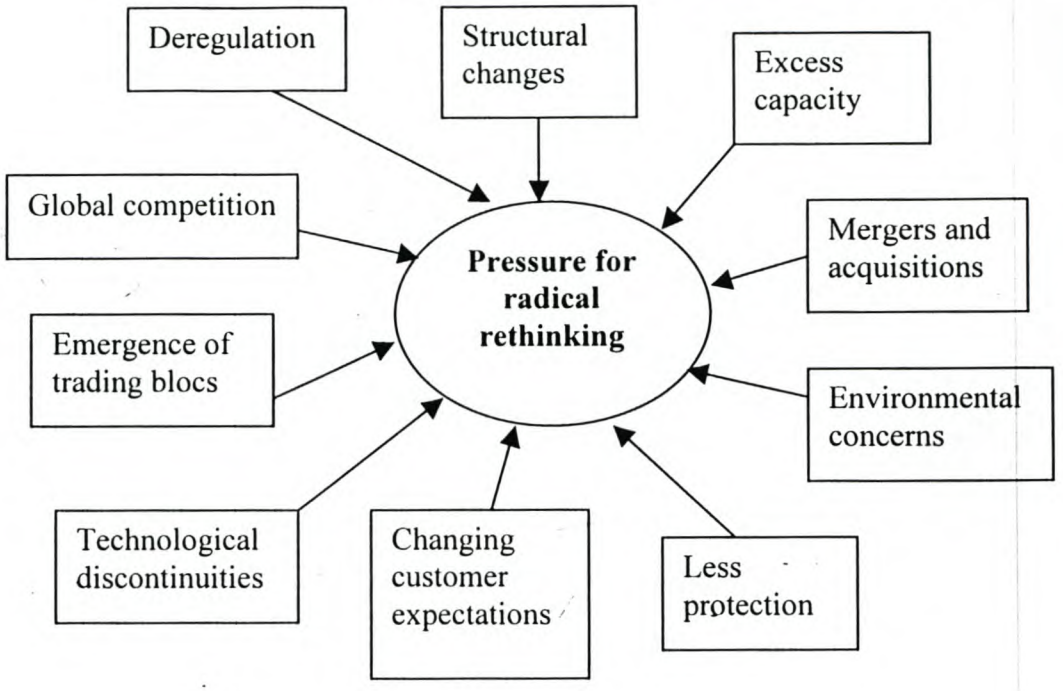
by developing new resources and capabilities that enabled the company to take direct control of the full sales, distribution and marketing activities. Moreover, to exploit the growing marketing expertise of the different marketing units that were developed, the company encouraged them to supplement their Australian product line by sourcing wine from around the world. In addition, instead of attempting to merely install new capabilities, the company developed and evolved the existing capabilities, which enabled it to create a strong own brand image and the marketing and distribution capabilities to support it. This strategy helped BRL Hardy to quadruple its sales within three years and become one of the best-known wine companies in the wine industry.

In both cases it can be observed that the need for strategic change derived from changes in the business environment, as well as from internal drives to appropriate untraced business opportunities. It also should be stressed that sustainable dynamic fitness is achieved when the change focuses on evolving and developing internal capabilities.

3.4 CHANGES IN THE COMPETITIVE ENVIRONMENT

Important shifts in political, social, economic and technological forces have combined to create challenges to organisational fitness. The different elements in the competitive environment that influence the individual organisation's process and strategic tasks are summarised in Figure 3.2 on the basis of the work done by Clarke and Clegg (2001:196).

Figure 3.4 : Elements of the Competitive Environment



Source: Clarke and Clegg (2001:196)

The elements of the competitive environment can be grouped into five main categories: technology, customer expectations, competitive realities (global competition, mergers and acquisitions, excess capacity and internal structure), political influences (deregulation, less protectionism and emergence of trading blocks), and environmental concerns.

3.4.1 Technology

According to Boorstin (as cited in Bartlett and Ghoshal, 2000:181), the world of business is increasingly becoming the "Republic of Technology", which is dominated by information technology. In one sense, technological change is an enabling agent, as it enables new structures, new organisational arrangements, new products and new processes. Innovation has become a major determinant of business success and a key factor in raising living standards and quality of life. Technology has become a vital competitive weapon (Clarke and Clegg, 2001:150). Freeman (as cited in Clarke and Clegg, 2001:152) suggests five generic

technologies that have a great impact on changes in and innovation capabilities of organisations: information technology, biotechnology, material technology, energy technology and space technology. These technologies are highly interdependent on each other, therefore discontinuities and changes in one of them, especially in the information and energy technologies, affect the other elements.

An important aspect within the technological drive is the continuous disintermediation of old channels. Newer technologies have provided fresh approaches to customer access and distribution, with organisations being more likely to be in direct contact with end users by eliminating intermediaries (Prahalad and Oosterveld, 1999:33).

3.4.2 Customer expectations

Technological improvements have led to the availability and easy accessibility of alternative products and services and customers no longer tolerate poor service, uncompetitive pricing or services that are difficult to use (Gibbert et al., 2001). Customers today are much more knowledgeable, discerning and aggressive and demand high quality, improved price-performance relationships and immediate delivery, requiring organisations to frequently change their strategies and operations (Clarke and Clegg, 2001:197).

3.4.3 Competitive Realities

The business world is increasingly becoming a global village in which the boundaries of organisations are becoming blurred. It is difficult for firms today to consider themselves as local or domestic organisations, due to the fact that every marketplace in the world has become a "platform" for global competition (Avishai : 1991). Distinctions between the domestic and international sectors of business are becoming irrelevant and the boundaries of opportunity and competition have changed (Clarke and Clegg, 2001:198).

Moreover, the increasing expansion of capacity and improvement of production quality leads firms to produce excess capacity to satisfy their domestic demands. Thus, to solve this problem they have to search for suitable markets internationally.

When firms are faced with global competition, they realise that they have a deficit of some capabilities and therefore will be keen to form strategic alliances and partnerships with other firms to increase their competitiveness. On the other hand, organisations require changes and adaptations within their internal structures to suit the changing environment.

3.4.4 Political Influences

One of the major occurrences in the current political arena is the deregulation and privatisation of a variety of industries, which has changed the competitive environment tremendously. As stated by Prahalad and Oosterveld (1999:33), deregulation destroys local monopolies, allowing entrepreneurial firms to exploit global opportunities in industries that, for most of the century, were primarily local.

Along with deregulation comes the issue of protectionism. Governments have started to disassociate themselves from protecting local organisations from global competition and have opened their doors to become full and active participants in the borderless economy (Ohmae, 1991). This has shifted the status of local firms, which therefore are required to change their strategic designs and capabilities to meet the challenges of competition.

Conversely, we nowadays are observing an increasing emergence and strengthening of regional and international trading blocks and organisations that have a great influence on the effectiveness and competitiveness of organisations in the global business environment.

3.5 BARRIERS TO ORGANISATIONAL FITNESS

3.5.1 The "Silent Killers" of Organisational Fitness

Beer and Eisenstat (2000) identified six barriers to organisational fitness, known as "silent killers". The first barrier is a top-down or laissez faire senior management style. Without transforming that barrier into a capability (a leadership style that embraces the paradox of top-down direction and upward influence), none of the other barriers can be turned into capabilities either. The other barriers are unclear strategy and conflicting priorities; an ineffective senior team; poor vertical communication; poor coordination across functions, businesses or borders; and inadequate down-the-line leadership skills and development.

3.5.1.1 Leadership that is too top-down or too laissez faire

Many organisations still use the old top-down, bureaucratic methods of leadership, which no longer work in the complex business environment because it suppresses the creativity that is needed and slows down the decision-making processes (Eisenstat and Dixon, 2000). Examples of laissez faire management styles are top management's discomfort with conflict, the use of the top team for administrative matters rather than focused strategic discussions, and absence of development of lower level managers and the necessary coordination to implement strategy (Beer and Eisenstat, 2000).

3.5.1.2 Unclear strategy and conflicting priorities

As stated by Eisenstat and Dixon (2000), the absence of an integrated and compelling vision that outlines clear, concrete priorities for providing high quality, cost-effective results, creates confusion that leads to frustration and wasted effort, disabling organisational fitness.

3.5.1.3 Ineffective senior management team

Senior management team members must make difficult resource allocation decisions, not from a mindset of protecting their turf, but from the perspective of the overall organisation (Eisenstat and Dixon, 2000). One of the factors that leads to organisations becoming unfit is when the senior management team lacks agreement about and communication on the overall priorities and organisational vision.

3.5.1.4 Poor vertical communication

One of the key reasons that organisations fail to survive is that the top team did not have mechanisms in place to listen and learn from the people doing the work. They do not make it easy for lower level managers and front-line employees to talk about what really is going on in the organisation and its environment.

3.5.1.5 Poor coordination across functions

As a result of the dearth of interdisciplinary and cross-functional teamwork, factions are created within the organisation that lead to individual and specialised efforts and accountability, thus preventing the firm from obtaining an advantage from the synergies and coordination created between the different functions.

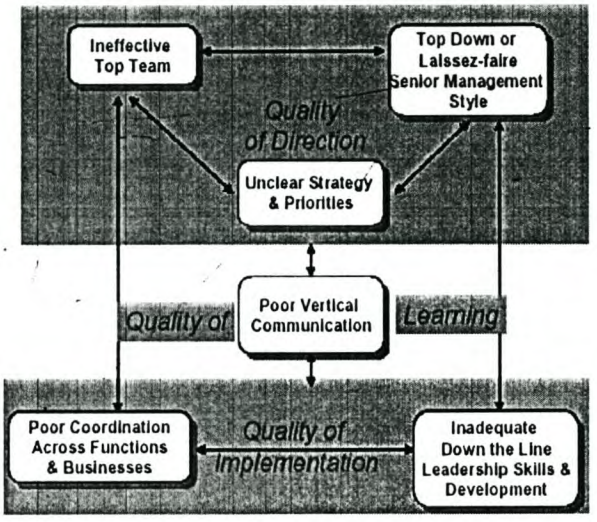
3.5.1.6 Inadequate down-the-line leadership skills and development

When top management fails to create adequate leadership and management talent at all levels of the organisation, it will not be possible to develop effective transformation to match the dynamically changing business environment. Beer and Eisenstat (2000) emphasise that lower level managers should develop skills through newly created opportunities to lead the change, and that they have to be supported through leadership coaching or training.

3.5.2 Relationship between the silent killers

Beer (2000) grouped the silent killers of organisational fitness into three levels according to their dynamic relationship (see Figure 3.3). These are the quality of direction, quality of learning and quality of implementation.

Figure 3.5 : Barriers to Organisational Fitness



Source: Beer (2002)

3.5.2.1 Quality of direction

Quality of direction is related to the activities and responsibilities of top management, i.e. an ineffective top team, a top-down or laissez faire senior management approach and unclear strategy.

Poor quality of direction occurs when top management bypass members of their senior team to get information from and give orders to those at lower levels, which leads to the leadership group becoming ineffective. Similarly, poor quality of direction can arise when laissez faire managers undermine the team's potential by avoiding discussions that could cause conflict or by not holding their subordinates accountable for coordinated decision making. Moreover,

the lack of a clear and compelling statement of the strategic direction deprives many top management groups of a common rallying mission that might help them coalesce as a team. In addition, the absence of a clear statement of priorities leads managers to become unwilling to sacrifice some of their individual functional interests to achieve the overall organisational objectives and to hide their differences rather than confront hard trade-offs directly.

3.5.2.2 Quality of learning

Effective upward and downward communication is crucial in the organisational learning process, which is the base for organisational change and transformation. Managers can create obstacles to effective learning when they fail to communicate the organisational vision and strategies to their employees and to develop a system to receive input and feedback from their frontline and lower level employees (Kaplan and Norton, 1996).

3.5.2.3 Quality of implementation

The three silent killers mentioned above make it very difficult to develop the necessary down-the-line leadership capabilities, which enable coordination at lower levels. According to Beer and Eisenstat (2000), middle managers from different functions cannot be expected to collaborate effectively when their leaders push them in competing directions. Lower level managers are better able to exercise independent judgment if they know where the business is going and why. If the general manager is the only one who has the whole picture, all major decisions must be made at the top, which leads to inadequate leadership development down the line.

3.5.3 Critique of the "Silent Killers" of Organisational Fitness

The six silent killers of organisational fitness cover many of the main barriers to organisational fitness. Moreover, they provide a wider understanding of problems associated

with top level management and leadership. In addition to this, they have a general application in most organisations.

The basic limitation to this approach is that the focus is only on elements that are internal to the organisation. In fact, there is an exclusive emphasis on problems existing among top and middle level management. But barriers also exist in the organisation's relationship with members of its external environment. An example is the company's relationship with its suppliers and intermediaries. Another basic limitation of this approach is that it ignores one of the basic characteristics of effective top level management, namely senior level management's inadequacy to have insight into and foresight of current and future changes in the competitive environment and to act on these effectively.

3.6 ORGANISATIONAL FITNESS PROFILING

Organisational fitness profiling is a procedure developed by Beer and Eisenstat (2000) to help firms to have an honest organisational conversation and open dialogue about the barriers to effectiveness and change and how to tackle them. It consists of the following steps:

1. Development of a statement of business and organisational direction – this is developed by the top management team together with internal and external facilitators. The strategic direction developed should simply and clearly link external demands, performance goals, strategy and the necessary organisational and cultural changes. Top management should clarify priorities and improve vertical communication at this level.
2. Open-ended interviews – at this step a broadly validated assessment of the current state of the enterprise should be completed. To achieve this, top management should select a task force of highly regarded staff members from the overall organisation and

this task force should conduct in-depth interviews with the members of the organisation and feed senior management with the findings.

3. Creation of an integrated agenda for action – senior management's reaction to feedback is disseminated to the members of the organisation through the task force, while the senior management engages in a thorough root cause diagnosis and planning to realign the organisation.
4. Development and mobilisation of the commitment of the key managers and stakeholders behind the transformation plan. During this stage, senior management share and critically review the plan with the task force. The developed vision of change will then be taken to the larger organisation by the top management through meetings and the changes are then communicated widely, often with the help of the task force.

3.6.1 Critique of Organisational Fitness Profiling

Organisational fitness profiling as a method of achieving organisational fitness has the following advantages and limitations:

Advantages	Disadvantages / Limitations
• Change oriented	• Focuses on internal elements and members
• Creates an environment for an open dialogue between senior management and lower level employees	• Does not create a self-managing system in which there is dynamic self-rearrangement and learning by organisational members, processes and structures
• Helps in thoroughly evaluating the current conditions of the organisation	• Emphasis on periodic feedback system and managed learning and restructuring
• Facilitates pool of ideas from all over the organisation	• Focuses more on the design of plans and strategies rather than on implementation
• Enables fine refinement of strategies, goals and objectives	• Does not encourage participation by all stakeholders
• Enables periodical check-up and review of strategies and execution of plans	

Organisational fitness profiling seems to be a very helpful approach in creating trust and smooth communication between senior management and employees and meeting the challenges posed by the silent killers of organisational fitness.

3.7 SUMMARY

This chapter has reviewed the concept and nature of organisational fitness. An exposition is provided of the meaning of organisational fitness and insight is given into the different elements of organisational fitness, its barriers and aspects of the competitive environment that have an influence on it.

Organisational fitness is the internal process whereby organisations change and adapt their business practices and organisational levers to develop strategic capabilities and a strategic culture that enable them to adapt to and fit changing environmental and organisational contingencies.

Organisational fitness is a circulatory process whereby an organisational learning and change cycle occurs that results from the continual influence of environmental contingencies on the organisation's objectives and strategic tasks, requiring adaptation to and changes in the different organisational levers. These changes will enable the firm develop the required capabilities, which then influence the organisational objectives and tasks. This process continues for as long as the organisation is active in its business environment. Organisational fitness should be dynamic and follow "logical incrementalism".

The model of organisational fitness and the model of dynamic strategic fitness provide important concepts related to the elements of organisational fitness and the interplay between them. There is a high degree of complementarity between these two models, with the organisational fitness model emphasising internal organisational changes, while the dynamic strategic fitness model focuses more on the contingencies and derivatives of change. Both models therefore can be combined to obtain a fuller view of the elements of organisational fitness.

Some of the aspects of the competitive environment that have a great influence on organisational fitness are changing customer expectations, technological discontinuities, the emergence of trading blocs, global competition, deregulation, environmental concerns, less protectionism etc.

The six major barriers to organisational fitness, which are known as the silent killers, are leadership that is too top-down or too laissez faire, unclear strategy and conflicting priorities, an ineffective senior management team, poor vertical communication, poor coordination across functions, and inadequate down-the-line leadership skills and development. There is interplay between the six barriers and they influence each other through their effect on the organisation's achievement of quality directions at the top level, the level of learning and the quality of implementation. In addition to the six silent killers, the ability of top level management to obtain insight into and foresight of the trends of the competitive environment and the organisation's relationship with the elements of its external environment can be barriers to organisational fitness.

Organisational fitness profiling is a procedure whereby organisations identify the barriers to organisational fitness through an open and honest dialogue and conversation with all members of the organisation. Its main objective is to create an environment within the organisation that will enable managers to effectively implement the relevant measurement tools to assess performance problems.

CHAPTER FOUR: MEASURING ORGANISATIONAL FITNESS

4.1 INTRODUCTION

The initial process in ensuring organisational fitness is to develop matrices that measure the links between organisational vision, strategy and objectives and the actual performance and market position, as well as assess the organisation's effectiveness in satisfying its stakeholders and ensuring its survival. Moreover, developing an effective organisational fitness measurement system is a necessity if organisations are to identify the obstacles to change and the main causes of their poor performance in order to remedy them promptly.

A number of organisational fitness measurement techniques and tools have been developed, from the traditional, simple financial measures to the more complex and comprehensive measurement tools. The decision whether a measurement technique is poor or rich depends on the internal factors of the organisation, the current demands of the competitive environment and the objective of the measurement. However, the different measurement techniques can be compared to each other according to the issues they cover and their relevance in relation to the current trends in the complex world of business.

This chapter therefore assesses the different organisational and environmental aspects that have relevance and impact on the measurement tools and techniques. Similarly, it will identify the prominent performance measurement techniques and tools and study their nature and application. A comparison between the measurement types is also provided.

4.2 FACTORS TO BE MEASURED

The first important factor that organisations should understand, before attempting to measure whether they are fit or not, is the key elements that have to be measured. Such a decision

requires the consideration of different important trends and fundamentals in the business environment, such as shifts in competitive forces, changing customer preferences, technology, globalisation and environmental concerns.

4.2.1 Shifts of Eras in the Business Environment

Tapscott (2001:8) argues that it is widely accepted that the business world is changing from being an industrial era based on steel, automobiles and roads to a new era built on silicon, computers and networks. Therefore, there are new dynamics, new rules and new drivers for success.

Table 4.1 Comparison between the industrial and knowledge eras

	Industrial era	**Knowledge era**
Focus	company centric	customer centric
Objective	value creation for shareholders	value creation for stakeholders
Competition	head-to-head	collaborative
Source of competition	efficiency	innovation
Organisational structure	hierarchies and linear information flow static and rigid	hyperarchies and networks dynamic and flexible
Sources	tangible assets	intangible assets
Accountability	individual	team
Priority	profit	customer success
Production	scale economies, mass production	time economies, lean production
Measures	financial and quantitative	financial and non-financial, more qualitative
Managers	thinkers, planners	leaders, visionaries
Orientation	present	future

Sources: Adapted from Tapscott (2001), Fingar and Aronica (2001), Clarke and Clegg (2001)

Organisations in the industrial era had an inside-out approach, with the main focus being on increasing productivity and achieving efficiency, whereas companies of the knowledge era aim at customer satisfaction and success. As attested by Leibold (2001), companies of the knowledge era have shifted themselves from a win/lose scenario to collaborative competition in a win/win scenario. Organisations cooperate with each other to meet the rapidly changing and complex demands of customers and, through the symbiosis they develop, create a larger pie to share or more pies to divide. In the industrial era, the basic building block of economic activity was the vertically integrated corporation. These companies performed virtually every function in-house. Contrary to this, companies of the knowledge economy focus on their core competencies and perform the rest of their activities through partnerships or outsourcing. Increasingly, industries have teams of specialised companies that work together to become suppler and more innovative, cost-efficient and profitable (Tapscott, 2001). As a result, companies today are not only concerned about creating value for their shareholders, but rather need to have a wider purpose to create value for all stakeholders so as to achieve an effective and sustainable business. Therefore, profit is no longer a priority, as companies focus on continuous customer satisfaction and innovation.

In the new business era, the main source of survival is to become the first mover to introduce creative products and business activities, where traditional companies were focusing on imitating innovations and improving efficiency. Consequently, traditional companies emphasises tangible resources such as land, labour and technology and ways of utilising them effectively and efficiently. In the knowledge era, more emphasis is put on the sources of innovation, i.e. intangible resources. In fact, in the new era it is believed that, by having superior intellectual resources as the main intangible resources, an organisation will understand how to exploit and develop its traditional resources better than its competitors (Zack, 1999:52).

The traditional era's channels and bureaucratic lines of power no longer exist in the new business world, where everyone communicates with everyone else on the basis of shared standards. In the new era, high level information technology (IT) is applied to link individuals and enables them to work with one another as teams on common data, designs and analysis from wherever they are networked. This is known as a hyperarchy (Evans and Wurster, 1997:79). Similarly, in the knowledge era, organisations have restructured their organisational processes and activities to enable them to achieve mass customisation and lean production.

Overall, it can be stated that a major shift of focus towards intangible (intellectual) resources, stakeholders' value, networked teamwork, dynamic and flexible work processes and customer satisfaction is observed in the new economy. Therefore, this has necessitated a change in the ways of measuring organisational fitness.

4.2.2 Types of Performance Measuring

The type of performance measuring used by an organisation depends on the total goal and mission that the organisation is pursuing. One cannot expect an organisation that aims at maximising shareholders' value to use the same performance measures as one that wants to maximise customers' value or achieve continuous innovation.

According to the National Centre of Public Productivity (1997), most performance measures are base on four aspects or dimensions:

1. Productivity: - which relates the organisation's outputs to its inputs.
2. Effectiveness: - which determines the relationship of an organisation's outputs to what an organisation is intending to accomplish.

3. Quality and service: - which examine an output or the process by which an output is produced. Quality is indicated by attributes such as accuracy (or error rate), thoroughness and complexity.
4. Timeliness: - which evaluates the time involved to produce an appropriate output.

In the knowledge economy, a fifth dimension seems relevant. This is the innovation and growth capability of firms. This dimension appears to be more important than the other four dimensions.

Similarly, depending on their orientation and major focus, performance measures can be divided into four groups:

1. Financial measures: - these include measures that emphasise the financial performance of firms, such as the return on investment, earnings per share, return on assets, profit etc. They focus entirely on shareholders' value. Measures of this type include the balance sheet, human resource accounting (HRA) and economic value added (EVA).
2. Non-financial measures – these measures emphasise the non-financial aspects of the organisation, such as customer satisfaction, shortened response time, improved quality, improved teamwork, reduced new product launch time, managing for long-term effectiveness etc. They completely ignore the financial aspects of the firm. An example of such measures is Sveiby's intangible asset monitor.
3. Mixed financial and non-financial measures – these measures encompass both the financial and non-financial aspects of the firm. Examples of such measures include the balance scorecard, intellectual capital index and the Skandia intellectual capital navigator.

4.2.3 Shift of Focus from Financial to Non-financial Measures

As discussed previously, organisations in the new knowledge era focus on achieving long-term customer satisfaction and success in the rapidly and unpredictably changing business environment through an organisational structure that concentrates on work teams and a high level of innovation and creativity. Firms therefore are required to emphasise their intangible resources and pursue qualitative goals. If firms are to measure and evaluate their qualitative business activities and processes and assess how these are linked to the qualitative goals and objectives, they have to rely on non-financial measures.

In today's business environment, financials do not matter the way they once did. Return on equity, a traditional driver of value in most organisations, has become less and less important as a performance measure. New sources of value creation have emerged and company performance in intangible areas such as quality of management, brand appeal and human capital is now a key driver for growing shareholder wealth. In fact, almost half of the market value of companies today is driven by intangible factors (Holman and Kahn, 2002). Increasingly, a company's competitive advantage is measured by its ability to relentlessly innovate and grow, having a flexible business model and its ability to execute strategic decisions quickly and effectively. Tangible assets and forecasted cash flows therefore no longer are the primary sources of value. Today, intangible assets and non-financial performance measures are much more fundamental (Lynch-Bell and Whitlock, 2001).

Nevertheless, a total shift towards non-financial measures will result in organisations ignoring one of the main aspects of their stakeholders' value, i.e. the shareholders' value. In fact, one of the main reasons for an organisation's existence is its aim to create value for its shareholders. Therefore, even though companies should focus more on the non-financial aspects, the financial measures should remain an integral part of the measurement system.

4.3 FINANCIAL PERFORMANCE MEASURES

Financial performance measures focus entirely on evaluating organisational fitness and performance using financial criteria only. Measures that fall in this category can be divided into two. The first group includes those that concentrate on the tangible aspects of performance, among which the balance sheet is the prominent one. Economic value added (EVA) is also categorised in this group, even though, in some rare cases, it is applied to measure intangible assets. The second category focuses on assessing the intangible aspects of the organisation through financial means. Human resource accounting (HRA) falls in this category.

4.3.1 The Balance Sheet

The balance sheet is the most traditional method of performance evaluation. Companies derive financial interpretations such as the return on assets (ROA) and return on equity (ROE) from analysing financial reports in the balance sheet. As stated by Lusch and Harvey (1994:101), the balance sheet measures organisational performance by concentrating on tangible assets such as cash, plants and equipment, and inventory.

4.3.1.1 Elements of the balance sheet

According to Kami (1977:30), the components of the balance sheet include the financial values of marketable securities and other quick assets, inventories and reserves, which consist of plant, equipment, long-term debt, land, natural resources and intangibles.

The balance sheet provides a general understanding of the size of the company; the major assets owned; any asset changes that may have occurred in recent periods; how assets are financed with liabilities and equity; any major changes that may have occurred in the debt and equity in recent periods; the size of and trends in sales; major expense totals and trends; the

resulting net income or loss; and the "cash income" generated by the business (Evans, 1993: 42).

A company's performance can be assessed by calculating the retained earnings to evaluate profits earned and the level of reinvestment during the period. The balance sheet also enables the firm to be well informed about cash flow matters that can lead to bankruptcy or poor financial performance. The cash flow statement shows the cash balances of the firm, changes in working capital, ways of financing, inventory turnover, and receivables and payables proportions.

An integrative analysis of the financial information provided by the balance sheet allows firms to understand changes in costs and their influence on the production system, the company's liquidity position, the amount of financing on fixed assets and the levels of inventory turnover. Moreover, financial information is clarified and quantified through the computation of financial ratios such as the return on equity, return on total assets and debt ratio. These ratios are then compared with the industry average, competitors' ratios, ratios for different time intervals etc (Evans, 1993:51)

4.3.1.2 Advantages of the Balance Sheet

A balance sheet is a financial snapshot of organisations at a given date in time. It enlightens mangers on their business's net financial worth by including both organisational assets and liabilities (Business Owners Toolkit). According to Kami (1977), the balance sheet has three important variables, namely growth (investment in physical assets and inventory), liquidity (retention of liquid assets net of external financing), and profitability (relationship of profit margins to investment), which enable organisations to obtain the following five advantages:

a. Identify a range of sustainable growth rates within which they can prevent liquidity problems.

b. Get an early warning if they are headed for a liquidity squeeze.

c. Obtain useful estimates of the amount of external financing needed to sustain various growth rates at both corporate and divisional levels.

d. Ascertain whether the costs of inflation are being accounted for – in determining, for instance, the quality of earnings and the real return on investment.

e. Make strategic planning decisions based on a knowledge of the company's position and that of its competition in relation to growth and liquidity.

In addition to the above-mentioned advantages, the balance sheet remains the most commonly practiced financial appraisal system in organisations. There are various reasons for this. The first reason is its focus on one of the main elements of the stakeholders, i.e. the shareholders. The main objective when shareholders investing their money in the organisation is to obtain financial worth. In other words, the primary purpose of the organisation's establishment is to make profit, which is effectively appraised through the balance sheet. Secondly, the balance sheet provides appraisals of the organisation's performance in simple quantifiable terms. The third reason is that the balance sheet has a universal nature. Its elements and application are standardised among organisations, which means that industry and inter-organisational comparisons becomes simple and logical. Similarly, when organisations deal with evaluations related to taxation and other obligations, the balance sheet is the most effective method. The balance sheet also simplifies financial audit and control.

4.3.1.3 Disadvantages and limitations of the balance sheet

Despite the fact that the balance sheet is among the most basic and popular performance measurement techniques, it also has many limitations and drawbacks.

The first and main limitation of the balance sheet is that it covers only partial organisational performance elements, leading to incomplete and sometimes inaccurate results. This is

because of the way in which the balance sheet treats the intangible assets of the organisation. The balance sheet usually buries the value of intangible assets by treating them under the general category of "goodwill", of which the main purpose is to decrease taxation and other obligations. But, as mentioned in the previous sections, the value of the intangible assets is far more than that. Today, intangible assets count more towards organisational performance and sustainability compared do the tangible and financial aspects.

According to Leonard-Barton (1992), strengths that are the sources of a firm's competitive advantage can quickly become weaknesses in the turbulent markets of the knowledge era. The main cause for this is that traditional sources of competitive advantage and growth, such as cost minimisation, market expansion, production efficiency and standardisation, are no more effective and organisational survival and success depend on the firm's ability to utilise and cultivate its intellectual capital to continuously innovate and create new ideas. This is not reflected in the balance sheet. The positive financial performance results depicted in the balance sheet may deceive managers into assuming that the organisation's strength will remain and seeking to appropriate this opportunity by expanding their physical assets and markets, sometimes through acquisitions. This leads to the shift of core competencies becoming "core rigidities", Leonard-Barton's (1992) term for organisations that focus strongly on exploiting existing resources and strengths rather than on exploring new ones, leading them to fall into a competence trap that creates huge obstacles to renewal.

The balance sheet was effective in the old era, since its appraisal focused mainly on shareholders' value. But the applicability of the balance sheet in the new world of the knowledge economy is limited, as the aspects of customers' value, environmental responsibility, community support and reputation, supplier innovation, intellectual partnership etc., which have a great impact on an organisation's effectiveness, are not covered and appraised.

4.3.2 Economic Value Added (EVA)

Another common financial performance evaluation method is the economic value added (EVA) approach. EVA is an approach that measures the residual income left over after all suppliers of capital have been adequately compensated for the risk they have incurred (Russ, 2001). It is one of the best methods to link organisational values with the shareholders' value.

4.3.2.1 Mechanism of calculating EVA

EVA is similar to conventional measures of profit, with the important difference that it considers the cost of capital. It stresses the notion that maximising the shareholders' wealth is not the same as maximising the company's total market value. A company's total value can be maximised simply by investing as much capital in it as possible. Shareholders wealth, on the other hand, is maximised only by maximising the difference between the firm's total value and the total capital that the investors have committed to it (Bontis and Dragonetti, 1999:395). By taking all capital costs into account, including the cost of equity, EVA shows the dollar amount of the wealth that a business has created or destroyed in each reporting period. In other words, EVA reflects profit the way the shareholders define it.

According to Stewart (2002), EVA is the net operating profit minus an appropriate charge for the opportunity cost of capital invested in an enterprise. As such, EVA is an estimate of true "economic" profit, or the amount by which earnings exceed or fall short of the required minimum rate of return that shareholders and lenders could get by investing in other securities of comparable risk. In simpler terms, it is calculated as follows:

$$\text{EVA} = \text{Net Operating Profit After Tax (NOPAT)} - [\text{Captital} \times \text{Cost of Capital}]$$

The cost of capital is what economists call an opportunity cost. It is the return that investors could expect to get by putting their money in a portfolio of other stocks and bonds at

comparable risk, and that they may forego by owning the securities of the company in question. It applies to both equity and debt (Bottger, 1999:15).

4.3.2.2 Advantages of EVA

As accentuated by Al Ehrbar (1998), the basic advantage of EVA is that it the most direct way of tying the measurement of performance, both theoretically and empirically, to the creation of shareholder wealth and managing it for a higher stock price. EVA is a framework that companies can use to communicate their financial goals and achievements to investors, and the investors, on the other hand, can use it to identify companies with superior performance prospects.

Secondly, when using the conventional financial performance measures, organisations usually analyse capital investments in terms of net present value, but weigh prospective acquisitions against the likely contribution to earnings growth. Bonuses for line managers and business unit heads typically are negotiated annually on the basis of a profit plan. The result of the inconsistent standards, goals and terminology usually is non-cohesive planning, operating strategy and decision making. EVA eliminates this confusion by using a single financial measure that links all decision making through a common focus. EVA is the only financial management system that provides a common language for employees across all operating and staff functions and allows all management decisions to be modelled, monitored, communicated and compensated in a single and consistent way - always in terms of the value added to the shareholder investment (Stewart, 2002).

Furthermore, EVA has the advantage of being conceptually simple and easy to explain to non-financial managers, since it starts with familiar operating profits and simply deducts a charge for the capital invested in the company as a whole, in a business unit, or even in a single plant, office or assembly line (Al Ehrbar, 1998).

4.3.2.3 Disadvantages and limitations of EVA

Just as in the case of the balance sheet, EVA's applicability is limited to the measurement and appraisal of tangible assets only. According to Bontis and Dragonetti (1999:395), some organisations attempt to measure intangible assets by applying adjustments to the intangible value and cost of capital. But this has two main drawbacks, namely the inapplicability of some of the conventional accounting practices in measuring intangible assets and the fact that the system may become highly complicated and thus vulnerable to miscalculations as well as challenges by managers.

The second disadvantage, stated by Russ (2001), is that there is a poor statistical relationship between EVA and various financial measures. For example, there is little relationship between EVA and shareholder returns.

Another main weakness of EVA is that, similar to the balance sheet, it focuses exclusively on measuring shareholders' value while ignoring other stakeholders who are very relevant to the effective performance and sustainability of the organisation.

4.3.3 Human Resource Accounting (HRA)

A performance evaluation technique that focus on appraising intangible assets through financial methods is Human Resource Accounting (HRA). HRA focuses on one of the intangible assets of the organisation, i.e. the human resources.

The American Accounting Association (as cited in Vilardell and Gutierrez, 1999) defines HRA as the identification and measuring process for human resources and the communication of this to interested parties. HRA encompasses several approaches to measuring and accounting the cost or value of an organisation's human resources. HRA ranges from proposals to account for the costs of recruiting, hiring, training and developing employees as

capital investments for management planning and control purposes, to proposals to account for the value of an organisation's human resources as capital assets for financial reporting. By and large, HRA describes the process of measuring the cost or value of an organisation's personnel and recognising those amounts as capital investments.

4.3.3.1 Types of HRA

Cascio (1991:7) divided HRA into two main categories – asset models and expense models. Asset models are used to reflect the organisation's investment in employees and to find the value of employees by treating them as capitalised resources (i.e. the economic concept of human capital), while expense models are used to measure the economic effects of employees' behaviour. Four different broad types of HRA can be derived for the above-mentioned categories (Cascio, 1991:3).

1. *Historical Cost Methods*: This method uses the capitalised historical cost of recruiting and training employees as a possible surrogate for human resource values, i.e. it uses the expenses actually incurred.
2. *Replacement cost*: This approach focuses on measuring the cost of replacing employees. According to Flamholtz (1985:55), replacement cost refers to the sacrifice that would have to be made to replace a resource presently owned or employed. Replacement costs include recruitment, selection, compensation and training costs.
3. *Behavioural costs*: According to Bontis and Dragonetti (1999:393), this model combines non-monetary behavioural values with monetary economic values. The behavioural aspects of human resources, such as employee motivation, attitude, turnover, job performance, absenteeism and skills, are measured and then translated into monetary values. This model applies the quantification of common behavioural and performance outcomes into financial terms using standard cost-accounting procedures.

4. *Present value of future earnings and wages*: This model develops a monetary value of human resources by calculating discounted estimates of future earnings or wages. This model follows the economic valuation of employees based on the present value of future earnings. That is, the organisation determines what an employee's future contribution is worth to it today. This contribution can be measured by its cost or the salary that the organisation will pay the employee.

4.3.3.2 Advantages of HRA

HRA is one of the primary approaches that attempt to link the intangible resources and values of an organisation with its financial and economic values. By using HRA, firms will be able to

1. evaluate the cost and effectiveness of recruiting efforts and to change those efforts, if necessary, to optimise effectiveness
2. determine the amount of training costs required and prepare realistic budgets for those costs.
3. evaluate the effectiveness of training programmes and adjust the programmes, if necessary, to optimise the benefits
4. determine turnover costs and the desirable level of turnover
5. determine net short-term layoff costs – the net savings or net costs of reduced human resources as compared to the loss of experienced employees, rehiring and retraining former employees or hiring and training new employees
6. determine the cost of developing new skills and the expected payoff from those skills by comparing the cost of developing new skills with alternative investments in other assets, such as machinery, equipment or business acquisitions – in short, capital budgeting

7. determine the return on investment more precisely for both decision making and management accountability.

On the whole, the primary advantage of HRA is that it enables organisations to link the value of one of their intangible assets, i.e. the human resource, with the financial results of the organisation. Moreover, it allows organisations to measure the behavioural aspects of their employees in quantitative and financial terms. According to Bontis and Dragonetti (1999:393), this method is particularly helpful for organisations in which human capital comprises a significant proportion of the organisational value. HRA is also one of the most appropriate measurement techniques for the purposes of external reporting to inform interested parties of the financial position and of the results of operations of the company (Cascio, 1991: 3).

4.3.3.3 Disadvantages and limitations of HRA

The primary disadvantage of HRA is that it contains too many assumptions and educated guesses that reduce its accuracy. According to Bontis and Dragonetti (1999:393), HRA requires assumptions to be made on the future size of the company, tenure per employee, levels of future turnover and salaries, and sometimes on issues that violate common sense or have been disproved by other tenets. Moreover, these assumptions may lead the results becoming subjective.

Furthermore, the asset models in particular, i.e. the models that focus exclusively on investments in people (inputs), completely ignore information about the outputs produced by those resources (Cascio, 1991:5). This therefore leads to conclusions that are based on a partial analysis.

Besides the above-mentioned disadvantages, HRA also has a basic limitation in that it covers only one aspect of the intangible assets, i.e. the human resources.

4.4 NON-FINANCIAL PERFORMANCE MEASURES

The performance appraisal models in this category apply non-financial measures, such as sales volume, production quantity, employee working hours, market share etc., to evaluate the organisation's performance. The Intangible Asset Monitor (IAM) developed by Karl-Erik Sveiby is one of the well-known models in this category.

4.4.1 Sveiby's Intangible Asset Monitor (IAM)

The Intangible Asset Monitor is a method for measuring intangible assets and contains a presentation format that displays a number of relevant indicators for measuring intangible assets in non-financial terms. The choice of indicators depends on the company strategy (Sveiby, 2000).

4.4.1.1 Dimensions of IAM

This model uses two dimensions to develop a measurement matrix. The first dimension deals with growth and renewal, efficiency and stability, while the second assesses the external and internal structure and competence aspects. Table 4:2 shows how these dimensions are related to develop a scheme of performance measures.

Table 4:2 Dimensions of the Intangible Asset Monitor

	External	Internal	Competence
Stability	Proportion of big customers Age structure Devoted customer ratio Frequency of repeat orders	Investment in IT Structure-enhancing customers	Turnover of professionals Relative pay Seniority
Efficiency	Satisfied customers index Sales per customer Win/loss index	Proportion of support staff Value/attitudes index	Proportion of professionals Value added per employee Value added per professional Profit per employee Profit per professional
Growth and Renewal	Profitability per customer Organic growth Image-enhancing customers	Age of the organisation Support staff turnover Rookie ratio Seniority	Number of years in the profession Level of education Training and education costs Marking Competence turnover Competence-enhancing customers

Source: IEE –Professional Networks (2002) - http://www.iee.org/Oncomms/pn/management

As shown in Table 4:2, three structures that give flesh to an organisation's business value can be identified, namely customers (the company's external structure), organisation (its internal structure), and the competence of its staff (Sveiby, 2000). These three elements make up the knowledge capital. According to Grosjean (2000), the same sets of general measurement indicators apply under each of the three types of intangible assets, namely growth/renewal, efficiency and stability.

4.4.1.1.1 External Structure

The focus of this structure is on the level of customer relationships and the contribution of customers to organisational growth, efficiency and competence. Customers spread the organisational image and provide feedback and employee training in addition to the money that they contribute to the organisation. These flows can be called intangible revenues, because they increase the value of the intangible assets. Intangible revenues can be divided into image enhancing, organisation enhancing and competence enhancing revenues. The input of customers into organisational growth, renewal and innovation can be evaluated by the proportion of sales per customers or sales per new markets. Similarly, the proportion of sales to high image (valuable) customers helps to describe the level of customer contribution to enhancing the organisation's image. Moreover, organic growth, i.e. an increase in billings with income from acquisitions deducted, is a measure of how well the organisation's concept is received by the market (Sveiby, 2000).

The level of profitability of the organisation's customer base assesses the contribution of the customers to organisational efficiency. More practically, organisations can also calculate sales per customer by dividing the total sales by the total number of customers. Since selling more to the same customer is usually easier and less costly than finding a new customer, this ratio shows how efficient the organisation is.

As in the case of the customer's role in improving the organisation's stability and sustainability, the satisfied customers index can be a best method to measure the degree of customer satisfaction, which can then be used by the organisation as an early indication of whether its results are about to improve or deteriorate. Furthermore, the percentage of billings attributable to the five largest customers, or the number of customers accounting for 50% of billings, will help to assess the proportion of big customers. This indicates the organisation's level of dependence on the favour of a few major customers. If the degree of dependence is

great, the organisation's position and structure is considered to be weak. Likewise, the age structure, i.e. the length of time that customers stay with the organisation, will help to identify the strengths of the organisation-customer relationship. Similarly, the level of devotion of customers to the organisation, which is measured by the devoted customers ratio, e.g. how much of the sales come from customers older than five years, helps to measure the organisation's stability. Another measure of organisational stability is the level of customer satisfaction measured by the frequency of repeat orders. A high frequency indicates that customers are satisfied with the company.

4.4.1.1.2 Internal Structure

The internal structure consists of a wide range of patents, concepts, models and computer and administrative systems. These are created by the employees and thus generally are "owned" by and adhered to by the organisation. Sometimes they are acquired from elsewhere. Also in the informal organisation, the internal networks, the "culture" or the "spirit" belong to the internal structure. Together, the internal structure and the people constitute what generally is known as the "organisation" (Sveiby, 2001).

The age of the organisation has an influence on both the stability of the organisation as well as on its opportunities for growth and renewal. Older organisations are considered to be more stable than new ones, although newer organisations find it easier and are more flexible to renew themselves. Another important factor of the internal structure for organisational growth and stability is the "Rookie Ratio", that is the number of people with less than two years' employment. Recently employed people are less stable than those who have been employed for a long time. There usually is a higher personnel turnover among people with less than two years of seniority in organisations. A high percentage of "rookies" in the administration therefore is a sign that the organisation grows less and is less stable.

The proportion of support staff to the total number of employees indicates the efficiency of the internal structure. The inverse of this ratio is the proportion of professionals. Sales per support person or sales per person employed can be used as an indicator of how large a volume the organisation's internal structure can cope with (Sveiby, 2000). Similarly, how favourable the attitude of the employees is towards their workplace and work structure has a great influence on organisational efficiency.

Furthermore, the level of investment in information technology and the proportion of assignments devoted to customers that improve the internal structure of the company play a great role in determining the level of organisational stability and innovative capacity (Sveiby, 2001).

4.4.1.1.3 Competence

In the competence category, the organisation measures the level of know-how of its non-supporting employees and how this is nurtured and utilised.

The level of organisational growth and renewal is influenced greatly by the existing and future competence of employees. One way of assessing this influence is through the competence index, which measures the employees' level of education, seniority and years in the profession and relates these to performance. Furthermore, the number of years that an individual employee has been in the profession, the employee's level of education and a comparison of the competence of the employees who have left the company with those of new recruits helps in evaluating the level of organisational growth and renewal.

The number of professionals per total employees, the leverage effect, i.e. the degree of contribution of the organisation's professionals to revenue, and the level of value added per employee help to evaluate organisational efficiency.

The proportion of older employees, the level of seniority, the level of pay as related to employee position and the rate of employee turnover measure the stability of an organisation.

4.4.1.2 Advantages of the IAM

The primary advantage of the IAM is that it enables firms to make the invisible visible. It is one of the outstanding methods that help organisations to quantitatively and objectively measure intangible assets.

Secondly, the IAM provides a comprehensive mechanism that enables organisations to evaluate the contribution of their intangible assets to the organisational performance and survival. It allows managers to assess the role of their intangible assets in stabilising, growing and renewing their organisation in a broader and distinctive manner.

Another important advantage of IAM is that it takes both internal and external resources into consideration when it assesses the organisation's intangible assets. Similarly, it provides a broader view of the stakeholders.

Furthermore, managers find IAM to be helpful as it is flexible, providing them with an opportunity to adapt it to suit their organisation's individual attributes and performance needs.

4.4.1.3 Disadvantages and limitations of the IAM

The main limitation of the IAM is that it only considers the intangible assets of the organisation. The role of tangible organisational assets, such as physical assets, capital and facilities, is completely ignored. Moreover, it uses only non-financial measurement criteria, disregarding the financial aspects of measurement, such as profits, shareholder's value, financial incentives, opportunity costs etc., which are very relevant to organisational stability and growth.

Although the IAM's consideration of the external influences on the performance of an organisation might make it superior to many other models, it is limited to customers only. Other relevant external elements, such as suppliers, partners, the community etc., are completely overlooked.

Every organisation can apply the IAM in different ways depending on its organisational performance requirements. Firms therefore will be unable to compare their performance with that of their competitors, as there is no standardised criterion of performance measurement.

4.5 COMBINATION OF FINANCIAL AND NON-FINANCIAL MEASURES

In the late 1990s, companies started to pursue measures that can accomplish an appraisal of both financial and non-financial aspects of the organisation. Measures such as the balanced scorecard, Skadia's intellectual capital navigator and intellectual capital index are the most prominent in this respect. As the features and elements of Skadia's intellectual capital navigator are reflected in both the balance scorecard and the intellectual capital index, the Skadia intellectual capital navigator will not be discussed.

4.5.1 The Balanced Scorecard

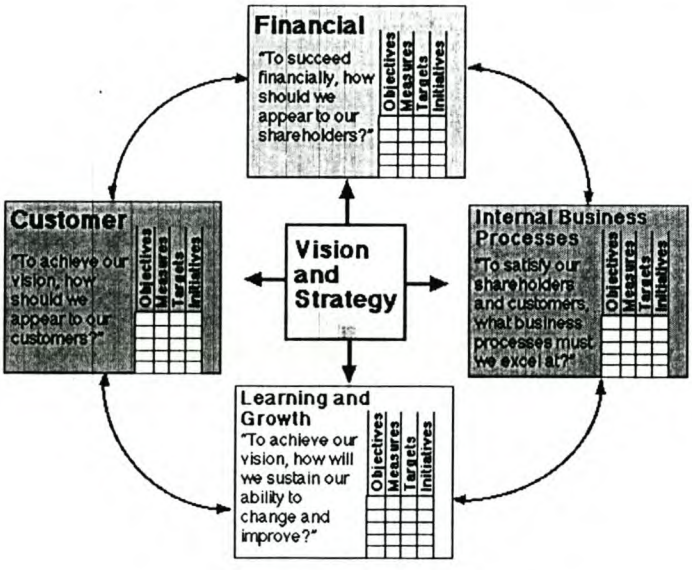
The balanced scorecard is a management system (not only a measurement system) that enables organisations to clarify their vision and strategy and translate them into action. It provides feedback on both the internal business processes and their external outcomes in order to continuously improve strategic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

The balanced scorecard includes financial measures that provide the results of actions already taken, complementing them with operational measures of customer satisfaction, internal processes and the organisation's innovation and improvement activities, i.e. operational measures that are the drivers of future financial performance (Kaplan and Norton, 1992: 71).

4.5.1.1 Perspectives of the balanced scorecard

The balanced scorecard allows managers to look at the business from four internal and external perspectives. These are the customer perspective, the internal perspective, the learning and growth perspective and the financial perspective (Kaplan and Norton, 1992).

Figure 4.1 : The Four Perspectives of the Balanced Scorecard



Source : http://www.balancedscorecard.org, (June 2002)

4.5.1.1.1 Customer perspective

At this level, organisations are required to translate their general mission statement on customer service into specific measures that reflect the factors that really matter to customers. According to the Balanced Scorecard Institute (www.balancedscorecard.org), recent management philosophy has shown an increasing realisation of the importance of customer

focus and customer satisfaction in any business. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good.

Kaplan and Norton (1992:73) categorised the factors related to customers into five: *time* - lead time required by the company to meet its customer's needs, starting from the receipt of orders to the actual delivery of the product/service to the customer; *quality* – the type of products or services to be provided; *performance* – how products and services are delivered; *cost* – the cost of products in terms of product/service price, customer time, tolerance to defects, opportunity cost etc.; and *services*.

4.5.1.1.2 Internal Business Perspective

Customer-based measures are important, but they must be translated into measures of what the company must do internally to meet its customers' expectations. After all, excellent customer performance derives from processes, decisions and actions occurring throughout an organisation. The internal measures of the balanced scorecard spawn from business processes such as factors that affect cycle time, quality, employee skills, and productivity, which have a great impact on customer satisfaction. Companies should also attempt to identify and measure their company's core competencies, which are the critical technologies needed to ensure continued market leadership. Companies should decide what processes and competencies they must excel at and specify measures for each (Kaplan and Norton, 1992:73).

4.5.1.1.3 Learning and growth

This perspective is designed to measure the organisation's capacity to innovate, continuously improve and learn. It provides essential measures for keeping the organisation's focus on its future ability to launch new products, add value to customers and enter new markets

(Kippenberger, 1996:9). Organisational learning and growth include employee training and corporate cultural attitudes related to both individual and corporate self-improvement.

4.5.1.1.4 Financial perspective

Financial performance measures indicate whether the company's strategy and its implementation and execution are contributing to bottom line improvement (Kaplan and Norton, 1992). Typical financial goals have to do with profitability, growth and shareholder value. Kippenberger (1996:9) accentuates that these measures should be the product of well-designed financial control systems. These may include cash flow, quarterly sales growth, divisional operating income, increased market share, and/or return on equity.

As shown in Figure 4.1, the four perspectives inevitably must reflect the company's own specific view of the world and its critical success factors. Moreover, there is high level of influence and interplay between them, which means that any organisation applying the balanced scorecard should not take each perspective separately, but rather view it as part of the interplay.

4.5.1.2 Implementing the balanced scorecard

The effective application of the balanced scorecard follows a top-down approach. As elucidated by Kaplan and Norton (2000:170), implementation should start with a description of the destination and then chart the routes that will lead there. This means that organisations should first review their mission statement and their core values to develop a strategic vision of what they want to become. After clarifying the strategic vision, the organisation will determine the logic of how to arrive at it, depicted in terms of the four perspectives.

The implementation of the balanced scorecard requires four processes: translating the vision, communicating and linking, business planning, and feedback and learning (Kaplan and Norton, 1996).

4.5.1.2.1 Translating vision

The first task that should be fulfilled by managers when implementing their balanced scorecard is to translate their generic vision and mission statement into a strategy that is well understood and can be communicated. To achieve this quality, the vision should primarily be expressed as an integrated set of objectives and measures describing the long-term drivers of success that has been agreed upon by all senior executives. The vision should also be developed in such a way as to serve as a common and understandable point of reference for all organisational units and employees.

4.5.1.2.2 Communicating and linking

After developing a clarified vision, it is the responsibility of top management to make sure that every member of the organisation understands it well. This is accomplished first by effectively educating those who are going to execute the plan. Educating and communicating to employees about the organisational vision and overall strategy should also be translated into objectives and measures for operating units and individuals. Therefore, the overall scorecard will be refined into business unit and personal scorecards. Kaplan and Norton (1992) emphasise that the developed scorecard should be motivating as well as obligating. The next step therefore will be linking it to rewards and quantifiable performance measures.

4.5.1.2.3 Business planning

Once goals have been set, the next step is to develop a detailed plan and budget for realising these goals. According to Kaplan and Norton (1996:83), scorecard users should select

measures of progress from all four scorecard perspectives and set targets for each of them. They then will determine which actions will drive them toward their targets, identify the measures they will apply to those drivers from the four perspectives, and establish the short-term milestones that will mark their progress along the strategic paths they have selected.

At the end of the business planning process, managers should have set targets for the long-term objectives they would like to achieve in all four scorecard perspectives; they should have identified the strategic initiatives required and allocated the necessary resources for those initiatives; and they should have established milestones for the measures that mark progress toward achieving their strategic goals (Kaplan and Norton, 1996:85).

4.5.1.2.4 Feedback and Learning

The above-mentioned processes are not just once-off occurrences within the scorecard implementation process, but rather are open for continuous modification and improvement to adapt to the changing environment and changing circumstances. To facilitate this, a system of effective feedback and learning is required to enable managers to know at any point of its implementation whether the strategy they have formulated is, in fact, working and, if not, why it is not working.

A double-loop learning and feedback system should be established according to which effective changes and modifications to the strategy and business plans are done through a cause and effect relationship among the different measures of the four perspectives.

4.5.1.3 Advantages of the balanced scorecard

The balanced scorecard is one of the few effective and successful performance measurement systems developed so far. Some of the advantages of using it as an appraisal system are

1. The balanced scorecard is a comprehensive system by which organisations can measure both their tangible and intangible resources from different internal and external perspectives.
2. The balanced scorecard not only measures performance, but also provides an overall approach by which to determine the exact problems of poor performance and when to improve performance. It also enables firms to link their long-term strategies and visions with short-term actions.
3. The balanced scorecard is applicable at all levels of the organisation, from the top to the bottom.
4. The balanced scorecard is an integrative and recursive process that enables firms to achieve a cause and effect relationship and influence between the different organisational elements to maintain effective organisational performance and fitness.

4.5.1.4 Disadvantages and limitations of the balanced scorecard

Even though the balanced scorecard is one of the best performance appraisal systems, it is not without drawbacks and limitations.

The first limitation of the balanced scorecard is that, even if it attempts to provide appraisal results that go beyond being mere performance measurements, it cannot be considered as a complete decision tool since it fails to show how to achieve a better performance.

The second disadvantage of the balanced scorecard is that it contains too many measures and there is a lack of rigor and structure in the measures. Moreover, there is no standardised reference that shows the link between the financial and non-financial measures.

Furthermore, the balanced scorecard cannot be applied to quickly fix performance problems, since considerable time and commitment are required to implement it. Besides, its implementation is staged and prolonged and requires careful follow-up.

Linking rewards to performance measures may lead employees, i.e. the executers, to become sceptical and reluctant to accept the scorecard. This could also lead to employees becoming resistant to change.

Three of the scorecard's perspectives focus on the internal elements and components of the organisation, while only one perspective of the external environment is given any emphasis. Thus it can be inferred that the balanced scorecard has a greater internal focus, as it ignores important external components such as alliance partners, suppliers, intermediaries, the community, government etc.

Even though the balanced scorecard gives greater attention to and coverage of the issue of organisational learning and growth relative to other measurement techniques, it does not have the means to measure the level of creativity and innovation of the organisation in relation to the demands of the business environment.

Finally, similar to Sveiby's intangible asset monitor, the balanced scorecard is not a standard system that is applied in the same manner by all organisations. Rather, depending on their organisational situation and performance preferences, organisations will measure the four perspectives of the balanced scorecard differently. It therefore becomes difficult to use the balanced scorecard for inter-organisational performance comparison.

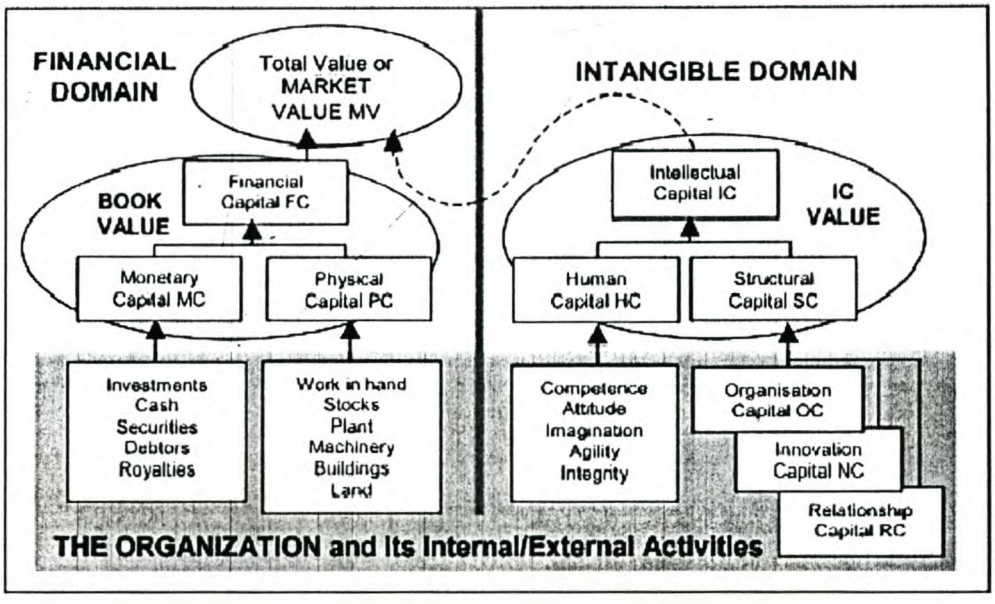
4.5.2 Intellectual Capital Index

The intellectual capital index (IC index) was developed on the basis of a conceptual analysis of the former performance models, such as the balanced scorecard and the Skandia Navigator (Roos et al., 1997:35).

4.5.2.1 Elements of the IC index

The IC index consolidates all the individual indicators representing intellectual properties and components into a single index. Changes in the index are then related to changes in the market. As shown in Figure 4.2, the IC index divides the factors of measurement into two major domains: the financial domain and the intangible domain.

Figure 4.2 : Components of the IC Index



Source: McPherson and Pike (2001:252)

The financial domain depends on the determination and assessment of the book value (BV) of the different monetary and physical assets of the organisation to describe the financial health of the organisation. The intangible domain, which is the more vital domain within the index, encompasses a hierarchy of different indices (Figure 4.3) to describe the value of the intellectual capital (ICV) of the organisation.

Figure 4.3 : Hierarchy of Categories in the IC Index

Relationship Capital Index • Growth in number of relationships • Growth in trust • Customer retention • Distribution channels productivity and quality	Human Capital Index • Fulfilment of key success factors • Value creation per employee • Training efficiency and effectiveness
Infrastructure Capital Index • Efficiency • Effectiveness • Key success factors utilisation • Distribution efficiency	Innovation Capital Index • Ability to generate new business • Ability to generate good products • Growth • Ability to improve productivity

Source: European Centre for Customer Strategies (ECCS) (July 2002)

All hierarchical elements in the two domains are measured distinctively and independently. Finally, all value contributions are combined additively to describe BV and ICV and the market value of the organisation is described by summing BV and ICV.

One of the basic features of the IC index, which makes it superior to other measurement models, is that it gives important focus to the organisation's innovative capability and level of creativity. As observed in Figure 4.3, the IC index enumerates various indices for measuring creativity in the organisation, such as the growth index, the productivity improvement index and measures of new businesses generated.

4.5.2.2 Advantages of the IC index

The following can be described as advantages of the IC index:

1. While it places higher emphasis on intangible assets, it also includes some crucial measurement components that evaluate the financial worthiness of the organisation.

2. Its various measurement indices make it suitably applicable to units and organisations with differing features and priorities with a high level of flexibility.
3. Within its relationship to the capital index category, it not only appraises the company's relationship with its customers, but also includes other actors in the business environment, such as intermediaries, suppliers and partners.
4. It can be considered as a pioneer measurement model as it places significant focus on assessing the level of creativity and innovative capability of the organisation. It attempts to appraise the fundamental question of creativity and innovation in organisations.

4.5.2.3 Limitations and disadvantages of the IC index

Even though the IC index has significant superiority over other measures in assessing the level of innovation and the organisation's relationship with its external environment, it also has the following limitations/ disadvantages:

1. It depends on a hierarchical structure in which the significant relationships between the components of intellectual capital are not shown in its index. The three components, i.e. human capital, organisational capital and relationship capital, are highly interdependent and interrelated to each other, yet they are treated independently and separately in this model.
2. It requires the development of a specific index for each component, making it complicated and confusing.
3. Although it attempts to measure the effectiveness of the organisation's relationship with its stakeholders, it does not provide the need focus and coverage of stakeholders other than customers.
4. It does not have standard indices or metrics. Rather, different organisations can develop a multiple variety of metrics within the hierarchical category. In some

situations, therefore, inter-organisational or inter-unit comparisons may become difficult.

4.6 COMPARISON OF THE DIFFERENT TYPES OF PERFORMANCE MEASUREMENT

In the previous topics the most prominent organisational fitness measurement systems, ranging from the most traditional to the extant, were discussed. A comparison between the different types of measurements therefore is of particular relevance to ascertain the most pertinent techniques, given the current dynamic and complex world of business.

Even though there are many measurement styles, only six major types were discussed because of their commonalities and popularity. These are the balance sheet, economic value added (EVA) and human resource accounting (HRA), which focus on financial measurement, Sveiby's intangible asset monitor (IAM), which emphasises non-financial appraisal, and the balanced scorecard and intellectual capital index, which deal with both financial and non-financial measurements. Table 4:1 provides a comparison between them in summary form.

Table 4:3 Comparison of the performance measurement styles

	TRADITIONAL STYLES		CONTEMPORARY STYLES			
	BALANCE SHEET	**EVA**	**HRA**	**IAM**	**BALANCED SCORECARD**	**IC Index**
Interpretations	Financial	Financial	Financial	Non-financial	Financial and non-financial	Financial and non-financial
Assets	Tangible	Tangible	Intangible	Intangible	Tangible and intangible	Tangible and intangible
Objectives	Shareholders' value	Shareholders' value	Human resources' value	Most stakeholders	Most stakeholders' value	Most stakeholders' value
Coverage of performance elements	Low	Low	Low	Moderate	High	High
Simplicity to calculate	High	High	Low	Low	Moderate	Low
Ability for external comparison	High	High	Very low	Very low	Low	Moderate
Employee involvement	Low	Low	Moderate	High	High	Moderate

As shown in Table 4:1, there are various similarities and complementarities between the three traditional measurement styles. All of them emphasise financial calculations of costs, revenue and capital that influence the shareholders' value. Relative to the business trend in the knowledge economy, these styles are considered to be incomplete and vague, since they concentrate on appraising only part of the different elements of organisational fitness. These traditional approaches of measurement assess the organisation's performance effectiveness only in relation to the investors' worth by calculating the profits, the level of financial returns and the costs (emphasising capital and human resources). The HRA differs from the other two in that it focuses on human resources, i.e. intangible assets. Another prominent aspect is that the EVA and HRA cannot be implemented independently. EVA in particular depends greatly on the information sourced from the balance sheet. Similarly, information obtained from the HRA should be matched with revenues and other costs that are obtained from the balance sheet to derive the final organisational value. Therefore, EVA and the HRA can be considered as complements of the balance sheet.

The IAM, which is considered to be one of the contemporary techniques, has a different approach from the traditional approaches. The first difference is that it focuses on non-financial measurements to assess the intangible assets of the organisation. Moreover, it takes a broader view of the elements of organisational fitness by expanding them to include the internal processes, the customer and employee competence. It also helps managers to assess their performance in different organisational features, namely stability, efficiency, and growth and innovation. In contrast, the traditional approaches focus mainly on reporting past revenue and cost-effectiveness and do not show where the problem lies in relation to the mentioned organisational features.

The balanced scorecard seems to contain features of both the traditional approaches and the IAM. The balanced scorecard appears to be a better approach, as it contains superior coverage

of the elements of organisational fitness. Compared to the traditional approaches, however, the balanced scorecard can be considered less simple and not applicable to inter-organisational comparison. The balanced scorecard uses assessments made by the other four measurement tools. For instance, organisations should apply elements of the balance sheet within their balanced scorecard to assess the financial perspective. This, therefore, shows that there is great interdependency and sharing of tools between the different measurement techniques.

Similar to the balance scorecard, the intellectual capital index has inherited many elements from the previous approaches. The intellectual capital index is superior to the balanced scorecard because it is highly flexible, attempts to assess the organisation's relationship with stakeholders other than the customers and evaluates the company for an additional but prominent angle, viz. its innovative capability, which is absent from the balance scorecard. The balanced scorecard, on the other hand, links appraisal with organisational objectives and goals better than the IC index. Moreover, the balanced scorecard appears to be much more comprehensive.

4.7 MEASUREMENT OF THE LEVELS OF CREATIVITY AND FLEXIBILITY OF AN ORGANISATION

In the current turbulent world of business, the main source of ensuring sustainability and survival is to continuously create new ways of doing business and maintaining a dynamic flexibility to adapt to the changing business environment. Thus, this topic places greater on this crucial issue and explains how the different measurement tools and techniques deal with it. It is only in relation to recently designed approaches, such as the balance scorecard and the IC index, that organisations have started to place the focus on organisational learning and the levels of creativity.

The balanced scorecard attempts to measure the organisation's capacity to continuously innovate, improve and learn through its learning and growth perspective. This perspective helps organisations to assess their ability to achieve sustainability through change and flexibility. The main drawback is that the focus is only on organisational learning and change, mainly through employee training and motivation. The balanced scorecard does not provide a means to assess the ability of the organisation to introduce novel ideas continuously and to measure the level of knowledge creation and innovation in the organisation in relation to environmental demands.

The IC index provides a better approach to assess the organisation's level of innovation and creativity relative to its competitive environment. It presents different variables within the innovation capital index to measure the organisation's innovative capability. Although this seems to be one of the best attempts, the main limitation of this approach is that it provides multiple variables with no means of linking them to each other. Moreover, the IC index does not enable an assessment of the extent of utilisation of knowledge created within the organisational process, as it does not create relationships between the different indices.

4.8 IMPLICATIONS FOR EMERGING MEASUREMENT TOOLS AND TECHNIQUES FOR ORGANISATIONAL FITNESS

A crucial issue that has to be kept in mind in the present complex world of business is the significance of measuring the organisation's flexibility and adaptability to the ever-changing business environment. The double-loop feedback learning system of the balanced scorecard helps organisations to continuously trace and assess changes in the competitive environment and to flexibly adapt to them at the right time. However, this does not enable firms to assess whether they are achieving the highest level of flexibility and adaptation, which will take future conditions of the business environment into consideration. This is because it does not offer a means of sensing socio-economic trends in the business environment.

In fact, most measurement tools seem to focus solely on aspects that exist inside organisations. An equally important fact that has not yet been pointed out is that the trends and activities in the external competitive environment are measured from the point of view of the organisation.

4.9 SUMMARY

The theme of this chapter was to identify and compare the major types of measurement of organisational fitness and to discuss the different issues that have to be considered when developing and implementing measurement tools and techniques. Furthermore, this chapter studied the changes in the world economy that necessitated changes in the measurement approaches of organisations.

The first issue that must be understood by organisations before they attempt to measure their performance is that there are different organisational elements to be measured and a decision must be taken on which of them require priority. A shift of focus towards intangible (intellectual) resources, stakeholders' value, networked teamwork, dynamic and flexible work processes and customer satisfaction is required when developing measurement tools. In fact, an emphasising on non-financial measures rather than on the financial measures seems to lead to higher performance results. This is caused by the significant change in the world of business from the industrial economy to the knowledge economy.

The performance measurement techniques and tools are divided into three main categories, namely the financial measure (including the balance sheet), economic value added (EVA) and human resource accounting (HRA). The second category includes the non-financial measures, of which Sveiby's intangible asset monitor is the most prominent. The measures that combine both financial and non-financial measures are in the third category, where the balanced scorecard is the major one.

The balance sheet and EVA place the emphasis on measuring tangible assets, while HRA focuses on the intangible assets, specifically the human resources. EVA and HRA are considered to be complements of the balance sheet, which is the principal of all the financial measures. The main criticisms of these types of measures are that they focus only on

shareholders' value and ignore the internal and external intangible assets and competencies of the organisation. However, they have the advantage of being simple as well as helpful for inter-organisational comparison.

The second category, which is the non-financial measure, is represented by the intangible asset monitor (IAM). This measure assesses the organisation's intangible resources, mainly customer and employee competencies, through quantitative but non-financial measures. The advantage of this measure is that it pays more attention to the values of employees and customers. In addition, it assesses the organisation under different organisational features to analyse the organisation's sustainability and survival in the changing environment. However, IAM also ignores one of the major organisational values, i.e. the shareholders' values, and it is necessary to make a lot of assumptions that could lead to the results becoming subjective and inaccurate.

The third category includes the balance scorecard and the intellectual capital index, which are contemporary measurement tools that combine financial and non-financial measures to assess both tangible and intangible assets. The balanced scorecard comprehensively measures values related to many of the stakeholders. In addition to this, and contrary to the other measures, which are only static measures of performance, the balanced scorecard is a system of dynamic performance evaluation, learning and growth. An important aspect that needs to be understood, however, is that the balanced scorecard uses the other four measures as the basis for its measurement tools. The balance sheet, in particular, is an integral part of the balanced scorecard.

The main limitations of the balanced scorecard are that, even though it provides wide-ranging and dynamic measurement tools for management to sense and identify the root causes of performance problems, it fails to provide possible ways of improving performance. Similarly, due to the fact that it is very detailed and has to be applied over a longer time frame, it does

not provide a quick fix for performance problems. In assessing the relationship of the organisation with its external environment, the balance scorecard fails to cover prominent players in the competitive environment, such as suppliers, alliance partners, the community and institutions. Similarly, the balanced scorecard does not focus adequately on measuring the organisation's level of creativity and innovative capability.

The intellectual capital (IC) index provides multiple variables that are grouped into hierarchical categories of indices. The IC index is different from the balance scorecard in that it follows a hierarchical categorisation of the measurement variables and the final conclusion is reached by adding each independent variable. In addition, the IC index attempts to cover more external stakeholders than the balance scorecard. Moreover, the IC index can be considered to be one of the first tools to focus on measuring the level of creativity of an organisation. The fact that no relationship is portrayed between the different variables and the existence of multiple and diverse variables, makes the IC index confusing and less practical. It also ignores significant elements of the stakeholders' value. In fact, the IC index can be viewed as an immature measurement tool that needs further development and improvement.

CHAPTER FIVE: BUILDING ORGANISATIONAL FITNESS

5.1 INTRODUCTION

In the previous chapters, the different factors that influence the sustainability and competitiveness of organisations was observed, and it also was pointed out how organisations measure their level of fitness for the changing business environment. Another crucial factor, which is the theme of this chapter, is to understand and identify ways in which organisations build a dynamic and fit system, given the ever-changing business environment.

Different approaches and tools have been described that help organisations to build fitness. The effectiveness and suitability of each approach depends on different factors, for example the type of organisation, the competitive environment, the level of technology and the product type. Some approaches and tools may be more relevant than others under the specific conditions. This chapter assesses some of the significant approaches to and tools for building organisational fitness and provides reviews and discussions of their features, relationships and development.

5.2 CRITERIA FOR ASSESSING THE APPROACHES TO AND TOOLS FOR BUILDING ORGANISATIONAL FITNESS

Over the past generations, various approaches to and tools for building organisational fitness have been developed. For the purpose of this study, they are assessed under two main topics: approaches to and models for building organisational fitness, and the tools and techniques for building organisational fitness. This study covers only those approaches and tools that are relatively comprehensive and have gained wider popularity as representative of other, minor approaches and tools with similar features and objectives.

The different strategic management concepts and theories that provide the theoretical and philosophical background to the development of strategies, goals and objectives, processes, culture etc. for the organisation are categorised under the topic "approaches to and models for building organisational fitness". These approaches and models are analysed and assessed according to their time of emergence, namely traditional and recent/emerging approaches. The time of their emergence is very important, as they follow on one another, with the recent approaches being further developments and adaptations of the traditional ones.

The second category includes those strategic management contributions that provide the practical tools and techniques that enable firms to adapt and fit to the turbulent business environment. The analysis and assessment is done on the basis of the objectives and aims of the techniques and tools. All of the tools and techniques considered are those that are applicable and effective in the complex world of business in the 21st century.

5.3 APPROACHES TO BUILDING ORGANISATIONAL FITNESS

As discussed above, the approaches and models that help to build an organisational system that enables firms to adapt to their competitive environment can be categorised as traditional approaches, i.e. those from the earlier stages, and the recent and emerging approaches of the new chaotic era.

5.3.1 Traditional Approaches

This category includes prominent approaches such as the competitive forces approach, game theory, the value chain model (Porter, 1985) and the resource-based view (Collis and Montgomery, 1995). Of these, the value chain model and the resource-based view seem to be relatively comprehensive and effective. Moreover, both approaches are the core sources of the concepts of many recent and emerging approaches. Therefore, this study will concentrate on the study of these approaches only.

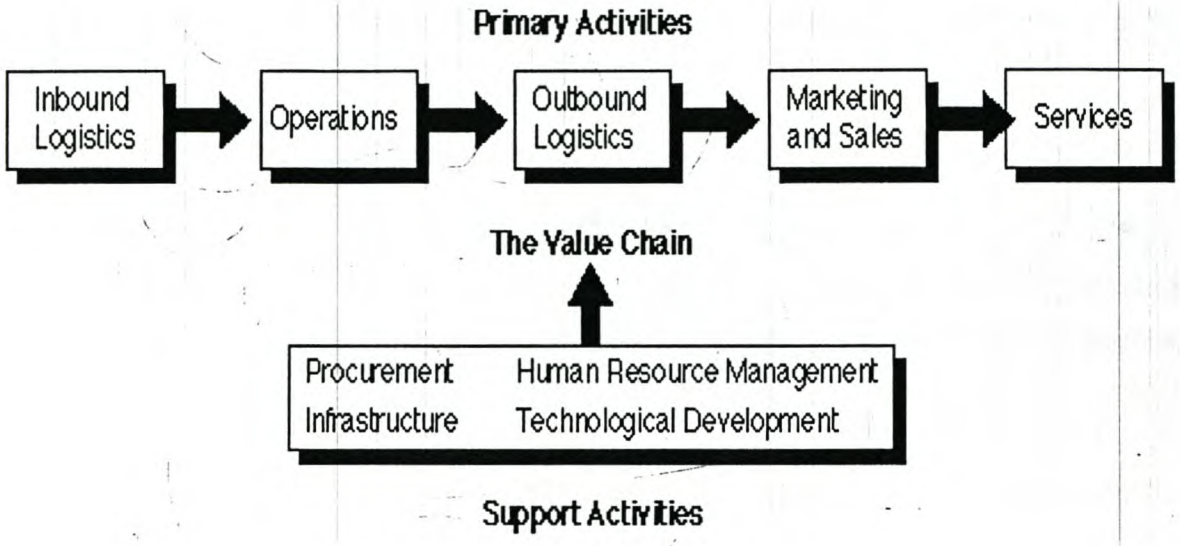
5.3.1.1 Value chain model

A value chain is the entire series of activities (Sheridan and Leibs, 1999) or linked set of value-creating activities (Govindarajan and Gupta, 2001:4) that begins with the processing of raw materials and ends when a finished product is in the hands of the end user.

The value chain model is an approach that describes a series of value-adding activities connecting a company's supply side (raw materials, inbound logistics and production processes) to its demand side (outbound logistics, marketing and sales) (Rayport and Sviokla, 1995:75). By analysing the stages of a value chain, organisations are able to redesign their internal and external processes to improve efficiency and effectiveness. The value chain approach aims at disaggregating buyers, suppliers and the firm into discrete but interrelated activities from which value stems.

As stated by Porter (1985:40), the value chain is composed of nine generic activities that are linked to each other and to the activities of the suppliers, channels and buyers. These nine activities are again divided into two: primary activities and support activities. Figure 5.1 shows the relationship between these activities.

Figure 5.1 : Activities of the Value Chain



Source : Equerry Online (September 2002)

According to this model, the integration of the organisational value chain is crucial in order to allow the extension of organisational services further down the value chain, to better manage the process, or further up the value chain, to own the customer's total experience. Integrating the processes and applications that are part of the value chain can lead to increases in revenue, higher customer satisfaction, new opportunities to offer packaged products/services, fewer defects, and many more benefits.

This model requires executives to understand how their firm's value chain fits into the industry's overall "value system", including supply-side chains and channel-value chains (the sequence of activities and intermediaries through which products reach the end buyer).

5.3.1.2 Resource-based view (RBV)

The resource-based view contends that a firm can achieve and sustain its advantage by possessing certain key resources, i.e. resources that have characteristics such as value, barriers to duplication and appropriability. Firms can obtain a competitive advantage if they effectively deploy these resources in their products markets. Therefore, the RBV emphasises

strategic choice, charging the firm's management with the important tasks of identifying, developing and deploying key resources to maximise returns (Fahy and Smithee, 1999).

According to Schoemaker (as cited on Fahy and Smithee, 1999), given strong competitive pressures, high rationality will prevail and economic rents will dissipate. However, two exceptions are identified, namely monopoly rents and Ricardian rents. Monopoly rents accrue to the deliberate restriction of output by firms facing downward sloping demand curves in industries characterised by barriers to entry, whether legal or otherwise. Rents also accrue in circumstances in which resources are limited or quasi-limited in supply, and these are known as Ricardian rents. If resources were not limited, increased production by new entrants would shift the supply curve outward, forcing marginal firms to leave the market. It is the persistence of these superior returns accruing to scare resources that is the central concern of the resource-based view of the firm. We now turn to the question of why resources may be limited in supply.

Fahy and Smithee (1999) provide the following conditions and characteristics of advantage-creating resources, namely value, rareness, inimitability and non-substitutability. Grant (1991) argues that the levels of durability, transparency, transferability and replicability are important determinants, while Collis and Montgomery (1995) suggest that they must meet five tests, namely inimitability, durability, appropriability, substitutability and competitive superiority. Amit and Schoemaker (1993) extend it further, producing a list of eight criteria, including complementarity, scarcity, low tradability, inimitability, limited substitutability, appropriability, durability and overlap with strategic industry factors.

The above-mentioned characteristics can be generalised into three main elements - value, barriers to duplication and appropriability. The initial aspect of the resource is that it must enable the firm to provide products that the market demands, i.e. it must create customer value. Barriers to duplication can be created by initiating information problems for

competitors whereby they become unable to identify the reasons behind a given firm's success.

The main notion of the RBV is that it assumes firms to be bundles of resources that are heterogeneously distributed across the firm, therefore resource differences persist over time. Thus, when firms have resources that are valuable, rare, inimitable and non-substitutable, they can achieve a sustainable competitive advantage by implementing fresh value-creating strategies that cannot easily be duplicated by competing firms.

5.3.1.3 Review of the traditional approaches

The value chain and the resource-based approaches help managers to focus on two important aspects of competitive advantage. Using the value chain approach, firms will be able to eliminate non-value-creating processes and activities along their value chain. Similarly, the resource-based approach helps firms to concentrate on the valuable and core assets when they develop their competitive strategies.

When these two approaches are related to one another, it is observed that the resource-based view is more of an inside approach, focusing on the search for the internal core assets of the organisation. In contrast, the value chain approach is more comprehensive and emphasises the integration of internal and external activities. Despite this fact, the two approaches complement each other. We can apply the RBV to further develop the value chain approach. Therefore companies may focus on the valuable and core resources found not only inside their organisations, but also in the whole value chain system, and eliminate activities that involve non-valuable assets.

5.3.2 Recent and Emerging Approaches

The appearance of sophisticated innovations in information technology and the increasing complexity of the business environment have led to the emergence of various advanced approaches and models. According to their core objectives and features, these approaches can be generalised into two prominent models: the dynamic capabilities approach and complexity theory.

5.3.2.1 Dynamic capabilities approach

Teece and Pisano (1997:509) argue that organisations maintain a competitive advantage when they possess distinctive asset positions (such as a portfolio of difficult to trade knowledge assets and complementary assets) and according to the evolution path(s) adopted or inherited. This must also be supported by dynamically achieving the capability to identify new opportunities and to organise effectively and efficiently to embrace them.

According to Teece and Pisano (1997:511), the dynamic capabilities of the firm are those processes that contribute toward appropriately adapting, integrating and reconfiguring internal and external organisational skills, resources and functional competencies in changing environments. Moreover, dynamic capabilities are learned patterns of collective activities through which organisations systematically generate and modify their operational routines in pursuit of improved effectiveness (Zollo and Winter, 1999). In addition, these abilities are influenced by the paths and market position of the organisation. Dynamic capabilities are realised when firms ensure generation after generation of innovative products through a relatively stable and replicable product development process.

As discussed by Teece and Pisano (1997:516), the dynamic capabilities of organisations consist of three basic elements:

1. organisational and managerial processes - i.e. the routines or patterns of current practice and learning that enable organisational resource coordination or integration, reconfiguration and dynamic knowledge creation.
2. asset positions - i.e. specific and specialised endowments. These include difficult to trade knowledge assets and assets complementary to them, as well as reputation and relational assets.
3. paths – i.e. the strategic alternatives available to the firm, as well as the presence or absence of increasing returns and technological trajectories and attendant path dependency.

5.3.2.2 Complexity management approach

Authors that support the complexity management approach have used different terminologies and explanations that emphasise complexity management in the achievement of a sustainable competitive advantage in the turbulent business environment. Some of the theories and models that fall into this category are managing at the edge of chaos (Dubinskas, 1994), organisations as open systems (systemic approach), organisations as complex adaptive systems, the self-organising principle, non-linear dynamic systems, the principle of self-emergence, quasi-stable organisations, bio-corporate organisations and quantum organisations (Youngblood, 1997).

The complexity management approach requires that organisations should have the following patterns to achieve a sustainable competitive advantage:

1. Non-linearity – organisations should experience non-linear phenomena, according to which the relationship between different variables and their outcome cannot be predicted accurately and is not necessarily always the same (Eoyang, 1996:4).

2. Interdependency – the different parts of the organisation, as well as the organisation itself as part of the whole business system, should be coupled to each other to facilitate rapid and continuous changes.
3. Emergent behaviour – the behaviour of the individual components of the system work together to create the behaviour of the whole system. The behaviour of the whole system is not just a summation of the behaviour of the parts; rather, systemic behaviour emerges from the interdependent activities of the parts (Pascale, 1999:85).
4. Autopoesis – organisations must be able to adapt to their environment and yet retain their identity and unique characteristics as separate from the environment (Eoyang, 1996:5)
5. Boundaries – complex systems pose boundaries that are not imposed from outside, but rather emerge as natural phenomena. Organisations should use these natural boundaries as the focal points for change and turbulent behaviour while setting up a seamless boundary by creating coherence and coordination between each other.
6. Feedback loops – feedback is the primary means of control in a complex system, therefore the design of the feedback systems within an organisation is critical to adaptation and effective functioning.
7. Neural network – organisations should create a comprehensive network within their systems by which their members can communicate with each other in a way that is similar to the network of the elements of a biological body.

Beinhocker (1999: 97) summarised the characteristics of complex adaptive organisations into three important features:

1. A complex adaptive organisation should always be open and the energy and mass that constantly flow through it keep it in dynamic disequilibrium or punctuated equilibrium. As stressed by Romanelli and Tushman (1994:1142), punctuated

equilibrium exists when organisations evolve through relatively long periods of stability (equilibrium periods) in their basic patterns of activity that are punctuated by relatively short bursts of fundamental change (revolutionary periods) that substantively disrupt and establish the activity patterns for new equilibrium periods.

2. A complex adaptive organisation is made up of interacting elements, which are all different, complex and difficult to predict. The interaction between the agents is guided by continuously evolving rules.
3. A complex adaptive organisation exhibits the emergence and self-organisation of bottom-up dynamic interaction and is independent of domination by specific agents.

Beinhocker (1999: 103) states five components of complex adaptive organisations and the strategy they should follow if they are to achieve a sustainable competitive advantage. These are

1. Robust rather than focused strategy – given an uncertain environment, strategies should be robust, i.e. able to perform well in a variety of possible future environments, rather than being aimed at a single line of attack. The instigation of robust strategy also enables organisations to pursue several paths simultaneously.
2. Continuous adaptation rather than competitive advantage.
3. Radical innovation rather than conservative operation - an organisation that is resistant to change and not adaptable will have low fitness. Conversely, an organisation that is oversensitive to shifts in its environment and constantly making radical responses will also have low fitness. According to Youngblood (1997:10), between these extremes of stasis and chaos lies a region where fitness is maximised – the edge of chaos. Being at the edge of chaos does not mean pursuing a moderate level of change, but rather something more subtle. At the edge of chaos, one is simultaneously conservative and

radical. Organisations should pursue evolution that is adept at keeping things that work, while at the same time undertaking bold experiments.

4. Diverse rather than routinised - organisations should develop a rich pool of possible strategies to help them to develop a diverse source of innovation and immediate response to environmental changes.
5. Flexibility rather than scale – complex adaptive organisations establish a simple system with relatively few parts and interconnections that help them easily adapt to environmental changes by achieving maximum flexibility.

5.3.2.3 Review of recent and emerging approaches

The dynamic capabilities approach and complexity management theory are highly related to each other, with many common perspectives. The dynamic capabilities approach accentuates that managerial capabilities to integrate and coordinate organisational processes and activities in distinctive and non-imitable ways are crucial elements for achieving systemic changes and a competitive advantage. Complexity management theory strengthens this notion by underscoring the necessity for self-organisation and emergence as a main source of the competitive advantage and sustainable innovation. Both concepts also support the need for organisational capabilities to achieve a flexible adaptation to the changing environment. While the dynamic capabilities approach introduces the necessity of organisational learning for achieving rapid transformation, complexity management theory stresses the creation of complex, adaptive open systems that utilise feedback loops.

The main divergence between the two concepts is at their level of coverage of the organisation. Complexity management theory is more comprehensive and general, treating the organisation as a system, while the dynamic capabilities approach deals with the specific processes and features of the company. In addition, the dynamic capabilities approach has an exclusive focus on asset accumulation, replicability and inimitability, whereas complexity

management theory puts greater emphasises on the organisation's ability to adapt flexibly and to change through process symbiosis by its elements. In fact, the dynamic capabilities approach does not provide an extensive method for linking the different capabilities, while complexity theory provides an integrative holistic method.

5.3.3 Review of the Approaches to Building Organisational Fitness

The dynamic capabilities approach and the resource-based view have a degree of commonality, as both stress valuable resources, i.e. the unique and inimitable resources of an organisation that enable it to produce a product that will be in high demand by its customers. The main criticism of the resource-based view is that it assumes industry and customer demand factors to be constant. In the current turbulent business world, this has been proven to be fallacious. The same holds true for the value chain approach. Both the traditional approaches are static and rigid. Moreover, they consider the organisation to be stable and at equilibrium. Stability and equilibrium in an organisation means death in the complex world of the 21st century. This is underlined by the recent and emerging approaches.

Overall, it can be highlighted that the traditional approaches form the basis of the recent approaches. They also can be linked to the recent approaches, for instance the value chain approach's concept of the organisational relationship within the value system can be linked to complexity management theory's notion of an open system relationship that forms a concrete master plan for managers on how to structure their organisations.

5.3.4 Implications of Emerging Approaches to Building Organisational Fitness

The attacks of September 11, 2001 on the World Trade Centre and the aftermath of this catastrophic event have made it clear that business organisations in the chaotic and complex

world of the 21st century have become unimaginably vulnerable to a maximum degree of danger and uncertainty. Under such circumstances, therefore, the main problem that needs to be resolved immediately is whether it is sufficient for organisations to become complex-adaptive systems to achieve sustainability.

The focus of many of the recently appearing approaches has been on the overall organisational system and how an organic and self-organising system can be created. However, there is another crucial issue that requires in-depth exploration. This is the issue of leadership. The existence of leaders who can act and speak decisively with genuine compassion, forcefulness and wisdom and who, more than anything else, are heroes of organisational survival and renaissance has become a decisive issue in the business environment. In addition to this, factors such as social security, morality and crisis management need more emphasis and focus within the complex adaptive systems.

5.4 TOOLS AND TECHNIQUES FOR BUILDING ORGANISATIONAL FITNESS

The tools and techniques for building organisational fitness are grouped into four important categories: those that aim at enabling managers to make sense of the socioeconomic trends of their business environment and to act accordingly; those that aim at creating a strong and effective relationship between the organisation and its stakeholders; those that assist in creating quality leadership; and those that ensure effective organisational operation. These four categories have been chosen because they are the prominent qualities and characteristics of an organisation that effectively adapts to and fits into its competitive environment.

5.4.1 Sense-making of Socio-economic Trends

Sense-making implies making sense of situations on the basis of values, priorities and preferences, and developing ideas with unknown possibilities. Sense-making requires us to focus on what is noticed as being "not fitting" and to wonder about these aspects (Seiling and Krieger, 2002).

5.4.1.1 Insight into and foresight of socio-economic trends

Forbes (1999:417) identified three stages of managerial sense-making in the socio-cultural business environment – scanning, interpretation and action. Scanning refers to the process of finding the necessary conceptions of future opportunities and threats, interpretation refers to the process whereby the information is given meaning and a view of future directions is obtained, and action refers to the process whereby organisations put their cognitive theories into action. Organisations' sense-making effectiveness depends mainly on the breadth of scanning, the locus of scanning and the effectiveness of interpretation.

At the levels of scanning and interpretation, the ability of organisations to have full insight into and foresight of socio-economic trends (Hamel, 1998:25) is a prerequisite for effective sense-making. Hamel (1998:25-26) provides three lenses for viewing environmental opportunities and threats.

The first lens is the lens of *orthodoxy*. When organisations look at their industry and assess and search for the product of unquestioned precedence and the irrevocable fact of life, they can discover new and unanticipated ways of challenging industry rules. Industry revolutionaries always challenge the orthodoxies of the incumbents. The starting point of any strategic conversation must be a systematic deconstruction of existing industry orthodoxies. Without this, one does not create the degrees of intellectual freedom that are needed in order to discover the new.

The second lens is the ability to peer deeply into trends that have the potential to generate game-changing discontinuities. This is not about forecasting, or scenario planning, or gazing into a crystal ball. Instead it is about understanding what is already changing. Kim and Mauborgne (1999:92) strengthen this idea by stating that organisations should be able to look across time to not only forecast environmental trends, but more to participate in shaping them.

The third lens helps organisations to define themselves in terms of what they know rather than by focusing on traditional opportunities that are product centric.

5.4.1.2 Tools to discern new opportunities

As discussed previously, the major source of competitive advantage in the turbulent business environment is not to play well in the existing game, but to create new games continuously. Many tools have been developed that help organisations in searching for and adapting new business opportunities and models, among which the most prominent are creative destruction using information technology (Evans and Wurster, 1997), creating new market space (Kim and Mauborgne, 1999) and customer knowledge management (CKM) (Gibbert et al., 2001; Prahalad and Ramaswamy, 2000; Wikstrom, 1996; Thomke and Von Hippel, 2002).

1) Deconstruction of the value chain

Evans and Wurster (1997) define any business in which information comprises a very large portion of the value chain to be an information business. Every business today competes in two worlds: a physical world of resources that managers can see and touch (marketplace), and a virtual world made of information (market space) (Rayport and Sviokla, 1995:76). The latter has given rise to the world of electronic commerce, a new locus of value creation. Executives must pay attention to how their companies create value in both the physical world and the virtual world. However, the processes for creating value are not the same in the two worlds. By understanding the differences and the interplay between the value-adding processes of the

physical world and those of the information world, senior managers can see the strategic issues facing their organisations more clearly and comprehensively. Managing two interacting value-adding processes in the two mutually dependent realms poses new conceptual and tactical challenges. Those who understand how to master both can create and extract value in the most efficient and effective manner.

As accentuated by Rayport and Sviokla (1995:77) in order to create value with information, managers must look to the market space. Although the value chain of the space can mirror that of the place, the value-adding processes that companies must employ to turn raw information into new market space services and products are unique to the information world.

Organisations can utilise information technology and continuously advance it to deconstruct their value chain and thereby create new ways of doing business and maintaining a competitive advantage. The changing economics of information and the coming of advanced information technologies thus threaten to undermine established value chains in many sectors, requiring virtually every company to rethink its strategy – not incrementally, but fundamentally. With the increasing advancement of information technology, existing value chains have been deconstructed not only to reshape markets, but also to create new businesses that previously were not identified.

The main source of sustainability is for organisations to be able to deny and destruct what they have been building up and to emerge in a very new form. A good example of this is the emergence of cyberspace and CD-ROMs and the way they have shifted the encyclopaedia business, leading to the devastating loss of Encyclopaedia Britannica. Had Encyclopaedia Britannica been able to realise the trend of their business and deny their existing activities, thus shift to the Internet and computer business strategies, they would have ensured their survival in the business (Evans and Wurster, 1997).

2) Creating new market space

Kim and Mauborgne (1999:83) emphasise the ability of organisations to free themselves from head to head competition and to look across the conventional boundaries of competition in search of new business opportunities. As organisations try to outdo one another, they end up competing solely on the basis of incremental improvements in cost or quality or both, which does not lead to a sustainable competitive advantage in today's complex world of business. The main source of sustainability therefore is to achieve discontinuous improvements by looking systematically across existing markets and thus finding unoccupied territory that represents a real breakthrough in value.

Six basic approaches can be adopted by organisations to search for new business opportunities beyond the existing market space. These are looking across substitute industries, across strategic groups within industries, across the chain of buyers, across complementary product and service offerings, across the functional or emotional appeal to buyers, and across time (Kim and Mauborgne[a], 1999:84).

Organisations can find new business opportunities by studying the tradeoffs customers make between substitute products. Companies should focus not only on their current industry, but also on other industries that can provide substitutes for their products. A museum, for instance, should focus on business opportunities by looking across substitute businesses such as cinemas, parks, clubs, sport centres etc. This enables companies to discover new business activities that can be achieved by combining the features and advantages of existing business practices with those of the substitute industries. A good example of a business success achieved by following this approach is that of Southwest Airlines, which achieved the major advantage of an airplane, i.e. speed, and the advantages of railways or road transportation, i.e. lower cost and high flexibility (Kim and Mauborgne[a], 1999:87).

According to Kim and Mauborgne[b] (1999:24) in most industries there are three groups involved in the buying decision – users, purchasers and influencers. In the field of children's medicine, for example, the users are the children, the purchasers are the parents and the influencers are the doctors. These three buyer groups often value very different things. Yet companies in most industries tend to converge on the same buyer group. By shifting the buyer group of an industry, companies can discover fundamentally new sources of value and create new markets.

The third approach is finding new markets by studying the conditions under which buyers trade up and trade down between two strategic groups. Most companies focus on improving their competitive position within their strategic group or market segment. To create new market space, companies should not focus on how to out-compete rivals within their strategic group, but rather should find strategies that combine the key discriminating factors of two strategic groups. In the computer industry, Compaq's creation of PC servers between minicomputers and desktops is a good example (Kim and Mauborgne[b], 1999:25).

Companies can also find new market opportunities by looking across complementary products. The key is to define the total solution buyers seek when they choose a product or service. A simple way to do so is to think about what happens before, during and after a company's product is used.

The fifth approach focuses on the organisation's creation of new market space by shifting the functional-emotional orientation of their industry. In an industry, competition tends to converge on one of two bases of appeal. Some industries compete principally on price and functionality, such as when people buy a product based largely on utility calculations, its appeal is functional. Other industries compete largely on feelings, glamour and emotion, and their appeal is emotional.

The final approach through which organisations can actively shape their future and lay claim to new market space is by looking across time, from the value a market delivers today to the value it might deliver tomorrow, and by then grasping business insights into how the trend will change value for the customers. Three principles are critical to assess trends across time. According to Kim and Mauborgne[a] (1999:91), in order to form the basis of a new value curve, these trends must be decisive for the organisation's business, they must be irreversible, and they must have a clear trajectory. Organisations therefore should take these trends to their logical extreme to find out how they will affect value for the buyers and then work backward toward solutions. But most of all, organisations must realise that the crucial aspect is how they develop strategies that can enable them to participate in shaping external trends over time.

3) Customer Knowledge Management

The major foundation of the survival and sustainable business of companies in today's Schumpeterian business environment is to continuously deconstruct their value chain (Evans and Wurster, 1997) and out-innovate their competitors (Moore, 1993). The key source of innovation is continuous creativity and the utilisation of dynamic knowledge. Traditionally, companies were searching for knowledge in their employees, suppliers and partners only. But through customer knowledge management, companies have realised the relevance of knowledge existing in the fourth element of their stakeholders, i.e. their customers. Customer knowledge management enables organisations to effectively utilise the knowledge existing in their customers for the purpose of achieving organisational innovation and growth on the one hand, and customer success on the other hand (Gibbert et al., 2002).

Gibbert et al. (2002) depict five non-mutually exclusive approaches that can be adapted by companies to utilise and cultivate the tacit and explicit knowledge existing in their customers. These are co-production, mutual innovation, organisational learning, communities of practice

and joint intellectual property (IP) management. Even though there is some degree of overlap and non-lucidity among the approaches, if they are elaborated further in future research efforts they may help to provide a comprehensive method for organisations to deal with their customer knowledge.

One of the significant and contemporary approaches to customer knowledge management is the customers-as-innovators approach (Thomke and Von Hippel, 2002). Through this approach, companies can facilitate the innovative capability of their customers by providing tools and systems that transfer the product design and development activities to their customers. The tools that are to be developed should provide enough opportunity for customers to learn by doing, i.e. to explore what does and does not work through a prototype or computer simulation. Therefore, the effectiveness of this approach depends solely on the quality of the tool kit developed by companies, which is achieved when organisations utilise advanced information technology and the Internet. According to Thomke and Von Hippel (2002), the tool kit should enable the completion of a series of design cycles followed by learning by doing; be user friendly, i.e. easily understood by customers; possess a library of useful components and models that were detected previously to avoid the reinvention of the wheel; and provide information about the capabilities and limitations of the production process. Moreover, organisations should develop a production system that is highly flexible.

Customer knowledge management is one of the prominent methods by which companies can fully utilise their intellectual capital. But for CKM to be effective, organisations must also tackle challenges such as dealing with customer privacy issues, protecting core competency and handling customer heterogeneity.

4) Sources of Innovation

Drucker (1998) provides seven situations in which innovative opportunities lie:

1. Unexpected occurrences – i.e. exploitation of an unexpected success or failure
2. Incongruities – i.e. mismatching in the logic or rhythm of a process, expectations and results, and economic realities.
3. Process needs – i.e. exploiting a process need to create new ideas
4. Industry and market change – obtain advantage from the overnight changes in industry as well as in market structures to attain new opportunities for innovation.
5. Demographic changes - the innovation opportunities made possible by changes in the numbers of people, and in their age distribution, education, occupations and geographic location
6. Change of perceptions – changing managers' perceptions of the same incident to have different meanings can lead to foreseeing innovative opportunities.
7. New knowledge – innovations that are based on new knowledge, whether scientific, technical or social.

5.4.2 Relationship Fitness

Today's dynamic and complex business environment requires firms to think about competition in a way that is completely different from the conventional view in terms of products and markets. As emphasised by Moore and Curry (1996:143), companies must focus on the environment in which their business lies. If companies are to achieve a competitive advantage and sustainable business, they need to co-evolve with others in the environment, a process that involves cooperation as well as conflict. It requires generating shared visions, forming alliances, negotiating deals and managing complex relationships.

5.4.2.1 Systemic relationships in the ecosystem

This new approach of competition and the relationships that firms develop within their business community or ecosystem (Moore, 1993) can be described as competitive co-evolution or cooperative competition.

Moore (1993) identifies four evolutionary stages of a business ecosystem that entail different managerial requirements and relationship approaches if organisations are to ensure their sustainability within the system.

During the first stage, i.e. the birth of the ecosystem, managers should focus on creating an innovative idea that leads to revolutionary products that discover the right customer value. As the strategy is in its early stage, it will need cultivation as well as protection from the emergence of other businesses. To facilitate this, therefore, a high level of cooperation is required with business partners. In addition to this, companies should work in partnership with suppliers and customers to attain the maximum level of creativity.

At the second stage, expansion, the focus should be on increasing the utilisation of the new business created by expanding into wider markets. Firms should be able to attain operational efficiency by reengineering and restructuring their internal structures, as well as through a higher level of cooperation with suppliers and partners. As this stage involves a number of takeovers and expansions into markets of less experience, the highest level of strategic alliances and joint business activities are highly valuable.

The next stage is when the organisation confirms its leadership within the system. The ability of managers to lead and leverage are highly valued at this level. Moreover, maintaining and sustaining the leadership position is a key requirement that is achieved by maintaining bargaining power in relation to other players in the ecosystem, including key customers and

valued suppliers. Partners and collaborators can also be encouraged to work together by providing a compelling vision.

The last stage, renewal, requires organisations to observe and identify new trends that may upset the ecosystem and thus build a strategy that helps to create new ecosystem. This is realised by implementing discontinuous changes through new innovations and is achieved by working together with innovators and entrepreneurs (customers, suppliers, intermediaries etc.) in the system.

In addition to the mentioned managerial requirements at the different stages, the business ecosystem approach (Moore, 1993) also stresses that organisations should have a stakeholder perspective of strategic management. This means that a comprehensive view should be developed to meet the needs and interests of the overall stakeholders, i.e. shareholders, customers, suppliers, co-operators, the community, government agencies etc.. A high level of interaction and co-evolution of the stakeholders leads to a sustainable competitive advantage.

5.4.2.2 Evaluating and optimising strategic alliances

Product innovations and business strategies have a very short life cycle today, which means that firms must become dynamically creative and very fast in their innovative capabilities. Despite the shortened life cycles, the cost of research and development has become extremely high. Similarly, in the light of increasing globalisation, firms have started to expand into much wider markets of less experience. Strategic alliances therefore become effective ways of dealing with the mentioned problems.

Through strategic alliances, firms will be able to lower research and development costs, co-opt competition, create new investment options, promote organisational learning, internalise knowledge spill-overs, increase innovative capability, decrease transaction costs, broaden the effective scope of activities, increase efficiency through the creation of networks, access

external complementary resources and capabilities and pool business risks (Johnston, 2001:15). However, strategic alliances should tackle challenges such as enabling trust between parties, establishing smooth communication and commitment, and facilitating effective decision making and control to achieve the mentioned advantages.

Leibold and Slabber (2000:170) provide five preconditions that are interrelated and interdependent and lead to an effective, durable and satisfactory strategic alliance. These are

1. Motivation – well formulated and genuinely shared objectives.
2. Synergy – effectively joined assets and skills.
3. Structure – proper controls to afford fair protection of respective contributions and assets, to monitor progress to ensure that performance follows, and which are compatible with the original reasons for the alliance.
4. Development – provision to change over time and adjust to the flexible environment.
5. Political – good rapport on a human level in areas such as policy, vision and management style.

The most important aspect in dealing with strategic alliances is not for the firms to agree on every aspect of the alliance, but rather how they solve their differences. Therefore, it is necessary to develop a clear vision, goal and objective to guide the partners. Similarly, organisational units and functions should be structured in such a way as to allow maximum flexibility and self-autonomy, while careful design and arrangement should be undertaken to eliminate overlap and to create cohesion between the functions.

5.4.3 Leadership Fitness

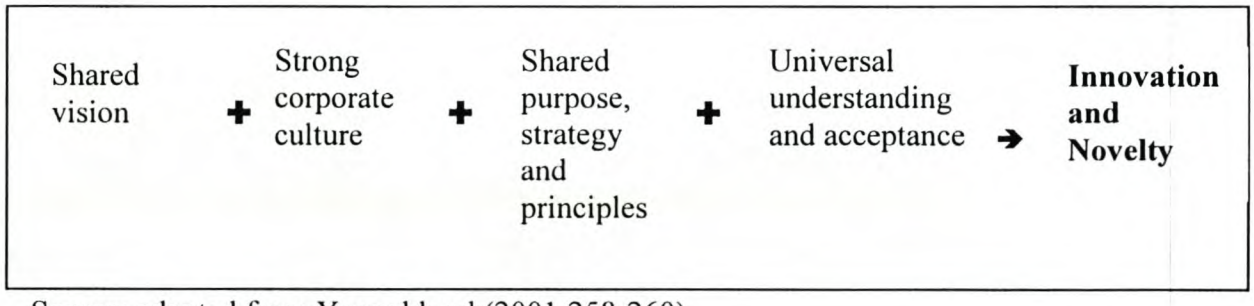
As the business environment becomes more and more intricate and chaotic, leaders play an increasingly important role in transforming their organisations to become complex-adaptive

systems. This means that the role of leaders should shift from the traditional command and control structure to promoting the richest possible environment for their companies to self-organise.

Youngblood (2001:258) states that organisational leaders should be able to perform three important activities to enable their organisation's sustainability:

1. Establishing context – i.e. development of the necessary frameworks and environment for self-organisation, as well as energising and ensuring the synergy of the organisation's creative and innovative capabilities. Leaders can achieve this by developing four important and interlinked activities, which can be expressed as follows.

Figure 5.2 : Establishing Contexts for Self-Organisation



Source: adapted from Youngblood (2001:258-260)

2. Disturbing the system – i.e. creating tensions and imbalances to pressure, energise and challenge organisational creativity in order to ensure continuous renewal and co-evolution. Leaders achieve this by setting ambitious and thriving goals and objectives, encouraging risk taking and tolerating failures and mistakes, facilitating a rich flow of information through internal and external networks and IT, supporting and advancing diversity of opinions, and creating anxiety and stress among members so as to pressure them to be creative and innovative.

3. Cultivating the organisation – i.e. providing employees with the necessary autonomy and responsibility, creating the necessary environment and infrastructure for continuous learning and sharing of ideas, and rewarding contributors. Leaders can cultivate their organisations by empowering lower level employees, dissolving hierarchies and bureaucratic lines, encouraging idea sharing and knowledge transfer, and motivating employees.

To fulfil the above-mentioned roles, managers must possess personal characteristics such as reasoning and sense-making, conflict resolution and complexity reduction, open-mindedness and being incisive, a cosmopolitan orientation and cultural flexibility, and high interpersonal and communicative abilities (Bartlett and Ghoshal, 2000:795).

5.4.4 Operational Fitness

In addition to being farsighted and innovative, firms should also create an agile and flexible internal system. This is achieved by establishing an effective organisational structure and processes that enable continuous innovation and new business creation. Some of the ways of achieving this are through effective intellectual capital management and new venture creation through intrapreneurship and entrepreneurship.

5.4.4.1 Intellectual capital management

In an economy in which the only certain is uncertainty, the one sure source of lasting competitive advantage is knowledge (Nonaka and Takeuchi, 1995). While having unique access to valuable resources is one way to create a competitive advantage, in some cases this may not be possible, or competitors may imitate or develop substitutes for those resources. Companies with superior knowledge, however, are able to coordinate and combine their traditional resources and capabilities in new and distinctive ways, providing more value for the customers. Therefore, knowledge is considered as the most important strategic resource,

and the ability to acquire, integrate, store, share and apply it is the most important capability for building and sustaining a competitive advantage (Zack, 1999:46).

Effective intellectual capital management therefore is required by firms if they are to persistently create and leverage knowledge. Wiig (1997:402-403) suggests that the following important actions should be undertaken by organisations to successfully manage their intellectual capital:

1. survey, develop, maintain and secure the intellectual and knowledge resources of the enterprise.
2. promote knowledge creation and innovation by everyone
3. determine the knowledge and expertise required to perform effectively, organise it, make the requisite knowledge available, 'package' it (in training courses, procedure manuals or knowledge-base systems, for example) and distribute it to the relevant points of action.
4. modify and restructure the enterprise to use knowledge most efficiently by taking advantage of opportunities to exploit knowledge assets, minimise knowledge gaps and bottlenecks and maximise the value-added knowledge content of products and services.
5. create, govern and monitor future and long-term knowledge-based activities and strategies – particularly new knowledge investments – R&D, strategic alliances, acquisitions, important hiring programmes etc. on the basis of identification of opportunities, priorities and needs.
6. safeguard proprietary and competitive knowledge and control the use of knowledge to ascertain that only the best knowledge is used, that valuable knowledge does not atrophy, and that knowledge is not given away to competitors

7. provide knowledge management capabilities and a knowledge architecture so that the enterprise's facilities, procedures, guidelines, standards and practices facilitate and support active knowledge management as part of the organisation's practices and culture.
8. measure the performance of all knowledge assets and account for them, at least internally, as capitalised assets to be built, exploited, renewed and otherwise managed as part of fulfilling the organisation's mission and objectives.

One of the best means of restructuring organisations to enable effective intellectual capital management is to establish hyperarchies. According to Evans and Wurster (1997:76), hyperarchical structures lead to the empowerment of individual members and work groups in the organisation through decentralisation and streamlining of the business process. Organisations with hyperarchical structures follow an outside-in approach of business strategies. With hyperarchies, organisations develop flattened networks that create an atmosphere for freethinking and risk taking. Hyperarchies enable firms to adopt a virtual value chain, as information is shared among its internal and external resources. The organisation is connected via the Internet, allowing an efficient flow of information.

Most of the Fortune 500 companies also establish corporate universities to facilitate knowledge sharing and creativity within their organisations. Corporate universities are company-run, post-secondary educational entities that have as their main concern the enhancement of the knowledge and skills of their employees by strategically combining learning with work (Rosen, 1998). The goal of a corporate university is to communicate the company's vision to all employees, from the clerical staff to the CEO, and to help employees understand the company's values and culture. Accordingly, they will know what the company is trying to achieve and how they can help the company to succeed. Corporate universities are also established with the aim of ensuring innovation, developing distinctive competencies,

segmenting internal markets and enabling organisations to target atypical employees and learn from their efforts (Gerbman, 2000). Corporate universities are different from the traditional training departments in that they strive to be more strategic in scope, while the training programmes tend to be more tactical. A corporate university's outcomes are often aimed at overall increased performance, while the outcomes of a training programme often lean toward increased job skills.

The primary role of corporate universities, which makes them different from other training methods, is that they explicitly focus on enabling employees to acquire the knowledge that is necessary to be successful in business, rather than providing training that is of little relevance to the success of the organisation. Despite this fact, most of the educational programmes that are provided by corporate universities seem to focus on the provision and exploitation of existing knowledge and put less emphasis on the exploration of new ideas and knowledge. A survey done by Rademakers and Huizinga (2000) shows that most of the corporate universities focus largely, if not entirely, on education and that they are less involved in research.

External training providers, especially the conventional universities, are superior to corporate universities because they focus on research and have a better pool of knowledge due to the fact that their customers and business activities are highly diversified. Despite this fact external education providers may become incapable of linking the learning efforts with specific organisation's demands and goals. Corporate universities, therefore, sacrifice the benefits of innovation and creativity obtained from external sources and research activities and place their entire emphasis on linking learning objectives to organisational objectives and strategies.

One way that corporate universities can optimise their contribution to effective intellectual capital management is to create partnerships with other internal and external entities,

especially universities and colleges. In fact, they have to evolve from being concerned at only the corporate level to becoming an independent business entity, while at the same time contributing toward achieving the organisation's objectives. The utilisation of advanced information technology will also help in the fast and efficient dissemination and sharing of knowledge and in effective research and development.

5.4.4.2 Entrepreneurship and new venture creation

Entrepreneurship involves a creative act whereby something is built/created that did not exist previously. It also entails creation based upon perceiving and capturing an opportunity that may be buried in the noise of the environment; creation driven by opportunity rather than being resource driven; a degree of risk because of the newness and differentness that makes it difficult to calculate value; creation of value for the individual, community or society; and a creative destruction.

According to Drucker (1998:151), entrepreneurship refers to a kind of activity that, at its heart, is innovation: the effort to create purposeful, focused change in an enterprise's economic or social potential.

1) Intrapreneurship

As defined by McKinney and McKinney, (1989), intrapreneurship or, as it sometime is called, in-house entrepreneurship (Robinson, 2001:95) or corporate entrepreneurship (Carrier, 1996) occurs when companies respond to the need for innovation by bringing the entrepreneurial function inside the company, thus pursuing innovative new venture creations under the existing corporate umbrella. The intrapreneur acting within the confines of an existing organisation is considered to be an intra-organisational revolutionary.

Intrapreneurship is starting new business inside the organisation. Organisations foster intrapreneurship by practicing enlightened management principles, adopting an entrepreneurial style that avoids bureaucratic barriers, and fostering an innovative climate among the workforce. Similarly, intrapreneur organisations focus on results and teamwork, reward innovation and risk taking, tolerate and learn from mistakes, and remain flexible and change oriented (Luchsinger and Bagby, 1987:12)

What essentially distinguishes intrapreneurship from entrepreneurship in most, if not all, works is first and foremost the context in which the entrepreneurial act takes place. Entrepreneurs innovate for themselves, while intrapreneurs innovate on behalf of an existing organisation. This difference in context generates a number of other differences for the actors concerned with regard to autonomy, the type of risk and the anticipated rewards. Entrepreneurs select themselves, while intrapreneurs must be selected or, in some cases, be recognised by or impose themselves on the organisation.

Organisations should be able to achieve both intrapreneurship, when motivating their internal knowledge source, and entrepreneurship, by collaborating with external partners. Therefore, both entrepreneurship and intrapreneurship are relevant and non-mutually exclusive.

2) Networked Incubators

Networked incubators have taken wing in the business world dominated by the Internet. According to Kambil et al. (2000), corporations (such as Panasonic and IBM), consulting firms (such as Andersen Consulting, Bain & Co. and McKinsey & Co.) and venture capitalists (such as Softbank and idealab) have developed what are sometimes called "accelerators", "launch centres" or "incubators".

Networked incubators nurture young firms, helping them to survive and grow during the start-up period when they are most vulnerable. They provide multiple ventures with shared

infrastructure and support, strategic guidance and shared services (legal advice, accounting, graphic design, advertising and public relations), as well as office space at a common location. Some offer systems capabilities and organisational development assistance. In gathering innovators under one roof, they give members an inspiring setting and the sustaining energy of being surrounded by likeminded people who exude creativity, motivation and purpose. The resulting social capital leads to the sharing of approaches, models, tactics, competitive information, contacts and ways to avoid missteps.

Networked incubators generally take 5% to 50% equity ownership of the new ventures that are created for relieving innovators or entrepreneurs of administrative drag, which absorbs an estimated 40% of their time, and fast-cycling business concepts to the marketplace (Kambil et al., 2000). The primary goal of any incubator is to produce successful firms that will leave the facility as financially viable and freestanding businesses.

Hansen et al. (2000:80) argue that networked incubators combine the benefits of two worlds – the scale and scope of large, established corporations and the entrepreneurial spirit of small venture capital firms. To this mix they add enhanced network access to key business partners, making such organisations especially effective for growing start-ups in the new economy.

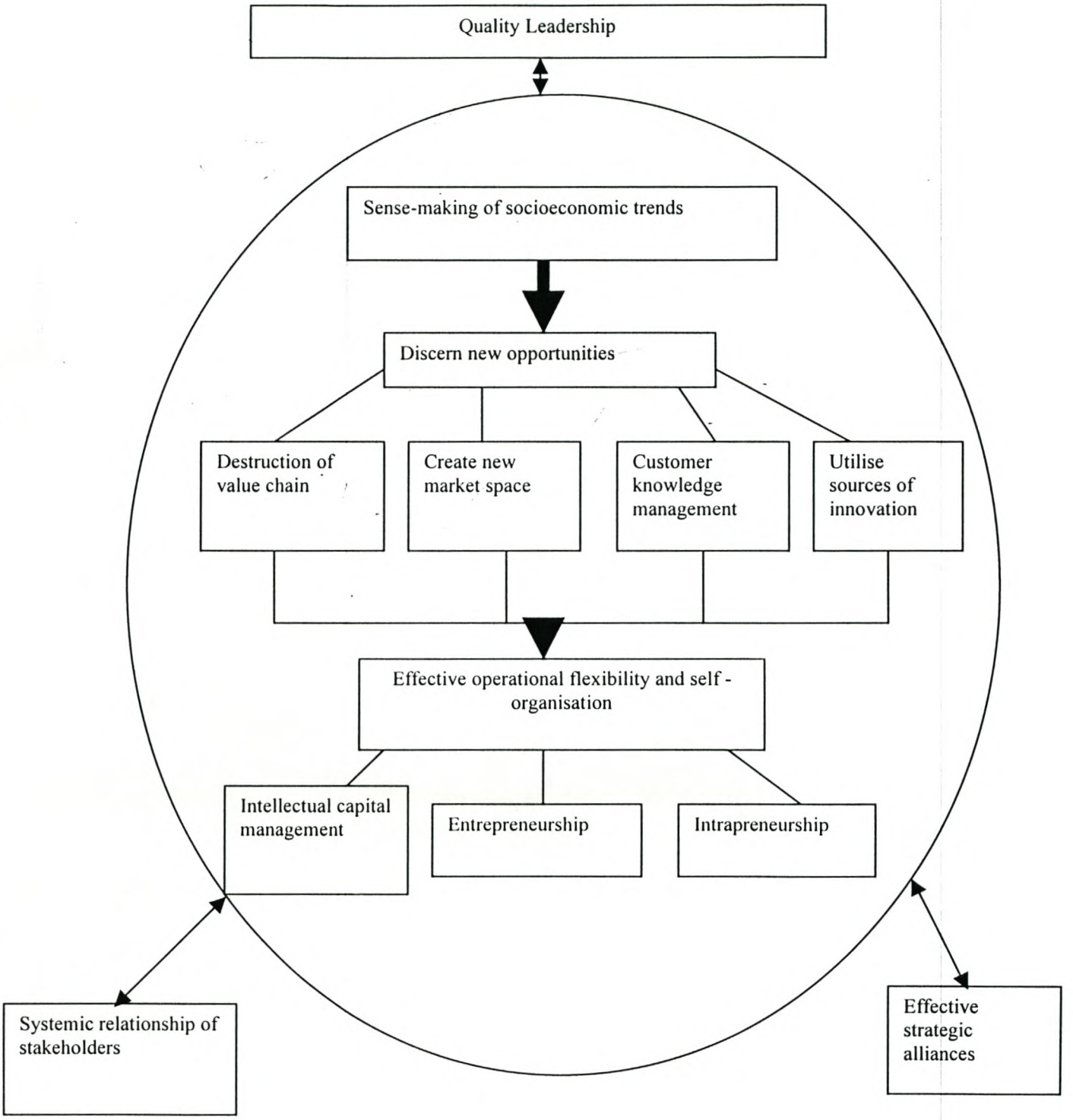
Networked incubators are not without limitations. Their basic nature is suitable for ventures that utilise the internet to a great extent. Moreover, some ventures require specialised types of infrastructures and assistance that cannot be shared with other types of ventures. As a result, they may not be applicable for some types of business, e.g. manufacturing operations.

5.4.5 Review of the Tools and Techniques for Building Organisational Fitness

All the above-mentioned tools and techniques are equally relevant and appropriate for organisations in effectively adapting and fitting to the competitive environment. As shown in

Figure 5.1, the basis for creating a sustainable business organisation is the quality of its leadership. Organisational leaders should have the necessary quality of creating an ambitious vision and work environment for their subordinates. This is achieved by effectively performing three interrelated activities, viz. sense-making of socio-economic trends, finding new business opportunities, and self-organisation and establishing dynamic and flexible operations. Effective implementation of these activities is achieved by creating an environment for a systemic relationship between stakeholders and enabling strong strategic alliances.

Figure 5.3 : Tools and Techniques for Building Organisational Fitness



5.5 SUMMARY

The main notion of this chapter was to identify and discuss the main approaches or models of and tools for building organisational fitness. The categories of the approaches to building organisational fitness, their main features, relationships and developments are explained precisely. Similarly, the nature and objectives of the different tools for and techniques of building organisational fitness are described.

The approaches to or models of building organisational fitness can be categorised into two: traditional, and recent and emerging. The value chain model and the resource-based view are among the significant elements of the traditional approach, while the recent and emerging approaches include the dynamic capabilities approach and complexity management theory. The traditional approaches can be considered as precursors of the recent and emergent approaches, as the latter have mainly modified and adapted the earlier approaches to enable fitness with the changing business environment.

The tools and techniques that help to build organisational fitness and to implement the described models can be applied at different levels and states of the organisation. Among the main techniques are those that assist leaders in sense-making of the socioeconomic trends, those that help organisations to achieve an optimal relationship within their industry and the business system in general, and those that improve the qualities of leadership and operational fitness.

A summary of the approaches to and tools for building organisational fitness and their respective advantages and disadvantages is provided in Table 5.1.

Table 5.1 Summary of the approaches, tools and tools for building organisational fitness

	Key features	Advantages	Disadvantages
Approaches / Models			
Traditional			
RBV	Valuable asset accumulation and utilisation	▪ Focus on inimitable, company-specific assets and their market value	▪ Static, rigid and inside focused ▪ Less attention to process and capabilities ▪ Considers organisations as stable
Value chain	Integration of primary and supporting activities of the value system	▪ Comprehensive understanding of the value chain ▪ Fitness to the overall value system	▪ Static, rigid ▪ Avoids crucial stakeholders in the external environment, e.g. community. ▪ Considers organisations as stable
Recent and emerging			
Dynamic capabilities	Valuable asset accumulation and dynamic adaptation of process and routines	▪ Dynamic and adapts to environmental changes ▪ Focus on valuable capabilities	▪ Complete dependency on internal capabilities ▪ Does not provide ways of linking the different capabilities
Complexity management	Self-emergence, neural networks, discontinuous change, punctuated equilibrium	▪ Complex adaptiveness ▪ Enables systemic changes of organisations ▪ Flexible and dynamic	▪ General
Tools and techniques			
Sense-making	▪ Foresight of and insight into socioeconomic events ▪ Creative deconstruction of value chain ▪ Opportunities for new market space ▪ Rejuvenating customer knowledge ▪ Utilising sources of innovation	▪ Opportunities for continuous innovation ▪ Opportunities beyond conventional competition ▪ Knowledge partnership ▪ External focus	Exclusive focus on innovation and creativity and less concern about optimal utilisation and exploitation of innovations
Relationship fitness	▪ Relationship within the ecosystem ▪ Optimising strategic alliances	▪ Effective relationship of elements and systems ▪ Partnership in R&D, market access and knowledge sharing	Less linkage between alliances and other strategic management tools (e.g. knowledge management, entrepreneurship etc.)
Leadership fitness	▪ Leading rather than managing ▪ Visioning, lower level empowerment ▪ Encourages risk taking, rewards novel ideas	▪ Self-organisation and emergence ▪ Increased creativity and innovativeness	Vague in explaining the decision making and conflict resolution role of leaders
Operational fitness	▪ Knowledge management ▪ Intrapreneurship ▪ Venture creation through networked incubation	▪ Achieving organisational learning ▪ New venture creation ▪ Entrepreneurship	Venture creation methods may not be applicable in some industries Knowledge management tools are diverse and non-holistic

CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The purpose of this study was to assess and analyse the concept of industry and organisational fitness and the ways of measuring and building sustainable organisational fitness in the ever-changing business environment. In order to achieve this comprehensive purpose, an investigation and evaluation were done of different contemporary strategic management models and tools.

This chapter reviews, in an abridged way, the main notions that were proposed in the course of the study and provides an all-embracing and complete view of measuring and building organisational and industry fitness. Firstly, a summary of the overall analysis done is presented according to the sequence of the chapters. Then the major conclusions that were drawn on the basis of the investigation are provided. At the end, relevant recommendations for improved strategic management practices and implications for research and advancement of thought are provided.

6.2 SUMMARY

6.2.1 Introduction (Chapter 1)

The introductory chapter provided the background to the study. Accordingly, the study problem was stated and its main objectives were enumerated. The problem statement identified that most of the models and tools treat and approach industry and organisational fitness in a non-comprehensive or non-holistic way. Moreover, it was identified that a considerable degree of difference and vagueness exists between the concepts. Thus, the main objective of the analysis done in the study was to analyse and link the various tools and

models so as to develop a comprehensive and holistic explanation of the nature and elements of industry and organisational fitness, as well as all-inclusive ways of measuring and building organisational fitness.

6.2.2 The Concept and Nature of Industry Fitness (Chapter 2)

The analysis done in this chapter attempted to explore and investigate the concept of industry fitness and its various elements and components. Industry fitness was defined as the process and activities undertaken by industry players in adapting themselves to the changing business environment.

To understand the course and content of change within an industry for it to match environmental conditions and the process of co-evolution and competition between industry players, it was found to be crucial to explore the industry's ecology, which is the activities of and relationship existing between the industry players – organisations, customers, governments etc. Four main components that explain an industry's ecology were analysed. These are density dependence, i.e. the number of organisations within an industry and the level of overlap and interdependence between them; organisational founding level; organisational mortality level; and adaptation and selection, i.e. the extent to which industry players support each other in creating new organisations and adapting existing players. The basic concept that can be inferred from the analysis is that an industry's sustainability and survival can only be ensured when there is a high level of differentiation between industry players, which leads to a great amount of complementarity between them. In this study, this was set out as the maximum degree of mutualism. To explain this win-win scenario of cooperative competition between industry players, a case analysis was done of the wine tourism industry in Margaret River, Australia. It was found that strong cooperation between the different stakeholders in Margaret River has led to the evolution and rebirth of the industry, giving it a wider and stronger existence in the business environment.

Another important concept explored in this chapter is the significance of understanding the industry's fitness landscape, which maps and frames the business ecosystem, as well as providing a clear image of the competitive and collaborative hills and peaks, organisational ups and downs, environmental gaps and obstacles, and bridges and ladders. The investigation also discovered three basic features of industry fitness landscapes. First is the fact that it is multidimensional and non-physical, i.e. although it is made up of dimensions such as valleys, plains and peaks, these are dynamic and intangible. The fundamental aspect to remember at this level is that industry fitness landscapes grow continuously, disappear, pop up elsewhere, change shape or size and move around before our eyes. The second feature is that industry fitness landscapes are co-evolving as their interdependent components (species) evolve in an endless reciprocal cycle. The third characteristic is that the industry fitness landscape influences the activities and performance of each member of the industry and that the activities and actions undertaken by industry members also play a role in shaping the landscape.

The last portion of Chapter 2 assesses the causes that led to some industries emerging and others dying. On the basis of the analysis it can be deducted that every industry is involved in an evolutionary cycle, which is explained by two basic models – the ecosystem model (Moore, 1993) and the industry clusters model (Porter, 1998). The analysis of these models found that industries pass through the inevitable stages of birth, expansion and renewal or decline, and that the ability of an industry to sustain continuous survival depends on the capacity of its players to continually create and innovate new ways of doing business. Moreover, the availability of unique factor endowments and competencies leads to the emergence and existence of industries in specific geographic locations, e.g. petroleum (Middle East), wine (California), software personnel (India). The analysis also emphasised the crucial role played by governments, institutions and the community in influencing an industry's evolutionary cycle.

6.2.3 The Concept and Nature of Organisational Fitness (Chapter 3)

Chapter 3 followed a similar direction to Chapter 2, but assessing the concept and nature of fitness at the organisational level. As attested in Chapter 2, a specific organisation's actions and activities have an impact on the whole industry and vice versa. Thus the exploration done in this chapter further develops and reinforces the findings of the previous chapter. Through the assessment of various definitions, it was attempted to develop a working and comprehensive definition of organisational fitness. The basic components of the definition were the organisation's ability to adapt and survive through a process of natural evolution and learning, organisational changes and adaptations derived from external circumstances, and the organisational ability to achieve continuous change of its internal designs.

Based on the analysis and thorough comparison of two theories of organisational fitness, namely the organisational fitness cycle (Beer, 2002) and organisational fitness dynamics (Zajac and Bresser, 2000:436), it can be inferred that, similar to the industry's ecology explained in Chapter 2, organisational ecology comprises the interplay of internal elements, such as the organisational levers, capabilities, and strategic goals and tasks, as well as elements of the external environment. It is also emphasised that organisations pursue change on the basis of different internal and external contingencies. Moreover, it was investigated whether organisational fitness is the result of an ongoing and dynamic process of logical incrementalism and continuous learning from feedback. The cases of IBM and BRL Hardy were provided to attest to the practical implication of the aforementioned concept.

An attempt was also made to assess the important shifts that have occurred in the competitive environment that have caused the business world to become more unpredictable and turbulent. According to the analysis, it can be generalised that advancements in technology, particularly in IT, have played a major role.

Chapter 3 also critically evaluated the six "silent killers" of organisational fitness (Beer and Eisenstat, 2000). The evaluation found that this approach provides a greater understanding of the barriers associated with top level management and that it can be applied in most organisations. The main limitation of this approach is that it is focused internally, with an exclusive emphasis on senior level management, and that it ignores an important barrier to organisational fitness, i.e. the absence of senior management's capability to have effective insight into and foresight of the socioeconomic changes in the competitive environment. At the end of the chapter, organisation fitness profiling (Beer and Eisenstat, 2000) as a method of solving the barriers to organisational fitness was evaluated. It is difficult to consider organisational fitness profiling as a comprehensive method of either measuring or achieving fitness, since it is focused internally and does not create a self- managing system. To its credit, however, is the fact that it creates an environment for an open dialogue within the organisation to assess the barriers to fitness and that it is change oriented.

6.2.4 Measuring Organisational Fitness (Chapter 4)

Given that the nature and concept of organisational fitness and the various components that have an influence on the ability of organisations to adapt and fit to the changing business world were analysed and examined in Chapter 3, Chapter 4 extends the investigation further by assessing the different tools and techniques that help to measure the organisation's ability to fit and adapt to the changing business environment. The main purpose of Chapter 4 was to evaluate and assess the appropriateness of the measurement tools and techniques that are widely used in today's turbulent and chaotic business environment, in which the only certainty is uncertainty, and to contemplate areas of possible improvement. The analysis was done by dividing the tools and techniques into three broad categories – financial measures, non-financial measures and a combination of both. This categorisation was chosen for two main reasons: firstly, the global world of business today has showed a major shift from

prioritising tangible assets to a greater focus on intangible or intellectual assets, creating the dilemma of whether to stick to the traditional measures or to completely abandon them and shift to non-financial measures. Secondly, it was found that a categorisation based on the orientation and focus of the measurement tools attests to the principal differentiating element between the various measurement tools .

The assessment discovered that measures that focus on the financial assessment of the performance of the organisation, such as the balance sheet, constitute and will continue to play a significant role in measuring the organisation's fitness for the business world. But effective financial performance is not the only indicator of success and sustainability. In fact, overdependence on it may lead to miscalculation and an incorrect interpretation of the fitness and adaptability of the organisation. More importantly, therefore, measurement tools that focus on assessing the organisation's level of flexibility, learning capability and ability to continuously create and innovate were emphasised.

The balanced scorecard seems to have greater relevance in this respect, as it provides the benefit of measuring the organisation in both financial and non-financial respects in terms of perspectives that appraise organisational elements such as customer value, learning and growth, and internal process flexibility. In fact, the balanced scorecard's focus on double loop feedback learning is one of the crucial elements that turns it into being a management system and not a mere performance measure. But the balanced scorecard does not provide the necessary emphasis to measure the organisation's level of creativity and innovative capability. Moreover, it ignores important stakeholders such as the suppliers, alliance partners, intermediaries and community, as it has a more internal focus.

The above-mentioned limitations of the balanced scorecard seem to be cleared up to a certain extent by the intellectual capital index, which also focuses on both financial and non-financial measures. The assessment shows that, although the IC index seem more comprehensive than

the balanced scorecard, it lacks structure and standardisation, which may lead to confusion and complications during its execution. Moreover, it does not provide a clear scheme for relating the different indices within its hierarchical category of measurement.

In a nutshell, the evaluation realised that measurement tools that assess the level of creativity and innovation of an organisation are still immature and need more extension, depth and structure. Moreover, it also was detected that the measurement tools were deficient in their ability to assess whether managers have effective insight into and foresight of socioeconomic trends.

6.2.5 Building Organisational Fitness (Chapter 5)

Chapter 5 completed the loop of organisational fitness by assessing and investigating the various models and tools that enable firms to develop a system that fits and adapts to the tumultuous business environment. Chapter 4 found that firms should measure the extent of their adaptability and flexibility in relation to the demands of internal and external contingencies. The next issue that needed focus therefore was an understanding of the actions and measures that organisations should take to improve their adaptability and fitness.

Given the limited resources, the analysis only emphasised strategic management contributions and theories that seemed to be relatively comprehensive as well as enjoying wider popularity and application. The analysis was done by classifying the contributions into two broad categories, viz. those concepts and theories that provide a theoretical background for developing management strategies and those that deal with the practical tools and techniques for achieving effective fitness and flexibility. The assessment attempted to provide the benefits and limitations of each model and tool, as well as an in-depth review and comparison to analyse aspects of complementarity and divergence between the concepts.

In general, the analysis attested to the fact that the traditional approaches, especially the RBV model (Collis and Montgomery , 1995) and the value chain approach (Porter, 1985), form the basis of the recently emerging approaches, such as the dynamic capabilities approach (Teece and Pisano, 1997:520). Moreover, it was emphasised that if firms are to survive in the uncertain business environment, they have to develop a complex adaptive system that is self-organising, self-emerging, dynamic, organic and open. Furthermore, the necessity for the effective utilisation of unique and dynamic capabilities is underlined. The investigation highlighted that the existing models do not emphasise certain issues, viz. the role leaders play by becoming a symbol of heroism in the corporate culture and by creating harmony within the organisation and the community in general, and aspects of social security and morality, which have become basic strategic management requirements in the chaotic business environment.

The analysis of the tools and techniques that assist in building a flexible and dynamic system was done with the intention of forming a comprehensive package that includes the pertinent tools and techniques. The review revealed that all the analysed tools and techniques are equally relevant and appropriate for organisations to be able to effectively fit and adapt to the competitive environment. It was highlighted that the initial step on which organisations should focus is to develop quality leadership and to effectively make sense of the socioeconomic trends of the business environment in order to set out values and priorities. The analysis also demonstrated ways that enable new venture creation and innovative new ways of doing business.

6.3 CONCLUSIONS

The pertinent conclusions that could be drawn on the basis of the analysis and assessment include the following:

a) Firstly, from the study of the different models and concepts that deal with explaining the concepts and nature of both industry and organisational fitness, it can be inferred that there is a considerable degree of overlap and bewilderment in clearly differentiating the elements and components of industry fitness and organisational fitness.

b) Moreover, it can be concluded from the limited literature that the concepts developed so far focus less on assessing the nature and concept of industry fitness.

c) Among the prominent organisational fitness models and tools, organisational fitness profiling can be considered as one of the main contributions to solving problems related to achieving effective organisational fitness. Although it creates a suitable environment for a smooth dialogue between senior management and lower level employees and enables the refinement of organisational goals and objectives, it has the following main deficiencies:

   i. it is too structured and static, therefore does not fully facilitate organisational learning and self-emergence/management
   ii. it does not pay enough attention to stakeholders outside the organisation
   iii. its execution is prolonged and costly

d) The shift in the business environment from the industrial era to the information era compelled business organisations to put more emphasis on their intangible assets. This led to an increased demand for performance measures that deal with assessing organisational performance with respect to effectively utilising intangible resources. The analysis revealed, however, that although a shift in focus to measures of

intangible assets is apparent, measures of tangible resources, e.g. the balance sheet, will continue to play a significant role in appraising the organisational effectiveness in creating shareholders' value.

e) It can be concluded that the balanced scorecard and the intellectual capital (IC) index develop and adapt the various other financial and non-financial organisational fitness measurement tools and techniques. These measures therefore are viewed to be the most prominent and relatively all-inclusive measurement tools. In fact, the assessment shows that the balanced scorecard is a management system rather than a measurement tool, enabling firms to flexibly adapt to environmental changes through a continuous learning process. However, the balanced scorecard was also shown to have inadequacies, such as

   i. the exclusion of important stakeholders, such as suppliers, partners, the community
   ii. being less oriented towards the assessment of the level of creativity and innovative capability of the organisation
   iii. not assessing the effectiveness of senior management's ability to effectively make sense of the socioeconomic trends of the organisation.

f) The IC index seems to at least partially solve the first two of the above-mentioned limitations, although it has the following disadvantages:

   i. unconsolidated or disintegrated and confusing
   ii. heterogeneous execution
   iii. partial coverage of stakeholders' values

Moreover, the IC index was found to be less developed and juvenile in comparison to the balance scorecard.

g) It can be deduced that current measurement models do not focus on assessing the capability of organisations to make sense of socioeconomic trends, and the indices or tools for measuring the level of creativity and innovation of an organisation are immature and partial.

h) The assessment done in this study inferred that socioeconomic trends in the aftermath of the attacks of September 11, 2001 have necessitated a focus on the significance of strategic management concepts that focus on leadership qualities in crisis management and on effectively mobilising organisational resources, dealing with moral and ethical responsibilities and social security, as well as successfully spotting un-appropriated opportunities. These receive less emphasis and attention in the current approaches of complex adaptive systems and dynamic capabilities.

i) The general conclusion of the study is that, although no significant disagreement and deviation is detected between the various contemporary approaches and tools related to organisational fitness, the following general deficiencies are observed:

   i. partial coverage of factors that influence organisational fitness and approaching problems from limited angles.

   ii. a high degree of repetitiveness, overlap and disintegration

6.4 RECOMMENDATIONS

6.4.1 Recommendations for Effective Measurement and Building of Organisational Fitness

Based on the results of the study, the following recommendations are proposed for organisations to effectively measure and build their level of adaptation to and fitness for the ever-changing business environment:

a) The various contemporary concepts and models of measuring and building organisational fitness provide a general, preliminary background for organisations to understand the extant circumstances in the competitive environment and ways of coping with them to achieve sustainability and competitiveness. But actual adaptation to and fitness for the ever-changing environment depends on the extent to which organisations understand these concepts and adapt them to their specific and unique situations. There is no single best concept or approach, as the unique conditions in organisations and the relative situation to the competitive environment will decide the appropriate approach.

b) An important fact that has to be underlined is that organisations are the main springs and foundations of the models of and concepts for measuring and building organisational fitness Thus, organisations should always seek better models and concepts by using the contemporary models and concepts as a starting point. The best way to achieve this is to look at each approach from an analytical and cautious view.

c) The finest way of attaining effective adaptation and flexibility to the uncertain and complex world of business is to integrate and create synergy between the different approaches and to develop a supreme way of building fitness. In addition to this, the key to success and sustainability is to have an effective insight into and foresight of the social, economic and political trends of the world and to proactively participate in shaping and adapting to them.

6.4.2 Recommendations for Further Research

On the bases of the study and analysis done in this research, the following areas for further research and exploration are suggested. The recommendations are divided into two categories, viz. those that deal with further development of the general concepts of industry and organisational fitness, and those that deal with improvement of the models of and approaches to measuring and building organisational fitness.

6.4.2.1 Recommendations for improvement of the concepts of industry and organisational fitness

a) The elementary but significant element that needs further exploration and a thorough understanding before discussing the concept and nature of either industry or organisational fitness is the definition and elucidation of the meaning of "fitness" in the concept of strategic management and global business. Although it seems difficult to have a single, specific definition that can explain all the features of fitness in the business arena, the investigation and development of a realistic and relatively all-inclusive definition can assist in the smooth and valuable understanding of the concept and nature of industry and organisational fitness.

b) Although an industry's effective fitness for the business environment in many cases depends on the flexibility, adaptation and interdependence of the various organisations that constitute it, there are numerous factors and elements related to the industry's overall features that have a great impact on the industry's survival and sustainability. Moreover, the overall ability of an industry to cope with the business environment has a tremendous impact on each organisation's ability to adapt and fit to the changing environment and vice versa. While this is true, it seems that scholars do not focus much on understanding and exploring this crucial concept and the nature of industry fitness. Thus it is recommended that the different areas of industry fitness, such as the industry ecology (e.g. Amburgey and Rao, 1996; Barnett, 1990; Ruef, 1996) and industry fitness landscapes (e.g. Oliver and Roos, 2000; Lissak and Roos, 1999; Loest, 1998), need further investigation and analysis to achieve an integrative and comprehensive understanding of the concept of industry fitness. Studies and research with the objective of developing models of and approaches to measuring and building overall industry fitness require greater facilitation and focus.

c) Organisational heterogeneity and environmental diversity may create problems and challenges when developing and describing the features and qualities of an "environmentally fit organisation". Although this is true, portraying the different characteristics of an "environmentally fit organisation" has great significance for organisations to understand their level of fitness. Thus, empirical studies and research to assess the different challenges and to attempt to describe the relative qualities and characteristics of an "environmentally fit organisation" are highly recommended.

6.4.2.2 Recommendations for improvement of the models of and approaches to measuring and building organisational fitness

a) In the light of the increasing turbulence and unpredictability in the global business environment, the role played by leaders in enabling the revival and renaissance of their organisations becomes one of the key strategic management issues of emergent models and concepts. Thus further empirical research and investigations with the aim of illuminating and exploring leadership qualities for mobilising resources, harmonising stakeholders' values and sensing the social, political, economic and environmental trends are of great necessity.

b) As the significance of having a comprehensive approach towards achieving continuous organisational fitness for the turbulent world of business has been noted in this study, attempts of future empirical research to develop an "organisational fitness package" are also highly recommended. This "organisational fitness package" should include all the significant approaches and tools of founding, shaping, measuring, assessing as well as building an organisation's ability to continuously and dynamically adapt to the ever-changing business environment. It must also consider factors such as organisational heterogeneity and environmental diversity.

c) Given the fact that the existing tools and techniques for building organisational fitness display a high level of disintegration and incompleteness, an attempt was made in this research to develop a level of coherence and integration between the existing significant tools for achieving dynamic fitness and for the sustainable adaptation of organisations to the complex business environment (see Figure 5.3). This preliminary attempt needs further investigation and exploration to include more effective coverage and coherence of the tools and techniques for building organisational fitness. Furthermore, its practicability needs to be attested through an empirical study.

d) Increasing globalisation and advances in the world business environment have necessitated the widening and heterogeneity of the stakeholders in an organisation. Thus it is highly recommended that emergent research and concepts or models should have a wider focus on and deal integratively with the stakeholders of the organisation. In particular, attention should be paid to the stakeholders found outside the organisation, such as the community in general, institutions, government, suppliers, alliance partners and intermediaries.

e) Organisational fitness profiling enables organisations to eliminate the different barriers to creating an environment to achieve organisational flexibility and dynamic fitness and to creating a smooth relationship between senior management and employees. The fact that these processes are highly structured and static and are oriented too much to the inside needs to be resolved and improved. It has also been observed that there are a number of areas in which organisational fitness profiling and the balanced scorecard link to and complement each other. Further research and exploration therefore is recommended to assess ways of solving the challenges and deficiencies of organisational fitness profiling and to investigate ways of linking and integrating the organisational fitness profiling with other more advanced tools and techniques, such as the balanced scorecard.

f) The ability of organisations to continuously create new ways of doing business is the main source of their sustainability and survival. Existing strategic management tools seem less focused on measuring the level of creativity and innovation of organisations with respect to their environment. Thus further research is required to investigate ways of expanding existing tools, such as the balanced scorecard and intellectual capital index, for them to have a wider approach and to focus on evaluating an organisation's level of innovation to enable the continuous creation of new ideas.

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