

THE IDENTIFICATION OF THE NEED FOR CREATIVITY
AS A MANAGEMENT SKILL

BY

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OPSOMMING:

DIE IDENTIFISERING VAN DIE BEHOEFTE AAN KREATIWITEIT AS 'N BESTUURSVAARDIGHEID

Kreatiwiteit is 'n welbekende begrip. Navorsing oor verskeie aspekte van kreatiwiteit is al gedoen. Navorsing wat kreatiwiteit in die sakeomgewing bestudeer handel hoofsaaklik oor die bestuur van kreatiwiteit en die ontwikkeling of verbetering van die kreatiewe vaardighede van persone. In hierdie studie word die noodsaaklikheid van kreatiewe vaardighede vir bestuur ondersoek.

Die begrip "kreatiwiteit" word in diepte ondersoek. Uit die ondersoek word die aard en eienskappe van kreatiwiteit omskryf. Die studie fokus daarna op die funksies en vaardighede van bestuur. Vanuit die omskrywing van kreatiwiteit en die beskrywing van die funksies en vaardighede van bestuur word die noodsaaklikheid van, en die nut van kreatiewe vaardighede by bestuur bepaal.

Kreatiwiteit is nie slegs van belang vir bestuur as individuele vaardigheid nie. Kreatiewe vaardighede beïnvloed ook die ander bestuursvaardighede waarsonder bestuur nie suksesvol of effektief kan funksioneer nie.

Die studie ondersoek ook die faktore wat kreatiwiteit teenwerk of verhoed. Dit is belangrik vir bestuur om binne die onderneming hierdie faktore uit te skakel ten einde die werknemers se kreatiewe vermoëns te laat ontwikkel of verbeter.

Aanbevelings en gevolgtrekking word gemaak na aanleiding van die studie, in ooreenstemming met die doelwitte van die studie.

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CHAPTER ONE - STUDY OVERVIEW

1.1 INTRODUCTION

In the business environment today, companies are continually being forced to adapt to the ever increasing rate of change. Teng et al (1994:9) ascribes this "age of change" to various factors such as global competition and the emergence of new industrial powers. Various strategies and processes such as Total Quality Management and Business Process Re-engineering are being utilised by management in order to make companies more competitive.

With the re-admittance of South Africa to the international business community, the protected markets that existed for many organisations were suddenly opened to international competitors. Manufacturing concerns in particular are in a situation where the increasing activity of international firms in the local market is putting increased strain on their profitability. As in sport, the years of isolation served to reduce the competitive abilities of organisations rather than improve them. These organisations are now in a race to identify those strategies, and develop those abilities that will improve their competitiveness and guarantee their future existence and wellbeing. The question that arises is what is management's role or function in this drive?

According to the principle of economics the main reason for the existence of organisations is to satisfy a need that exists in the marketplace. In a capitalist economy, organisations compete against each other to satisfy these needs by utilising scarce resources, while at the same time maximising the value of the organisation for the benefit of the owners and other stakeholders (Cronje et al, 1987:10).

The purpose of management is to ensure that the organisation adheres to this principle of economics. More specifically the role of management is "...to

identify methods, strategies, factors, and principles that will enable the organisation to function as productively as possible, in order to maximise value.” (Cronje et al, 1987:18). It is, and will remain in future, the main responsibility of management to provide the leadership necessary for the organisation to be successful, to progress and to improve in all fields of business.

According to a survey conducted by FORTUNE magazine, citing the key attributes of the largest companies in different sectors, the quality of management was seen to be the most important attribute (Bateman & Zeithaml, 1993:12). The quality of management is a measure of how effective and successful management is in identifying these methods, strategies, factors, and principles that will ensure the success of the organisation.

How does management identify these methods, strategies, factors, and principles, and what abilities does management need to successfully utilise the identified methods, strategies, factors, and principles? Many methods, strategies, factors, and principles have been identified and utilised in the past. As time progress, however, the effectiveness and relevance of these identified ways change. The search for the most effective methods, strategies, factors, and principles is a continuous search.

Many important and required skills, abilities and characteristics of effective and successful managers have been identified. This study considers the importance of creativity or creativeness to management as a determinant of the quality of management. Creativity or creativeness as a necessary management skill, ability or characteristic, and also as a valuable tool, is investigated.

1.2 PROBLEM DEFINITION

The importance of creativity to an organisation in general has been identified by various writers. The need for this creative ability is often linked to the need for certain organisational characteristics such as competitive advantage. Creativity is increasingly being viewed as a source of real competitive advantage, and indispensable for the future of companies. As Kao (1996:xx) puts it: "The choice is stark, create or fail." The need for creativity can also be related to certain organisational abilities such as responsiveness to change and adaptability. Carr and Johansson (Dean, 1996:1) notes that "...you must be able to manage at the speed of change, and that takes creativity and innovation".

Researchers on management have often focused on the related issues as mentioned above, focusing on creativity in the context of the researched issue, as opposed to focusing directly on creativity itself. For example, as with competitive advantage and management of change, a lot of research has been done on the effective management of innovation, issues in which creativity plays an important role. However, very little attention has been paid to the organisational and managerial issues pertaining to creativity, which are the most basic and critical element in innovation (Udwadia, 1990:66).

Much of the available research deals with the management of creativity, such as managing human resources for creativity (Gupta & Singhal, 1993), how to reduce the barriers to creativity (Sonnenburg & Goldberg, 1992), corporate creativity (Stern et. al., 1992), creating a creative climate (Raudseep, 1987) etc.

The aim of this study is to address the importance of creativity to management as a team and to individual managers. The need for creativity, and use of creativity as an ability, characteristic, and tool to management, will be studied. This study will ascertain whether the management of organisations needs a creative ability, in the same way as they for instance need leadership ability.

Management determines the way and direction in which an organisation develops. In leading the way management needs to look at the problems facing the organisation as an entity from different perspectives, and needs to develop new and creative solutions. The practical need for creativity is however not limited to problem solving. Where there is a need for a new idea that can offer opportunity, advantage or benefit, creativity is of great value (de Bono, 1992:20). It is in this pro-active, idea generating role that management may find most benefit from developing and enhancing their individual, as well as team creativity.

“Creativity” is a generally recognised term. Many people believe that creativity is a gift or skill a selected few is blessed with (DeLellis, 1991:49). The question arises whether this general belief has discouraged organisations from paying active, purposeful attention to the formalised development of the creativity of their management and employees. Are organisations aware of the possibilities for improved performance from employees, management and for the organisation as a whole if attention is paid to the development of creativity?

1.3 OBJECTIVES

The main purpose of this study is to investigate the main issues relating to the creativity or creative ability of management in organisations and business.

A definition and circumscription of creativity is developed from which the relevance of creativity to management can be qualitatively assessed. The role and functions of management are then discussed. With the definition and circumscription of creativity as reference, and the roles and functions of management described, the need for creativity, and benefit of creativity to management is investigated. Specific references to creativity and management roles and functions are assessed, and the importance of creativity in performing these functions determined.

The specific objectives of this research can be stated as follows:

1. To determine a definition and compile a circumscription of creativity that is suitable for the evaluation and assessment of the importance of creativity or creative ability in management. The definition and circumscription will include all aspects of creativity such as the nature of creativity, the traits of creative people, the characteristics of the creative process and creative products, ideas or responses.
2. To describe the role and functions of management at all levels in the organisation. This will include a description of management philosophies and paradigms.
3. To investigate the need for creative ability of management in fulfilling their role and functions as determined, and to determine the advantages that improved creativity in the management function affords organisations.
4. To investigate the possibility for the development or improvement of the creative skills and abilities of management.
5. To investigate the factors that negatively influence or stifle creativity.

1.4 DEMARCATION OF THE STUDY

In this study creativity is researched from a viewpoint that suits a business perspective. The definition and circumscription of creativity that is developed, and the literature that is referred to, might however also apply to fields such as psychoanalysis, sociology and education.

In studies investigating the connection between business and creativity, a lot of research has focused on environmental influences on the creative ability of

the organisation, and the management of these influences. In this study these influences and their effect on the creative ability of management are discussed.

The focus of this study is to define and investigate the need for, and use of creativity or creative ability of management, and the implications of this ability to the organisation.

1.5 METHODOLOGY

This study consists of a literature study in the form of textbooks, business- and technical periodicals, and other publications such as Internet publications.

The literature on creativity and management does not generally focus on the creativity of management or managers, but rather on the management of creativity in organisations.

Viewpoints of different writers are synthesised, compared and discussed critically.

1.6 OUTLINE OF THE STUDY

Chapter One describes the purpose of the study, approach to the study, the objectives of the study as well as the methodology that is used in the study.

Chapter Two is a literature study. In this chapter the definition and circumscription of creativity are investigated. The purpose of the chapter is to enable a full understanding of what creativity is. The characteristics and traits of creative people are studied, the nature of the process of creativity is determined and defined, and the attributes that distinguish the creative product, idea or response are investigated. The viewpoints of researchers

from different fields of study regarding creativity are taken into account in order to ascertain the relevance of the various viewpoints on creativity to the field of management and business. The possibility of developing creativity, and the approach to developing creativity are investigated. This chapter forms the basis for determining the need for, and the use of creativity to management.

Chapter Three continues the literature study. In this chapter the focus is on management. Management approaches and the development of management thoughts are discussed. This section is included in the description due to the influence the prevailing philosophy and management thought, as applied in the organisation, has on all levels of management. The role and functions of management are then discussed. The different skills of different levels and types of managers are identified. From these identified roles and functions of management and managers, the need for creativity in fulfilling these roles will be ascertained in the fourth chapter.

Chapter Four continues the literature study. This chapter forms the link between the second and third chapter. In this chapter the need and benefit of creativity, as circumscribed in the second chapter, to management in fulfilling their roles and functions, as identified in the third chapter, is discussed. The discussion also focuses on the organisation as a whole, indicating the need and benefit of creativity to the organisation due to the prevailing management paradigm and philosophy. Furthermore the correlation between the development of management capabilities and the development of creative ability is discussed.

Chapter Five continues the literature study. In this chapter factors, both external to the person and internal factors, that inhibit or prevent creativity are studied. The influence of the environment on creativity of creativity is discussed. The focus is placed on factors that can generally be managed, such as organisational factors, and not on factors that can not generally be

changed or managed, such as environmental factors including the cultural background of individuals

In Chapter Six the findings of the study is summarised, conclusions reached and suggestions made. The conclusions are compared to the initial objectives of the study as stated in chapter one.



CHAPTER TWO - DEFINING THE NATURE AND CHARACTERISTICS OF CREATIVITY

2.1 INTRODUCTION

Creativity is a well-known concept. There is however a fragmentation in the research on the subject due to the various fields of study from which creativity are being studied (Csikszentmihalyi, 1990:209).

According to Albert the number and variety of definitions used to explain what “creative” and “creativity” means are indicative of the disagreement amongst writers on what those terms mean. (Albert, 1990:15).

It is important to try and define creativity as accurately as possible, for various reasons. Firstly the definition will ensure a uniform understanding regarding the meaning of the term creativity. This will enable different observers to understand the viewpoint supported in this study, and the basis from which this study was conducted.

Secondly, the definition will provide the basis from which any output can be analysed, measured and judged as to its creative content (Gregory, 1972:5). In this regard the definition will enable us to qualitatively determine the applicability of creativity to the field of management.

2.2 DEFINITION OF CREATIVITY

Many definitions have been proposed for creativity, more than 100 according to Cougar (1995:14). There are almost as many ways of defining creativity as there are writers on the subject (Nyström, 1979:38).

Researchers from various fields of study have developed different definitions based on the relevance to their field of study. Psychologists have focused on creativity as a set of characteristics of individuals, or as a process involving individuals. Sociologists have focused more on the institutional effects, and anthropologists have paid attention to the cultural dimension of creativity (Csikszentmihalyi, 1990:209). According to Harrington (1990:144), western psychologists have tended to focus either on the creative person, or the creative product, or the creative environment. Simonton (1990:98) agrees with this viewpoint, but also indicates that a growing number of researchers are viewing creativity as a social behaviour that entails persuasion.

Creativity is however not only dependent on, or identified by, the characteristics of any one of these fields, but is a function of the dynamic interaction of the person, process, environment, and product (Runco, 1990:234 ; Amabile, 1990:76).

The definitions of creativity that have been proposed by various writers describes various aspects of the nature of creativity. At the one extreme, there are people who believe that creativity can simply not be defined. (Cleese, 1991:50; Lombard, 1995:6).

Myths about creativity, which are based more or less on folklore, hold that creativity is an ability of a select few, blessed with extraordinary mental abilities and personalities, called the genius viewpoint. This genius viewpoint assumes that creativity is an indefinable quality that certain individuals possess (Cougar, 1995:20). Scientific research has however determined that this viewpoint is not true. The “flash of lightning”, or “Eureka” experience does occur, but only after a considerable time, as a result of careful, methodical generation of alternatives (Cougar, 1995:22).

Creativity, as the word implies, is about creating. “At the simplest level creative[ity] means bringing something into being that was not there before.”

(De Bono, 1993:3). The nature of creativity involves creating or producing something, whether it is an idea, response, solution or product.

Various writers define the characteristics of this output. Udvardia (1990:66) states that creativity is "...the production of novel or original ideas of useful value." Value and originality are the determined characteristics.

Creativity is not only involved with the final output. "I define creativity as the entire process by which ideas are generated, developed and transformed into value." (Kao, 1996:xvii). Fagiano (1989:5) defines this process as one of combining. He believes creativity is "...the ability to take two or more apparently unrelated elements and put them together to form something new." Milgran (1990:215) agrees with this and states that creative thinking is a process that results in original solutions that continually arise in the personal and vocational spheres.

Adizez (1997:1) provides a definition that also concerns the process involved. He states that "Artists and scientists as diverse as Van Gogh, Paul Klee, and Albert Einstein have described the creative process as one of integration rather than illumination." By integration Adizez means being one with the product, feeling so much part of the product that the creative process becomes one of revealing rather than creating.

A more descriptive definition indicating the nature of creativity is provided by Theresa Amabile (Ray & Myers, 1989:4): "A response will be judged as creative to the extent that

a) It is both a novel and appropriate, useful, correct, or valuable response to the task at hand, and,

b) The task is heuristic rather than algorithmic."

"A heuristic is an incomplete guideline or rule of thumb that can lead to learning or discovery...An algorithm is a complete mechanical rule for solving a problem or dealing with a situation." This definition introduces another aspect of creativity, namely the characteristic of the task at hand, the task

being the stimuli of the creative process that leads to the creative output. This definition defines the limits of applicability of creativity.

Newell, Simon and Shaw (Cougar, 1995:14) provides a definition that shows analogy to the previous definitions in that they define the characteristic of the output, the process and the stimuli. They classify a solution as creative if:

- a) The product of thinking has novelty or value or,
- b) The thinking is unconventional or,
- c) The thinking requires high motivation and persistence or,
- d) The problem initially posed was vague and ill defined.

A definition very similar to Newell, Simon and Shaw's definition is mentioned by Harrington (1990:145). According to him creativity can be described by an operational definition proposed by Donald MacKinnon in 1962 which states that creativeness must comply with three conditions namely:

- a) The response or idea must be novel and,
- b) The response must be adaptive to reality, and serve to solve a problem and,
- c) It involves sustaining of the original insight, evaluating and developing it to the full.

A completely different perspective is shown by Amabile (1990:65). She proposes an operational definition based on the consensual assessment technique: "A product or response is creative to the extent that appropriate observers independently agree it is creative.". This definition disregards the individual aspects as identified by other writers, and focuses on the response of observers.

From these different definitions and viewpoints the following main aspects regarding the nature of creativity can be identified:

a) Creativity is a process.

It is definitely not something such as a "flash of lightning", or an "Eureka" experience. It is a process for which several steps have been identified. The characteristics of the stimuli of this

process also determines whether the output will be regarded as creative.

b) Creativity finds expression through the response, idea, or product.

Without the process producing an output, such as a response, idea or product, it is impossible to determine whether there was any creativity involved. The output is judged as to whether creativity was utilised. Creative people are also identified through the output they produce. One of the most important characteristics of the output is newness and uniqueness.

c) Creative behaviour is attributed to individuals.

A machine cannot produce a creative output. Creativity is uniquely attributed to humans. Whether creativity can be attributed to animals that adapts unique behaviours as part of their survival instinct, is debatable. Some studies have been performed on animals that resulted in novel behaviour, without claims that the response were creative (Epstein, 1990:116).

d) The environment plays an influencing role.

The influence of the environment on the creative person, and on the process of creativity, can assist or hinder the person and process. These influences are discussed in detail in Chapter Five.

These four main aspects are discussed in detail in the following sections.

There are however less consensus regarding the specific characteristics of each of the aspects mentioned above, and their specific influence.

Csikszentmihalyi (1990: 209) believes this fragmentation in research will continue until creativity becomes a "domain" or independent field of study, as opposed to being studied from the perspectives of different fields of study, such as psychology, sociology and business.

2.2.1 CHARACTERISTICS OF THE CREATIVE PROCESS

Edward de Bono (1993:15) has formulated what he calls the “lateral thinking” process. De Bono postulates that the normal mode of operation for the brain is to sort data into patterns. Over time these patterns become “grooves” that channel our way of understanding. Our ability to perceive inputs objectively and to derive unique solutions are impaired by these neural networks, these thought patterns. Lateral thinking is the process whereby we “move sideways across these patterns instead of moving along them as in normal thinking”, thereby enabling new or unique thinking.

Graham Wallas (Nyström, 1979:39 ; Kao, 1991:17 ; Cougar, 1995:230) proposed a process model for creativity with the following stages: Interest, Preparation, Incubation, Illumination, and Verification (Exploitation was added to the model at a later stage).

Interest - Something attracts the attention.

Preparation - Gathering information, reading, questioning, exploring, divergent thinking.

Incubation - Working on the issue subconsciously. Intuitive analysis, mental rumination.

Illumination - Developing insight, integration, Aha! experience.

Verification - Validation, confirmation that the result can be replicated, consequences deduced.

(Exploitation) - Capturing value from the creative act.

The creative process was originally seen as a random passive process. This view has however changed, and it is now seen as an active, directed thought process (Nyström, 1979:39).

Anderson (1993:42) believes that creativity “is the process of searching for or using of novel relationships amongst objects, people and ideas.”.

Creativity does not reside in the magnitude or popularity of the outcome, but rather in the process applied in developing that outcome. This view opposes the view of Amabile's consensual assessment operational definition (See Section 2.2). Where the one writer focuses exclusively on the outcome, the other focuses exclusively on the process. In this study the view is taken that both the process and the outcome serve to define the nature of creativity.

Fraser (1989:48) mentions two types of creativity namely unconscious creativity, and conscious creativity. The first one is the process whereby insight and inspiration is developed without conscious effort being applied to the task at hand. The application of this type of process, which correlates to the Incubation phase in the Wallas model, might give rise to the believes in the "Eureka" view of creativity. The second process is a deliberate planned process of problem solving or opportunity finding.

Historically many creators and inventors often claimed an "Eureka!" or "flash-of-lightning" approach as the process they followed in producing a creative output. Research has however shown that more often than not these outputs are the " results from a careful methodical generation of alternatives" (Cougar, 1995:22).

The creative process does not start and end at the idea generation phase. Creativity involves the complete process of idea generation up to transforming the idea into something of value (Kao, 1996:xv11).

Cougar (1995:122) defines each step in the creative problem solving and opportunity finding process as consisting of a divergent and a convergent phase. In the divergent phase the emphasis is on broadening the scope of view, expanding the thoughts. In the convergent phase the data that was gathered in the divergent phase are analysed in order to focus on only the relevant data.

Various writers have described the nature of the stimuli of the creative process. The creative process is evident when the task at hand is more heuristic than algorithmic (Amabile, 1990:66). When the task is algorithmic, it imposes its own tried and tested solution limiting the scope of creativity. Newell, Simon and Shaw (Cougar, 1995:14) views the stimuli as an ill-defined problem. The common denominator between these viewpoints is the uncertain/unknown characteristic of the direction in which the final output will be developed.

Csikszentmihalyi (1990:203) states that it is impossible to separate creativity into a process occurring inside an individual, and into "persuasion" which refers to whether the person is regarded as being creative by a field. He believes creativity is the result of interaction between the domain, field and individual, thus occurring outside of the individual.

From the various viewpoints mentioned, the following characteristics of the process of creativity has been identified:

- a) The process can be an active, structured and methodical thought process,
- b) The process involves various stages including interest, preparation, incubation, illumination, verification and exploitation. This model is often portrayed as only preparation, incubation, illumination and verification.
- c) The process involves unconventional thinking,
- d) It is more likely that the process will be utilised if the stimuli to the process is heuristic or ill-defined. The expectation of creativity occurring, as a stimuli, has also shown to have positive results (Cougar, 1995:28).
- e) Each step of the process involves firstly divergent thinking and then convergent thinking.

f) The process is the result of interaction between a person and his/her environment.

2.2.2 CHARACTERISTICS OF THE CREATIVE RESPONSE, PRODUCT AND IDEA.

The output of the creative process is judged to determine whether creativity was involved in generating the output. The characteristics that are considered when determining whether the output is creative includes value, correctness, usefulness and novelty. Amabile (1990:66) views an output as creative when "The response is both novel and appropriate, useful, correct, or valuable".

Newell, Simon and Shaw (Cougar, 1995:14) agrees with this view, and defines a creative output as a response, product or idea that has novelty or value.

Amabile's (1990:65) consensual assessment technique, which states that an output is creative when "Independent observers agree it is creative", relies exclusively on the judgement of individuals. It might however be difficult to identify those individuals that have a suitable knowledge of the field to determine an output's creativeness, and the judgement of creativity relies on personal opinion rather than scientific analysis and consensus.

2.2.3 CHARACTERISTICS OF THE CREATIVE PERSON

Almost everybody has potential creative ability. Over the years the environment and our educational and developmental experiences suppress this natural creative ability we possessed as small children. For most people that ability can be redeveloped and enhanced (Cougar, 1995:84). The characteristics identified in this section thus

applies to people in whom that creative ability is better developed than in other people.

Amabile (1990:67) has found that intrinsic motivation is very prominent in creative persons. This intrinsic motivation is not affected by external influences, but is an inner source of strength based on the interest, enjoyment, satisfaction and challenge of the work itself.

Roe (Kao, 1991:16) offers the following characteristics of the creative person:

- Openness to experience,
- Observance - seeing things in unusual ways,
- Curiosity,
- Accepting and reconciling apparent opposites,
- Tolerance for ambiguity,
- Independence in judgement, thought and action,
- Needing and assuming autonomy,
- Self reliance
- Willingness to take risks,
- Persistence.

Raudsepp adds the following attributes:

- Sensitivity to problems,
- Fluency - the ability to generate a large number of ideas,
- Flexibility,
- Originality,
- Motivation, Concentration etc.

Udwadia (1990:70) believes that the three most important cognitive abilities in a person are intelligence, knowledge or expertise, and thinking style. Amongst the important personality characteristics are perseverance, curiosity, independence of judgement, risk taking orientation and intrinsic motivation.

Ray and Myers (1989:8) have defined an inner quality of creative persons, which they term "Essence". This essence is determined by amongst other things intuition, will, joy, strength and compassion.

Timpe (Lombard, 1995:16) states that all studies on characteristics of creative persons point to four principle characteristics namely problem sensitivity, idea fluency, originality and flexibility.

The characteristics of creative persons as identified in the literature can be broadly classified into the following classes:

a) Independence

Persons that need and want autonomy, are independent, and self-reliant. These persons are not adverse to taking risks.

b) Inner sustenance

Persons that are intrinsically motivated, and have the "essence" defined by Ray and Myers (1989:8). Persons that are persistent, original, fluent, intelligent, have intuitive ability and experience inner joy.

c) External orientation

These persons are outward focused. Characteristics such as curiosity, observance, openness to experience, combining apparent opposites are evident.

d) People orientation

Persons that are sensitive to problems, flexible, compassionate and can tolerate ambiguities.

Creativity is not limited to individuals. Creativity can also be a group or team characteristic or ability. The strength of teams resides in the synergistic effect of the characteristics and abilities of the individual members put together. This is an important aspect of management teams. Every individual has strengths and weaknesses. In the team these strengths and weaknesses are compensated for by other team

members. In Christianity the concept of one body with many members with different characteristics is well known. Not all members fulfil the same role. The individual members do however contribute to the strength of the body by contributing their unique characteristics and abilities. In the same way the creativity of individuals in a group can be enhanced due to the interaction between the group members. Teams or groups can thus possess a unique creative ability due to the interaction of the members, while at the same time improving the creative ability of the individual members.

2.2.4 ENVIRONMENTAL INFLUENCES

The influence, and importance of the environment has been identified by various researchers. The importance and the influence of the inter-organisational environment is described in Chapter Five.

Apart from the organisational influence, people's cultural heritage and social background in a way also influence their creative potential. According to Edward de Bono (1970:9) the stimuli the brain is subjected to from birth, determines the way in which we perceive and process information. This stimuli is directly related to our social and cultural backgrounds.

2.3 MODELS OF CREATIVITY

Researchers of creativity have attempted to define models that can be used to describe the interaction between the various components of creativity. Although not necessarily related to the definitions, it is useful to look at these models in order to improve our understanding of the nature of creativity.

Cougar (1995:4) suggests a four tier model to describe the interaction between various components of creativity (Figure 1). The model shows the

nature of creativity involving interaction between the person, process and product, all within the influence of the environment.

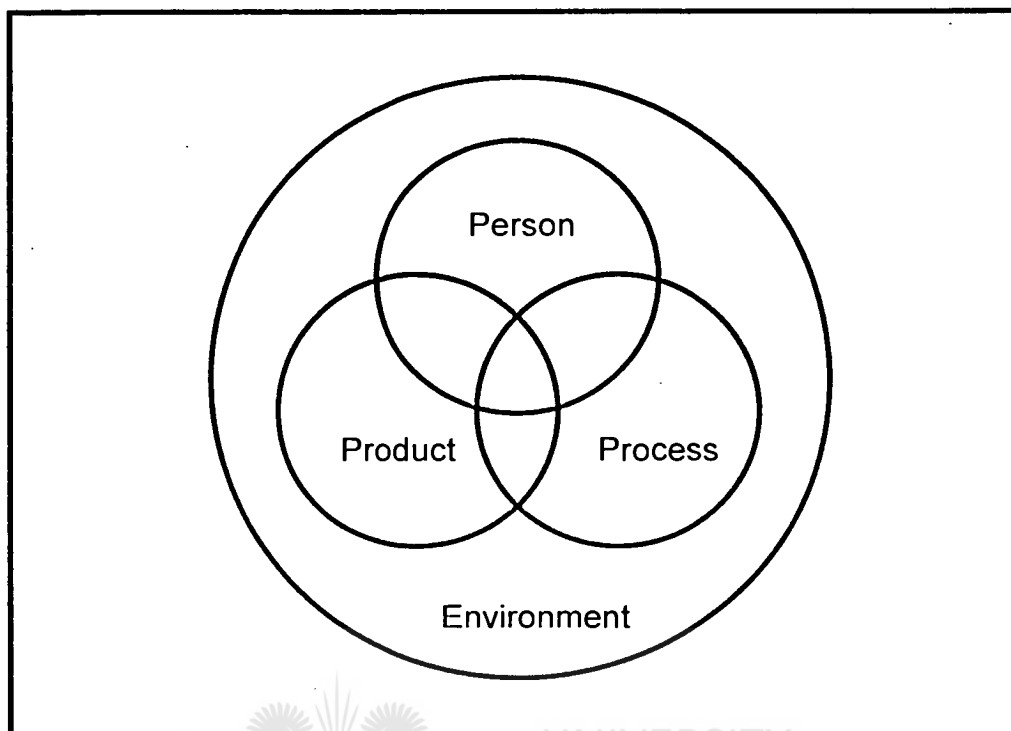


Figure 1 - 4P Model of creativity (Cougar, 1995:4)

Csikszentmihalyi (1990:205) has formulated the system perspective of creativity. The model consists of the person, field and domain. “The system perspective admits that individual traits may be necessary for a person to be recognised as creative, but it postulates that these cannot be predicted a priori. It holds, instead, that one must also consider the characteristics of domains and fields before one can predict what a creative person will be like. The specific individual traits associated with creativity will depend on the characteristics of the other two subsystems.”

The domain is the “field of study” with “its own rules for representing thought and action” (Csikszentmihalyi, 1990:208).

The field is the part of the social system that has the power to determine the structure of the domain, and which purpose it is to protect the domain. The secondary function of the field is to act in a judiciary way as to the expansion or additions to the content of the domain (Csikszentmihalyi, 1990:208).

Firdaus E. Udwadia (1990:67) describes a "multiple perspective model" to describe creativity in the organisational context. The model consists of four perspectives (Figure 2).

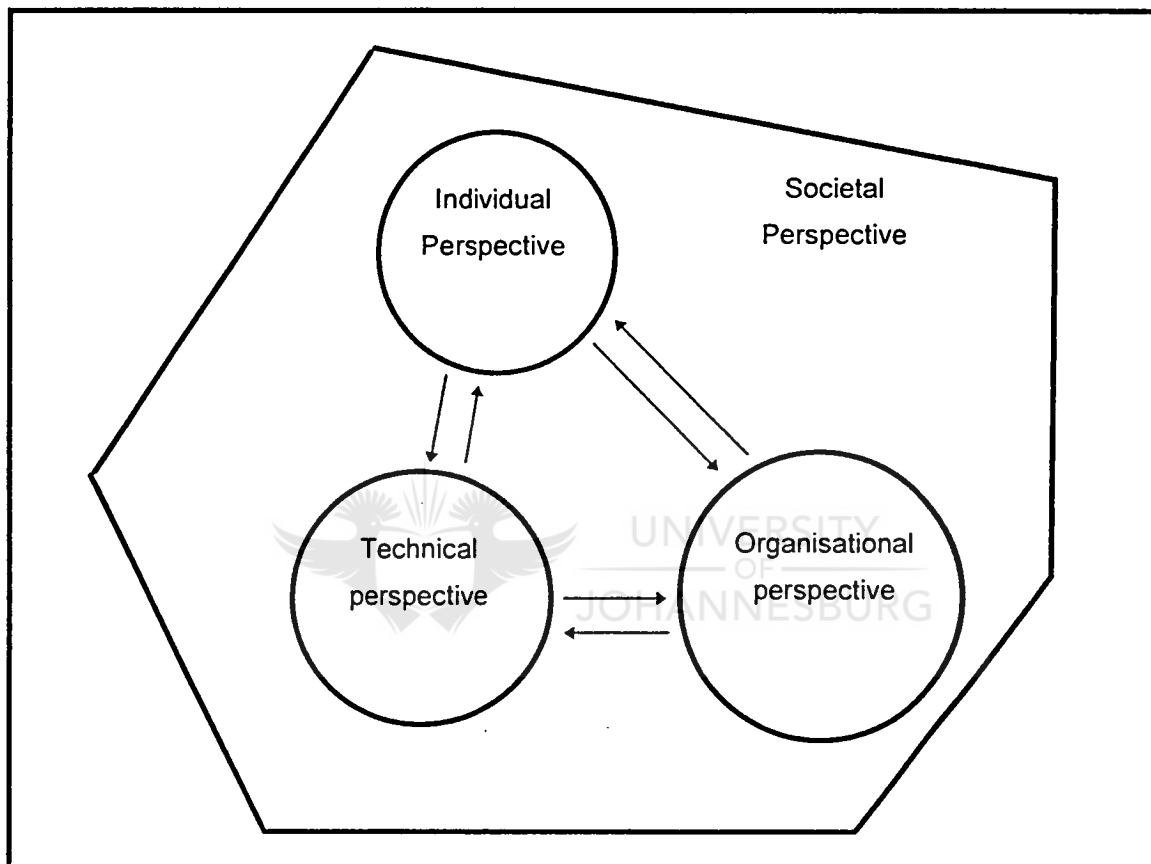


Figure 2 - Multiple perspective approach to creativity (Udwadia, 1990:67)

The individual perspective focuses on the distinctive individual characteristics associated with creative behaviour.

The technical perspective focuses on the technical resources, both material and human, needed for creativity, and the impact of these resources on creativity.

The organisational perspective focuses on the organisational practices and managerial actions that enhance or stifle creativity (Organisational environment).

The societal perspective describes the influence of society, such as laws and regulations, on the whole creative process (External environment).

The model illustrates the interdependence of the various perspectives, as well as the influence these various perspectives have on each other. The important contribution of this model is the emphasis it places on the need to manage the interaction in order to optimise creativity.

Istvan Magyari-Beck (Csikszentmihalyi, 1990:208) has drawn up a matrix indicating the interactive and multiple level characteristics of creativity. The matrix consists of four levels at which creativity occurs, and three main forms in which creativity manifests itself. (Figure 3)

Forms of manifestation				
L e v e l		Trait	Process	Product
	Cultural level	1	2	3
	Institution	4	5	6
	Working group	7	8	9
	Person	10	11	12

Figure 3 - Magyari-Beck matrix (Csikszentmihalyi, 1990:208)

The matrix provides twelve combinations that indicate the different levels at which creativity can be influenced. The matrix also shows the complex nature of interaction between the forms and the levels of creativity.

2.4 DEVELOPING CREATIVITY

Creativity skills of individuals can be enhanced. Cougar (1995:12,13) mentions various studies that has proved that creativity can be improved by conscious effort.

De Bono (1992:30) mentions that the opinion that creativity cannot be taught is one of the misperceptions about creativity. In an organisation this misperception can be very convenient, because it relieves management from the need to do anything about fostering creativity. De Bono has himself developed various processes that can assist in developing or fostering an individual's creative talent and skills.

Many of the sources consulted during this study focused on what to do in order to develop or enhance the creative ability of either a person or an organisation. The foundation on which all these books are based, is that creativity can be improved through the application of conscious effort. The books by Ray & Myers (1986) and Kao (1991) are based on university level courses on creativity.

The development of creativity is facilitated at various levels:

The person - The skills and characteristics that enhances creativity can be improved. Characteristics such as curiosity, persistence, fluency and many others can be improved by practise.

The process - Cougar (1995) has developed a complete process for solving problems more creatively, and finding creative opportunities. Other writers such as De Bono (1970, 1992) has developed processes to enable creative thinking. Apart from complete processes, many individual techniques have been developed to facilitate the process.

The environment - The environment plays an important influencing role on creativity. In chapter five the specific influence of the environment is discussed in more detail. Managing the environment, and creating a

suitable environment can prevent stifling the creative potential of people, and allow people to become more creative.

2.5 SUMMARY

Due to the many different aspects that all play a role in determining the nature and characteristics of creativity, it would be impractical to try and construct a single-sentence definition.

It is important to have an understanding for the nature of creativity, and in that regard the following aspects are of importance:

Creativity is a process.

- The process is an active, structured and methodical thought process.
- The process involves various stages including Interest, Preparation, Incubation, Illumination, Verification and Exploitation.
- The process involves unconventional thinking.
- The stimuli to the process is heuristic or ill-defined.
- The process is the result of interaction between a person and his/her environment.

Creativity is a characteristic and ability attributed to persons and groups.

The broad classification of these characteristics are

- Independence
- Inner sustenance
- External orientation
- People orientation

Creativity is expressed in responses, ideas or products.

Characteristics of the creative output are

- Novelty
- Value
- Correctness
- Appropriateness

Of the models of creativity that was discussed the Four-P model (Figure 1) as proposed by Cougar encompasses all the aspects regarding the characteristics and nature of creativity. In this study this Four-P model will be used.

Creativity can be developed. Development can be facilitated at three levels, namely at the person, the process and the environment level.



CHAPTER THREE - MANAGEMENT FUNCTIONS AND SKILLS

3.1 INTRODUCTION

Management issues have been the subject of investigation since the earliest times. The Chinese practised the four universally recognised management functions namely planning, organising, leading and controlling, since as early as 1100 B.C. The Greeks started advocating management as a separate field of study between 350 and 400 B.C. The formal emergence of management as a discipline did however only really start happening at the beginning of the 20th century. (Cougar, 1993:32).

The purpose of this chapter is to provide a concise summary of the most important management approaches and functions, and to identify which skills and abilities the execution of these functions and adherence to these principles require.

The description of the management functions will concentrate on three levels, being the conceptual/strategic level, functional/tactical level, and the operational/transactional level. The different skills and abilities needed at the different levels will be identified and discussed.

Many definitions of management exist, in every book on the subject of management one is offered. For the purpose of this study the following definition will suffice: "Management can be described as the process whereby human, financial, physical and information resources are utilised in order for the organisation to achieve predetermined goals." (Cronje et al, 1991:71).

Is management a necessity? Cronje et al (1991:70) have identified various reasons indicating the need for management in an organisation:

- To lead the organisation towards achieving it's goals,

- To ensure balance in the operations of the organisation,
- To keep the organisation in touch with its environment, and
- To effect synergism and maximum productivity in achieving the organisational goals.

Drucker (1974:14) states that without management there would be no institutions, but merely a mob. Management is needed. Without management uncontrollable chaos would reign, wherein no organisation can exist.

A grim fact indicating the need for good management is the the fact that up to 44% of company failures can be attributed to bad management, according to studies (Cronje et al, 1993:70).

3.2 MANAGEMENT EVOLUTION AND PHILOSOPHY

A discussion of management would not be complete without mention of the development of management thought. Management thoughts and presiding management philosophy affect the management of an organisation on every level. Throughout history management approaches developed on a trial-and-error basis, in response to the forces and influences of the environment. The environment today also has a profound influence on management thought, influencing and, in some cases determining, the approaches that can be utilised in managing the organisation. Management approaches and philosophy attempt to define broad guidelines to indicate how the management of organisations need to operate in order to assure or create organisational excellence.

The historical development of management approaches can be classified in two broad categories namely the classical approaches and the contingency approaches. The various individual contributions that constitutes these categories evolved more or less in historical sequence (Table 1). New

approaches added to the knowledge and values of existing approaches, while simultaneously developing their own perspectives (Donnelly et al, 1992:8).

Date	Classical approaches	Contingency approaches	Developing/ Current approaches
< 1890	Systematic management		
1900 - 1910	Scientific management		
1910 - 1920	Administrative management		
1920 - 1930			
1930 - 1940	Human relations		
1940 - 1950	Bureaucracy	Quantitative management	
1950 - 1970		Organisational behaviour, Systems theory	
1970 - 1980		Contingency theory	
1980 -			

Table 1 - History of management thought development
(Bateman & Zeithaml, 1993:34)

3.2.1 SYSTEMATIC MANAGEMENT

Bateman & Zeithaml (1993:35-43) provide a concise summary of the various approaches. Systematic management strove to systematise

the perceived chaos that reigned in firms during the 19th century. Poor communications caused frequent production interruptions. Systematic management emphasised economical operations, adequate staffing, maintenance of inventories to meet customer demand, and organisational control. The forces driving the development of this theory were the explosive growth in demand.

3.2.2 SCIENTIFIC MANAGEMENT

Scientific management developed to address the inability of systematic management to improve efficiency adequately. This approach advocated the application of scientific methods to determine the best way to perform production tasks.

3.2.3 ADMINISTRATIVE MANAGEMENT

Administrative management focused on the perspective of senior management within the organisation. The contributors to administrative management argued that management was a profession and could be taught. Amongst the contributors to this approach, Henri Fayol was the most prominent, identifying 5 functions and 14 principles of management. The 5 functions he identified include the 4 universally recognised management functions of planning, organising, leading and controlling.

3.2.4 HUMAN RELATIONS

The fourth management approach developed during the early 1930's. Human Relations aimed at understanding how psychological and social processes interacted with the work situation to influence performance. This approach was the first to look at the person

performing the task and to look at what influences this person, rather than to look at how to improve the way in which the task is done.

3.2.5 BUREAUCRACY

Max Weber, in his 1947 book "The Theory of Social and Economic Organisations", advocated a completely different approach, namely Bureaucracy. Instead of looking at ways to improve the efficiency and productivity of labour and manufacturing processes, his approach attempted to eliminate variability in the organisation by formalising roles and structures. According to him these formal structures were necessary to ensure continuity in organisations.

Where all the classical approaches focused on the internal operations of the organisation, the contemporary approaches realised the importance of the environment to the organisation and tried to address the deficiencies of the classical approaches. The contemporary approaches are still widely practised today.

3.2.6 QUANTITATIVE MANAGEMENT

Quantitative management was developed to enable management to make decisions based on sound mathematical analysis. This approach is not widely used as a primary approach to decision making, but rather as a supplementary tool.

3.2.7 ORGANISATIONAL BEHAVIOUR

During the 1950's the focus again shifted towards the person, and what influences him/her. The revised perspective, known as organisational behaviour studies, identified management activities that

promote employee effectiveness through an understanding of the complex nature of the individual, group and organisational processes.

3.2.8 SYSTEMS THEORY

The criticism that management approaches ignored the interaction between the organisation and the environment, led to the development of the systems theory. This theory takes a holistic view of the complete organisational system, stressing the important interaction between the various subsystems. It views the organisation as an open system that can only function effectively through interaction with its environment, including suppliers, clients, regulating bodies etc.

3.2.9 CONTINGENCY PERSPECTIVE

The contingency perspective builds on the principles of the systems theory. This theory states that there is a variety of internal and external factors that influence the organisation's performance. There is thus not only one best way to manage, because circumstances vary. The contingency perspective identifies situational characteristics, called contingencies, that assist the manager in identifying the most appropriate management action to take for a given set of circumstances. Contingencies include the rate of change in the organisational environment, strengths and weaknesses, values, goals, skills and attitudes of managers and employees and types of tasks, resources, and technologies.

Management theory and approaches are continually changing and developing in response to a variety of influences. Key directions in which management theories are developing include global interdependence and the quality revolution. (Bateman & Zeithaml, 1993:48).

3.2.10 THIRD WAVE MANAGEMENT

Alvin Toffler has classified the changes that swept the earth, that led to the development of organisations and management thought, into what he terms “waves”. The first wave constituted the agricultural society before the advent of industrialisation. In approximately the seventeenth century, with the advent of industrialisation, the second wave of change got underway. In this period all the management approaches that we term classical approaches and contemporary approaches were developed. Since the late 1970s things started going wrong for industrial giants managing according to the second wave principles (Coetzer, 1994:13). Alvin Toffler was the first to identify the need for a third wave organisation (Kruger, 1994:8). Toffler sees the third wave organisations as not only economic entities, but describes them as multi-purpose organisations, involved in the ecology, politics and the social environment, “indeed involved in the whole spectrum of activities to which each individual is exposed.” (Kruger, 1994:8). Sculley (Kruger, 1994:9) compiled a table indicating the differences between 2nd and 3rd wave organisations (Table 2).

Characteristic	Second Wave	Third Wave
Organisation	Hierarchy	Network
Output	Market share	Market creation
Focus	Institution	Individual
Style	Structured	Flexible
Source of strength	Stability	Change
Structure	Self-sufficiency	Inter-dependence
Culture	Tradition	Genetic code
Mission	Goal/Strategic plans	Identify/Directions/Values

Characteristic	Second Wave	Third Wave
Leadership	Dogmatic	Inspirational
Quality	Affordable best	No compromise
Expectations	Security	Personal growth
Status	Title and rank	Making a difference
Resources	Cash	Information
Advantage	Better sameness	Meaningful differences
Motivation	To complete	To build

Table 2 - Contrasting management paradigms (Kruger, 1994:9)

The main forces that drove this third wave were individualism and humanism, information and technology development and the growth of environmental awareness. The third wave necessitates a new model of management. According to Kruger (1994:8) the concepts which forms the basis for this new model of management is creativity, innovation and adaptability, entrepreneurship and a mega-strategy vision - the ability to visualise change. The strength of third wave companies lies in their ability to change. (Kruger, 1994:11). Third wave management philosophy, or liberation management philosophy, is one approach that will influence near future management thought (Kruger, 1994:19).

3.3 MANAGERIAL FUNCTIONS

Gibson et al (1991:45) states that "The purpose [function] of managers is to achieve co-ordinated behaviour so that an organisation is judged effective by those who evaluate its record...To achieve co-ordinated behaviour and to satisfy evaluators, managers engage in activities intended to plan, organise, lead, and control behaviour." The relationship among the management functions and individual, group and organisational effectiveness is indicated in Table 3.

<u>Management</u>	<u>Sources of Effectiveness</u>		
<u>Functions</u>	<u>Individuals</u>	<u>Group</u>	<u>Organisations</u>
Planning	Objectives	Goals	Missions
Organising	Job design Delegated authority	Department bases Department size	Integrated methods and processes
Leading	Person-centred influence	Group centred influence	Entity-centred influence
Controlling	Individual standards of performance	Group standards of performance	Organisation standards of performance

Table 3 - Relationship among the management functions and individual, group and organisational effectiveness (Gibson et al, 1991:46).

As the term "Management" implies, the function of any manager is to manage certain activities. The activities will differ depending on the level at which the manager operates. Table 2 identifies some activities managers perform.

The functions described in the remainder of the chapter are specific functions, and not the universal functions of planning organising leading and controlling.

3.3.1 STRATEGIC MANAGEMENT FUNCTIONS

The strategic or conceptual level managers are the top level managers of the organisation. Their positions are often referred to as president, chief executive officer and director.

In terms of their affect on the organisation as a whole, top level managers exert the most influence. There are many examples of companies that were on the verge of bankruptcy when they were saved by single top level managers. The CEO of the company can,

more than anybody else, determine the success or failure of the company (Hitt, 1988:2). To the same degree, the responsibility for the success of an organisation lies mainly with the top level managers.

In large organisations strategic managers are primarily concerned with the interaction between the organisation and its environment (Cougar, 1993:19). The top level managers spend most of their time being concerned as to whether their organisations are meeting the expectations of its owners, customers, and other stakeholders (Donnelly et al, 1992:48).

The top level managers determine the direction of a company, its affect on the environment, the strategies it follows and the approaches to follow in order to achieve its goals. The top level manager determines the overall policies, the overall strategy and establishes the organisation's goals (Griffen, 1990:13)

The management philosophy a company adheres to is to a large extent dependent on the management approach of the top level manager. The top level manager determines how the company must operate in order to become or remain successful.

Top level management is responsible for managing the corporate culture. Although many influences affects corporate culture, the influence of top level management is unequalled. (Bateman & Zeithaml, 1993:328).

The top level manager is responsible for constructing a capable management team. The top level manager determines the affect of the management team on the organisation by creating and ensuring the effectiveness of the management team.

3.3.2 FUNCTIONAL OR MIDDLE LEVEL MANAGEMENT FUNCTIONS

Middle managers are typically the largest group of managers in the company. This level of management includes plant managers, operations managers and divisional heads.

Middle managers are primarily responsible for implementing the policies and plans developed by top level management, and for supervising the activities of lower level management (Griffen, 1990:14).

The functional activities of these managers are more technically oriented than those of top level management. The middle manager serve as a link between the top level management and the lower level management.

At this level the managerial task is twofold, firstly managing the operational functions, and secondly serving as liaison between those who produce the product or service and those who consume the output (Donnelly et al, 1992:47).

3.3.3 OPERATIONS LEVEL MANAGEMENT FUNCTIONS

Common titles for this level of management are foreman, supervisor and office managers. These managers spend the majority of their time directing others on a technical level (Griffen, 1990:14).

The function of the operations level manager is to ensure the effective performance of the operations in producing the organisations output. The managerial task here is to develop the best allocation of resources that produces the desired output (Donnelly et al, 1992:46).

3.4 MANAGEMENT SKILLS AND ABILITIES

As with the functions, the skills and abilities needed differ depending on the level of manager. The different skills for different levels are illustrated in Figure 4.

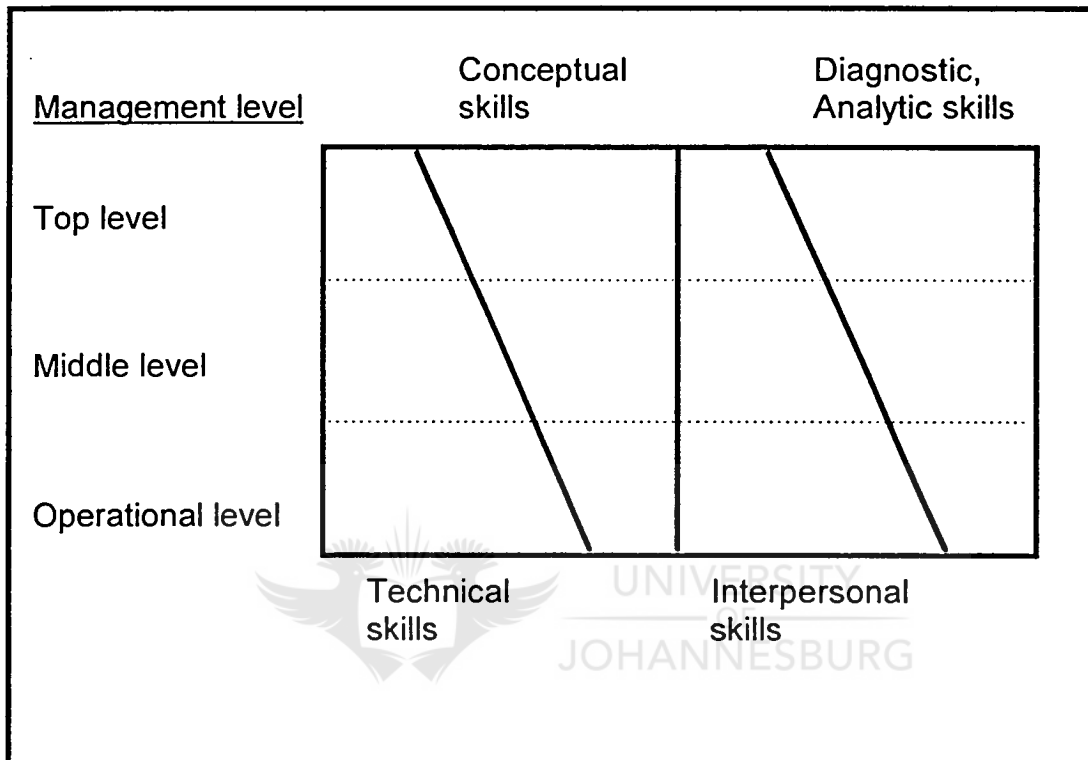


Figure 4 - Skill differences per management level (Griffen, 1990:20)

Figure 4 indicates that many of the skills and abilities of different levels of management are very similar, with only the relative strength being different.

Conceptual skills are the ability to understand the operation of the organisation as a whole. Interpersonal skills are the ability to work with people. Technical skills are the knowledge of the techniques of a specific discipline that is used to reach certain goals. Analytic and diagnostic skills are those skills that enable the manager to analyse data sufficiently in order to make good decisions, or to find the root cause of problems (Cronje et al, 1991:77).

Perhaps the most important skill or ability of top level management is leadership skills. Top level managers are the leaders of the organisation. It is the responsibility of top level management to lead the organisation towards the future with good leadership skills. Hitt (1988:11) has identified eight functions of effective leadership:

- **Creating the vision** - Constructing a clear vision of where the group should go,
- **Developing the team** - The management team,
- **Clarifying the values** - Identifying organisational values and communicating them through words and actions,
- **Positioning** - Developing an effective strategy for moving the group from its present position towards its vision,
- **Communicating**,
- **Empowering** - Motivating others by raising them to their better selves,
- **Coaching** - Developing others,
- **Measuring** - Identifying critical success factors associated with the group's performance and gauging progress based on these.

Drucker (1974:375) identified five key managerial skills needed to be an effective manager:

- **Decision making** - Management makes decisions all the time. The impact and scope of the decisions vary according to the management level, but all managers make decisions. The first crucial skill a manager needs is to make good decisions. Drucker mentions the way that the Japanese make decisions, by clearly defining the question or problem, before attempting the answer. This, he claims, is the key to effective and good decisions.
- **Managerial communications** - Communication is an elusive skill. Management has access to so much information that they may tend to confuse communication with information. These two are not

the same at all, although interdependent. Communication requires understanding. The skill lies in judging the characteristics of the listener, in order to communicate the message in understandable terms.

- **Controls, control and measurement** - Controls are means to analyse what has happened in the past, they are synonym for measurements and information. Control is concerned with what ought to be. Control is what a manager needs and uses to guide the organisation in the right direction. Controls need to be economical, meaningful, appropriate, timely, simple and operational. Controls need to focus on results. Controls are the means to the control end.
- **Budgeting ability** - The budget is a tool that enables management to allocate resources for results. Budgets are the tools management uses to plan for results, and provides a way of obtaining control in order to achieve those results.
- **Skill in using analytical tools, that is, the management sciences** - The tools used to optimise a specific area of operation in the organisation are not in question here. Management needs to identify the tools that will assist them in managing the organisation as a group of interdependent functions. The efficiency of the complete system is not a function of the efficiency of the individual functions, but rather a function of the efficiency of the interaction between the functions. Managers need to place more focus on the whole enterprise and less on individual parts of the enterprise. The management sciences are the tools of the manager, and not of the management scientist.

Other needed management skills that have been identified include time management skills (own time), motivation skills, and delegation skills (Rees, 1991).

3.5 SUMMARY

Although the functions, skills and abilities that was identified in this chapter are by no means exhaustive, they do provide us with a good basis from which the applicability and the need for creativity in executing these functions can be identified.

None of the sources studied specifically mentioned creativity as a necessary skill or ability. Kruger (1994:8) mentions abilities that the third wave organisation will have to possess in order to be successful:

- A climate of creativity, innovation and adaptability,
- Entrepreneurship, and
- A Mega strategy vision.

The question that arises is whether the organisation can be creative if the management function is not creative, or if management does not actively pursue the development of a climate conducive to creativity.

The functions of the different managerial levels can be summarised as follows:

- Strategic level management
 - Determining strategic direction,
 - Defining organisational values, culture and principles,
 - Interacting with the organisational environment,
 - Developing the managerial team.
- Functional level management
 - Link between top and bottom level management,
 - Implementation of determined strategies,
 - Departmental operation.
- Operational level management

Managing the operational functions,

Managing the employees directly responsible for the output.

The following skills and groups of skills have been identified by various writers:

- Leadership skills,
- Team development, Coaching,
- Interpersonal skills, Communication,
- Analytic and Diagnostic skills,
- Conceptual skills, Positioning skills,
- Technical skills, Skills in utilising managerial sciences, skills in developing and using controls,
- Decision making skills.

Moss-Kanter (1988, 35) defines three new skills managers require to manage effectively in integrative, innovation-stimulating environments, as found in creative organisations:

- "Power Skills" - "Skills to persuade others to invest information, support, and resources in new initiatives."
- Problem management - "Skills in managing the problems associated with the greater use of teams and employee participation."
- Change mastery - "An understanding of how change is designed and constructed in an organisation - how the micro changes introduced by individual innovators relate to macro changes or strategic reorientation."

Apart from the identified skills, two profound influences on the effectiveness of a manager are the level of common sense utilised, and the experience that the manager has. Knowledge cannot replace those two elements, but proof exists that common sense and experience alone is not adequate to ensure successful management. (Bateman & Zeithaml, 1993:22).

CHAPTER FOUR - THE NEED FOR CREATIVITY, AND THE APPLICATION OF CREATIVITY IN BUSINESS AND MANAGEMENT

4.1 INTRODUCTION

Having circumscribed creativity and management, the question arises whether it is crucial for an organisation to have a creative management complement? Can creativity be applied or utilised in the management domain? What benefit or advantage will an organisation with a creative management function have above an organisation without one? In this chapter the connection between creativity and management is investigated.

It is important for the organisation, and for management as the main determinant of the organisation's internal and external welfare, to realise just how important creativity is, and what benefits creativity can afford the company. Without this knowledge, management might actually be destroying the creative potential of the organisation by managing in a way that inhibits creativity.

Creative output by management is not unknown. Drucker (1985:ix) mentions a few examples of very creative developments in the domain of management: Outsourcing, downsizing, economic value analysis and re-engineering.

In this chapter the necessity and utility of creativity is shown in relation to the points highlighted in the discussion of management in chapter three.

4.2 THE NEED FOR CREATIVITY AS A MANAGEMENT SKILL

In chapter one it was stated that many writers have stressed the need for organisational creativity. Management plays a crucial role in creating a

corporate environment suitable for creative behaviour. "Organisational creativity cannot live alone....it can only thrive in a corporate environment in which ideas can be generated and communicated in a continuous way...this can only be achieved when senior management...are able to direct the appropriate motivational stimuli that help people to exercise their hidden creative talent." (Majaro, 1988:3). Management influences the creative climate in the organisation. The specific way in which management influences the organisational environment is discussed in chapter five.

Why does management need to be creative for and organisation to be creative? Organisations cannot be innovative without having managers capable of generating creative ideas. Apart from being creative, management needs to understand the nature and characteristics of creativity. Three characteristics of creative organisations are prominent:

1. The climate for creative thinking is right,
2. An effective system for communicating ideas at all levels exists,
3. Procedures for managing innovation are in place. (Majaro, 1988:24).

Procedures and systems in an organisation does not create themselves. The role of management in creating the procedures and systems to facilitate creativity is profound. Herein lies the need for management to be aware of what influences creativity, to be able to adapt the organisational processes, procedures and systems in a way that affects creativity.

4.3 THE ROLE OF CREATIVITY IN THIRD WAVE MANAGEMENT

Organisations of the future will need to adjust their way of operating towards the third wave, or liberation management philosophy, in order to prepare for the challenges the environment presents. The classical thoughts and contemporary thoughts will still influence the way organisations are managed for some time, but the changing environment necessitates a shift towards the new paradigm (Coetzer, 1994:186).

Kruger (1994:8) has identified the concepts that form the basis of this new model of management as creativity, innovation and adaptability. The link between creativity and innovation has been extensively studied. Another characteristic of third wave organisations is their ability to cope with change as a source of strength.

4.3.1 CREATIVITY AND INNOVATION

The importance of innovation for the business firm is seldom disputed. Innovation and creativity are closely linked. To innovate, creativity is needed. Creativity is seen by Nyström as the ability to devise and successfully implement innovative changes (Nyström, 1979:1). The terms creativity and innovation are often used interchangeably. Innovation is the process of turning an idea into a product. Creativity is the skill or ability that enables a person to be innovative (Cougar, 1995:18).

For a business organisation to grow, it must innovate. The innovation here is not limited to product innovation, but to innovation throughout the company, in all processes, at all levels. As Dougie Ivester, CEO of Coke says: "Everybody falls into the trap of [either] looking at the latest gadget, or thinking that creativity has to be in arts and sciences. But you've got to encourage creativity in staffing, strategy, branding, and business processes too." (O'Reilly, 1997:38).

"Companies that knows how to innovate... cultivate a new style of corporate behaviour that's comfortable with new ideas, change, risk and even failure." (O'Reilly, 1997:38). This "style of corporate behaviour" is very similar to what has been described as creativity.

Majaro (1988:9) has developed a graphical representation of the link between creativity and innovation in an organisation (Figure 5).

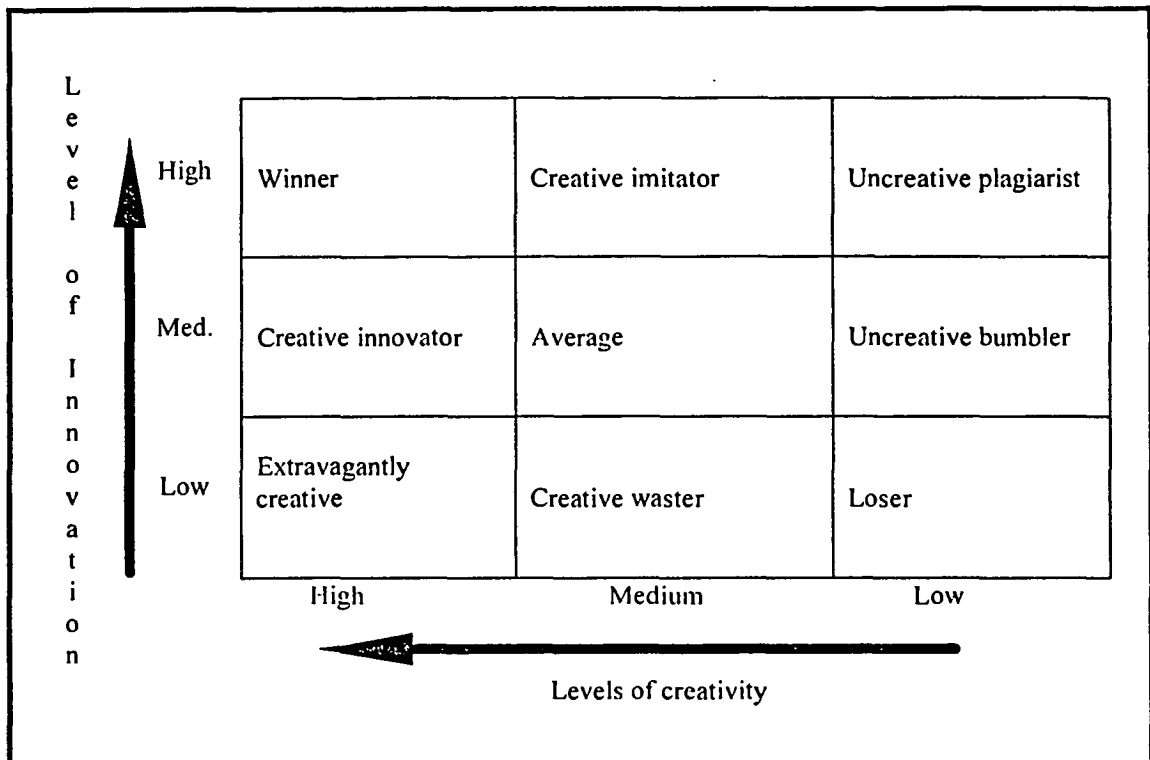


Figure 5 - Creativity and innovation excellence matrix (Majaro, 1988:9)

4.3.2 COPING WITH ENVIRONMENTAL CHANGE

Businesses need creativity due to the changing face of business. Moss-Kanter (1988:18) states that around the turn of the nineteenth century people were regarded as assets, and the “system” was assumed to be running the business. As the face of business changed, the “system” could not cope with all the non-standard issues that had to be resolved, so companies needed to start to rely on the individual judgement of their employees. As the pace of change increases, companies will have to rely ever more on the creative abilities of their employees and management to “tap into that most powerful economic stimulus of all: idea power.”

“Business organisations are facing a change more extensive, more far-reaching in its implications, and more fundamental in its transforming quality than anything since the ‘modern’ industrial system took shape in the years between roughly 1890 and 1920”. (Moss-Kanter, 1988:37)

Business organisations need creativity to cope with these changes. Kao (1991:13) states that “creativity is a topic relevant not only to the entrepreneurial start-up, but to business in general. It is an important source of competitive strength for all organisations concerned with growth and change. For, to be responsive to change is to be creative: in such terms as perceiving the environment; developing new products and services; establishing new business procedures”.

An organisation can not just ignore this need for change. “Those organisations which either fail to understand the need for change, or are inept in their ability to deal with it will fade and fall behind, if they survive at all.” (Moss-Kanter, 1988:38).

4.4 CREATIVITY NEEDS AT THE STRATEGIC MANAGEMENT LEVEL

Majaro (1988:12) has listed a number of functions of the strategic management level that can benefit from creativity. Areas that can benefit include:

- The mission statement,
- Definition of corporate objectives,
- Determination of the most appropriate “shared-values” system for the firm,
- Corporate image for internal and external “consumption”,
- Establishing the corporate structure,
- Search for strategies,
- Developing a sustainable competitive advantage,
- Developing creativity in the firm.

Three strategic management level functions, as identified in chapter three, is:

- 1) Serving as link between the company and the environment,
- 2) Strategic management and

3) Managing for competitive advantage.

4.4.1 STRATEGIC MANAGEMENT

Strategic management is the process whereby top level management, with the involvement of management from all levels of the organisation, formulates the goals and strategies for achieving those goals. Five major components are involved, namely an internal assessment, environmental analysis, strategy formulation, strategy implementation and strategic control. (Bateman & Zeithaml, 1993:145).

Strategic management is the process whereby management prepares for the unknown future. Strategies are however not static. They are dynamic, and change as the environmental influences change. To find and develop the correct strategic direction for the company is the responsibility of top level management. (De Bruyn, 1996:4).

Management integrates creativity into the strategic management process when they adopt a "mission mode" for developing their strategy. The "mission mode" is a process whereby new strategies are formulated by collecting information in an uncoordinated manner, and new patterns and connections are identified and formulated in a spontaneous way. To be creative, the strategic management process should involve the "mission mode" and the "strategic management process", i.e. the "traditional" planned, methodical process (De Bruyn, 1996:9). De Bruyn used the creative process according to Jung to integrate the spheres of creativity and strategic management.

According to Jung the creative process consists of

- Awareness - collecting concrete facts,
- Thought - intellectual recognition of relevant information,
- Feeling - evaluation process and
- Intuition - awareness of potential (Figure 6).

Management needs to be creative to be able to integrate creativity into the strategic management process.

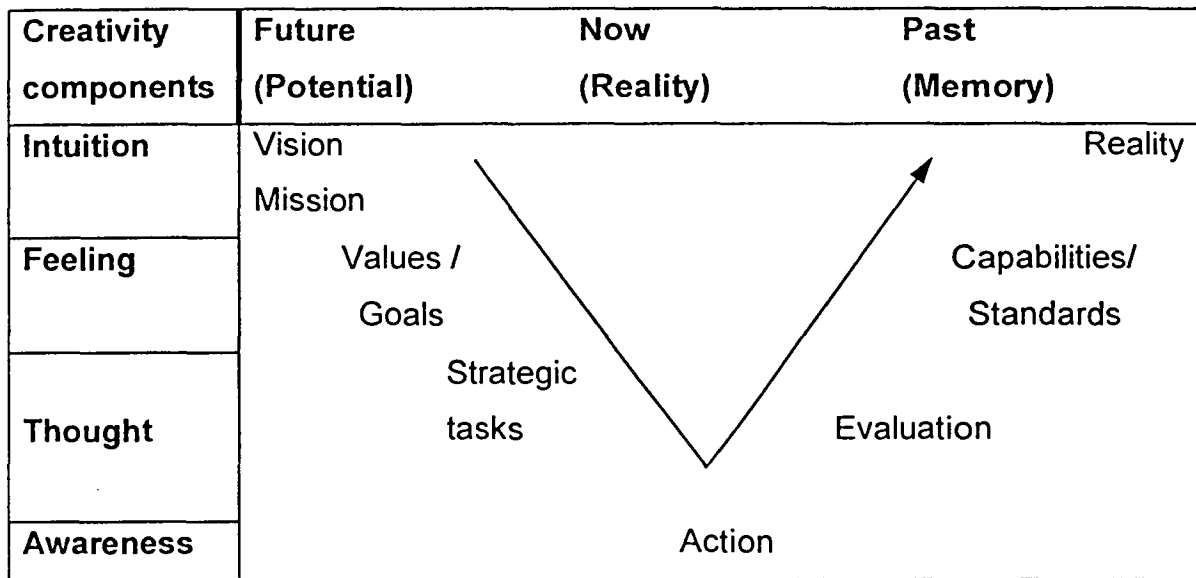


Figure 6 - Creativity combined with the strategic management model
(De Bruyn, 1996:15)

4.4.2 MANAGING THE ENVIRONMENT

A key component of effective management is creating a positive work environment. Creativity needs a positive, supporting environment to flourish. Creativity is a “voluntary process”. You can not just order a good idea (Anderson, 1993:41). This environment does not exist automatically, it has to be managed. Gupta and Singhal (1993:41) believes that “successful companies are creative and innovative not by accident; they effectively manage human resources to create and market new products and services.”

Management has a profound influence on the internal organisational environment. Because the environment has an influence on creativity, management has an influence on creativity in the organisation. To be aware of the factors that can affect creativity, it is important for management to understand the nature and characteristics of creativity.

Research has confirmed that management has an influencing affect regarding creativity in the organisation, in areas such as managing human resources (Gupta & Singhal, 1993), reducing the barriers to creativity (Sonnenburg & Goldberg, 1992), instilling corporate creativity (Stern et. al., 1992), and creating a creative climate (Raudseep, 1987). In Chapter Five the environmental influences on creativity is discussed in more detail.

Management has to devise novel ways of creating a creativity-ideal environment, and novel ways to ensure that it remains optimal. It is thus crucial for management to possess the ability to think creatively and to understand creativity to be able to create this environment that will foster creativity.

4.4.3 COMPETITIVE ADVANTAGE AND CREATIVITY

“To achieve superior performance, a business must develop and sustain competitive advantage.” (Slater & Narver, 1994:22). Kao (1991:13) states that creativity is “an important source of competitive advantage.”

In any business organisation there are two classes of attributes that determine the success of the organisation, namely qualifiers and differentiators. Qualifiers are those attributes without which an organisation stands no chance in the market place. Attributes such as product quality, product reliability, ethical business practices and good customer service are qualifiers. Differentiators are those attributes that make one organisation stand out above its competitors. Due to the ever increasing pace of change, attributes that are differentiators today, might be regarded as qualifiers tomorrow. An example of this shift is product quality in motor cars that was seen as a differentiator in the 1970's, but is regarded as a qualifier today. (Werther et al, 1995:10). Competitive advantage is achieved through differentiation

(Bateman & Zeithaml, 1993:153). Creativity can not only provide organisations with these differentiating factors, but in itself is a potential competitive advantage. Oticon CEO Lars Kolind says "We want to develop our creative capabilities to the point where they can not be copied." (Kao, 1996:76). As a competitive advantage, creativity can not be copied.

Competitive advantage is eliminated at an ever increasing pace. As Nonaka and Kenny (Dean, 1996:1) noted: "...to remain competitive any firm must constantly be creating new strategies, new products, new ways of manufacturing, distributing, and selling." In creating new competitive strategies continually, management's creative ability is of vital importance.

4.5 CREATIVITY NEEDS AT THE FUNCTIONAL MANAGEMENT LEVEL

Because of the future orientation of creativity, it is possible to endlessly apply creativity in an enhancement or improvement role. At all management levels there are certain functions that, with creative vision applied, can be improved. Majaro (1988:13) lists a few of the areas affecting the functional level of management:

- Marketing:
 - Improved intelligence gathering,
 - Market research activities,
 - Departmental strategies,
 - Improved packaging, etc.
- Production:
 - Procurement policy,
 - Factory logistics & JIT strategies,
 - Productivity throughout management cycle,
 - Engineering & Technology enhancement, etc.

- Research & Development:
 - Project screening,
 - Departmental image,
 - More market-led R&D policy,
 - Better rate of exchange between R&D expenditure and results
 - etc.

These lists are only indicative of the total scope of functional level management functions that can benefit from improved creativity.

4.6 CREATIVITY NEEDS AT THE OPERATIONAL MANAGEMENT LEVEL

The lists of possible improvements at the operational level can be as long as the imagination. The important point is that with the use of creativity any operation or task can most probably be changed, improved and enhanced.

The improvement of processes or procedures is no longer only the responsibility of top management. Organisations need to integrate the mental resources available from every level in the organisation. The operational level employees and first tier management are the best suited to suggest improvements in the operating processes and procedures. Moss-Kanter (1988:18) stated that organisations need to start trusting their employees in taking the company into the future, rather than trusting on systems, because systems cannot adapt to circumstances, and systems cannot be creative.

4.7 ENHANCING MANAGEMENT SKILLS THROUGH CREATIVITY

In the previous chapter seven individual and/or groups of management skills were identified. The utilisation of these skills can be improved through the utilisation of creative efforts. Whereas these skills each stand out individually as a skill that improves management's managing ability, the skill of creativity improves the quality of the other skills.

4.7.1 DECISION MAKING

Information is very important for the management of an organisation. Management uses information in all decision making. Creativity is needed by management due to insufficient information concerning specific situations, from which decisions has to be made. De Bono (1992:24) postulates that creative thinking would never be needed if all the information pertaining to a specific situation is available, and all that is needed to arrive at the solution is analytical ability. All decisions affects the future. Management uses information of the past to make these decisions, and needs to judge the impact these decisions can have on the future.

Constructing scenarios and hypothesis about the future is important. "Creativity is very much involved in constructing a hypothesis." (De Bono, 1992:25). Without creativity (lateral thinking) we can only use known concepts. Creativity enables management to break away from known concepts, and to create an unique vision. This vision is the benchmark from which decisions on a course of action for the future are made.

A lot of decisions in a manager's life centre around problem solving. Amongst many writers, Cougar (1995) has devoted almost an entire book on the methodology for integrating creativity into the problem solving and opportunity finding process. A central aspect of creative thinking is the divergent nature thereof. Creative thinking is generative, generating many alternatives or options. Creative thinking aims to expand the scope of available solutions by producing unique new perspectives to old problems. This process to "think wider" is called divergent thinking (Cougar, 1995:155). Each step in the creative problem solving process involves firstly divergent thinking, and then convergent thinking, or eliminating irrelevant data. The steps in the creative problem solving process are:

- 1) Problem definition,
- 2) Information gathering,
- 3) Idea generation,
- 4) Idea evaluation and
- 5) Implementation planning.

4.7.2 LEADERSHIP SKILLS AND CREATIVITY

Managers are the leaders of their organisations. Without effective management an organisation might not be successful. Without managers that are leaders too, the organisation will not be successful. (Bateman & Zeithaml, 1993:7). Bateman & Zeithaml identifies four key components that influences the extent to which managers are effective and successful (Figure 7).

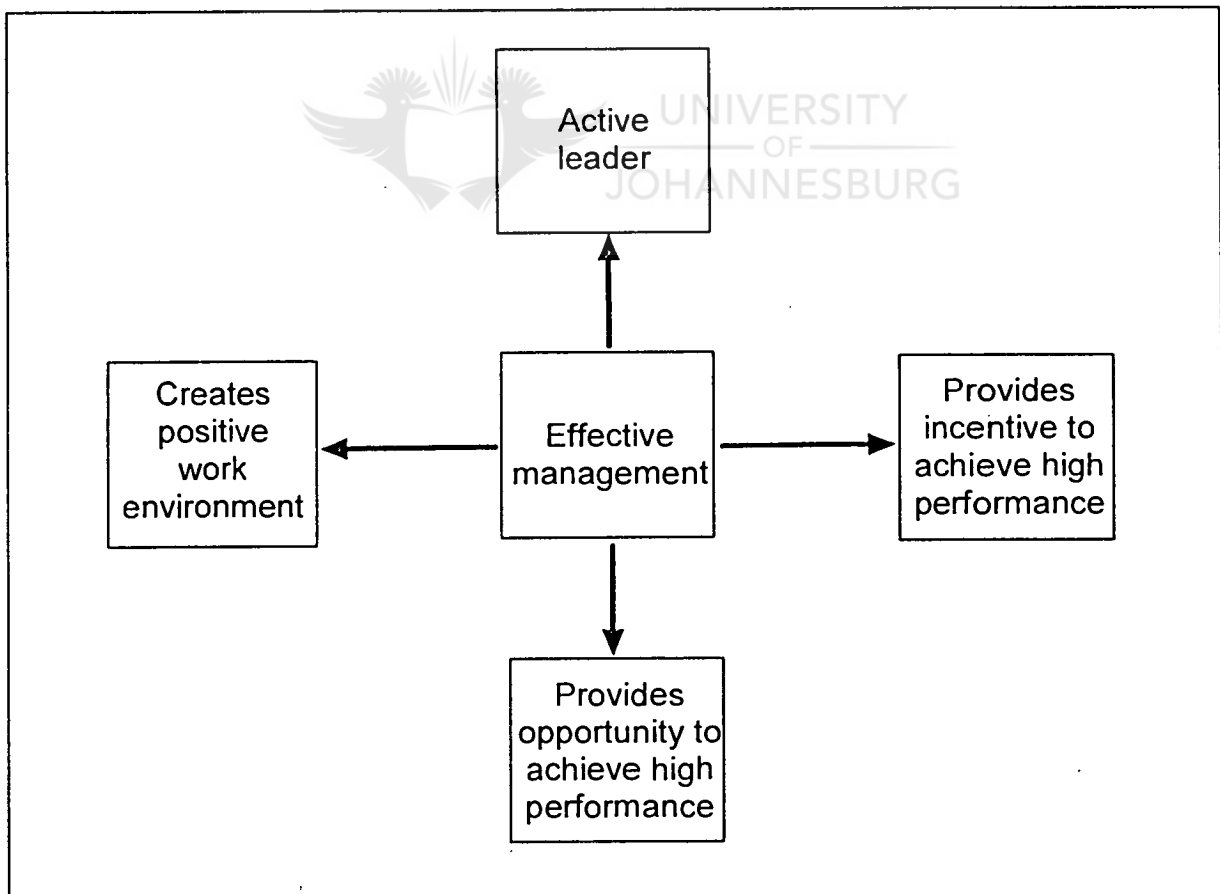


Figure 7 - Key components of effective management.
(Bateman & Zeithaml, 1993:7)

Many definitions exist to describe leadership. Stanton (1991:97) describes leadership as the process through which one person influences another person's behaviour in order to achieve certain goals. Stogdill (Bass, 1982:16) describes leadership as the interaction between the members of a group, occurring when one member of the group modifies the motivation or competencies of the other members of the group. Bennis & Nanus (1985), in describing the difference between leaders and managers, state that leaders use vision and judgement to be creative in doing the right things.

Leadership was identified to be one of the four key components of effective management (Bateman & Zeithaml, 1993:7). Bateman & Zeithaml (1993:411) state what makes leaders so outstanding: "Outstanding leaders have vision. They move people and organisations in directions they would otherwise not go. They may launch enterprises, build organisation cultures, win wars, or otherwise change the course of events." In this statement there are many leadership characteristics which is similar to the characteristics of creative persons as identified in chapter two.

- Leaders have vision. A vision is a mental image of a desired future, the unknown. Creativity is concerned with producing an output that is unique, new, and thus presently unknown. Creativity is an important mechanism through which a person can create a vision of the future.
- Creativity is closely linked to entrepreneurship through innovation (Kao, 1991:ix). Entrepreneurship can be defined as the process through which a viable business opportunity is created (or utilised), and successfully implemented, regardless of the resources initially available to the entrepreneur (Conradie, 1996:1).

- Organisational culture is a function of the intrinsic beliefs and shared values (Bateman & Zeithaml, 1993:324). Peters and Waterman identified eight key attributes of innovative (creative), excellent companies in their book "In search of excellence". These eight attributes all relate closely to organisational culture. (Bateman & Zeithaml, 1993:325). Two of the eight attributes relate directly to creativity:

Entrepreneurship - As defined earlier, and

Productivity through people - People are seen as a source of ideas.

This indicates the link between creativity and culture.

- Leaders change the course of events. Creativity is about changing the normal way of doing things, experimenting and developing new and unique ways.

Peters and Austin (1985:5) pointed out the role of leadership in creating a sustainable competitive advantage (Figure 8). This model depicts leadership as the only factor to integrate the "two sustaining edges of excellence", customer service and constant innovation.

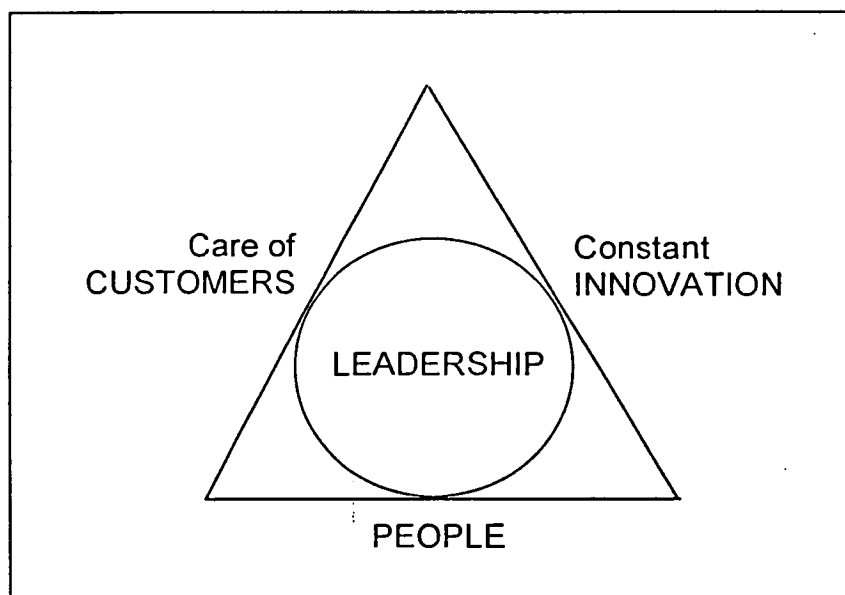


Figure 8 - Key performance factors (Peters & Austin, 1985:5)

According to this model leadership and innovation, which is closely linked to creativeness (see Chapter Three, Section 3.2.2), are key factors in determining the competitive advantage of the organisation.

To investigate the link between creativity and leadership further, the various theories to describe leadership that have been developed and empirically researched are analysed. The various theories can be classified as trait theories, personal-behaviour theories, situational theories and contemporary approaches.

Trait theories attempt to identify specific characteristics (physical, mental, personality) associated with leadership success. Personal-Behaviour theories focus primarily on the personal and behavioural characteristics of leaders. Situational theories advocates that leadership is a function of the interaction between the leader behaviour, follower behaviour and the situation (Gibson et al, 1991:374). The contemporary theories include Charismatic leadership, Leadership substitution, Transformational leadership and Empowerment (Bateman & Zeithaml, 1993:427).

Gibson et al (1991:374) have provided a summary of characteristics of leaders that have been identified by leadership traits researchers. Traits associated with leadership include adaptability, creativity, independence, ability to enlist co-operation, judgement, cooperativeness, knowledge and self-confidence. Rodrigues (1993:4) identified 31 specific traits, abilities and behaviour patterns for different types of leaders. Of these traits, abilities and behaviours the following closely relate to the traits, abilities and behaviours of creative people:

- Persistence,
- Risk taking,
- Searches actively for new ideas,
- Intrinsic motivation,
- Long range orientation,

- Systematic in analyses and problem solving.

Studies that are grouped under personal-behaviour theories relate more to the interaction of the leader and follower, as well as the style of leadership. The style of leadership lies on a continuum with concern for people on the one end, and concern for production on the other. Focusing more on what leaders do and how they act toward followers, it is difficult to relate these theories directly to creativity.

The contemporary theories include charismatic leadership. Atwater et al (1991:7) researched the personal qualities of charismatic leaders.

The following characteristics relate to creativity:

- Intellectual,
- Dynamic,
- Zestful,
- Imaginative,
- Risk-taking,
- Persistent,
- Disciplined.



4.7.3 COMMUNICATION AND CREATIVITY

Communication is the transmission of information and meaning from one party to another. (Bateman & Zeithaml, 1993:503).

Communication is vital to the successful functioning of the organisation. Studies indicated that up to 80% of managers' problems relate to poor communication in some way. (Bateman & Zeithaml, 1993:502).

Very unique and creative opportunities for enhancing communications has been developed in the last few years. The advent of the internet,

e-mail and cellular telephones to name a few, have brought about an empowerment of communications in the workplace.

In order to optimise communications in the workplace, management must be aware of the technological solutions that exist for facilitating communications. Communications are however not limited to the internal workplace. Electronic data transfer enables communications throughout the complete value chain of the organisation, from supplier to client, on a real-time, continuous basis. In applying creativity to the development of technological solutions for enhancing communication, an unlimited amount of possibilities for solving any communication problem exists.

4.8 CREATIVITY AND CONTROL

One of the biggest problems facing management is how to empower the workforce, create power sharing and value-sharing structures and practice participative management, without chaos ruling and discipline lacking.

This kind of control can be achieved. Mass-Kanter (1988:24) mentions companies she has been involved with whose "... success challenged much received wisdom about the orderly nature of organisational structure and the inevitability of burdensome bureaucracy in large organisations, because many of them were more complex and less orderly than the organisation theory texts suggested. Furthermore they had grown to large size (in two cases, to more than \$3 billion in sales and more than 50000 employees) without replicating every aspect of the machine bureaucracy of traditional industrial firms."

To achieve this kind of "creative control" is not easy. Kao (1996:39) describes this endeavour to obtain a suitable balance between the "free play of intuition, insight, and inspiration" and discipline as "the great continuing challenge of managing creativity." The inherent difficulty in managing the less structured

company stems partly from the natural resistance of management to use indirect controls, directing rather than guiding, instructing rather than coaching, defining processes, procedures, and work instructions rather than defining principles and goals.

Creativity leads to change. Although a rigid organisational structure can inhibit creativity, Moss-Kanter (1988:122) mentions the irony that organisations face: "Change requires stability". To effectively cope with change in a creative way, the organisation has to have the ability to hold the environment stable while changes are made to the environment.

In defining ways and means to control the creative organisation, management will themselves need to be creative, since the difference between organisations will most probably mean that these ways and means will be unique for each and every organisation.

4.9 MANAGING TO ENHANCE CREATIVITY

A firm's top management can not only endorse the idea of becoming more creative. Strong emphasis has to be placed on developing an all-embracing climate that is conducive to idea generation, communication and implementation. Management has to persist with imagination and consistency in their program of work to modify people's attitudes and to ignite the creative "glow" and to keep it burning (Majaro, 1988:79).

Management can take certain actions to enhance the creativity of both the employees and the organisation as a whole. Various writers have made contributions towards identifying the actions that enhance creativity in the organisation (Kao, 1991; Kao, 1996; Moss-Kanter, 1988; Ray & Myers, 1989; Majaro, 1988).

Kao (1991:23) defines the elements management must consider when gaining a perspective on the various areas in which they can have an

influence on creativity in the organisation. Management must consider the following:

- The person - Appreciating the creative person's process and the manager-creative person relationship,
- Task - Defining the creative task without stifling creativity,
- Organisational context - Creating/influencing the organisation in terms of structure and culture to maximise the creative atmosphere,
- Environment - Recognising creativity as a resource influenced by competitive factors.

4.10 SUMMARY

In this chapter the link between creativity and management was identified and defined. Management needs creativity, and can benefit greatly from being more creative. Apart from being creative, managers and management needs to understand creativity in order to guide their organisations to greater creativity and innovation through their influence on the corporate climate.

The role of, and need for creativity has been identified as one of the basic concepts in third wave management. Creativity enables innovation, and enables organisations to cope with change.

At the strategic level management many areas that can benefit from creative input was identified. Strategic management and the management of the environment can benefit greatly from creativity, and likewise the environment can have a profound influence on creativity. The relationship between, and importance of creativity and competitive advantage was identified. Likewise the role and use of creativity at the other levels of management were identified.

Creativity is not only a skill or ability, but also serves to enhance and improve other skills and abilities that management needs in order to manage effectively. Amongst skills that benefit most, the role of creativity in

enhancing decision making skills, leadership skills, and communication skills were discussed in detail.

A great challenge to management is to handle the perceived conflict between creativity and control. Creativity can be managed, and control does not need to be forfeited to enable creativity in an organisation. In this regard the application and development of unique controls, perhaps more than anything else, necessitates creativity in management.



CHAPTER FIVE - THE BARRIERS TO CREATIVITY

5.1 INTRODUCTION

Management has a profound influence on the organisational climate, and therefore also on the creative climate in the organisation. It is therefore important for management to be aware of which factors in the organisational environment will inhibit creativity.

Sonnenberg & Goldberg (1992:67) classify creativity blocks into three categories namely Cultural blocks, Managerial blocks and Operational blocks. Managerial blocks are the result of managerial styles and actions. Poor communication with employees, a dictatorial approach, procrastination and unrealistic timing requirements set by management are the most prevalent blocks. Operational blocks is a function of the way in which an organisation conducts its day-to-day business. These blocks are not a result of direct management conduct, but can be greatly influenced by management actions. Things like formalities, internal bureaucracy and negativism in the idea evaluation process can kill creativity.

For the individual manager it is important to be aware of the factors that inhibit personal creativity. It is essential that these factors be addressed or eliminated, and therefore managers need to be aware of them.

For the purpose of this study the barriers to creativity will be broadly classified as internal barriers and external barriers. The internal barriers are personal factors that affect the individual's creativity. The external barriers are those factors outside of the individual that may have a bearing on the creativity of the individual.

5.2 INTERNAL BARRIERS TO CREATIVITY

Cougar (1995:72) describes a classification of creativity barriers that has been developed by James Adams. Adams classifies the blocks to creativity as perceptual blocks, emotional blocks, cultural blocks, environmental blocks and intellectual blocks. Of these blocks only Environmental blocks are not an internal barrier to creativity. Cultural blocks can be treated as external or internal. For the purpose of this study societal cultural blocks are treated as internal blocks or barriers that exist because of a person being brought up with a certain cultural background.

5.2.1 PERCEPTUAL BLOCKS

Perceptual blocks prevents the individual from perceiving inputs accurately. Cougar (1995:75) describes a few examples of these blocks:

- Accepting unsubstantiated data as fact,
- Narrowing down and thereby losing sight of the big picture,
- Failing to use all the senses,
- Overemphasising the “obvious” solution rather than defining the problem properly,
- Failing to observe or consider “trivia” or to investigate the “obvious”,
- Falsely adopting solutions from one field as relevant to another field,
- Difficulty in seeing remote relationships.

5.2.2 EMOTIONAL BLOCKS

“Emotional blocks interfere with our freedom to explore and manipulate ideas” (Cougar, 1995:75). They prevent us from communicating our ideas in an acceptable manner. These blocks include:

- Fear of making a mistake,
- Inability to tolerate ambiguity,
- Preference for judging ideas instead of generating them,
- Inability to “let go” of the problem, to sleep on it, to incubate,
- Lack of challenge or interest,
- Fear and distrust amongst co-workers,
- Mind set - inability to be unbiased,
- Desire for closure, to finish and reach a solution,
- Unwillingness to take detours,
- Negative attitudes,
- Prematurely assuming “it can’t be done”, or “I’m not creative”.

5.2.3 SOCIETAL CULTURAL BLOCKS

Cultural blocks are a function of the social circumstances and the society in which we grew up (Cougar, 1995:77). Our cultural orientation filters the way in which we perceive inputs. Included in these blocks are:

- Taboos - Firm beliefs of what is acceptable and what not,
- The belief that imagining is a waste of time,
- The belief that any problem can be solved scientifically,
- The desire to be “practical” above all.
- The belief that inquisitiveness is impolite.
- A desire for the safety of the known,
- Stereotyping - Pre-classifying groups based on previous experience or hearsay,
- Belief that humour plays no part in the “serious” task of problem solving. (Cougar, 1995:77).

5.2.4 INTELLECTUAL BLOCKS

Cougar (1995:77) defines intellectual blocks as “blocks caused by an inefficient choice of mental tactics or an unwillingness to use new solution approaches.” These blocks include:

- Strong tendency to use proven ways,
- Reliance on logical thinking,
- Hesitancy to use intuitive approaches,
- Fear of exploring the unknown,
- Paradigm fixation - The inability to view things from a different perspective,
- Inability to abandon an unworkable approach. (Cougar, 1995:78)

5.3 EXTERNAL BARRIERS TO CREATIVITY

External barriers to creativity are barriers or blocks that are experienced due to the situation. Management can have a profound influence on these barriers within the organisation.

5.3.1 ENVIRONMENTAL BLOCKS

The environmental blocks are imposed by our immediate social and physical environment. These blocks include:

- Lack of co-operation or trust amongst colleagues,
- Autocratic bosses,
- Distractions such as phones or intrusions,
- Lack of support to bring ideas into action,
- Overemphasis on co-operation or on competition,
- Punishment for risk-taking (Cougar, 1995:77).

Crosby (1969:132-158) summarised conditions and tendencies, referred to as predispositions, that most companies are subjected to. According to Crosby these predispositions must be minimised in order to effect creative performance. The predispositions identified are:

- The tendency to become “mechanistic” - rigid, rule-bound where division of work, specification of method, isolation of jobs and limited personal commitment and need for liaison is required, in short, organisations based on the classical theories of management,
- Departmentalisation of functions and processes,
- Segregation between work units due to diverse activities and lack of communication across organisational boundaries,
- Limited exposure to the “big picture” due to limited responsibilities as a result of division of work,
- Narrowly focused employees that attend to a sharply and arbitrarily limited range of exposure and activity in his work situation,
- Work responsibilities that become formalised in procedures and work instructions, and are idealised as positions,
- The tasks are performed in a strictly enforced sequential manner, representing a further division of work: division by time,
- Work is controlled through an authority structure of hierarchical form,
- Status differentials interfere with the relationships required by the task,
- Communication is patterned according to the characteristics of the formal organisation, not according to the needs of the task.

Managers can be the most negative environmental influence. Many “idea killer” phrases have been recorded. Ideas are untried and can seldom stand up against critical attack, or meet the constraints that a

final solution will be subjected to (De Bono, 1992:216). Phrases such as:

- “We’ve tried that before...”,
- “Our department is not ready for that approach...”,
- “A word of caution...”,
- “A little too radical...”,
- “I like it, but...”,
- “Let me play devil’s advocate...”,
- “I wish it was that easy...”,

can kill a good idea before it had a chance. (Cougar, 1995:357). Clark (1980:21) adds to this list with various examples of killer phrases that are common to all organisations.

Moss-Kanter (1988:101) has identified certain “Rules for Stifling Innovation” . Some of these “rules” are present in all organisations. The rules are mostly typical of segmentalist organisations. These organisations are concerned with compartmentalising actions, events, and problems. They are characterised by autonomous units between which there are virtually no interaction. These organisations strive to formalise everything and are generally threatened by change, because it disturbs the order. The “Rules for Stifling Innovation ” include:

- Regard any idea from below with suspicion,
- Insist that people go through several levels of management before giving your approval,
- Ask departments or individuals to criticise each other’s proposals,
- Express criticism freely, and withhold praise,
- Treat the identification of problems as signs of failure,
- Control everything carefully,
- Make sure that requests for information are fully justified,
- And above all, never forget that you, the higher-ups, already know everything important about this business.

Barriers can be the result of a firm taking steps in a strategic restructuring process without paying attention to the impact it may have on the creative climate within the organisation (Majaro, 1988:79). This also indicates the importance of management being aware of how the environment influences creativity. Majaro (1988:80) identified certain factors that inhibit creativity:

- Lack of organisational slack - Employees that are too fully loaded with activities might not have enough time to think or incubate on ideas. It is important for management to allow for slack time when cutting costs and personnel, otherwise the long-term innovative ability of the organisation might be very negatively influenced.
- Bureaucracy - Bureaucracy is the antithesis of flexibility, and the latter is an integral part of being creative.
- The structure - The way in which the organisation is organised can have a profound influence on creativity. Before management attempt any changes to the organisational structure, the influences that these changes may have on the innovative ability of the organisation must be thoroughly investigated.
- Poor lateral communication - An effective communication system is an essential ingredient for creativity in the organisation.
- The "imported talent" syndrome - A serious barrier to the development of an environment in which creativity can flourish is the notion that creativity and innovation can only be achieved through the importation of external talent.
- "Bean counting" - A too strict financial control function that insists on translating every item of expenditure into a monetary cost-benefit term can have a very destructive effect on the creative climate in the organisation.

5.3.2 ORGANISATIONAL CULTURAL BLOCKS

The corporate culture in an organisation can also inhibit creativity. Creativity can only survive in organisations in which the climate is empathetic to the whole process of creativity (Majaro, 1988:24). A firm in which the climate is either hostile or indifferent to ideas is extremely unlikely to be creative (Majaro, 1988:25). Timpe states that a poor climate for creativity would be one which leads people to avoid risk, be over-critical of new ideas, and resist attempts to introduce change (Lombard, 1995:39).

Sonnenberg & Goldberg (1992:66) identified the following cultural blocks within the organisation:

- Office politics - A constant striving for personal power, thereby undermining the potential for creative idea generation,
- Resistance to change - The constant effort to stay with "best recipes", to refrain from challenging the status quo,
- The caste system - Someone's idea may be refused because of his or her position. Managers tend to dismiss someone's suggestion by saying "It's not their job".

5.4 SUMMARY

This overview of barriers to creativity discussed a few examples of generally identifiable barriers. The list of specific examples of barriers can probably be expanded indefinitely.

The importance of having a feel or understanding of what may inhibit creativity is very important for managers and management. In the first place managers, and for that matter all people interested in developing their creative ability need to address the internal barriers to creativity that may apply to them. In the second place management needs to know what the effect of their management actions and management styles are on the

creative environment and climate in the organisation. Management can reduce or eliminate the external barriers to creativity in the organisation, and can assist in the development of the creative ability (elimination of internal barriers) of the individual employees.

Majaro (1988:24) names the three outstanding characteristics (prerequisites) of creative organisations :

- The climate for creative thinking must be right,
- An effective system of communicating ideas must exist at all levels, and
- Procedures for managing innovation must be in place.

Management needs to identify and address every factor that prevents the organisation from being creative.



CHAPTER SIX - CONCLUSIONS AND SUGGESTIONS

6.1 INTRODUCTION

The management of organisations is increasingly under pressure to devise strategies that will enable the organisations to effectively adopt to the ever increasing rate of change in the business environment. These strategies will have to ensure a competitive advantage that will ensure a prosperous future to the organisation. This study investigated the need for creativity at management level, and the benefits creativity affords management in devising the needed strategies, and fulfilling all other management functions. The importance of creativity to the management team, as well as individual managers, was investigated.

6.2 CONCLUSIONS

The nature and characteristics of creativity were investigated, in order to derive a definition that would be suitable for studying the need for, and use of creativity to managers. Creativity can not be described or defined accurately in one sentence. Creativity is a process that is performed by people to create or produce an output that complies with certain criteria, the most important one being newness or uniqueness. The environment influences the person, process and product (output). Certain distinguishing characteristics of the creative person, process of creativity, creative product and the environment conducive to creativity have been identified.

Creativity can be developed and enhanced. The development of creativity can focus on three areas. The person can develop and improve certain characteristics that have been identified to enable and improve creativity. Various techniques that aid the process of creativity have been developed. Cougar's creative problem solving process, and De Bono's lateral thinking process are two well known examples. The last aspect that can be

addressed to improve creativity is the environment within which the creative person and process operate.

To enhance or develop creativity, the barriers to creativity need to be eliminated. Two levels of barriers to creativity exist, namely internal barriers and external barriers. The internal barriers include emotional barriers, intellectual barriers, perceptual barriers and cultural barriers. External barriers include organisational cultural barriers and environmental barriers. Managers need to be aware of the barriers that exist, and need to manage these barriers in order to maximise both their own creative potential and that of the organisation.

The roles and functions of management in the organisation were circumscribed. Skills that management needs in order to be effective were identified. Important skills include leadership, interpersonal, team development, analytic and conceptual, technical and decision making skills.

Organisations of the future will need to adjust their way of operating towards the third wave management approach. Creativity was identified as an essential ability that these organisations will need in order to be innovative and to cope with environmental change. Organisations can however not be creative without management being creative. Management has a great influence on the organisational climate. It was determined that management needs not only have an understanding of the nature and characteristics of creativity, but needs to be creative themselves in order to devise creative strategies, procedures and processes.

Creativity is an important source of competitive advantage. Creativity throughout the organisation is not only regarded as a source of potential competitive advantage, but it can also be regarded as a potential competitive advantage in itself.

Creativity is not only a singular ability or skill management needs. Creativity has a great influence and role to play in enhancing other management skills that were identified to be important. Creativity is needed to improve, amongst others, decision making skills, leadership skills and communication skills.

A great challenge facing management is that of allowing more creative freedom in the organisation without losing control. Management will have to rely more on indirect controls. Management needs to be creative in defining these indirect controls, since the specific type and nature of controls will differ for individual organisations.

Management has a profound influence on the organisation's creative climate. Certain actions that management needs to take to ensure that the climate remains creativity-conducive have been identified. Management needs to consider the person, the task, the organisational context and the environment in ensuring this organisational climate.

6.3 SUGGESTIONS



The following suggestions can be made based on the findings of the study:

- Creativity is an important skill or ability that is of great benefit to management. Management needs to make a concerted effort to develop their creative ability.
- Apart from developing their own creativity, management needs to be familiar with the nature and characteristics of creativity.
- Management decisions and actions have a profound influence on the organisational climate. Management needs to determine what potential influence their decisions and actions might have on the creative climate in the organisation, before implementing those decisions.

- Management needs to make a concerted effort to develop the creative potential of the organisation. This development effort should focus on the person, the organisational processes, and the organisational environment in such a way that creativity can flourish in this climate.
- Management needs to adopt the third wave management philosophy to enable their organisations to cope with the ever increasing rate of change in the business environment.

6.4 SUMMARY

Creative management and creative employees are needed in all organisations. Management needs to ensure that the creativity of all employees in the organisation are developed and enhanced, and that the organisational climate is creativity conducive, in order to provide the organisation with a sustainable competitive advantage. The responsibility of managing creativity requires creative management and creative managers, and may to a large extent determine the success of organisations in future.

BIBLIOGRAPHY

Adizez I. 1997. Creativity, Innovation and organisational Integration. (*In* on-line Internet: <http://www.ccweb.com:80/adizez/cei.html>.)

Albert R.S. 1990. Identity, Experiences, and Career Choice Among the Exceptionally Gifted and Eminent. (*In* Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)

Amabile T.M. 1990. Within you, Without you: The Social Psychology of Creativity, and Beyond, (*In* Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)

Anderson J.V. 1993. Mind mapping: A tool for creative thinking. *Business Horizons*. Vol. 36 No. 1. January - February.

Atwater L, Penn R and Rucker L. 1991. Personal qualities of charismatic leaders. *Leadership and Organisational Development Journal*. Vol. 12 No. 2. MCB University Press.

Bass B.M. 1982. Stogdill's handbook of leadership. Free press.

Bateman T.S. and Zeithaml C.P. 1993. Management: Function and Strategy. Irwin.

Bennis W.G. and Nanus B. 1985. *Leaders: Strategies for taking charge.* Harper and Row.

Clark C.H. 1980. *Idea management: How to motivate creativity and innovation.* AMACOM.

Cleese J. 1991. *And now for something completely different.* *Management Review.* May.

Coetzer J. 1994. *The Philosophy of Liberation Management.* RAU.
(Dissertation, M.Com (Business Management), RAU)

Conradie W.M. 1996. *Course overview.* RAU. (Lecture notes, M.Com (Business Management), RAU)

Cougar J.D. 1995. *Creative problem solving and opportunity finding.* Boyd & Fraser.

Cronje G.J de J., Neuland E.W., Hugo W.J.M. and Van Reenen M.J. 1987. *Inleiding tot Die Bestuurswese.* 2nd edition. Southern Publishers.

Crosby A. 1968. *Creativity and Performance in industrial Organization.* Tavistock.

Csikszentmihalyi M. 1990. The Domain of Creativity. (In Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)

Dean E.B. 1996. Creativity and Innovation. (In on-line Internet: <http://mijuno.larc.nasa.gov:80/dfc/c&i.html>.)

De Bono E. 1970. Lateral thinking. Harper & Row.

De Bono E. 1992. Serious creativity. HarperCollins.

De Bruyn H.E.C. 1996. Strategiese Bestuur: Bankrotskap of Kreatiwiteit. RAU. (Lecture notes, M.Com (Business Management), RAU.)

DeLellis A.J. 1991. Creativity in others. *Training & Development*. November.

Donnelly J.H., Gibson J.L., Ivancevich J.M. 1992. Fundamentals of management. 8th edition. Irwin.

Drucker P.F. 1974. Management. Butterworth-Heimann.

Drucker P.F. 1985. Entrepreneurship and Innovation, Butterworth-Heimann.

Epstein R. 1990. Generativity Theory and Creativity. (In Runco M.A, Albert R.S. ed. *Theories of Creativity.* Sage Publications.)

Fagiano D. 1989. Preparing Business for Creativity. *Management Review.* June.

Farnham A. 1994. How to nurture creative sparks. *Fortune.* Vol. 129 No. 1. January 10.

Fraser J. 1989. The Creative Process. *Marketing Mix.* July.

Gibson J.L., Ivancevich J.M. and Donnely J.H. 1991 *Organizations: Behavior, Structure, Processes.* 7th edition. Irwin.

Gregory S.A. 1972. *Creativity and innovation in engineering.* Butterworths.

Griffen R.W. 1990. *Management.* 3rd edition. Houghton Mifflin Company.

Gupta A.K. and Shinghal A. 1993. Managing human resources for innovation and creativity. *Research Technology Management.* Vol. 36 No. 3. May-June.

Harrington D.M. 1990. The Ecology of Human Creativity: A Psychological Perspective. (In Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)

Hitt W.D. 1988. The Leader Manager - Guidelines for action. Batelle Press.

Kao J.J. 1996. Jamming: The Art and Discipline of Business Creativity. Harper Collins.

Kao J.J. 1991. Managing creativity. Prentice Hall.

Kay R. 1990. Managing creativity in Science and High-Tech. Springer-Verlag.



Kruger S. 1994. Liberation Management Philosophy - Riding the Waves of Change with South African Business into the 21st Century. RAU. (Lecture notes, M.Com (Business Management), RAU.)

Lombard L. 1985. Managing creativity in high-technology organizations. RAU. (Dissertation, M.Com (Business Management), RAU)

Majaro S. 1988. The Creative Gap: Managing Ideas for Profit. Longman.

Milgran R.M. 1990. Creativity: An Idea Whose Time Has Come and Gone?. (In Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)

Morgan G. 1994. How to live with contradiction. (In on-line Internet: <http://www.imaginiz.com:80/paradox.html>, April 5)

Morris L. 1993. Research capsules: Corporate creativity and career development. *Training & Development*. Vol. 47 No. 1. January.

Moss-Kanter R.M. 1988. Change Master Skills: What it takes to be creative and innovative managers. McGraw-Hill.

Nyström H. 1979. Creativity and Innovation. John Wiley & Sons.

O' Reilly B. 1997. The Secrets of America's Most Admired Corporations: New Ideas, New Products. *Fortune*. March 3.

Perry T. 1995. Designing a culture for creativity. *Research Technology Management*. Vol. 38 No.2. March - April.

Peters T. and Austin N. 1985. A Passion for Excellence - The leadership difference. Collins.

- Raudseep E.** 1987. Establishing a creative climate. *Training & Development Journal*. Vol. 41 No. 4. April.
- Ray M. and Myers R.** 1986. Creativity in business. Doubleday.
- Read J.L.** 1996. The quantum mechanical brain and Creativity. (In on-line Internet: <http://www.wwmagic.com:80/enchanted/brain.htm>.)
- Rees W.D.** 1991. The Skills of Management. 3rd edition. Routledge.
- Rodrigues C.A.** 1993. Developing Three-Dimensional Leaders. *Journal of Management Development*. Vol. 11 No. 3. MCB University Press.
- Runco M.A.** 1990. Implicit Theories and Ideational Creativity. (In Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)
- Simonton D.K.** 1990. History, Chemistry, Psychology, and Genius: An Intellectual Autobiography of Historiometry. (In Runco M.A, Albert R.S. ed. Theories of Creativity. Sage Publications.)
- Sonnenburg K.F. and Goldberg B.** 1992. It's a great idea, but.... *Training & Development*. March.
- Stanton W.J., Buskirk R.H. and Spiro R.L.** 1991. Management of a sales force. 8th edition. Homewood.

Teng T.C., Grover V. and Fiedler K.D. 1994. Business Process Re-engineering. *California Management Review*. Vol. 36 No. 3. Spring.

Udwadia F.E. 1990. Creativity and Innovation in organizations. *Technological Forecasting and Social change Journal*. Vol. 38 No. 1. August.

Unknown. 1995. Veg teen gevrektheid. *Finansies en Tegniek*. April 21.

Unknown. 1995. Team talent: Bringing creativity on board. *Supervisory Management*. April.



Weiss D.H. 1990. Creatively managing creativity. *Supervisory Management*. November.

Werther W.B. and Kerr J.L. 1995. The shifting sands of competitive advantage. *Business Horizons*. May-June.