AN ASSESSMENT OF CORPORATE ENTREPRENEURSHIP IN THE FAST-MOVING CONSUMER GOODS INDUSTRY

EA UECKERMANN

Mini-dissertation submitted in partial fulfilment of the requirements for the degree Master in Business Administration at the North-West University, Potchefstroom Campus

Supervisor: Dr SP van der Merwe

November 2008 Potchefstroom

ABSTRACT

The aim of the study is to examine the literature and practical research on corporate entrepreneurship, innovation and the entrepreneurial climate in the fast-moving consumer goods industry.

A number of text books, published works and web articles on entrepreneurship and innovation were used in determining definitions as well as models used in managing and establishing corporate entrepreneurship.

Managers have to possess certain characteristics in order to be involved in the entrepreneurial activity in the organisation. In this study respondents rated themselves very high on the **entrepreneurial characteristics**, Integrity and reliability ($\bar{x}=4.761$). They also rated themselves very high on Ability to take responsibility and High level of commitment ($\bar{x}=4.657$). Self reliance ($\bar{x}=4.478$), Problem solving skills ($\bar{x}=4.464$), Drive to achieve and grow ($\bar{x}=4.460$) and Willingness to undertake personal sacrifices ($\bar{x}=4.420$) were the next highest. The respondents scored themselves the lowest on Tolerance to failure (mean = 3.241), Calculated risk taking ($\bar{x}=3.616$) and Restlessness with status quo ($\bar{x}=3.754$).

When rating there superiors the respondents rated them as people with a very High level of commitment ($\bar{x}=4.493$), that has got the Ability to take responsibility ($\bar{x}=4.471$) and the Ability to drive and grow ($\bar{x}=4.423$). The respondents rated their superiors very low on Tolerance to failure ($\bar{x}=3.285$), Patience ($\bar{x}=3.554$) and Calculated risk taking ($\bar{x}=3.633$).

It is concluded that there is in general a high level of entrepreneurial characteristics at the level of respondents and that of their superiors.

Of the thirteen **constructs** used in the survey, Strong customer orientation, with a mean of 3.556 was the evaluated as the highest and construct two, Entrepreneurial leadership, with a mean of 3.548 was ranked the second highest by the respondents.

Vision and strategic intend ($\bar{x}=3.467$), Discretionary time at work ($\bar{x}=3.326$) and Empowered and multidisciplinary teams ($\bar{x}=3.306$) followed on that.

Management support ($\bar{x}=3.241$), Flat organization with open communication ($\bar{x}=3.185$) and Innovation and creativity ($\bar{x}=3.177$) as well as Continuous and cross functional learning ($\bar{x}=3.177$) can be seen as the midpoint of the rankings.

The constructs, Sponsor ($\bar{x}=3.054$), Tolerance of risk, mistakes and failure ($\bar{x}=3.031$), Appropriate rewards and reinforcement ($\bar{x}=2.777$) and Resource availability and accessibility ($\bar{x}=2.744$) respectively yielded the lowest arithmetic mean scores.

Several recommendations were made in order to improve the entrepreneurial culture of the organization.

The findings of the study were that corporate entrepreneurship needs to be incorporated and nurtured in corporate organisations to ensure the competitive edge. Corporate organisations need to create a climate to breed innovation and entrepreneurship to extract value from innovative entrepreneurs in the organisation.

Keywords – Corporate entrepreneurship, Innovation, entrepreneur.

ACKNOWLEDGEMENTS

I would like to thank the following people who supported me to complete this dissertation and were influential during my studies. My deepest appreciation goes to:

- My Supervisor, Dr Stephan van der Merwe for his guidance, wisdom, patience and many hours of dedication towards this dissertation.
- My wife Elbi for her support and patience, late night coffee and for fostering and caring for the children during my absence.
- My children Edrich, Carloux and Anica for understanding and acceptance of their absent father.
- My parents Heinrich and Susan for all their prayers and continued support through all my years of study.
- All other family and friends for their support and interest shown over this period.
- My colleagues at Tiger Brands and all employees that have spend time on completing the questionnaire.
- I would also like to thank my Heavenly farther for the talent that He gave me to complete this project.

TABLE OF CONTENTS

		Page
ABST	RACT	i
ACKN	IOWLEDGEMENTS	iii
TABL	E OF CONTENTS	iv
LIST	OF FIGURES	viii
LIST	OF TABLES	ix
СНА	PTER 1: NATURE AND SCOPE OF THE STUDY	1
1.1	INTRODUCTION	1
1.2	PROBLEM STATEMENT	2
1.3	OBJECTIVES OF THE STUDY	5
1.3.1	Primary objectives	5
1.3.2	Secondary objectives	5
1.4	SCOPE OF THE STUDY .	6
1.4.1	Field of the study	6
1.4.2	Business under investigation	6
1.5	RESEARCH METHOLOGY	7
1.5.1	Literature study	7
1.5.2	Empirical study	8
	Selection of questionnaire	8
	Study population	8
	Data Collection	8
	Statistical Analysis	9
1.6	LIMITATIONS OF THE STUDY	9
1.7	LAYOUT OF THE STUDY	10
CHA	PTER 2: LITERATURE REVIEW OF ENTREPRENEURSHIP	P 12
2.1	INTRODUCTION	12
2.2	DEFINING THE TERMS	13
2.2.1	Entrepreneur	13
2.2.2	Entrepreneurship	15

2.2.3	Corporate entrepreneurship	16
2.2.4	Entrepreneurial climate	20
2.2.5	Innovation	22
2.3	CHARACTERISTICS OF ENTREPRENEURS	24
2.4	DYNAMICS OF CORPORATE ENTREPRENEURSHIP	26
2.5	BENEFITS OF CORPORATE ENTREPRENEURSHIP	34
2.6	ESTABLISHING A CLIMATE FOR CORPORATE	
	ENTREPRENEURSHIP	35
2.7	SUMMARY	41
CHA	PTER 3: OVERVIEW OF TIGER BRANDS	42
3.1	INTRODUCTION	42
3.2	BACKGROUND	44
3.3	HISTORY	46
	Period from start up till late 40's	46
	The 50's and 60's	47
	The 70's and 80's	47
	The 90's	47
	The period 2000 till 2008	48
3.4	CAUSAL FACTORS TO THIS STUDY IN TIGER BRANDS	49
3.5	SUMMARY	50
CHA	PTER 4: RESULTS AND DUSCUSSION OF EMPIRICAL	
STUI	DY	51
4.1	INTRODUCTION	51
4.2	GATHERING OF DATA	51
4.2.1	Empirical study	51
4.2.2	Questionnaire used in the study	52
4.2.3	Study population	53
4.2.4	Data collection method	53
4.2.5	Data analysis	53
4.3	DEMOGRAPHIC INFORMATION	53
4.3.1	Gender	54
4.3.2	Age	54
4.3.3	Race	56

ΔΡΡΙ	ENDIX 1: QUESTIONNAIRE	102
5.6	SUMMARY	91
5.5	SUGGESTIONS FOR FURTHER RESEARCH	90
5.4	ACHIEVEMENT OF OBJECTIVES	88
5.3	RECOMMENDATIONS	84
_	entrepreneurial climate constructs	84
5.2.5	Relationship between the demographical variables and the	
	Assessment of the entrepreneurial climate questionnaire	82
	Reliability of the entrepreneurial climate questionnaire	82
5.2.2	Entrepreneurial characteristics	81
5.2.1	Demographic information	80
5.2	CONCLUSIONS	80
5.1	INTRODUCTION	80
СНА	PTER 5: CONCLUSIONS AND RECOMMENDATIONS	80
4.8	SUMMARY	79
4.7.4	Management level	77
4.7.3	Race	76
4.7.2	Age group	75
4.7.1	Gender	74
	CONSTRUCTS MEASURING ENTREPRENEURIAL CLIMATE	73
4.7	RELATIONSHIP BETWEEN DEMOGRAPHICAL VARIABLES AND	
4.6	ASSESSMENTR OF ENTREPRENEURIAL CLIMATE CONSTRUCTS	71
	QUESTIONNAIRE	70
4.5	RELIABILITY OF THE ENTREPRENEURIAL CLIMATE	
4.4.3	Comparison between the self and superior assessment	68
4.4.2	Superior assessment	65
4.4.1	Self assessment	63
4.4	ENTREPRENEURIAL CHARACTERISTICS	62
4.3.6	Department	60
4.3.5	Management level	59
4.3.4	Highest academic qualification	58

LIST OF FIGURES

Figure 1.1:	Layout of the Study	10
Figure 2.1:	Entrepreneurship and Innovation	18
Figure 2.2:	The crucial role of innovation	21
Figure 2.3:	Differentiation of discovery, invention and innovation	23
Figure 2.4:	Entrepreneurship and innovation	24
Figure 2.5:	Governance types of corporate entrepreneurship from a	
	RBV/CBV perspective	29
Figure 2.6:	Four modules of corporate entrepreneurship	31
Figure 3.1:	A Corporate Brand Profile	46
Figure 4.1:	Gender distribution of respondents	54
Figure 4.2:	Age distribution of respondents	56
Figure 4.3:	Race distribution of respondents	57
Figure 4.4:	Higher academic qualification distribution of respondents	59
Figure 4.5:	Management level distribution of respondents	60
Figure 4.6:	Departmental distribution of respondents	62
Figure 4.7:	Self evaluation	64
Figure 4.8:	Superior evaluation	67

LIST OF TABLES

Table 2.1: Forms of innovation	22
Table 2.2: Entrepreneurial climate characteristic goals	37
Table 4.1: Gender distribution of respondents	54
Table 4.2: Age distribution of respondents	55
Table 4.3: Race distribution of respondents	57
Table 4.4: Highest academic distribution of respondents	58
Table 4.5: Management level distribution of respondents	59
Table 4.6: Departmental distribution of respondents	61
Table 4.7: Self evaluation	63
Table 4.8: Superior evaluation	66
Table 4.9: Comparison between the self and superior assessment	69
Table 4.10: Results of the reliability of the entrepreneurial climate	
questionnaire	71
Table 4.11: Results of entrepreneurial climate	72
Table 4.12: Results of gender relationships	75
Table 4.13: Results of age relationships	76
Table 4.14: Results from race relationships	77
Table 4.15: Results from management level relationships	78

CHAPTER 1 NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Corporate entrepreneurship and innovation plays an increasing important role, because there is a tightening race for developing new innovative businesses between global corporations.

Companies need to sustain high performance or radically improving their competitive standing to survive or to keep ahead of the pack. Covin and Miles (1999: 50) argue that corporate entrepreneurship is engaged to increase competitiveness through efforts aimed at the rejuvenation, renewal and redefinition of organizations, their markets or industries. It is the spark and the catalyst that is intended to place firms on a path to competitive superiority or keep them in competitively advantageous positions.

In such a competitive environment the question arises how to create new innovative business offerings more rapidly. In order to achieve a new innovative business offering, it is necessary to scrutinize how the strategic architecture of corporations could be altered for a new innovation management architecture that matches the requirements of hypercompetitive markets. That is why different alternatives for traditional business development and research and development departments, which typically have a distinctively "linear and incremental" understanding of innovation, are being looked for intensively by those corporations (Michalski, 2004: 12).

Corporate entrepreneurship is a tool that allows companies to rejuvenate and revitalize and to create new value through innovation, business development and renewal (Thornberry, 2001: 526).

1.2 PROBLEM STATEMENT

Although many of the world's leading food groups have reported a growth in sales within the last financial year, the global food industry is coming under pressure. Much of this is due to the souring food prices, especially for staple items such as wheat, corn, rice, coffee, cocoa and milk, the price of these products, for example has doubled over the last year.

The United Nations has warned that the rising cost of food may trigger a food crisis in some of the world's poorer countries as well as having an adverse affect on the profit margins of the world's leading food suppliers (Thomas, 2008: 19). Statistics South Africa reported in the latest CPIX index that food inflation increased by eighteen percent over the period August 2007 to August 2008.

One of the reasons for the rise in food prices is a strong growth in demand from an increasingly affluent population in large countries such as India and China. It should be noted that the rise in food prices has also created opportunities for many of the world's leading food suppliers, as a result of which many are now establishing a stronger presence in India and China.

In its annual report the World Bank identified three burning issues that put pressure on supply of food in the world, i.e.:

- Changing eating habits. The average consumption of food per capita in China moved from twenty kilogram in 1980 to fifty kilogram in 2007.
- Growth in world population. The world population has moved from an estimated
 2.5 billion people in 1950 to 6.1 billion people in 2007. The growth is putting pressure on countries already very low on resources.
- Pressure on resources. It requires one thousand to two thousand litres of water to produce one kilogram of wheat and ten thousand to thirteen thousand litres of water to produce one kilogram of beef.

Other reasons behind rising food prices include the recent shift in agricultural production towards biofuels, as well as environmental factors. Drought and increasing desertification has also resulted in shortages of commodities like wheat, dairy and rice (Thomas, 2008: 19).

The situation in South Africa also changed a lot since 1994. The change in the political environment resulted in a new focus on the black population in South Africa. Black people moved into higher positions in the governmental institutions and in the business sector. This resulted in a distribution of income towards a new developing sector called the "black diamond". The development of the "black diamond" resulted in a shift of disposable income to a new developing black middle class. The expectations of these people are different to the old traditional market expectations and changes the offerings that food suppliers can take to the market. A clear shift in ethnic taste and behaviour patterns of the black middle class is evident in the industry.

Taking the change in consumer expectation, increased disposable income and the world wide shortage of commodities in account, the requirements from business is now changing quicker than ever. The only way that any business in the fast-moving consumer industry will be able to survive will be by means of adapting and changing. The business taking the best out of this changing environment will be the once that lead on the corporate entrepreneurial front and innovation.

There is an international trend in the food industry to capitalize on the change in behaviour patters of consumers. Households have changed from the traditional working father and the mother that is at home looking after a number of children. More single parent families and working mothers result in less time available to spend on preparing food. Women take up positions previously reserved for men. With that comes the changing of the structures at family level as well as the change in spending trends. Ready to eat meals and a move towards healthy options are areas that pose an entrepreneurial option for the company of the future.

Another change in shopping patterns and shopper behaviour is the increased use of the Internet. According to AC Nielsen's (2008), the world's leading marketing and information company consumers across the globe increasingly swapping crowded stores for one-click convenience. According to a recent global survey conducted, over eighty five percent of the world's online population has used the Internet to make a purchase. This increased with forty percent over the last two year.

Rather than compete with competitors head on, businesses should focus on developing new products and services and new markets, but this can only be achieved by organizations that adopt an entrepreneurial orientation.

As a business competing in Africa and global markets, Tiger Brands will have to be aligned to global trends. Corporate entrepreneurship and innovation will prevent stagnation and create markets to increase the profitability during price increases and demand changes. The correct business model will ensure that there will be a continuous change in the life cycle and assure that the next upswing will always be there.

Tiger Brands faces all trend changes: consumers are health conscious, they are concerned about the environment, time to purchase and to prepare food is limited, family structures and customs are changing, spending patterns are changing and with that the expectations of consumers change daily.

Tiger Brands as an established business finds itself in a mature life cycle and needs to move back into the next S-curve and rejuvenate itself in a way. The challenge is to align different business units and to adjust focus to identify opportunities in the trends and to be the first to benefit from innovation.

The question remains what strategy Tiger Brands will have to follow to keep up the growth and expansion program that forms the back bone of the company's strategy. What will the benefits of entrepreneurship be and how will the company accommodate corporate entrepreneurship?

1.3 OBJECTIVES OF THE STUDY

The objectives of the study will be divided into two sections: primary and secondary objectives that will clearly enlighten the objectives of this study.

1.3.1 Primary objectives

The primary objective of the study is to access corporate entrepreneurship in Tiger Brands and to make recommendations to foster corporate entrepreneurship in the organization.

1.3.2 Secondary objectives

In order to address the primary objectives the following secondary objectives were formulated:

- to define corporate entrepreneurship;
- to obtain insight into the dynamics of corporate entrepreneurship by means of a literature review;
- to obtain insight into the business environment of Tiger Brands;
- to access the entrepreneurial characteristics of corporate entrepreneurs;
- to validate the reliability of the questionnaire measuring entrepreneurial climate;
- to assess the entrepreneurial climate in Tiger Brands;
- to examine the relationship between the demographical variables and the constructs measuring the entrepreneurial climate; and
- to suggest practical recommendations to foster corporate entrepreneurship in Tiger Brands.

1.4 SCOPE OF THE STUDY

The scope of the study will focus on the field of the study and will give more information regarding the business under investigation.

1.4.1 Field of the study

The field of the study falls within the subject discipline of entrepreneurship with special reference to corporate entrepreneurship.

1.4.2 Business under investigation

The business under investigation will be Tiger Brands Ltd, the leading food manufacture in South Africa. Tiger Brands manufactures food and healthcare products and distributes into the formal and informal trade. It is active in Africa, India and Europe and supplies sixty four countries worldwide (Tiger Tales, 2008: 3).

The businesses that form part of the group are: Tastic Food Corporation, Albany Bakeries, Tiger Milling, Langberg Foods, Adcock Consumer, Beacons Snacks and Treats, Bromor Beverages, Fatti's & Moni's, Purity Baby Food, King Foods, Designer Group and Enterprise Value Added Meat products. Joint ventures across the borders as well as the export business will not form part of the investigation.

The target group of employees surveyed will be all management from Level D and upwards. In general terms it will represent all middle management through senior management to the level of Chief Executive Officer. All employees will be permanent employees and reporting directly into the Tiger Brands structure.

1.5 RESEARCH METHOLOGY

The review will be done in two phases, a literature study and then an empirical study.

1.5.1 Literature study

The literate study will define the following terms: entrepreneur, entrepreneurship, corporate entrepreneur, entrepreneurial climate and innovation. The literature study will also investigate the characteristics of entrepreneurs, the dynamics of corporate entrepreneurship as well as the benefits of corporate entrepreneurship. It will look at the benefits that corporate entrepreneurship add to the profitability and sustainability of corporations as well as the value that business will add to the work place satisfaction of employees. The study will lastly investigate the thirteen constructs that will be measured in order to evaluate the climate suitable to establish corporate entrepreneurship.

The second part of the literature study will investigate Tiger Brands as the organisation under investigation. Apart from the background and history of Tiger Brands, the research will be done into the core strategies for the organisation that needs to be aligned with the requirements to establish corporate entrepreneurship within the organisation. It is therefore important to understand Tiger Brands strategic driving factors:

- Transforming the organization;
- Optimizing our business portfolio;
- Pursuing organic growth;
- · Making acquisitions in selected markets;
- Focus on high growth, profitable categories;
- · Focus on growing our leading core brands; and
- Focus on expansion into new markets and new geographies.

The study will investigate the latest text books, journal articles, publications and website articles on the topics discussed in this study.

1.5.2 Empirical study

The empirical study was done through the following phases: deciding on a suitable measurement tool or questionnaire, defining the study population, collecting the data and the statistical analysis of the data.

Selection of questionnaire

The questionnaire used in this study was developed by Oosthuizen (2006). The questionnaire measures thirteen different constructs that were formulated after a comprehensive literature review. The measuring instrument assessed the constructs with 65 statements on the basis of a 5 point Likert type scale ranging from *Strongly disagree* (1) to *Strongly agree* (5). Respondents had to indicate the degree to which they agreed or disagreed to the statement (Welman & Kruger, 1999: 155; Huysamen, 1994: 125). Refer to Appendix 1 for the questionnaire.

Study population

The target population of this study was all managers from middle management (C band) to executive level (E band) within Tiger Brands. The list of employees at the requested job level was supplied by the Human Resource managers of each business unit. These businesses are Grains, Bromor, Snacks & Treats, Consumer, Bakeries, Exports and Out of Home. A total of four hundred and thirty seven employees were identified as potential respondents. A questionnaire was send to each of the four hundred and thirty seven employees from Tiger's information technology department.

Data Collection

The Information Technology department at Tiger Brands has send out all questionnaires via e-mail to all employees targeted to take part in the survey. A cover letter ensured participants of the confidentiality of there responses was attached to the questionnaire. Employees responded on the questionnaire on e-mail and returned it back to the Information Technology department. Follow up notifications were send to all people that did not respond in order to get a better feedback percentage. A message thanking employees for their participation was send to respondents once the completed questionnaire was received back.

Statistical Analysis

The data collected will be analysed by using Statistica (Stasoft, 2008) and SPSS (SPPS, 2006). The analysis will consist of descriptive statistics entailing arithmetic mean, standard deviation, inferential statistics such as *p-value* and *d-value* test and Cronbach alpha coefficient testing the reliability of the questionnaire.

1.6 LIMITATIONS OF THE STUDY

Because corporate entrepreneurship is such a comprehensive topic the study focused on only one competitor in the fast-moving consumable foods industry — Tiger Brands. This being the case, caution should be exercised in generalising the findings. It will be limited to companies trading in basic food commodities through formal and informal sales structures with a high level of differentiation in products.

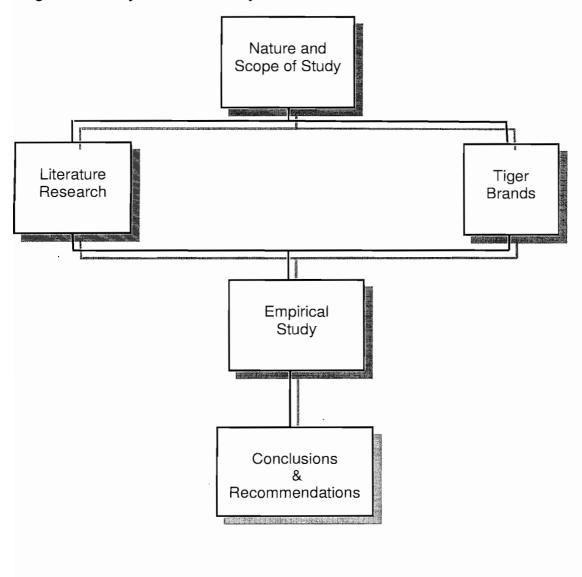
The study excludes all suppliers of raw material and outsourced functions that supply services to Tiger Brands.

Although any employee at any level can make a contribution towards innovation and benefit from the correct entrepreneurial climate this study will exclude all staff lower than middle management.

1.7 LAYOUT OF THE STUDY

The layout of the study is presented in figure 1.1.

Figure 1.1: Layout of the Study



The study is divided into five chapters.

Chapter one explains the nature and scope of the study. It looks into the problem statement, the objectives of the study and the research methodology. This chapter also identifies the limitations of the study and indicated and explains the layout of the study.

Chapter two contains the literature study. This is an indebt look into defining the entrepreneur, entrepreneurship, corporate entrepreneurship, entrepreneurial climate as well as innovation. In this chapter both the characteristics of the entrepreneur and the dynamics of corporate entrepreneurship are studied. This chapter indicates the key benefits of corporate entrepreneurship and gives guidelines as how to generate an entrepreneurial climate within and organisation.

Chapter three covers Tiger Brands as the business under investigation. This chapter gives a historical background of Tiger Brands form is inception in 1929 until 2008. Importantly this chapter indicates the causal factors that lead to the study within this organisation.

Chapter four looked at the overall results and discussions of the empirical study. It looked at the way in which the data was collected during the empirical study, the measuring instruments used, the identification of the study population, the method of data collection as well as the analysis of the data. In this chapter, the results of the empirical study will also be presented and discussed.

Chapter five concluded with the conclusions and recommendations. The achievement of the objectives and suggestions for further research will, furthermore, be indicated.

CHAPTER 2

LITERATURE REVIEW OF ENTREPRENEURSHIP

2.1 INTRODUCTION

The reality is that the total macro economic environment is changing constantly. The market place where every business is trading is changing daily and each firm needs to get some sort of a competitive advantage or unique attributes in order to survive or to grow. This advantaged can be leveraged right through the business if it is applied correctly.

The literature review focuses on entrepreneurship, corporate entrepreneurship and innovation as instruments to assure survival and increase turnover for corporate organisations. It studies the climate suitable for development of a culture of innovation and entrepreneurship in corporate organizations. It, furthermore, investigates the model that will be most suitable to deliver continues high level corporate entrepreneurs and the systems and structures that must be put in place to sustain the high levels required. It studies and defines the four types of corporate entrepreneurship: corporate venturing, entrapreneuring, organizational transformation and industry rule braking. It will investigate the ideal climate that must be created in the organization to subtract maximum value from the employees and the system. It indicates whom and at what level of management will be held responsible for creating the required climate in the organization. The objective is to indicate who will be responsible and in what role employees will act in order to maintain and sustain the structures that will cultivate the corporate entrepreneurial system and climate.

It is important to know what the relationship between innovation and the advantages that it holds for the organization will be. Is it really important to get involved in corporate entrepreneurship? What will the benefit be for the organization, the employees and the industry?

If there is any benefit the organization will have to be able to position itself in such a way that he will benefit from these advantages. Creating the correct climate will be investigated and different descriptions of what exactly corporate entrepreneurship is.

2.2 DEFINING THE TERMS

To clarify the concepts that are discussed the following terms will be defined to get clarity of its meaning:

- Entrepreneur;
- Entrepreneurship;
- Corporate Entrepreneur;
- Entrepreneurial Climate; and
- Innovation.

2.2.1 Entrepreneur

Cole (1969: 17) declared the following: "My own personal experience was that for ten years we ran a research centre in entrepreneurial history, for ten years we tried to define the entrepreneur. We never succeeded. Each of us had some notion of it — what the fought was, for this purpose, a useful definition. And I don't think you are going to get further than that."

Although Cole was not very positive in defining entrepreneurship, some scholars still tried to define the term. A list of characteristics included under defining the entrepreneur highlights the special attributes of the entrepreneur.

The word *entrepreneur* originates from the French word, *entreprendre*, which means "to undertake." In a business context, it means to start a business. The Mirriam-Webster Dictionary presents the definition of an entrepreneur as one who organizes, manages, and assumes the risk of a business or enterprise.

Schumpeter (1984: 8) defines an entrepreneur as an innovator who carries out new combinations in order to introduce new goods or to improve existing products, develop new methods of production, open up new markets and find new resource or create new forms of business organizations.

An entrepreneur takes initiative, assumes responsibility, manages risks and has the persistence to see things through. An entrepreneurial attitude and behaviour include motivation to achieve, taking ownership, making decisions independently, creative and flexible thinking, as well as awareness of risks and risk management (Johnson, 2001: 135).

Nieman, Hough and Nieuwenhuizen (2003: 9) define an entrepreneur as a person who sees an opportunity in the market gathers resources and creates and grows a business venture to meet these needs. The entrepreneur bears the risk of the venture and is rewarded with profits if it succeeds.

Guzman and Santos (2001: 211) identify the factors that determine the quality of entrepreneurs. Entrepreneurs argue, have a preference for working as self-employed which is a manifestation of their desire for independence. They have intrinsic motivation to achieve higher entrepreneurial success. Personal factors are, for example, the ability to learn, to think critically and negotiation and interpersonal skills.

Leibenstein contends that an entrepreneur undertakes one or more of the following activities:

The entrepreneur:

- Organizes and puts in place the appropriate resources required to produce and market the new product or service;
- Co-ordinates contractual agreements between different parties such as the firm and its employees or suppliers;

- Arranges an appropriate organizational structure and culture in order to develop and produce new products and services;
- Responds to market deficiencies by supplying resources for which there is no market; and
- Connects buyers and sellers and/or different geographical markets together (Leibenstein, 1968: 72).

2.2.2 Entrepreneurship

A number of authors have attempted to define entrepreneurship and innovation in many different ways. There appears, however, to be little consensus surrounding what constitutes entrepreneurial and innovative activity. The reason for that seems to be what Chell (2001) states: The problem of identification of an entrepreneur has been confounded by the fact that there is still no standard, universally accepted definition of entrepreneurship.

According to Leibenstein (1968, 73) entrepreneurship can be defined as the activities necessary to create or carry on an enterprise where not all the markets are well established or clearly defined and/or in which the relevant parts of the production function are not completely known.

Kuratko and Morris (2002: 15) describe entrepreneurship as adaptability, flexibility, speed, aggressiveness and innovativeness. Entrepreneurship, they continue, may also be defined as seeking and capitalizing on an opportunity, taking risks beyond security, and having tenacity to push an innovative idea through to reality. An entrepreneurial perspective can be developed in any individual, inside or outside an organization.

Entrepreneurship is a creative act whereby something is created; it involves a degree of risk and results in the creation of value for the individual and society (Johnson, 2001: 137).

Stephenson defines entrepreneurship as the process of creating value by bringing together a unique package of resources to exploit an opportunity (Kuratko & Morris, 2002: 22).

It is not only important defining entrepreneurship but it is also important to take the perspectives on the nature of entrepreneurship in consideration. Kuratko and Morris (2002: 23) identified seven perspectives on the nature of entrepreneurship:

- the creation of wealth by assuming risks in exchange for profit;
- the creation of enterprise by the founding of new business ventures;
- the creation of innovation with an unique combination for resources that make existing methods or products obsolete;
- the creation of growth in terms of sales, income, assets and employment;
- the creation of employment by employing, managing and developing the factors of production; and
- the creation of value for customers by exploiting untapped opportunities.

2.2.3 Corporate entrepreneurship

Kierulff defines the corporate entrepreneur as a person in an existing corporation who examines potential new market opportunities, obtains resources to meet attractive opportunities and initiates production and sales (Van Aardt & Van Aardt, 1997: 8).

Van Aardt and Van Aardt (1997: 5) define corporate entrepreneurship as the act of initiating, creating, building and expanding an enterprise or organization; building an entrepreneurial team and gathering other resources to exploit an opportunity in the market place for long term gain. The authors demonstrate that the current trend is not to limit entrepreneurship to smaller and medium-sized organizations, but to expose it to large organizations.

Corporate entrepreneurship is engaged in increase competitiveness through efforts aimed at the rejuvenation, renewal and redefinition of organizations, their markets or industries. It is the spark and catalyst that is intended to place firms on the path to competitive superiority or keep them in competitively advantageous positions (Covin & Miles, 1999: 50).

Corporate entrepreneurship is a tool that allows companies to rejuvenate and revitalize and to create new value through innovation, business development and renewal (Thornberry, 2001: 526).

Corporate entrepreneurship are formal or informal activities aimed at creating new businesses in established organizations, through the development of markets or products/process innovation. The activities take place with the unifying objective of improving the organization's competitive advantage and financial performance (Kuratko & Morris, 2002: 30).

In line with most of the other students Birkinshaw (2003: 3) added that corporate entrepreneurship refers to the development of new business ideas and opportunities within large, established organisations.

Maxwell and MacRae (1999: 26) define corporate entrepreneurship as the continuous process of learning. With this process, organizations strive to identify opportunities and change creativity patterns of resource development in order to create new opportunities for positioning within uncertain markets.

According to Thornberry (2001: 526), corporate entrepreneurship encompasses a set of activities, attitudes, and actions that are believed to help large companies regain some of its lost magic.

From above discussion corporate entrepreneurship can be operationalised as the effort of promoting innovation from an internal organizational perspective, through the assessment of potential new opportunities, alignment of resources, exploitation and commercialization of said opportunities. Corporate entrepreneurship starts of with positive actions and attitudes that will be able to overcome certain challenges to ultimately be innovative (see Figure 2.1).

INNOVATION

New opportunities
Resource Acquisition
Implementation
Exploitation and
Commercialization of Opportunities

Encourages

Attitudes and Actions

CORPORATE ENTRPRENEURSHIP

Figure 2.1: Entrepreneurship and innovation

Source: Amit (1993: 618)

Thornberry (2001) summarises corporate entrepreneurship as follows: It encompasses a set of activities, attitudes, and actions that are believed to help large companies regain some of its lost magic. He also states that in most companies, most managers are rewarded for minimizing risk, following the rules and performing their functional roles to the best of their ability. They become budget watchers and not value creators.

According to Pinchot (1985), corporate entrepreneurship is entrepreneurship within an established business organization. Sharma and Chrisman (1999: 11) and Geisler (1993: 53) define corporate entrepreneurship as the process whereby an individual or group of individuals in association with an established company creates a new organization, or investigates renewal or innovation within the current organization. Within the realm of existing firms, corporate entrepreneurship encompasses three types of phenomena that may or may not be interrelated (Sharma & Chrisman, 1999). These are:

- the birth of a new business within an existing firm;
- the transformation of the existing firms through the renewal or reshaping of the key ideas on which they are build; and
- innovation.

Corporate entrepreneurship is the process by which individuals inside organizations pursue opportunities without regards to resources they currently control (Stephenson, Roberts & Grousbeck, 1998).

Wolcott and Lippitz (2007: 2) define corporate entrepreneurship as the process by which teams within an established company conceive, foster, launch and manage a new business that is distinct from the parent company but leverages the parents assets, market position, capabilities or other resources. It differs from corporate venture capital, which predominantly pursues financial investments as external companies. Although it often involves external partners and capabilities (including acquisitions), it engages significant resources of the established company, and internal teams typically manage projects. It's also different from spinouts, which are generally constructed as stand-alone enterprises that do not require continuous leveraging of current business activities to realize their potential (Wolcott & Lippitz, 2007: 2).

Corporate entrepreneurship is more than new product development, and it can include innovations in services, channels, brands and all other departments within the organisation.

2.2.4 Entrepreneurial climate

Entrepreneurial climate is the level of establishment of an entrepreneurial culture that exists within the organization.

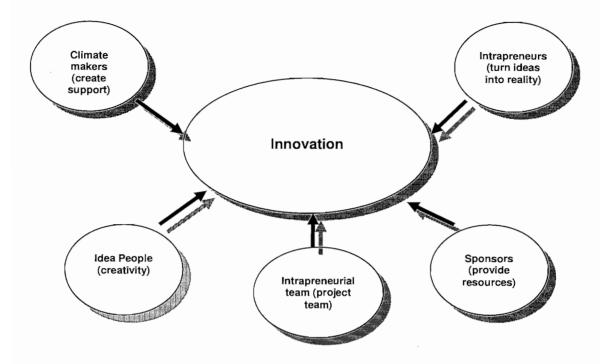
Culture allows organizations to develop a core set of assumptions, understandings and implicit rules that govern day-to-day behaviour in the workplace (Robbins, 2001: 510).

Entrepreneurial climate/culture should encourage employees to be creative and innovative, to experiment with new products, to make suggestions to the improvement of new products and internal processes, to take risks, responsibility and ownership of their creations (Nayager & Van Vuuren, 2005: 31).

Pinchot and Pellman (1999: 87) argue that a large degree of the culture of an organization is created by its middle managers, and usually the vision of a company is too general to inspire innovation – a more specific vision that requires breakthrough innovation, is required.

The crucial roles of innovation are identified in Figure 2.2. All five crucial roles impact on innovation at all times but at different levels.

Figure 2.2: The crucial role of innovation



Source: Pinchot and Pellman (1999: 15)

The crucial roles of innovation are identified in Figure 2.2:

- creative people within the organization with good ideas which will capture the enthusiasm and commitment of a corporate entrepreneur;
- these entrepreneurs turn these ideas into realities, they either come up with their own ideas, or build on someone else's;
- the entrepreneurial team is the core group of the project, and they are responsible from the initial stages to commercialization or implementation;
- sponsors create a vision and look for a strong entrepreneurial team to coach and to provide resources for; and
- climate makers work to create entrepreneurial freedom and effective sponsors within the organization.

2.2.5 Innovation

The term innovation may refer to both radical and incremental changes in thinking, in things, in processes or in services (Mckeown, 2008: 1). Wycoff (2007: 1) states that innovation requires people using new knowledge and understanding to experiment with new possibilities in order to implement new concepts that create new value.

Innovation refers to any change in a product or service; change in the application of a product or service; change in the market to which the product or service is applied; any change in the way that a product or service is developed and delivered; or the development of a new business model that is different from the current or previous business model (Johnson, 2001: 139).

Grossi (1990: 49) makes a clear distinction between "innovation" and "improvement". According to him innovation requires a drastic change in direction with different objectives, different rules and a different environment. Grossi identified three forms of innovation as per Table 2.1.

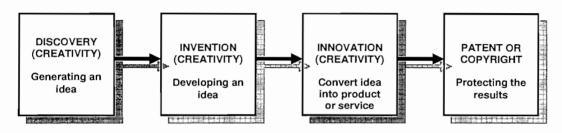
Table 2.1: Forms of innovation

FORM OF INNOVATION	EXPLANATION
Product innovation	The development of new products and
	new materials
Market innovation	To identify new markets and new
	applications
Process innovation	To identify new industrial, management
	and administrative processes

Source: Grossi (1990: 49)

Innovation is the result of a creativity process. A creative product is a new or unique product and an improvement that has value or utility. A discovery is a unique idea (Couger 1995: 3). Couger substantiates the fact that an invention converts an idea into something with value, an innovation results into a specific product or service (see Figure 2.3).

Figure 2.3: Differentiation of discovery, invention and innovation



Source: Couger (1995: 18)

Innovation can be defined as a process that provide added value and a degree of novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization (Amit, 1993: 816) (see Figure 2.4).

Added Value Innovation Product Degree of Novelty Style change Product improvement Start-up business Product line extension New product Major Innovation Providing novelty to: New Products and Services to Customers New Solutions New Methods of Commercialisation New Processes **Innovation Process** New Opportunities Resource Acquisition 0 Bureaucracy Implementation Encourages Exploitation and O Commercialisation of Opportunities Challenges Examines Attitudes and Actions People: Corporate Entrepreneur Entirepreneur as a creative Entrepreneur as an Continuum

Figure 2.4: Entrepreneurship and innovation

Source: Tidd, Bessant and Pavitt (2001: 293)

2.4 CHARACTERISTICS OF ENTREPRENEURS

Various auditors and scholars reporting on entrepreneurs listed the most common characteristics of entrepreneurs. Different scholars and auditors report different characteristics and therefore a number of these characteristics will be listed.

Tucker (2007: 1) lists the following characteristics:

- Careful about money;
- · Competitive by nature;
- Don't linger over non-productive tasks;
- Risk-takers:
- · Always thinking of new ideas;
- Prefer a solitary work environment;
- Honourable people;
- Form strong associates with other people who share their work ethics;
- Don't retire:
- High energy;
- · Self-confident;
- Set long-term goals;
- Persist in problem solving;
- Learn from failures;
- Accepts personal responsibility;
- · Use all available resources to reach success; and
- Never give up and never quit striving or success.

BusinessTown.com lists the following characteristics for entrepreneurs that were determined after conducting interviews with distinguished entrepreneurs:

- Self-Control;
- Self-Confidence;
- Sense of urgency;
- · Comprehensive awareness;
- · Realism;
- Conceptual ability;
- · Status requirements;

- Interpersonal relationships; and
- Emotional stability.

The Kauffman foundation listed the following characteristics for entrepreneurs:

- Business knowledge;
- Desire;
- Energy;
- Ethics:
- Good people judgment;
- Low support needs;
- Market awareness;
- Persuasiveness:
- Problem solving;
- Responsibility;
- Self-confidence:
- · Self discipline;
- Social responsibility;
- · Thrive on uncertainty; and
- · Value approach control system.

2.4 DYNAMICS OF CORPORATE ENTREPRENEURSHIP

A number of different corporate entrepreneurship models have been reviewed and their key features, contributions and weaknesses. A comparison between these models is presented in table form as per Annexure 2.1.

Michalski developed a framework that includes four models. The approach is a strategic management driven approach, which is based on the Competence-Based View and the Resourced-Based View.

According to the Resource-Based View / Competency-Based View perspective, the considerable profit differences between direct competitors are due to comparative advantages in the building and leveraging of strategic resources and competences. Monopolistic competitive advantages are therefore the result of innovation resources and competences, which are characterized by isolation mechanisms that constitute relative secure company-specific market entry barriers. They also ensure comparatively high profit rates within the group of direct competitors of the company. Seen from a microeconomic perspective they seriously handicap the market mechanism and create the basis for sustainable long-term above average profits. Such a successful competitive position often reflects an advantages resource and competence position, which enables a better implementation of a market sector's key success factors. (Michalski, 2004)

From a Resource-Based View / Competency-Based View perspective unique resource and competence positions do not represent a superior adaptation to a given competitive situation in a specific market that they can also actively influence the ruling competitive paradigm of the specific markets. The reason is that due to very high innovation rates, new markets and market segments are developed on a continuous basis. In such a market environment different new combinations technologies, strategic logics and technological standards are fiercely competing for dominant market position. (Michalski, 2004: 48).

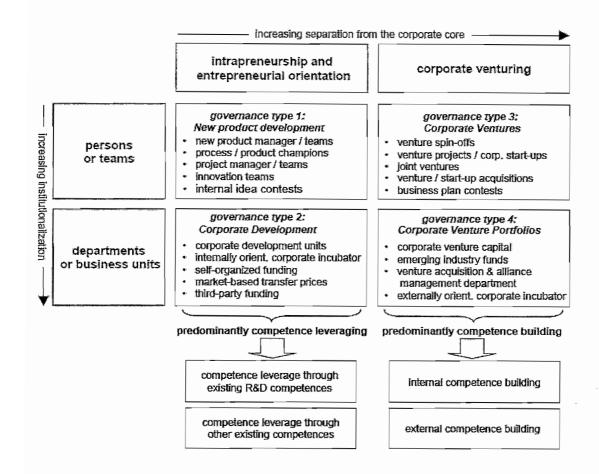
From the Resource-Base View / Competency-Base View perspective, corporate entrepreneurship intends to leverage or "activate" to its full extend those already existing resources and competences within a corporation, which are seen a necessary to achieve future innovation success within the market and technology environment the company is operating in or wants to operate in. Corporate entrepreneurship within a company can also try to engage in the building of new internal and external resources and competences. In practice corporate entrepreneurship typically consists out of a "mixture" of competence leveraging and competence building.

The different types of corporate entrepreneurship can be differentiated into two dimensions. One dimension is the degree up to which the corporate entrepreneurship function of the corporation is organizationally separated from the core business of the corporation. The other dimension is institutionalized. Consequently, the corporate entrepreneurship function can be categorized into four main governance types.

The corporate entrepreneurship governance type 1 (development of new products and services) and the corporate entrepreneurship governance type 2 (corporate development) are mainly serving for competency leveraging, whereas the corporate entrepreneurship governance type 3 (single corporate venture) and the corporate entrepreneurship governance type 4 (corporate venture portfolios) mainly serve for competence building.

Figure 2.5 presents the governance types of corporate entrepreneurship from a RBV/CBV perspective.

Figure 2.5: Governance types of corporate entrepreneurship from a RBV/CBV perspective



Source: Michalski (2002)

Thus, there are two options for the improvement of the corporation's existing innovation management in case a corporation is adopting a corporate entrepreneurship function. On the one hand there is the option of an intensified competence leveraging of innovative resources and competences that already exist – at least lately – within the research and development departments and units of the corporation, and on the other hand there is the option of an intensified competence building through the creation of (totally) new innovative resources and competences.

Competence building has recently become more and more important in both theory and practice. It represents a stronger expression of the guiding principle of corporate entrepreneurship. It offers a promising opportunity to create new and successful resources and competences as potentially great and manifold opportunities to learn are provided for the corporation. That in turn makes significant innovation successes more likely (Michalski, 2004: 43)

Wolcott and Lippitz (2007: 12) developed the Four Model of corporate entrepreneurship. They have identified two dimensions under the direct control of management that consistently differentiate how companies approach corporate entrepreneurship. The first dimension is organizational ownership:

- Who, if anyone, within the organization has primary ownership for the creation of new business?; and
- The second is resource authority: Is there a dedicated "pot of money" allocated to corporate entrepreneurship, or are new business concepts funded in an ad hoc manner through divisional or corporate budgets or "slush funds?"

Together the two dimensions generate a matrix with four dominant models (See "Four models of entrepreneurship"): the opportunist (diffused ownership and ad hoc resource allocation); the advocate (focused ownership and ad hoc resource allocation); and the producer (focused ownership and dedicated resources). Each model represents a distinct way of fostering corporate entrepreneurship. A closer look at the models illustrates how they help companies build corporate entrepreneurship in different ways.

Figure 2.6: Four models of corporate entrepreneurship Dedicated THE ENABLER THE PRODUCER The company provides funding and The company establishes and senior executive attention to supports a full-service group with prospective projects a mandate for corporate entrepreneurship Example: Google Example: Cargill RESOURCE **AUTHORITY** THE OPPORTUNIST THE ADVOCATE The company has no deliberate The company strongly approach to corporate evangelizes for corporate entrepreneurship. Internal and entrepreneurship, but business external networks units provide the primary funding drive concept selection drive concept selection and resource Example: DuPont allocation. Example: Zimmer Diffused ORGANIZATIONAL Ad Hoc Focused **OWNERSHIP**

Source: Wolcott and Lippitz (2007)

Four models of corporate entrepreneurship

The Opportunist Model: All companies begin as opportunists. Without any designated organizational ownership or resources, corporate entrepreneurship proceeds (if it does at all) based on the effort and serendipity of intrepid "project champions" – people who toil against the odds, creating new business often in spite of the corporation.

The opportunist model works well in trusting corporate cultures that are open to experimentation and have diverse social networks behind the official hierarchy (in other words, places where multiple executives can say "yes").

The Enabler Model: The basic premise of the enabler model is the employees across an organization will be willing to develop new concepts if they are given adequate support. Dedicating resources and processes (but without any formal organizational ownership) enables teams to pursue opportunities on their own in so far as they fit the organization's strategic frame. In the most evolved version of the enabler model, companies provide the following: clear criteria for selecting which opportunities to pursue, application guidelines for funding, decision-making transparency, both recruitment and retention of entrepreneurially minded employees and, and perhaps above all, active support from senior management.

But firms should be aware that the enabler model is not just about allocating capital for corporate entrepreneurship. Personnel development and executive engagement are also critical. Without sufficient support from senior management, promising concepts can end up as casualties of conflicts with established businesses. Another danger is that the enabler model could de-generate into "bowling for dollars" in which people apply for funds for ordinary business unit projects or for ideas that they are not really interested in pursuing.

The Advocate Model: In the advocate model, a company assigns organizational ownership for the creation of new business while intentionally providing only modest budgets to the core group. Advocate organizations act as evangelists and innovation experts, facilitating corporate entrepreneurship in conjunction with business units. This program provides employees with a wide range of assistance, everything from idea conceptualization through to commercialization. Although consultants can help the process, ultimately the best advocates come from company's veteran ranks — those who are well-known, respected and experienced in making change happen in the organization.

The Producer Model: A few companies such as IBM, Motorola and Cargill pursue corporate entrepreneurship by establishing and supporting formal organizations with significant dedicated funds or active influence over business-unit funding. As with the

enabler and advocate models, an objective is to encourage latent entrepreneurs. But the producer model also aims to protect emerging projects from turf battles, encourage cross-unit collaboration, build potentially disruptive businesses and create pathways for executives to pursue careers outside their business units. The producer model is not without its share of challenges and risks. First, it can require significant investment over many years. Motorola's corporate entrepreneurship group, for instance, has an annual budget in terms of millions of dollars and a dedicated staff of more than 35 people. Second, integrating successful projects into established business units can be difficult. Project teams often become isolated and can be perceived as threats to existing business units, particularly when they have pilfered top talent. Ultimately, building credibility and trust through the company is critical for the model to succeed.

For companies that are about to embark on a new program of corporate entrepreneurship, the following high-level summary of tips should provide some guidance:

- Point the way;
- Delineate objectives;
- Neutralize the naysayers;
- Select and support a corporate entrepreneurship model;
- Start with quick wins; and
- Evolve.

Each of the models requires different forms of leadership, processes and skill sets. An enabler model depends on establishing and communicating simple, clear processes for selecting projects, allocating funds and tracking progress, all with well-defined executive involvement. Advocate models require individuals with the instincts, access and talents to navigate the corporate cultural and facilitate change. Leading advocate organizations build an arsenal of facilitation methodologies, new business design tools and networks with external capabilities. The producer model requires considerable capital and staffing and a direct line to top management.

2.5 BENEFITS OF CORPORATE ENTREPRENEURSHIP

Corporate entrepreneurship can make a significant difference to a company's ability to compete (Zahra, Kuratko & Jennings, 1999). It can be used to improve positioning and transform corporations, their markets, and industries when opportunities for value-creating innovations are developed and exploited (Miller, 1983: 781).

A key benefit of corporate entrepreneurship may be to push companies to employ a range of strategies often in unique combinations (Dess, Lumpkin & McGee, 1999). By doing so, companies build layers of advantage by combining distinctive bases for competitive superiority (Hamel & Prahalad, 1996: 237).

There have been many studies to substantiate the above-mentioned claims. Corporate entrepreneurship can improve a company's growth and profitability (Zahra, 1991:259) The empirical evidence that corporate entrepreneurship improves performance by increasing the company's proactiveness and willingness to take risks through the development of new products, processes, and services as presented in Kuratko, Montagno and Hornsby (1990), and Lumpkin and Dess (1996) has been termed "compelling" by Zahra, Nielsen and Bogner (1999). A longitudinal study by Zahra and Covin (1995) provide the best evidence of a strong corporate entrepreneurship performance relationship. Their study examined the longitudinal impact of corporate entrepreneurship on a financial performance index composed of both growth and profitability indicators. Using data from three separate samples and a total of 108 companies, they identified a positive and strengthening linkage between corporate entrepreneurship and subsequent financial performance.

Goosen, de Coning and Smit (2002: 21-26) intensively investigated the financial performance of organisations with high levels of corporate entrepreneurship. They, in line with a number of other authors, came to the conclusion that there is a reason to believe that the level of entrepreneurial intensity may positively affect performance outcomes in a company (Morris & Sexton. 1996: 8).

2.7 ESTABLISHING A CLIMATE FOR CORPORATE ENTREPRENEURSHIP

Most organizations loose their entrepreneurial spirit once they cross the start-up phase. The transition from an entrepreneurial growth company to a "well-managed" business is usually accompanied by decreasing ability to identify and pursue opportunities. Therefore, firms must create systems that focus the attention of individual participants on innovation as an important and expected activity and direct group and firm behaviours towards entrepreneurial ends (Russell, 1999: 65).

An entrepreneurial organization will institutionalize practices that establish an organizational environment in which innovation is considered an accepted and appropriate response to organizational problems (Russel, 1999: 67). These practices build commitment and enthusiasm by creating a shared sense of purpose and meaning in the organization (Roberts, 1984). This ensures that all the firm's technical and business skills are brought to bear to achieve its purpose. This also helps in developing a culture that encourages creativity and creates a passion for innovation in the firm. Culture is an important determinant influencing individuals' willingness to accept entrepreneurial change (Floyd & Wooldridge, 1999: 123) and, as Barney (1986: 791) emphasizes, organizational culture can be a source of sustained competitive advantage.

In essence, organizations must learn to think and act in a dynamic equilibrium. This is a challenge but they have a range of options to choose from depending on the size, competition and industry structure to achieve entrepreneurial excellence. At one end of this spectrum lie the focused initiatives covering specific parts of the organization and at the other end, initiatives that attempt to breathe entrepreneurship across the organization. The former is called 'surface entrepreneurship and the latter 'deep entrepreneurship' (Sathe, 1988: 12).

MacMillan and McGrath (2000) have identified four broad sets of practices that go into creating an organization focused on identifying and exploiting opportunities:

- Practices that set the right tone for innovations which are climate-setting practices like disproportionate allocation of attention, resources, and talent to this activity.
- Practices that orchestrate the processes of seeking and realizing opportunities to grow the business that include defining the ballpark of innovation activities the firm would undertake and instilling the discipline of parsimony so that investments and costs are minimized until an upside potential is demonstrated.
- Hands-on practices that get top management actively involved and require the institution of analytical processes to identify opportunities that such initiatives the firm is uniquely positioned to exploit.
- A process of managing failures which sets the standard for future commitment to such initiatives and involves conducting constructive post-mortems and recouping benefits from failed projects for use elsewhere.

According to McAlindon (2004), there are nine innovation characteristics that will have to be addressed in order to create an innovation culture in a company:

Table 2.2: Entrepreneurial climate characteristic goals

Characteristi	Description
C	
Risk-Taking	Employees are challenged and rewarded for coming up with novel
	ways of doing things and are encouraged to learn from mistakes.
	Standard operating procedures are guidelines, not rules, for
	making decisions.
Rewards	People receive tangible and intangible rewards for trying out new
	ideas. Employees receive top-level recognition for their
	contributions so that they feel a sense of pride and achievement in
	their work.
Empowering	Employees are trusted. They are encouraged to use professional
	judgment in making non-routine decisions. They are encouraged to
	learn and take part regularly in educational events on and off the
	job.
Objective	Employees have valid and objectively defined standards that
Measurement	measure their work. These standards derive from the
s	organization's mission and assessments of the organization's main
	programs, products, and services.
Feedback	The organization has well-established communication with people
	inside and outside the organization. It uses information to monitor
	the quality of service and make corrections before problems
	escalate. Employees know their clients directly.
Turbulence	Organizations are flexible enough to respond to problems. They
	communicate to with employees and clients to enlist support in
	solving problems.

Characteristic	Description					
Interdependence	Although the organization has got checks and balances to					
	control waste, fraud, or abuse, these controls do not interfere					
	with the flow of the work. Managers defer their own interests					
	to the overall mission of the organization.					
Decentralization	There is little difference in social status between managers					
	and employees. The organization absorbs a variety of ideas					
	from all personnel to find creative solutions and to boost					
	commitment to reaching goals.					
Cosmopolitan	In making decisions, managers focus on the big picture of					
	client needs. They encourage the influx of new ideas by					
	analyzing feedback and soliciting the skills of outsiders. They					
	enjoy learning about organizations that use best practices.					

The Pinchot website list 11 innovation climate factors that can be used as guidelines to develop an innovation climate:

- Clear vision and strategies: Effective organizations have a powerful vision that aligns the activities and thus makes possible the empowerment of their employees. Clear and challenging strategic intentions (including specific non numeric objectives) bring forth large volumes of well aligned innovation;
- Focus on customers: Putting attention on how to better serve customers drives organizations towards productive innovation. Focus on internal politics tends towards conservatism, mistargeted mega-projects and failure to exploit genuinely superior technology;
- Valuing experiments and risk taking: Both innovation and organizational learning require trying things, seeing what happens and learning from results. When trying new ideas are punished for "mistakes", two things go wrong: a) People stop experimenting b) Mistakes are covered up so no organizational learning results;

- Discretionary resources at lowest levels: Pushing decisions and control of discretionary resources to the lowest possible level supports practical innovation;
- Discretionary time: New ideas and hunches require exploration before they can
 be "proven" to others. When people at all levels have the freedom to use some of
 their time to explore new ideas and hunches without having to ask permission, a
 rich crop of innovation seedlings ready for transplant to the more formal approval
 system arises;
- Empowered project teams: Innovative organizations create cross disciplinary
 projects teams to implement innovation and empower them to make decisions.
 For example, a new product team would at a minimum have people from
 marketing, engineering and manufacturing. Rather than taking al decisions back
 to their bosses, the team members are empowered to represent their business
 units or departments;
- Entrepreneurs: Entrepreneurs are employees who behave like entrepreneurs on behalf of the company. They are visionaries who act. They become hands-on drivers of specific innovation within an organization. Research shows that entrepreneurs are an essential ingredient of the successful innovation process;
- Sponsors: Sponsors are people with the power or influence and desire to support, coach, protect, and find resources for an intrapeneurial project and its team;
- Choice: The liveliest organizations exist on the boundary between chaos and order. Like living organisms they create effective order through heavy reliance on self-organizing systems and light use of the power of hierarchical command. To achieve this, innovative organizations create systems in which (like a free market) the choice of individuals and teams lead naturally to alignment and cost effectiveness in fulfilling of customer needs;
- Boundary crossing and organizational community: The knowledge of an organization is widely distributed one brain per person. To use that knowledge most effectively, and to serve customers, whose needs are not organized in patterns of your organization chart, people must help each other out across the boundaries of the organization. If a strong spirit of organizational community

- exists, people help each other, solving problems and lending resources beyond the boundaries of their local organizations; and
- Measurement: It is quite common to discourage innovation by the way performance is measured. The most innovative organizations develop measurements that encourage innovation.

Behn in an article in an issue of State of Local Government Review (1995) gave ten hints to create an innovative organization. The focus is to get all workers especially the frontline workers involved in the innovation process. His hints are as follows:

- Frontline workers know that leadership is on their side;
- Frontline workers understand the bigger picture;
- Be immediately responsive to requests for improved working conditions;
- · Support mistakes;
- Create an explicit mission and related performance measures or give people a real reason to be innovative;
- Broaden job categories;
- Move people around or don't let people think they need to learn only one job for life;
- Reward teams, not individuals or find ways to beat the formal performanceappraisal and promotional system;
- Make the hierarchy as unimportant as possible; and
- Give everyone all the information needed to do the job.

Oosthuizen (2006) studied the constructs that are conducive for entrepreneurship in dept. He then concluded that the following thirteen constructs are relevant to create an entrepreneurial climate in an organisation. The above-mentioned constructs were also discussed in detail in paragraph 2.7 in this chapter.

- Entrepreneurial leadership;
- Management support;

- Sponsor;
- Tolerance of risk, mistake and failure;
- · Innovation and creativity;
- Appreciate rewards and reinforcement;
- Vision and strategic intent;
- · Discretionary time and work;
- Empowered and multidisciplinary teams;
- Resource availability and accessibility;
- Continuous and cross-functional learning;
- Strong customer orientation; and
- Flat organisation and open communication.

2.7 SUMMARY

Mike Giersch, vice president for strategy at IBM explains corporate entrepreneurship as follows" You've got to be flexible and take some risks. Some things work and some things don't. Corporate entrepreneurship is fundamentally a learning process."

It is clear that there is more than one definition or description for corporate entrepreneurship, and there is no generic model that will fit all businesses. The reality is that it is important for any business to invest in a culture to develop corporate entrepreneurs in the business. Corporate entrepreneurship will be able to help protecting market share and increase margin and long term profitability.

For corporate entrepreneurship to be successful the organization must put processes in place that will create the correct innovative culture. Corporate entrepreneurship can only grow if there is a climate that will stimulate the entrepreneurial thinking and acting process. Different models can be used to develop the correct culture in an organization. Different organizations will find different models that will fit their requirements. There is no model that an organization can buy from the shelf and apply it according to a manual. Development of these models will have to be adjusted according to requirements.

CHAPTER 3 OVERVIEW OF TIGER BRANDS

3.1 INTRODUCTION

Tiger Brands Limited is a branded and healthcare company that operates mainly in emerging markets. It has got a balanced spread of African and selected international operations. It has got an annual turnover of nearly 20 billion rand. It operates in most of the African countries with its products selling into nearly all of Africa. Export of canned fruit and other products take place to Europe and a number of other countries.

Tiger has been in the press for the last year regarding price fixing and other accusations of collating with the opposition. The new Chief Executive Officer has now got the opportunity to start off a clean page and take the company into the future building on a very proud history.

Tiger Brands provides sustainable employment to a significant number of people. The total salary bill for 2007 was over R2.1 billion. Tiger Brands had 16 270 people in its employment for the year. The brake down of employees according to race, disability and state of employment was as follows: African – 6 900, Indian – 979, Coloured – 1 348, White – 1 691, Disabled – 31, Permanent – 10 949, Temporary – 5 321.

Although women constitute 52% of the national population Tiger Brands gender track record is as follows: Executives – 18%, Senior Management – 14%, Middle Management – 33% and Junior Management – 33%.

The black management talent at Tiger Brands is developing very fast in comparison to the past. In 2004 Tiger had no black executives and changed that to 27% in the 2007 financial year. Senior management moved over the same period from 10% to 24%.

Tiger Brands has got a number of manufacturing units from Muzina down to Cape Town as well as in some Africa countries. All plants are the property of Tiger Brands but they are making use of third party packers and manufactures of smaller volume products. There are also some depots or distribution units across the country. Most of the distribution functions are outsourced to logistic companies forming a cooperation agreement in orders to subtract best possible service from best practice agreements.

The customer base for Tiger Brands is very stable with Pick & Pay, Shoprite, Spar, Metcash and Massmart being the biggest customers. These customers are all very well established businesses in South Africa and their stability contributes to the limitation of risk for Tiger Brands.

Tiger Brands followed the international trend to outsource its selling and merchandising function to a third party.

Tiger Brands also accepts its corporate social responsibility by donating over 1% of its post-tax profits to social investment. As a leading food and healthcare company, Tiger Brands is combating hunger through registered not for profit organizations like Unite Against Hunger. This organization consists out of African Children's Feeding Scheme (ACFS), Heartbeat, Unite 4 Health, Red Cross Children's Hospital, Soweto Hospise and Heart of Soweto.

As part of Tiger Brands environmental responsibilities they are compliant with all legal requirements. The environmental management team follows group policy of full legal compliance on water management, waste management, hazardous materials management, air quality management, land quality management and management of energy efficiencies.

3.2 BACKGROUND

Tiger Brands started as a small business and developed into the biggest food manufactures in South Africa. Tiger's strategy still is to generate profitable top line growth through: A leadership position in South Africa, selected globalization, and a reputation for innovation in product and processes.

In 2004 Tiger Brands reaffirmed their destiny by formulating its mission statement:

Tiger Brands entrenched value for over 50 years has been the "entrepreneurial" environment it encourages. We will continue to embrace this philosophy as it underpins our core value of:

- Respect;
- Team work:
- · An action orientation; and
- Imagination / innovation

Tiger Brands is currently operating in the following categories with the following brands:

Domestic Food:

- Grains: Ace Maize Meal, Golden Cloud Flour, Jungle Oats, King Corn Malt, Morvite Malt and Tastic Rice;
- Groceries: All Gold, Black Cat, Colmans, Koo, Fatti's & Moni's, Snacks & Treats and Beverages, Anytime, FFWD, Jelly Tots, Inside Story, Wonderbar, Smoothies, Maynards, Beacon, Energade, Oros, Hall's and Roses;
- Value Added Meat Products: Enterprise, Like-it-Lean; and
- Out-of-Home: Food services and home meal replacements.

Consumer Healthcare:

Personal Care: Gill, Ingram's Camphor Cream, Lemon Lite;

- Homecare: Airoma, Doom, FastKill, ICU, Jeyes, Peaceful Sleep, Rattex, Bio-Classic; and
- Babycare: Elizabeth Anne's, Purity.

Healthcare:

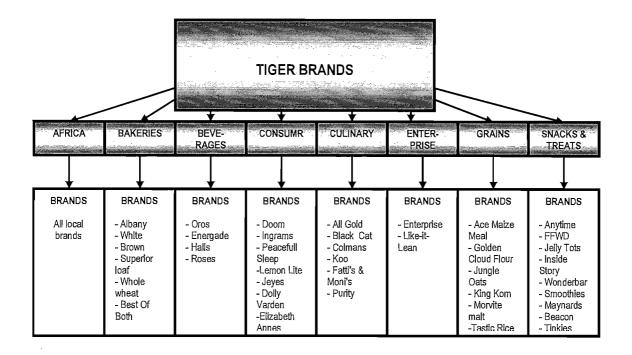
- Branded medicine: Betadine, Corenza C, Fucidin, Glucomed, Medikeel, Nebilit,
 Novartis Opthalmic, Myprodol, Syndol, Synap Forte, Zildem;
- Consumer wellbeing: Bioplus, Citro Soda, Compral, Panado, Osteo-Matrix, Viathion; and
- Generic medicine: Adco Generics, Adco Amoclav, Adco-Dol, Zetomax, Adco-Zolpidem.

Fishing:

- · Sea Harvest: Feasts of Flavour, Simply Delicious; and
- Oceana: Lucky Star, Glenryck.

Figure 3.3 indicate the corporate brand profile of Tiger Brands. The brand profile indicates all the different business units and the brands resorting under those units.

Figure 3.1: A Corporate Brand Profile



3.3 HISTORY

Tiger Brands started off as a small business with an expansion strategy running through the history of this organization. Innovation and entrepreneurship are both fundamental factors contributing to the expansion of Tiger Brands during the years.

Period from start up till late 40's

Tiger Brands Ltd, formerly known as Tiger Oats Ltd, started out as a small produce dealing business in Newton, Johannesburg. Founded in 1921, the first formal meeting of Jacob Frankel (Prop.) was recorded on 22 September 1930. The business soon expanded into the animal feed business and ultimately entering the maize meal business for human consumption.

Tiger Oats Ltd was first listed on the Johannesburg Stock Exchange in 1944, and came about as a result of a merger between Jacob Frankel (Prop.) Ltd, and the Tiger Oats Company of Cape Town. It was also listed on the London Stock Exchange in April 1946.

The 50's and 60's

The 50's and 60's were characterized by an active acquisitive strategy by entering the following:

- Black cat acquired in 1947
- First foray into fishing 1950
- Chickens and eggs in 1950
- Tradename "Tastic" acquired in 1964

The 70's and 80's

During 1977 Old mutual made funds available for the purchases of Ruto Mills, but the funds ultimately got used for buying a share of 52% in Adcock Ingrams. The Adcock business is to be listed as a separate business on the Johannesburg Stock Exchange business during the back end of 2008.

In 1977 Tiger Brands bought their first share in Spar and added the balance of the shares in 1978. This extended the distribution channel for Tiger Brands in terms of manufactured products to the consumer.

On 31 March 1982 a small family business that grew into a professional management team called Barlows, took over the business.

The 90's

Tiger Brands entered the international markets through the following acquisitions:

ConAgra Malt

1996

•	Agro-Tech	1997
•	Carozzi (Argentina)	1998
•	National Foods (Zimbabwe)	1998

ICS was acquired in August 1998. During 1999 Tiger Brands bought Langeberg Koöperasie, Beacon Sweets and the balance of Adcock Ingrams.

The period 2000 till 2008

- Tiger Brands went on to buy Sea Harvest during 2000. CG Smith was unbundled in 2000.
- In February 2000 the Tiger Brands name changed to Tiger Brands Ltd.
- Astral foods consisted of Meadow Feeds all the egg and chicken business unbundled in April 2001.
- During 2002 Tiger Brands acquired Robertson's Home Care and Eulactol Skincare Brands. During the same year they entered the Indian market by obtaining a 50% share in Thembalami (Pty) Ltd.
- During 2003 Tiger Brands proceeded with their strategy to acquire businesses
 that are operating in the same industry that Tiger Brands is operating by acquiring
 Certain Abbott's, which formed the remaining 50% of Enterprise. By November
 2003 Tiger Brands bought Nelspruit Wholesalers which was the only Spar
 distribution centre that was not under Tiger's control. During the same period they
 acquired Parke-Med Generics Division from Pfizer Laboratories, South Africa.
- In 2004 Tiger Brands acquired Carmel pickles business from UBR Foods. By the end of 2004 the unbundling of Spar took place when it was listed as a separate company on the Johannesburg Stock Exchange.
- During 2005 Tiger Brands acquired the Bromor Foods business entering the beverage market as well.
- During 2006 Tiger Brands acquired Designer Group and start a serious process of looking into opportunities in Africa.

 In 2008 Tiger bought the majority shares in a Cameroon based cacao manufacturing business and increased the footprint into Africa.

3.4 CAUSAL FACTORS TO THIS STUDY IN TIGER BRANDS

Tiger Brands strategy does change and the latest published strategy states the following: We will achieve sustainable and profitable top line growth by:

- Transforming the organization;
- Optimizing our business portfolio;
- Pursuing organic growth;
- Making acquisitions in selected markets;
- · Focus on high growth, profitable categories;
- · Focus on growing our leading core brands; and
- Focus on expansion into new markets and new geographies.

When looking at what the business expects in terms of growing the brands and turnover, then there need to be a way of differentiating the business. Growth must come from acquisitions or growth from inside. It is getting more and more difficult to acquire other businesses as the competition board is preventing the bigger organizations to get so big that it poses a competitive threat in the industry. The only way that growth hurdles will be reached will be through some entrepreneurial activity that will generate new business.

Some of the businesses in Tiger Brands performed very well on innovation. Albany Bakeries managed to create a brand and get a clear differentiation between Albany bread and all the other bread in the market. At the same time Beacon Sweets drive their business on innovation.

Tiger Brands entered in an agreement with an international company Henkel' based in Berlin, Germany to get access to the latest technology. This relationship developed from just being a supplier on technical information and contracts to exposure to world class innovational standards. Henkel took the conscious strategic decision to move away from fast follower to leading innovator. They decided to invest at least 2.7% of net sales on R&D. They also decided to follow mega trends and then react in such a way to be first to the marketplace with a new product. This relationship puts pressure on Tiger Brands to fall in line with this business partner and force entrepreneurial thinking to be a world class operation in the FMCG market.

3.5 SUMMARY

Tiger brands started of as a small business and developed into the biggest manufacturer and distributor of food and healthcare products. It has got a proud history and is well positioned for the challenges of the future.

The environment that Tiger Brands is operating in has changed completely over the years. Tiger has now entered a period that will see more transformation in terms of people of colour taking up executive and senior management positions and an increase in social responsibility.

The expansion into Africa will increase as it opens up new markets and new raw material supply options. Exports will still form a big part of the business as long as the exchange rates are favourable for exports.

The change and slowdown of the global economy will pose certain difficult challenges to Tiger Brands. The survival and growth will greatly be determined by growth and development that will come from the Corporate Entrepreneurial focus that will lead to innovation.

CHAPTER 4

RESULTS AND DISCUSSION OF THE EMPIRICAL STUDY

4.1 INTRODUCTION

This chapter included a discussion of the questionnaire utilised in this study, the process followed to gather the data and the study population. The results of the empirical study will be presented and discussed. The results included the demographical information, a self and superior assessment of entrepreneurial characteristics, the reliability of the questionnaire measuring entrepreneurial climate, the assessment of the entrepreneurial climate and lastly, the relationships between the demographical variables and the constructs measuring entrepreneurial climate.

4.2 GATHERING OF DATA

4.2.1 Empirical study

The human resource managers of each business unit were approached to inform them of the study and the features of the requested population. Each human resource manager of the different business units then supplied a list of employees that subscribes to all requested features. The list of names included the contact details of all employees as well as an email address. A database of 437 employees was compiled.

The information technology department sent an e-mail to all employees on the list. The e-mail had a cover letter describing the objectives of the study, the actual request to complete the questionnaire and a letter that ensured participants of the confidentiality of their responses. The cover letter also contained time lines for participants to submit the questionnaires in order to receive the responses on the target date.

A total of hundred and forty usable questionnaires were received back from the study population. This represents a response of 32 percent of the targeted four hundred and forty seven possible respondents.

4.2.2 Questionnaire used in the study

A questionnaire developed by Oosthuizen (2006) was used to gather data from the respondents. The questionnaire was divided into three sections as outlined below:

Section A of the questionnaire consists of 65 statements, measuring thirteen constructs for a climate conducive to corporate entrepreneurship based on a five-point Likert scale, ranging from 1 = Strongly disagree to 5 = Strongly agree (Refer to Appendix 1). The 13 constructs are: Visionary or entrepreneurial leadership, Management support, the presence of a Champion or sponsor, tolerance for risk, mistakes and failures, Innovation and creativity – new ideas encourage, Appropriate rewards and reinforcement, Vision and strategic intent, Discretionary time and work, Empowered teams, Multi-disciplined teamwork and diversity, Resource availability and accessibility, Continuous- and cross-functional learning, Strong customer orientation, and a Flat organizational structure with open communication and strong sense of belonging.

Section B of the questionnaire measured the perception of managers concerning the entrepreneurial characteristics and their perception on the entrepreneurial characteristics of their superiors. A total of 13 entrepreneurial characteristics were measured on a 5-point Likert scale ranging from 1 = Definite weakness to 5 = Definite Strength. Refer to Appendix 1 for the questionnaire.

Section C gathered demographic data of the respondents, i.e. age, gender, race, highest academic qualification, management level and the department in which they work (Appendix 1).

4.2.3 Study population

The research was done at Tiger Brands and from middle management up to executive level was targeted in this survey. The human resource managers of each business unit supplied the names of all managers at the requested levels.

A total of four hundred and thirty seven questionnaires were send out and a response of hundred and forty was received back, a percentage of thirty two percent.

4.2.4 Data collection method

All questionnaires were sent out by the central information technology department per e-mail to the specific target population. A follow-up e-mail was send as a reminder to get the maximum responses on the questionnaire. All responses were sent back to one central e-mail address, collated and send for statistical analysis.

4.2.5 Data analysis

The data analysis was performed using Statistica (Stasoft, 2008) and SPSS (SPPS, 2006). The analysis comprised descriptive statistics entailing arithmetic mean (\bar{x}) , standard deviation (s), inferential statistics such as p-value and d-value tests and Cronbach alpha coefficient testing the reliability of the questionnaire.

4.3 RESULTS OF THE DEMOGRAPHICAL INFORMATION

The demographic section of the questionnaire requested information on the following: gender, department, job level, age, race and highest academic qualification.

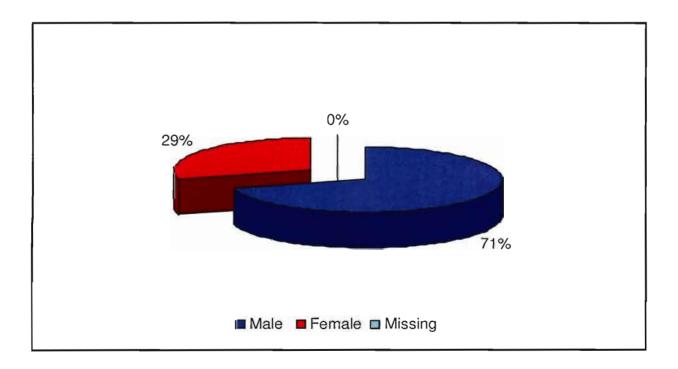
4.3.1 Gender

The respondents were requested to indicate their gender. The gender distribution of the participating managers is presented in Table 4.1 and Figure 4.1.

Table 4.1: Gender distribution of respondents

Gender			
Category	Number	Percentage (%)	
Male	99	70.71	
Female	41	29.29	
Total	140	100.00	

Figure 4.1: Gender distribution of respondents



As indicated in Table 4.1 and Figure 4.1, 99 (70.71%) of the 140 respondents were male and 41(29.29%) female. All respondents indicated their gender.

4.3.2 Age distribution of respondents

The respondents were requested to indicate there age by choosing between intervals of years of ten, from younger than twenty nine to fifty nine and the last group older than sixty years old.

The age distribution of participating managers is presented in Table 4.2 and Figure 4.2.

Table 4.2: Age distribution of respondents

Age group				
Category	Number	Percentage (%)		
Younger than 29 years	13	9.29		
Between 30 to 39 years	43	30.71		
Between 40 to 49 years	53	37.86		
Between 50 to 59 years	27	19.29		
Older than 60 years	4	2.86		
Total	140	100.00		

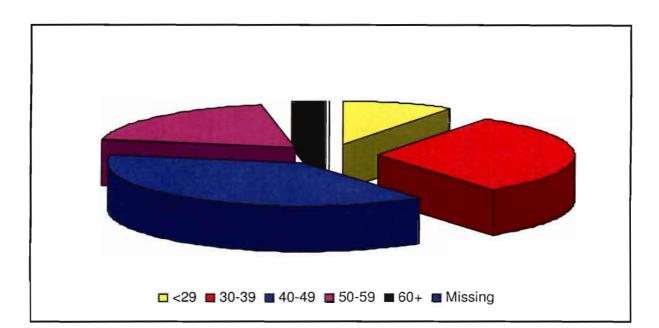


Figure 4.2: Age distribution of respondents

It is evident in table 4.2 and figure 4.2 that the biggest percentage (37.86%) of respondents are between 40 and 49 years old while the smallest percentage (2.86%) respondents are sixty years and older. Only 13 (9.29%) of the respondents are younger than twenty nine years old. All respondents indicated their age group when responding to the questionnaire.

4.3.3 Race of respondents

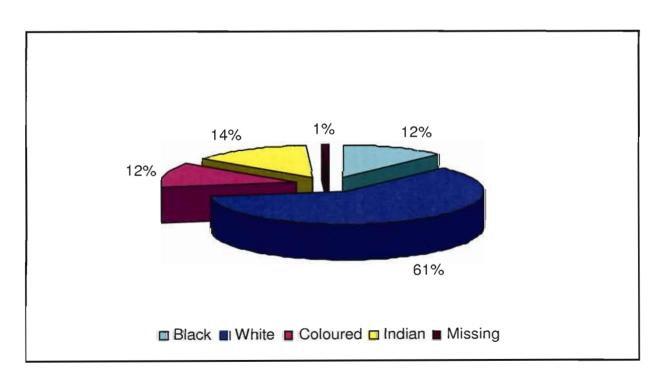
Respondents had to indicate their race under the category White, Black, Coloured or Indian. As race remains a controversial issue, the expectation was that there would be a high percentage of refusals to indicate the participant's race. The results however proofed to be surprising.

The race distribution of the participating managers is presented in Table 4.3 and Figure 4.3.

Table 4.3: Race distribution of respondents

Race classification				
Category	Number	Percentage (%)		
Black	17	12.14		
White	85	60.71		
Coloured	17	12.14		
Indian	20	14.29		
Missing	1	0.71		
Total	140	100.00		

Figure 4.3: Race distribution of respondents



The majority of the respondents are White (60.71%) with Indians the second highest (14.29%). Coloureds and Blacks respondents each made up twelve percent of the participating managers. One percent of the respondents did not indicate their race classification.

4.3.4 Highest academic qualification

Respondents had to indicate the level of education ranked from a certificate, diploma or degree. There was no space allocated to indicate current participation in studies at any level.

The highest academic qualification distribution of the participating managers is presented in Table 4.4 and Figure 4.4.

Table 4.4: Highest academic qualification distribution of respondents

Highest academic qualification				
Category	Number	Percentage (%)		
Certificate	85	60.71		
Diploma	20	14.29		
Degree	24	17.14		
Missing	11	7.86		
Total	140	100.00		

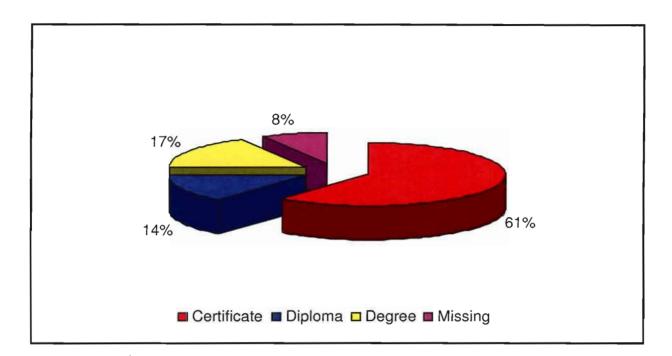


Figure 4.4: Qualification distribution of respondents

Eleven of the respondents did not indicate their highest academic qualifications. The majority of respondents were in possession of a certificate (60.71%), while fourteen percent were in possession of a diploma. Seventeen percent of the respondents were in possession of a degree or post graduate degree.

4.3.5 Management level

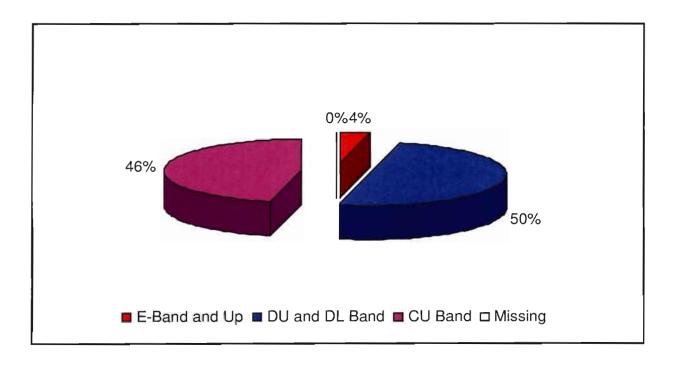
The management level was based on the Patterson grading scale used in Tiger Brands. It is ranked from executive level down to middle management. Level E and upwards represents the executives while CU represents middle management.

The management level distribution of the participating managers is presented in Table 4.5 and Figure 4.5.

Table 4.5: Management level distribution of respondents

Management level			
Category	Number	Percentage (%)	
E-Band and Up	5	3.57	
DU and DL Band	70	50.00	
CU Band	65	46.43	
Total	140	100.00	

Figure 4.5: Management level distribution of respondents



The majority of the respondents are D band managers and represents 50 percent of the respondents. Only four percent of the respondents are on executive level and forty six percent are in the C band management level.

4.3.6 Departments managers work in

The departments that were targeted are: Beverages, Consumer, Culinary, Enterprise, Grains, Snacks and treats, Tiger Brands Field Services, Bakeries, Exports and Out of home but some employees might report to more than one department. This might have contributed to the number of "missing" reported. Some support functions like information technology renders services to the complete business and not only to one of the business units or departments. The departmental distribution of the participating managers is presented in Table 4.6 and Figure 4.6.

Table 4.6: Departmental distribution of respondents

Department					
Category	Number	Percentage (%)			
Beverages	8	5.71			
Consumer	14	10.00			
Culinary	17	12.14			
Enterprise	13	9.29			
Grains	28	20.00			
Snack & Treats	20	14.29			
TBFS	4	2.86			
Bakeries	12	8.57			
Export	4	2.86			
ООН	10	7.14			
Missing	10	7.14			
Total	140	100			

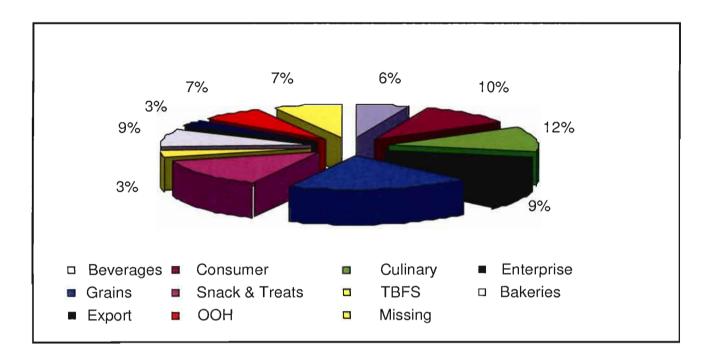


Figure 4.6: Departmental distribution of respondents

Ten of the respondents did not indicate the department that they are working in. All departments differ in size and it was expected that there will be different responses from the different departments. The Grains department had the biggest response with twenty percent participation while the Out of Home and Export departments the smallest response with only four percent of the participating managers.

4.4 ENTREPRENEURIAL CHARACTERISTICS

The entrepreneurial characteristics covered both the assessment of the participating managers as well as the assessment of his/her superior's characteristics.

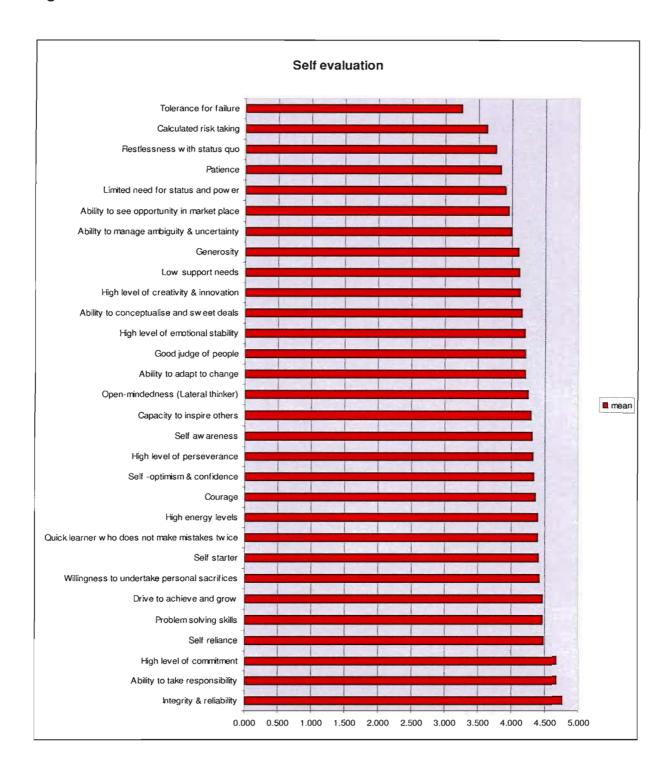
4.4.1 Self assessment

The results of the self assessment are presented in table 4.7. Respondents had to rate themselves against thirty characteristics that indicated there perception of themselves in terms of their entrepreneurial characteristics.

Table 4.7: Self evaluation

Self evaluation				
Characteristic	Code	n	\overline{x}	s
Integrity & reliability	B1/16	138	4.761	0.461
Ability to take responsibility	B1/07	137	4.657	0.535
High level of commitment	B1/01	137	4.657	0.521
Self reliance	B1/10	138	4.478	0.630
Problem solving skills	B1/08	138	4.464	0.594
Drive to achieve and grow	B1/28	137	4.460	0.675
Willingness to undertake personal sacrifices	B1/24	138	4.420	0.818
Self starter	B1/25	137	4.401	0.691
Quick learner who does not make mistakes twice	B1/22	138	4.391	0.644
High energy levels	B1/03	138	4.391	0.709
Courage	B1/11	137	4.358	0.704
Self -optimism & confidence	B1/12	138	4.326	0.756
High level of perseverance	B1/06	138	4.319	0.828
Self awareness	B1/21	136	4.309	0.615
Capacity to inspire others	B1/09	138	4.290	0.675
Open-mindedness (Lateral thinker)	B1/30	138	4.246	0.743
Ability to adapt to change	B1/19	135	4.207	0.783
Good judge of people	B1/17	138	4.203	0.830
High level of emotional stability	B1/20	137	4.197	0.784
Ability to conceptualise and sweet deals	B1/23	138	4.145	0.720
High level of creativity & innovation	B1/02	137	4.117	0.777
Low support needs	B1/04	135	4.104	0.831
Generosity	B1/15	137	4.102	0.816
Ability to manage ambiguity & uncertainty	B1/13	137	3.993	0.845
Ability to see opportunity in market place	B1/14	138	3.957	0.836
Limited need for status and power	B1/26	136	3.904	0.885
Patience	B1/18	138	3.833	1.057
Restlessness with status quo	B1/27	138	3.754	0.895
Calculated risk taking	B1/05	138	3.616	0.899
Tolerance for failure	B1/29	137	3.241	1.141

Figure 4.7: Self evaluation



It is clear from table 4.7 and figure 4.7 that the respondents rated themselves very high on the characteristic Integrity and reliability ($\bar{x}=4.761$). They also rated themselves very high on Ability to take responsibility and High level of commitment ($\bar{x}=4.657$). Self reliance ($\bar{x}=4.478$), Problem solving skills ($\bar{x}=4.464$), Drive to achieve and grow ($\bar{x}=4.460$) and Willingness to undertake personal sacrifices ($\bar{x}=4.420$) were the next highest. The respondents scored themselves the lowest on Tolerance to failure (mean = 3.241), Calculated risk taking ($\bar{x}=3.616$) and Restlessness with status quo ($\bar{x}=3.754$).

4.4.2 Superior assessment

The respondents were asked to rate their superiors on exactly the same scale as they rated themselves in order to determine the respondents view of their superiors entrepreneurial characteristics.

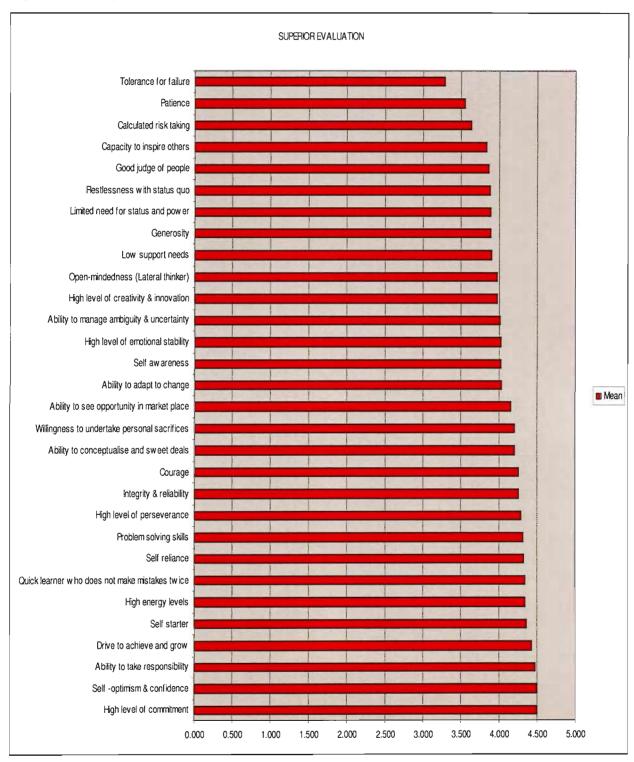
Table 4.8 and figure 4.8 presents the information regarding the perception of the view of the respondents of their superiors.

Respondents view their superiors as people that has got a very **High level of commitment** ($\bar{x}=4.493$), that has got the **Ability to take responsibility** ($\bar{x}=4.471$) and the **Ability to drive and grow** ($\bar{x}=4.423$). The respondents rated their superiors very low on **Tolerance to failure** ($\bar{x}=3.285$), **Patience** ($\bar{x}=3.554$) and **Calculated risk taking** ($\bar{x}=3.633$).

Table 4.8: Superior evaluation

	S	uperior e	evaluation	on
Characteristic	Code	'n	\overline{x}	s
High level of commitment	B2/01	138	138	4.493
High level of creativity & innovation	B2/02	138	138	3.978
High energy levels	B2/03	139	139	4.345
Low support needs	B2/04	136	136	3.897
Calculated risk taking	B2/05	139	139	3.633
High level of perseverance	B2/06	139	139	4.288
Ability to take responsibility	B2/07	138	138	4.471
Problem solving skills	B2/08	139	139	4.309
Capacity to inspire others	B2/09	139	139	3.835
Self reliance	B2/10	139	139	4.324
Courage	B2/11	138	138	4.254
Self -optimism & confidence	B2/12	138	138	4.493
Ability to manage ambiguity & uncertainty	B2/13	137	137	4.007
Ability to see opportunity in market place	B2/14	139	139	4.151
Generosity	B2/15	139	139	3.892
Integrity & reliability	B2/16	139	139	4.259
Good judge of people	B2/17	139	139	3.863
Patience	B2/18	139	139	3.554
Ability to adapt to change	B2/19	136	136	4.029
High level of emotional stability	B2/20	139	139	4.022
Self awareness	B2/21	138	138	4.022
Quick learner who does not make mistakes twice	B2/22	139	139	4.345
Ability to conceptualise and sweet deals	B2/23	136	136	4.199
Willingness to undertake personal sacrifices	B2/24	138	138	4.196
Self starter	B2/25	138	138	4.362
Limited need for status and power	B2/26	134	134	3.888
Restlessness with status quo	B2/27	136	136	3.875
Drive to achieve and grow	B2/28	137	137	4.423
Tolerance for failure	B2/29	137	137	3.285
Open-mindedness (Lateral thinker)	B2/30	137	1 <u>37</u>	3.971

Figure 4.8: Superior evaluation



4.4.3 Comparison between the self and superior assessment

It is important to compare the perception that the respondents have about the way they see themselves and how they see their superiors. The comparison between the self and superior assessment is presented in table 4.9 with the number of respondents (n), mean (\bar{x}) , standard deviation (s), statistical significant (*p-values*) and practical significant (*d-values*) difference between the means.

Test for practical significance: d value — there are two factors where a medium possibility exists in practice i.e. **Good judge of people** (d-value = 0.04) and **Self-optimism and confidence** (d-value = 0.52). One of the factors, **Integrity and reliability** (d-value = 0.87), has got a large possibility of any practical significance.

Test for response bias: *p*-value – the entrepreneurial characteristics not showing any significance are **Patience**, **Calculated risk taking**, **Limited need for status and power**, **Ability to manage ambiguity & uncertainty**, **Willingness to undertake personal sacrifices**, **High level of emotional stability**, **Drive to achieve and grow**, **Self reliance**, **Capacity to inspire others**, **Self awareness**, **Problem solving skills**, **Ability to take responsibility** and **High level of commitment**. There is thus a statistically significant difference on seventeen of the thirty factors (refer to Table 4.9).

Table 4.9: Comparison between the self and superior assessment

	Superior								
		Self	asses	sment	as	ssessm	ent	Comparison	
	Characteristic	n	\vec{x}	s	n	\overline{x}	s	<i>p-</i> value	<i>d-</i> value
B1/01	Tolerance for failure	137	4.657	0.521	138	4.493	0.737	0.01	0.22
B1/02	Patience	137	4.117	0.777	138	3.978	0.875	0.11*	0.16
B1/03	Calculated risk taking	138	4.391	0.709	139	4.345	0.768	0.47*	0.06
B1/04	Restlessness with status quo	135	4.104	0.831	136	3.897	0.921	0.01	0.23
B1/05	Limited need for status and power	138	3.616	0.899	139	3.633	0.910	0.79*	0.02
B106	Ability to manage ambiguity & uncertainty	138	4.319	0.828	139	4.288	0.792	0.47*	0.04
B1/07	Ability to see opportunity in market place	137	4.657	0.535	138	4.471	0.830	0.01	0.22
B1/08	Low support needs	138	4.464	0.594	139	4.309	0.833	0.02	0.19
B1/09	Good judge of people	138	4.290	0.675	139	3.835	1.152	0.00	0.40*
B1/10	High level of perseverance	138	4.478	0.630	139	4.324	0.836	0.03	0.18
B1/11	Willingness to undertake personal sacrifices	137	4.358	0.704	138	4.254	0.880	0.14*	0.12
B1/12	Generosity	138	4.326	0.756	138	4.493	0.697	0.05	0.22
B1/13	High level of emotional stability	137	3.993	0.845	137	4.007	0.887	0.93*	0.02
B1/14	Ability to adapt to change	138	3.957	0.836	139	4.151	0.807	0.01	0.23
B1/15	High level of creativity & innovation	137	4.102	0.816	139	3.892	0.946	0.01	0.22
B1/16	Self -optimism & confidence	138	4.761	0.461	139	4.259	0.951	0.00	0.52*
B <u>1/17</u>	Open-mindedness (Lateral thinker)	138	4.203	0.830	139	3.863	0.972	0.00	0.35
B1/18	Ability to conceptualise and sweet deals	138	3.833	1.057	139	3.554	1.235	0.03	0.23
B1/19	High energy levels	135	4.207	0.783	136	4.029	0.902	0.03	0.20
B1/20	Courage	137	4.197	0.784	139	4.022	0.974	0.04	0.18
B1/21	Self starter	136	4.309	0.615	138	4.022	0.932	0.00	0.31
B1/22	Drive to achieve and grow	138	4.391	0.644	139	4.345	0.759	0.39*	0.06
B1/23	Capacity to inspire others	138	4.145	0.720	136	4.199	0.850	0.47*	0.06
B1/24	Quick learner who does not make mistakes twice	138	4.420	0.818	138	4.196	0.943	0.01	0.24
B1/25	Self reliance	137	4.401	0.691	138	4.362	0.792	0.54*	0.26
B1/26	Self awareness	136	3.904	0.885	134	3.888	1.038	0.78*	0.02
B1/27	Problem solving skills	138	3.754	0.895	136	3.875	0.906	0.13*	0.13
B1/28	Ability to take responsibility	137	4.460	0.675	137	4.423	0.725	0.48*	0.03
B1/29	High level of commitment	137	3.241	1.141	137	3.285	1.150	0.82*	0.04
B <u>1/30</u>	Integrity & reliability	138	4.246	0.743	137	3.971	1.111	0.01	0.87**

Key as per Thalheimer and Cook (2002):

^{*}Medium effect (>0.40 and <0.75) - Medium possibility exists in practice

^{**}Large effect (>0.75 and <1.10) - Large possibility exist in practice.

4.5 RELIABILITY OF THE ENTREPRENEURIAL CLIMATE QUESTIONNAIRE

The Cronbach alpha coefficient was calculated to determine the reliability of the questionnaire. It emphasized that reliability tests are especially important when derivative variables are intended to be used for subsequent predictive analyses. If the scale shows poor reliability, then individual items within the scale must be re-examined and modified or completely changed as needed. One good method of screening for efficient items is to run an exploratory factor analysis on all the items contained in the survey to weed out those variables that failed to high correlation (Santos, 1999:1).

The Cronbach alpha coefficient is based on the average correlation of variables within a test (SAS 2005: 295). It is an index of reliability associated with the variation accounted for by the true score of the "underlying construct". Construct is the hypothetical variable that is being measured (Hatcher, 1994: 24). The results of the Cronbach Alpha coefficients are presented in Table 4.10.

Cronbach alpha coefficient ranges from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e. rating scale: 1 = poor, 5 = excellent) (Santos, 1999:1). Nunnally and Bernstein (1994: 265) have indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. In this study the internal consistency between the items eleven of the thirteen constructs is acceptable. The only exceptions were the following constructs:

- Tolerance of risk, mistake and failure (0.554)
- Discretionary time at work (0.632)

The rest of the constructs are all higher than 0.7 and thus acceptable.

Table 4.10: Results of the reliability of the entrepreneurial climate questionnaire

No	Construct	n	Cronbach's α
1	Entrepreneurial leadership	140	0.822
2	Management support	140	0.731
3	Sponsor (Champion)	140	0.762
4	Tolerance of risk, mistakes and failure	140	0.554
5	Innovation and creativity	140	0.747
6	Appropriate rewards and reinforcement	140	0.766
7	Vision and strategic intent	140	0.839
8	Discretionary time at work	140	0.632
9	Empowered and multidisciplinary teams	140	0.818
10	Resource availability and accessibility	140	0.852
11	Continuous and cross-functional learning	140	0.811
12	Strong customer orientation	140	0.838
13	Flat organizational structure with an open communication and strong sense of belonging	140	0.729

4.6 ASSESSMENT OF ENTREPRENEURIAL CLIMATE CONSTRUCTS

The entrepreneurial climate study in Tiger Brands was based on the fundamentals of the questionnaire as discussed in chapter 1.

Data was sorted from the highest arithmetic mean to the lowest arithmetic mean value and is presented in Table 4.11 with the number of respondents (n), mean (\bar{x}) and standard deviation (s).

Table 4.11: Results of entrepreneurial climate

No	Construct	n	\overline{x}	s
12	Strong customer orientation	140	3.556	0.848
1	Entrepreneurial leadership	140	3.548	0.857
7	Vision and strategic intent	140	3.467	0.903
8	Discretionary time and work	140	3.326	0.729
9	Empowered and multidisciplinary teams	140	3.306	0.826
2	Management support	140	3.241	0.760
13	Flat organizational structure with open communication and strong sense of belonging	140	3.185	0.790
5	Innovation and creativity	140	3.177	0.802
11	Continuous and cross-functional learning	140	3.177	0.916
3	Sponsor	140	3.054	0.781
4	Tolerance of risk, mistake and failure	140	3.031	0.629
6	Appropriate rewards and reinforcement	140	2.777	0.882
10	Resource availability and accessibility	140	2.744	0.858

The data revealed that construct twelve, **Strong customer orientation**, with a mean of 3.556 was the evaluated as the highest and construct two, **Entrepreneurial leadership**, with a mean of 3.548 was ranked the second highest by the respondents. **Vision and strategic intend** ($\bar{x} = 3.467$), **Discretionary time at work** ($\bar{x} = 3.326$) and **Empowered and multidisciplinary teams** ($\bar{x} = 3.306$) followed on that.

Management support ($\bar{x}=3.241$), Flat organization with open communication ($\bar{x}=3.185$) and Innovation and creativity ($\bar{x}=3.177$) as well as Continuous and cross functional learning ($\bar{x}=3.177$) can be seen as the midpoint of the rankings.

The constructs, Sponsor ($\bar{x}=3.054$), Tolerance of risk, mistakes and failure ($\bar{x}=3.031$), Appropriate rewards and reinforcement ($\bar{x}=2.777$) and Resource availability and accessibility ($\bar{x}=2.744$) respectively yielded the lowest arithmetic mean scores.

4.7 RELATIONSHIPS BETWEEN DEMOGRAPHICAL VARIABLES AND CONSTRUCTS MEASURING ENTREPRENEURIAL CLIMATE

Statistical significance tests have the tendency to yield small *p-values* (indication of significance) as the size of the data set increases. The effect size, however, is independent of sample size and is a measure of practical significance (Ellis & Steyn 2003: 51). In this study, independent t-test (*p-value*) and effect sizes (*d-values*) were calculated between the mean values to examine the relationship between the extracted factors, that is, gender classification of respondents, age group of respondents, race classification, and the management level of respondents. In practice that means that this analysis aim to determine if there is a significant difference between the evaluation based on the mean score for instance male and female respondents with regard to a specific construct.

For the purpose of this study, the demographical data are classified according to the following categories:

- Gender: male; female;
- Age: younger as 40 years old; 50 years and older
- Race classification: Black (including Coulereds and Indians); White
- Management level: E-band, DU and DL; CU

Effect sizes (*d*) are interpreted, according to Cohen's guidelines, as follows: small effect (*d-values* = 0.2), medium effect (*d-values* = 0.5) and large effect (*d-values* = 0.8). Results with medium effects can be regarded as visible effects and with $d \ge 0.8$ as

practically significant, since it is the result of a difference having a large effect (Ellis & Steyn, 2003: 51-53).

The relationships between the demographical variables and the constructs measuring the entrepreneurial climate are Table 4.12 to Table 4.15 with the number of respondents (n), mean (\bar{x}) , standard deviation (s), statistical significant (*p*-values) and practical significant (*d*-values) difference between the means.

4.7.1 Gender

It is evident from table 4.7 that there is no statistical or practical significance in the data obtaining from the results gender relationships.

Table 4.12: Results of gender relationships

Group Statistics Gender										
Item	Description	Gender	n	\overline{x}	s	<i>p</i> -value	<i>d</i> -value			
1	Loodorobin	Male	99	3.585	0.8962	0.400	0.14			
	Leadership	Female	41	3.457	0.7574	0.423	0.14			
2	2 Support	Male	99	3.313	0.7707	0.085	0.32*			
		Female	41	3.069	0.7139	0.065	0.32			
3	Sponsor	Male	99	3.098	0.7772	0.297	0.19			
		Female	41	2.946	0.7877	0.297	0.19			
4	Tolerance	Male	99	3.010	0.6340	0.535	0.11			
4	- Tolerance	Female	41	3.083	0.6213	0.555	0.11			
5	5 New ideas	Male	99	3.202	0.8119	0.570	0.10			
3	INEW IDEAS	Female	41	3.117	0.7836					
6	Rewards	Male	99	2.849	0.8447	0.136	0.26			
0	newarus	Female	41	2.604	0.9563	0.136	0.26			
7	Vision	Male	99	3.522	0.9088	0.267	0.21			
1	V 151011	Female	41	3.335	0.8870	0.267	0.21			
8	Timework	Male	99	3.360	0.7513	0.400	0.15			
0		Female	41	3.245	0.6730	0.400	0.15			
9	Teams	Male	99	3.323	0.8106	0.704	0.07			
9	Teams	Female	41	3.265	0.8695	0.704	0.07			
10	Resources	Male	99	2.769	0.8357	0.585	0.10			
10	nesources	Female	41	2.681	0.9178	0.565	0.10			

There are no statistical significant differences (p < 0.05) between the calculated means of males and female regarding any of the 13 constructs measuring entrepreneurial climate. There is furthermore only a small effect (d-value = 0.32) concerning the construct, **Management support**.

4.7.2 Age group

It is evident from table 4.8 that there is no statistical or practical significance in the data obtaining from the results age relationships.

Table 4.13: Results of age relationships

	Group Statistics Age										
Item	Description	Gender	n	\vec{x}	s	<i>p</i> -value	<i>d</i> -value				
4	1 Londorphin	<40	56	3.518	0.9119	0.737	0.05				
1	Leadership	>=40	84	3.568	0.8237	0.737	0.05				
2	Cupport	<40	56	3.159	0.7917	0.297	0.17				
	Support	>=40	84	3.296	0.7381	0.297	0.17				
3	Spancar	<40	56	2.980	0.7799	0.361	0.16				
S	Sponsor	>=40	84	3.103	0.7817	0.301	0.16				
4	Tolerance	<40	56	3.014	0.6414	0.793	0.793	0.04			
_ 4	lolerance	>=40	84	3.043	0.6241	0.790	0.04				
5	New ideas	<40	56	3.093	0.8796	0.312	0.16				
5		>=40	84	3.233	0.7456	0.512	0.10				
6	Rewards	<40	56	2.625	0.9489	0.097 0	0.27				
0	newarus	>=40	84	2.878	0.8256	0.037	0.27				
7	Vision	<40	56	3.350	1.0178	0.212	0.19				
1	V 151011	>=40	84	3.545	0.8152	0.212	0.13				
8	Timework	<40	56	3.284	0.8190	0.587	0.09				
	HIHEWORK	>=40	84	3.354	0.6654	0.507	0.00				
9	9 Teams	<40	56	3.246	0.8965	0.481	0.11				
	I Gairis	>=40	84	3.346	0.7776	0.401	0.11				
10	Recources	<40	56	3.751	0.9423	0.927	0.01				
10	Resources	>=40	84	2.738	0.8023	0.527	0.01				

There are no statistical significant differences (p < 0.05) between the calculated means of the age groups (< 40 years old; >=40 years old) regarding any of the 13 constructs measuring entrepreneurial climate.

4.7.3 Race

The results of the relationship between the demographical variable, race classification (Black; White), and the entrepreneurial climate constructs are presented in Table 4.14.

Table 4.14: Results from race relationships

	Group Statistics Race									
Item	Description	Gender	n	\overline{x}	s	<i>p</i> -value	<i>d</i> -value			
1	Loodorobin	Black	54	3.719	0.8543	0.070	0.31			
I	Leadership	White	85	3.451	0.8465	0.072	0.31			
2	Support	Black	54	3.304	0.8318	0.467	0.12			
	Support	White	85	3.207	0.7167	0.467	0.12			
3	Spangar	Black	54	3.135	0.8507	0.332	0.16			
ં	Sponsor	White	85	3.002	0.7379	0.002	0.16			
4	Tolerance	Black	54	3.207	0.6118	0.008	0.47*			
4	Tolerance	White	85	2.918	0.6205	0.008				
5	New ideas	Black	54	3.419	0.7435	0.006	0.48*			
5	new ideas	White	85	3.035	0.8037	0.000	0.40			
6	Rewards	Black	54	2.889	0.8992	0.235	0.20			
0	newarus	White	85	2.705	0.8748	0.235	0.20			
7	Vision	Black	54	3.670	0.8566	0.035	0.36			
1	VISIOII	White	85	3.339	0.9186	0.035	0.36			
8	Timework	Black	54	3.411	0.7598	0.297	0.17			
	Timework	White	85	3.278	0.7101	0.237	0.17			
9	Tooms	Black	54	3.385	0.8858	0.393	0.14			
9	Teams	White	85	3.261	0.7897		0.14			
10	Posouroos	Black	54	2.967	0.9134	0.017	0.39			
10	Resources	White	85	2.611	0.7972	0.017	0.39			

The results indicate statistical significant differences (p < 0.05) between the calculated means of the race classifications (Black; White) with regard to the constructs **Tolerance** (p-value = 0.008), **New ideas** (p-value = 0.006), **Vision** (p-value = 0.035) and **Resources** (p-value = 0.017).

Two constructs, **Tolerance** (d-value = 0.48) and **New ideas** (d-value = 0.47) have a medium effect. The effect sizes of the rest of the constructs are small.

4.7.4 Management level

The results of the relationship between the demographical variable, management level, and the entrepreneurial climate constructs are presented in Table 4.15.

Table 4.15: Results from management level relationships

	Group Statistics from management level relationships									
Item	Description	Gender	n	\overline{x}	s	<i>p</i> -value	<i>d</i> -value			
	•	E band,		_						
1	Leadership	DU, DL	75	3.556	0.7984	0.904	0.02			
		CU	65	3.539	0.9266					
		E band,								
2	Support	DU, DL	75	3.304	0.7145	0.298	0.17			
		CU	65	3.169	0.8092					
		E band,								
3	Sponsor	DU, DL	75	3.045	0.7955	0.885	0.02			
	_	CU	65	3.064	0.7689					
		E band,				0.027				
4	Tolerance	DU, DL	75	2.923	0.6306		0.37			
		CU	65	3.157	0.6077					
_		E band,				0.719	0.06			
5	New ideas	DU, DL	75	3.200	0.7725					
		CU	65	3.151	0.8397					
	l	E band,								
6	Rewards	DU, DL	75	2.821	0.8250	0.529	0.10			
		CU	65	2.726	0.9484					
_	100	E band,		0.505	0.0040	0.040				
7	Vision	DU, DL	75	3.535	0.8249	0.340	0.15			
		CU	65	3.388	0.9867					
	T:	E band,	7-	0.000	0.7000	0.004	0.00			
8	Timework	DU, DL CU	75	3.396	0.7033	0.224	0.20			
			65	3.245	0.7543					
	O T	E band,	75	0.077	0.0000	0.074	0.40			
9	Teams	DU, DL CU	75	3.377	0.8098	0.274	0.18			
			65	3.224	0.8421					
10	Posouroos	E band, DU, DL	75	2.632	0.8181	0.000	0.27			
10	Resources	CU	65	2.872	0.8911	0.099	0.27			
		00	00	2.012	0.0311					

It is evident from table 4.15 that there are no statistical or practical significant differences between the different levels of management on the constructs measuring entrepreneurial climate in this study.

4.8 SUMMARY

This chapter institutes the mythology to gather empirical data in Tiger Brands in order to determine the innovational climate within the organization as well as the entrepreneurial characteristics of respondents in correlation of that of their superiors.

The data was collected through the distribution of a questionnaire send out to Tiger Brands managers. The questionnaires were sent to one central e-mail address and the data was processed.

The processed data indicated that the entrepreneurial climate at Tiger Brands has the highest arithmetic mean of 3.556 on strong customer relation and the lowest arithmetic mean of 2.744 on resource availability and accessibility.

The results between self evaluation and evaluation of superiors differed as could be expected, but not at a practical or statistical significant level.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Entrepreneurship and innovation and its application in organizations are not always clear, even when measured. This survey however indicated a number of strong performing areas within Tiger Brands as well as some opportunities that leads to recommendations that are all discussed in this chapter.

The conclusions of the empirical study and practical recommendations to foster corporate entrepreneurship in Tiger Brands will be discussed. The chapter will be concluded by a discussion of the achievement of the objectives of the study and the suggestions for future research.

5.2 CONCLUSIONS

The conclusions made from the study are covered under the demographic information, the entrepreneurial characteristics, the reliability and the assessment of the questionnaire and the relationships between the demographical variables and the entrepreneurial climate constructs.

5.2.1 Demographic information

- **Gender:** Of the 140 respondents 99 were male and 41 female. The males represents a 70.71% and the females 29.29%.
- Age: The majority of the respondents are between 40 and 49 years (37.89%) years old. Only 2.86% of the respondents are older than 60 years.

- Race: Whites reflect the biggest percentage of respondents (60.71%). Indian (14.29%), black (12.14%) and coloured (12.14%) are more or less evenly distributed.
- Highest academic qualification: Eleven of the respondents did not indicate their highest academic qualifications. The majority of respondents were in possession of a certificate (60.71%), while fourteen percent were in possession of a diploma.
 Seventeen percent of the respondents were in possession of a degree or post graduate degree.
- Management level: The majority of the respondents are D band managers and represents 50 percent of the respondents. Forty six percent of the respondents are C band managers and only 4 percent of the respondents are on executive level.
- **Departments:** Ten of the respondents did not indicate the department that they are working in. All departments differ in size and it was expected that there will be different responses from the different departments. The Grains department had the biggest response with twenty percent participation while the Out of Home and Export departments the smallest response with only four percent of the participating managers.

5.2.2 Entrepreneurial characteristics

Respondents that participated in this study rated themselves very high on the characteristic Integrity and reliability ($\bar{x}=4.761$). They also rated themselves very high on Ability to take responsibility ($\bar{x}=4.657$) and High level of commitment ($\bar{x}=4.657$). Self reliance ($\bar{x}=4.478$), Problem solving skills ($\bar{x}=4.464$), Drive to achieve and grow ($\bar{x}=4.460$) and Willingness to undertake personal sacrifices ($\bar{x}=4.420$) were the next highest. The respondents scored themselves the lowest on the characteristics Tolerance to failure (mean = 3.241), Calculated risk taking ($\bar{x}=3.616$) and Restlessness with status quo ($\bar{x}=3.754$).

When rating there superiors the respondents rated their respective superior as people with a very **High level of commitment** ($\bar{x}=4.493$), that has got the **Ability to take** responsibility ($\bar{x}=4.471$) and the **Ability to drive and grow** ($\bar{x}=4.423$). The respondents rated their superiors very low on **Tolerance to failure** ($\bar{x}=3.285$), **Patience** ($\bar{x}=3.554$) and **Calculated risk taking** ($\bar{x}=3.633$).

5.2.3 Reliability of the entrepreneurial climate questionnaire

In this study the internal consistency or reliability of the questionnaire was measured and acceptable between eleven of the thirteen constructs. The only exceptions were the following constructs:

- Tolerance of risk, mistake and failure (0.554)
- Discretionary time at work (0.632)

The rest of the constructs are all higher than 0.7 and thus acceptable.

5.2.4 Assessment of the entrepreneurial climate questionnaire

Following the questionnaire that analyzed the thirteen constructs conducive for entrepreneurial activity and behaviour, the following conclusions are made:

- Entrepreneurial leadership ($\bar{x}=3.548$): It is evident that there is a strong entrepreneurial leadership in Tiger Brands. Leaders should not only take strong leadership but also look at the areas where there is still room for improvement.
- Management support ($\bar{x} = 3.241$): Although there is some level of management support there is still opportunities to improve.
- Sponsors (Champion) ($\bar{x}=3.054$): Management should clearly appoint sponsors to indicate to lower levels of management that there is a commitment from management's side that they will be supported when attempting entrepreneurial activities.

- Tolerance for risk, mistakes and failures ($\bar{x}=3.031$): The way that managers are remunerated and measured against performance appraisals prevents managers to take risks. The organization will have to look at the way that they measure managers and accept failures and mistakes that they made. The philosophy that mistakes should only be once should however be instilled. Managers should thus learn from their mistakes.
- Innovation and creativity / New ideas encouraged ($\bar{x} = 3.17$): Although there is a high level of innovation in some departments within the organization there is still opportunity to improve. Initiatives such as the Continues Improvement Program at Tiger Brands can increase innovation when improving processes but can also prevent innovation where research and development requires funding.
- Appropriate rewards and reinforcement ($\bar{x}=2.777$): The organization is not good on rewarding innovation and clearly needs to improve the rewards and recognition system. The rewards system can be altered to either offer monetary rewards or just some sort of recognition within the team or in the organization.
- Vision and strategic intent ($\bar{x}=3.467$): Top management succeeded in getting the message through to all levels of management. It seems further more that the organization and its managers are aligned on the vision and strategic intent. Communication on this issue is clear and the message well understood.
- **Discretionary time at work** ($\bar{x} = 3.326$): The managers agreed that they are allowed to spend time on improving processes and be innovative while at work during working hours.
- Empowered and multidisciplinary teams ($\bar{x} = 3.306$): The organization has put the processes and structures in place to assure that multidisciplinary teams function within the organization. Managers indicated that they are involved in these processes and part of the teams and that they extract value from these teams.
- Resource availability and accessibility ($\bar{x}=2.744$): It was indicated by the managers that Tiger Brands is not making resources available to release the innovative and entrepreneurial character of employees. The organization will

have to budget and provide properly for research and development and innovation in general.

- Continuous and cross-functional learning ($\bar{x}=3.177$): Although there are multidisciplinary teams in place and fully operational, there is still not sufficient cross-functional learning's. The organization will have to make a conscious effort to stimulate cross-functional learning.
- Strong customer orientation ($\bar{x}=3.556$): The customer is still the most important focus point in the organization. It is clear that this is a very well communicated vision within the organization as it was scored very high. Top management furthermore succeeded in getting the message that the customer is the central focus point to all levels of management.
- Flat organizational structure with open communication ($\bar{x} = 3.185$): The organizational structure is fairly flat but the organization must still encourage communication to flow freely through different levels.

The general attitude of managers and there perception of their superiors are quite positive with fairly high rating on most of the characteristics.

5.2.5 Relationship between the demographical variables and the entrepreneurial climate constructs

There are no practical meaningful differences between the demographical variables and the entrepreneurial climate constructs.

5.3 RECOMMENDATIONS

The study exposed some opportunities within the organization that can be adjusted and changed to increase and improve the entrepreneurial climate in Tiger Brands. The following recommendations to foster a corporate entrepreneurial climate in Tiger Brands are made:

- As innovation forms inherent part of Tiger Brands vision for the future it is important to establish formal structures that will identify strong entrepreneurial leadership. Leaders then need to manage entrepreneurship as one of the core values of the organization. Managers should be measured on their individual performance appraisals to make sure that they drive entrepreneurship as one of the "must win battles". Such leaders should be identified and introduced to the employees to make them accessible for all.
- Management support needs to be improved by allowing managers to also take risks and accepts a level of failure. Management needs to be allowed to make ample financial allowance for possible unplanned projects to render the support needed to stimulate the entrepreneurial spirit in the department. Management should also allow entrepreneurs to receive credit for their ideas and be allowed to follow the idea through until it delivers the expected results. It is important to give feedback on the progress of all projects to all employees. This can happen in an open forum in order to show managements support.
- It is very important that the correct people with the correct experience be identified to act as **sponsors or champions**. They should be influential people that will be able to act on behalf of the employee. The sponsor should be able to help to make funds and resources available and to manage the employee in a positive direction. The sponsors need to be people that are not forced to act as sponsors but see themselves as people that would like to add value to people that are innovative and that do need support.
- The organization should become more tolerant towards risk, mistakes and failure by allowing employees to take calculated risks and practical experimentation. Employees will need to still carry responsibility for projects but can not be financially penalized when a project fails. Employees will stop to be innovative and end all entrepreneurial activity if the organization reacts negatively on failure. Even new start up businesses are founded with the possibility of complete failure and risk.
- Build innovation and new idea targets into the performance scorecard of each employee. Build these targets into an individual, section and departmental

scorecard to not only stimulate innovations and new ideas but also crossfunctional activity. Also incentivise the individual, section or department with the highest level of innovation. Start an inter-departmental competition on successful innovational projects. The best department will then present its ideas and strategy to the rest of the business.

- Recognize and reward employees for there performance. Employees should not
 only be rewarded financially but also get recognition within the organization for
 what they did. The reward needs to be in line with the value that the employee
 added to the organization. If the project allows for it the employee needs to be
 involved and see the project through until completion. The opportunity of
 outsourcing and offering of shares can be considered.
- The vision and strategic intent forms the pillars on witch innovation and entrepreneurship stands. It is vitally important that the vision is communicated down to all levels. Use of the intranet, SMS campaign and write ups in the Tiger Tales should establish the message from top management that employees should live up to the vision of the organization. Management should live by the values of the vision to imbed the importance of the vision to all levels of management.
- Employees should be allowed more freedom to use time to safely divert from normal duties to explore new ideas without having to ask for permission, as well as allowing free time to develop an idea until it delivers the expected results. This process should however be managed.
- Structures and processes should be put in place in order to assure that cross-functional project teams meet on a regular basis. These teams should be allowed a high level of freedom to act and make decisions to drive the project that they are initiating. Cross-functional teams should also include inter departmental teams that can make contributions in terms of market trends, global trends and customer demands.
- Make sure that departments allocate a certain percentage of the budget for research and development. Structure the funds in such a way that there will be provision for unplanned ideas and new projects not yet on the radar screen when

- the budget was put together. **Resources** should be **available** and **accessible** to ensure that new ideas don't fail before they are developed and put to test.
- It is important that cross-functional teams need to be involved in updates on innovation in other departments. This initiates new ways of thinking and allows for continuous learning. New innovation in one department might be able to be applicable in other departments as well or with a little adjustment lead to another better process in another department.
- All teams in the organization should be informed of the customer's needs and expectations. It is crucial to understand the customer. A strong customer centric orientation must then be established in order to fulfil the customer's needs. It is important to do proper research on consumer trends and preferences to determine the true need of the consumer. Clear distinctions need to be made between customer expectations and consumer expectations as the two might differ completely.
- The organization should continuously be aware to keep reporting **structures flat** and to make sure that the **communication channels remain open**. Employees should not be scared to make suggestions and make proposals that will improve a process or develop a new product. Employees must be able to communicate at any level in the organization. Some employees might like to discuss their ideas with people that talk their language an auditor might prefer to talk to a financial manager while a sales person might prefer to talk to a marketing manager.

In order to foster the entrepreneurial climate the management team of Tiger Brands will have to develop sensitivity towards the entrepreneurial characteristics of employees. Entrepreneurial characteristics need to be developed and people with these characteristics should be sourced into the organisation when new employees are appointed into positions. A talent pool of people with the preferred characteristics should be maintained. Feedback on developing the talent pool should be published in the Tiger tales on a quarterly basis.

5.4 ACHIEVEMENTS OF OBJECTIVES

The measurement of success of this study is based upon the achievement of the primary and secondary objectives, as indicated in Section 1.3 of this study.

5.3.1 Primary objective

The primary objective of this study was to access corporate entrepreneurship in Tiger Brands and to make recommendations to foster corporate entrepreneurship in the organisation.

The achievement of the primary objective was depended upon the realising of the secondary objectives.

5.3.2 Secondary objectives

As indicated in Section 1.3, the secondary objectives had to be met to be able to achieve the primary objectives. The following secondary objectives had to be met:

- To define corporate entrepreneurship;
- To obtain insight into the dynamics of family corporate entrepreneurship by means of a literature review;
- To obtain insight into the business environment of Tiger Brands;
- To access the entrepreneurial characteristics of corporate entrepreneurs;
- To validate the reliability of the questionnaire;
- To assess the entrepreneurial climate in Tiger Brands;
- To examine the relationships between the demographical variable and the constructs measuring the entrepreneurial climate; and

 To suggest practical recommendations to foster corporate entrepreneurship in Tiger Brands.

The first secondary objective, to define entrepreneurs, entrepreneurship, corporate entrepreneur, entrepreneurial climate and innovation was achieved by defining these terms in section 2.2 in chapter 2 of this study.

The second secondary objective, to obtain insight into the dynamics of corporate entrepreneurship by means of a literature review, was achieved by means of the literature study as presented in chapter 2.

The third objective, to obtain insight into the business environment in Tiger Brands by means of a literature review, was also achieved by means of a literature study in chapter 3.

The fourth secondary objective was to access the entrepreneurial characteristics of corporate entrepreneurs. This objective was achieved in Chapter 4.

The fifth objective was to determine the reliability of the existing questionnaire. This objective was achieved as it was concluded that the existing questionnaire has acceptable reliability. Constructs that obtained low Cronbach alpha coefficients, should however, be investigated to improve the internal consistency of the items measuring the respective constructs. The empirical study in Section 4.4.1 to 4.4.5 discussed the calculated Cronbach alpha coefficients and the results were put forward in Section 4.3 of this study.

The sixth objective, to access the entrepreneurial climate in Tiger Brands, was covered in Section 4.6. This objective was achieved by means of the presentation and discussion of the findings in Section 4.6 of this study.

The seventh objective, to determine the relationship between the demographical variables and the constructs measuring the entrepreneurial climate, was achieved by presenting the findings in Section 4.7 of this study.

The last secondary objective to suggest practical recommendations to foster corporate entrepreneurship in Tiger Brands was successfully achieved by presenting the recommendations in Section 5.3 of this study.

The conclusion can be made that all the secondary objectives were achieved. Based on the realising of the secondary objectives, as well as the recommendation put forward in Section 5.3, it can be concluded that the primary objective of this study was achieved.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

As there are still opportunities within Tiger Brands to expand the base and improve the response of respondents better information can be obtained to make better conclusions per department.

Further research should assess corporate entrepreneurship across different sectors in the fast moving consumable goods industry. Longitudinal surveys should also be done to ascertain whether high levels of entrepreneurial intensity are sustainable over time.

As this study was only done in Tiger Brands there will still be opportunities to include more companies in the food industry. The study can still look at entrepreneurial studies in other countries in Africa as this study only looked at the situation in South Africa.

5.6 SUMMARY

In general the conclusion in this study correlate with Morris and Kuratko (2002: 10) that the only way an organisation can achieve competitive advantage is if they continue to be innovative, i.e. they have to create new and improved products, services and processes.

As discussed under Section 2.4 entrepreneurs have to have certain characteristics in order to be involved in the entrepreneurial activity in the organisation. In this study respondents rated themselves very high on the **entrepreneurial characteristics** Integrity and reliability ($\overline{x}=4.761$). They also rated themselves very high on Ability to take responsibility and High level of commitment ($\overline{x}=4.657$). Self reliance ($\overline{x}=4.478$), Problem solving skills ($\overline{x}=4.464$), Drive to achieve and grow ($\overline{x}=4.460$) and Willingness to undertake personal sacrifices ($\overline{x}=4.420$) were the next highest. The respondents scored themselves the lowest on Tolerance to failure (mean = 3.241), Calculated risk taking ($\overline{x}=3.616$) and Restlessness with status quo ($\overline{x}=3.754$).

When rating there superiors the respondents rated them as people with a very High level of commitment ($\bar{x}=4.493$), that has got the Ability to take responsibility ($\bar{x}=4.471$) and the Ability to drive and grow ($\bar{x}=4.423$). The respondents rated their superiors very low on Tolerance to failure ($\bar{x}=3.285$), Patience ($\bar{x}=3.554$) and Calculated risk taking ($\bar{x}=3.633$).

It is concluded that there is in general a high level of entrepreneurial characteristics at the level of respondents and that of their superiors.

Of the thirteen **constructs** used in the survey, Strong customer orientation, with a mean of 3.556 was the evaluated as the highest and construct two, Entrepreneurial leadership, with a mean of 3.548 was ranked the second highest by the respondents. Vision and strategic intend ($\bar{x} = 3.467$), Discretionary time at work ($\bar{x} = 3.326$) and Empowered and multidisciplinary teams ($\bar{x} = 3.306$) followed on that.

Management support ($\bar{x}=3.241$), Flat organization with open communication ($\bar{x}=3.185$) and Innovation and creativity ($\bar{x}=3.177$) as well as Continuous and cross functional learning ($\bar{x}=3.177$) can be seen as the midpoint of the rankings.

The constructs, Sponsor ($\bar{x}=3.054$), Tolerance of risk, mistakes and failure ($\bar{x}=3.031$), Appropriate rewards and reinforcement ($\bar{x}=2.777$) and Resource availability and accessibility ($\bar{x}=2.744$) respectively yielded the lowest arithmetic mean scores.

Several recommendations were made in order to improve the entrepreneurial culture of the organization.

There are still opportunities to extend the survey into the bigger industry and into more severity in the organization.

BIBLIOGRAPHY

Amit, R. 1993. Challenges to theory development in entrepreneurship research, *Journal of Management Studies*, 30(5): 815-834.

Barney, J.B. 1986. Types of competition and the theory of strategy: toward an integrative framework, *Academy of Management Review*, 11, 791-800.

Behn, R.D. 1991. Innovation and public values: Mistakes, flexibility, purpose, equity, cost control, and trust. Conference on The Fundamental Questions on Innovation, Duke University, Durham, N.C.

Birkinshaw, I.M. 2003. The paradox of corporate entrepreneurship. *Strategy and Business*, 30: 1-12, Spring.

Chell, E. 2001. Entrepreneurship: Globalization, innovation and development. London: Thomas Learning.

Cole, A.H. 1969. Definition of entrepreneurship, *In J.L.* Komives (Ed.) Karl A Bostrom Seminar in the Study of Enterprise. Milwaukee: Centre of Venture Management. 10-22.

Couger, J.D. 1995. Creative Problem Solving and Opportunity Finding. Danvers, MA: Boyd & Fraser Publishing.

Covin, J.G. & Miles, M.P. 1999. Corporate entrepreneurship and the pursuit of competitive advantage, *Entrepreneurship: Theory & Practice*, 23(3): 47-63.

Cronbach, LJ. 1951. Coefficient alpha and internal structure of tests, *Psychometric* 16. 297-334.

Dess, G.G, Lumpkin, T.T. & McGee, J.E. 1999. Linking corporate entrepreneurship to strategy, structure and process: Suggested research directions, *Entrepreneurship Theory & Practice*, Spring: 85-102.

Ellis, S.M. & Steyn, H.S. 2003. Practical significance (effect sizes) versus or in combination with statistical significance (p-value), *Management Dynamics*, 12(4): 51-53.

Entrepreneurial Characteristics: Business Town. [Web:] http://www.businesstown.com. 9 December 2008

Floyd, S. & Wooldridge, B. 1999. Knowledge creation and social networks in corporate entrepreneurship: the renewal of organizational capabilities, *Entrepreneurship: Theory and Practice*, 23(3): 123-145.

Geisler, E. 1993. Middle managers as internal corporate entrepreneurs, *Interface*, 23(6): 52-63.

Goosen, C.J., De Coning, T.J. & Smit, E. v.d.M. 2002. Corporate entrepreneurship and financial performance: The role of management, *South African Journal of Business Management*, 33(4): 21-27.

Grossi, G. 1990. Promoting innovation in big business. *Long range planning*, 23(1): 41-52.

Guzman, J. & Santos, J. 2001. The booster function and the entrepreneurial quality: an application to the province Seville. *Entrepreneur and Regional Development*, 13(3): 211-228.

Hamel, G. & Prahalad, C. K. 1996. Competing in the New Economy: Managing out of Bounds, *Strategic Management Journal*, 17: 237-242.

Hatcher, L. 1994. A step by step approach to using the SAS(R) system for factor analysis and structural equation modelling. Cary, New York SAS Institute.

Hit, M.A. Ireland, R.D, Camp, S.M. & Sexton, D.L. 2001. Strategic entrepreneurship: Entrepreneurial strategies for wealth creation, *Strategic Management Journal*, 22(Special issue): 479-491.

Hornsby, J.S., Kuratko, D.F. & Zahra, S.A. 2002. Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale, *Journal of business venturing*, 7: 253-273.

Huysamen, G.K. 1994. *Methodology for the social and behavioural sciences*, Midrand: Southern Book Publishers.

Innovation climate factors. [Web:]

<u>http://www.pinchot.com/MainPages/BooksArticles/InnovationIntrapreneuring/Climate.</u>
Date of access: 23 June 2008.

Introducing the truth about innovation. [Web:] http://www.fastcompany.com/blog/max-mckeown/truth-about-innovation. Date of access: 9 December 2008.

Johnson, D. 2001. What is innovation and entrepreneurship? *Industrial and commercial training*: 33(4): 135-140.

Kauffman Foundation. Entrepreneurship. [Web:] http://www.kauffman.org./entrepreneurship.bbc.

Kuratko, D.F., Montagno, R.V. & Hornsby, J.S. 1990. Developing an entrepreneurial assessment instrument for an effective corporate entrepreneurial environment, *Strategic Management Journal*, 58(1): 49-58.

Kuratko, D.F. & Morris, M. 2002. Corporate entrepreneurship: entrepreneurial development within organizations. Orlando, Fl.: Hascot College Publishers.

Leibenstein, H. 1968. Entrepreneurship and development. American Economic Review, *Papers and Proceedings*, 58(2): 72-83.

Lumpkin, G.T & Dess, G.G. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Learning Review*, 21(3), 135-172.

Marketing Intelligence Service of The Nielsen Company. [Web:] http://www.acnielsen.com/site/chinaCPS. Date of access: 12 October 2008.

Maxwell, G. & MacRae, M. 1999. Life long learning through corporate entrepreneurship, *Continuing Professional Development*. 2(1): 24-32.

MacMillan, I. & McGrath, R. 2000. The entrepreneurial mindset: strategies for continuously are creating opportunity in an age of uncertainty. Boston, Mass.: Harvard Business School Press.

McAlindon, H.R. 2004. Innovation climate, Educause Centre for Applied Research, 1: 73-82.

Michalski, T. 2004. A Competency-Based Framework for Innovation Management through Corporate Entrepreneurship. General Management Institute Potsdam e.V. Potsdam.

Miller, D. 1983. The correlates of entrepreneurship in three types of firms, *Management Science*, 29(7): 770-792.

Mirriam- Webster Dictionary.

Morris, M.H. & Sexton, D.L. 1996. The concept of entrepreneurial intensity: Implications for company performance, *Journal of Business Research*, 36: 5-13.

Nayager, T & Van Vuuren, J.J. 2005. An analysis of an organisational strategy, structure and culture that supports corporate entrepreneurship in established organisations, *South African Journal of Economics and Management Sciences*, 8(2): 29-38.

Nieman, G., Hough, J. & Nieuwenhuizen, C. (Eds.). 2003. Entrepreneurship a South African perspective. Pretoria: Van Schaik Publishers.

Nunnally, J. & Bernstein, LH. 1994. Psychometric theory, 3rd edition. New York: McGraw-Hill.

Oosthuizen, J.H. 2006. An integrated framework to improve the entrepreneurial climate in the South African mining industry. North West University, Potchefstroom (Unpublished doctoral-thesis).

Pinchot, G. 1985. Intrapreneuring. New York: Hamper and Raw Publishers.

Pinchot, G. & Pellman, R. 1999. Intrapreneuring in action: a handbook for business innovation. San Francisco, CA: Brenett-Koehler Publishers.

Robbins, M. 2001. The ten commandments of entrepreneurs. *New Zeeland Management*, 48(11): 95.

Roberts. E.B. 1984. Managing invention and innovation, *Research Technology Management*, 31(1): 11-29.

Russel, R. 1999. Developing a process model of intrapreneurial systems: a cognitive mapping approach, *Entrepreneurship, Theory and Practice*, 23(3): 65-84. Santos, J.R.A. 1999. Cronbach's Alpha: A tool for assessing the reliability of scales, *Journal of Extension*, 37(2):1.

Sathe, V. 1988. Corporate entrepreneurship. London: Cambridge University Press.

Schumpeter, J.A. 1984. History of economic analysis. New York: Oxford University Press.

Sharma, P. & Chrisman, J.J. 1999. Reconciling the definitional issues in the field of corporate entrepreneurship, *Entrepreneurship: Theory and Practice*, 23(3): 11-26.

SPSS Inc. 2005. SPSS® 14. Of or Windows, Release 14.0.0, Copyright© by SPSS Inc., Chicago, III.: SPSS.

Statsoft, Inc. 2008. Statistica (Data Analysis Software System), version 8. [www.statsoft.com].

Statistics South Africa 2007. Publications. .[Web:]
http://www.statssa.gov.za/publications/publicationschedule.asp

Stephenson, H.H, Roberts, M, J. & Grousbeck, H.J. 1998. New Business Ventures and Entrepreneur. Homewood, IL: Irwin.

Thalheimer, W. & Cook, S. 2002. How to calculate effective sizes from published research articles: A simplified methodology, [Web:] http://work-learning.com/effect_sizes.htm

Thomas, J. 2008. Leading food groups under pressure, *Elsevier Food International*, 2. 19-23.

Thornberry, N. 2001. Corporate Entrepreneurship: Antidote or Oxymoron? *European Management Journal*, 19(5): 526-533.

Tidd, J., Bessant, J. & Pavitt, K. 2001. Managing innovation (2nd ed.). London: John Wiley & Sons.

Tiger Tales: 2008. (4), 2.

Van Aardt, C. & Van Aardt, I. 1997. Entrepreneurship and new venture management. Halfway House, South Africa: International Thomsom Publishers.

Van der Merwe, S.P. & Oosthuizen, J.H. 2008. Unpublished article.

Welman, J.C. & Kruger, S.J. 1999. Research methodology for the business and administrative science. Cape Town: Oxford University Press.

What is an entrepreneur? Tucker. [Web:] http://www.smallbusinessnotes.com/choosing/whatis.htm. 9 December 2008

Wolcott, R.C. & Lippitz, M.J. 2007. The Four Models of Entrepreneurship. Harvard

Business Journal.

Wycoff, J. 2007. The value of creativity and innovation in entrepreneurship. *Journal of Asia Entrepreneurship and Sustainability.*

Zahra, S.A. 1991. Predictors and financial outcomes of corporate entrepreneurship: an exploratory study, *Journal of Business Venturing*, 6(4): 259-385.

Zahra, S.A. & Covin, G. 1995. Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis, *Journal of Business Venturing*, 10: 43-58.

Zahra, S.A., Jennings, D.F. & Kuratko, D.F. 1999. The antecedents and consequences of firm-level entrepreneurship: the state of the field, *Entrepreneurship: Theory & Practice*, 24(2): 45-65.

Zahra, S.A., Nielsen, A.O. & Bogner, A.C. 1999. Corporate entrepreneurship, knowledge and competence development, *Entrepreneurship: Theory & Practice*, Spring: 169-189.