

# CONDUCTING A CORPORATE ENTREPRENEURIAL HEALTH AUDIT IN SOUTH AFRICAN SHORT TERM INSURANCE BUSINESSES

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Abstract: Corporate entrepreneurship is recognised as a potentially viable means of promoting and sustaining competitiveness and transforming businesses and industries into opportunities for value creating innovation. The purpose of this study was to conduct a corporate entrepreneurial health audit in South African short-term insurance businesses to determine the levels of corporate entrepreneurial and innovative levels in South African short-term insurance businesses and how to address the gaps identified in an attempt to becoming more entrepreneurial. The research is designed as a formal study. The sample size was 1900. Data was collected through a self-administered questionnaire. The data was analysed following various techniques. The study contributes to the empirical studies in the field of corporate entrepreneurship and proves that internationally developed instruments can be applied in a South African context. It was found that South African short-term insurance businesses have a moderate to low entrepreneurial intensity. There are also statistical significant differences between the managers and employees in terms of their perception of corporate entrepreneurial and innovative levels. Gaps were identified that needs to be addressed by means of corporate entrepreneurial development programmes in order to become more entrepreneurial.

*Key phrases: corporate entrepreneurship, entrepreneurial intensity, short-term insurance businesses, health audit, innovation*

## 1 INTRODUCTION

The global economy is creating profound and substantial changes for businesses and industries throughout the world. These changes make it necessary for businesses to examine their purpose carefully and to devote a great deal of attention to selecting and following strategies in their pursuit of the levels of success that have a high probability of satisfying multiple stakeholders. Johnson (2001:135) states that many people in large businesses believe that once a business reaches a certain size, it unavoidably

loses its capacity to act entrepreneurially and to stimulate and foster innovation. According to Christensen (2004:302) businesses have been faced with increasing demands for both faster product development and more features in smaller products, and higher and uniform quality, stability and lower prices, despite the inherent incompatibility of such demands.

Christensen (2004:302) further indicates that many large businesses find it difficult to integrate the entrepreneurial spirit in a well-structured or bureaucratic business. Therefore these businesses must think non-traditionally to cope with the increasing paradoxes. According to Johnson (2001:135), if a business does not adopt a proactive attitude towards innovation and the creation of new ventures, it is unlikely to survive in an increasingly aggressive, competitive and dynamic market place. Businesses are turning to corporate entrepreneurship because they are not experiencing the continual innovation, growth and value creation that they once had (Thornberry, 2001:1).

The format of this paper is as follows: firstly the problem under investigation will be addressed, followed by the research objectives and hypotheses to be tested in this study. Fourthly an overview of the current literature on corporate entrepreneurship will be given. Fifthly the research methodology followed in this research will be highlighted. The results and findings of the study will be presented next. Thereafter the conclusion, limitations of the study and recommendations will be addressed. Lastly the paper will end with managerial implications.

## **2 PROBLEM INVESTIGATED**

Various researchers (which will be highlighted in the literature review) stated that to develop and nurture businesses' current and future competitive advantages, advantages that are grounded in innovation, businesses increasingly rely on corporate entrepreneurship. According to Morris and Kuratko (2002:31), corporate entrepreneurship (CE) represents the framework for the facilitation of ongoing change and innovation in established businesses.

There is a significant amount of written consensus regarding CE as a means for promoting and sustaining global corporate competitiveness and economic growth. This consensus focuses mainly on international businesses and not on businesses in South

Africa. The management dilemma that then exists (particularly in South Africa) is how to foster and implement CE in businesses and/or industries to sustain this competitive advantage and improve performance. Limited empirical research is available on CE in South Africa. No formal study has been conducted in South Africa where the Health Audit of Ireland, Kuratko and Morris (2006a) had been used.

As a starting point to investigate the CE and innovative levels in South Africa short-term insurance businesses in South Africa have been identified. There is also no record of any formal research conducted on CE amongst the short-term insurance businesses in South Africa.

The purpose of this study is to conduct a corporate entrepreneurial health audit in South African short-term insurance businesses to determine the levels of corporate entrepreneurial and innovative levels in South African short-term insurance businesses and how to address the gaps identified. This research will also inform and provide proof to other South African businesses the value of assessing their businesses in terms of their corporate entrepreneurial and innovative mindset which could assist in sustaining a competitive advantage.

### **3 RESEARCH OBJECTIVES**

The primary objective of this research is to conduct a CE health audit amongst South African short-term insurance businesses. In order to achieve this primary objective, various secondary objectives were formulated. The secondary objectives of the study are:

To determine by means of a literature study:

- the importance and value of CE;
- how to foster, develop and implement CE; and

To determine by means of empirical research:

- how to assess corporate entrepreneurial and innovative levels in South African short-term insurance businesses, by means of a corporate entrepreneurial health audit instrument.

## 4 HYPOTHESES

The following hypotheses were formulated for this study and were seen as important by senior management in the short-term insurance businesses:

- Ho1: The **degree of entrepreneurship** is not high in South African businesses.
- Ho2: The **frequency of entrepreneurship** is not high in South African businesses.
- Ho3: The **entrepreneurial intensity** of South African businesses is not high.
- Ho4: There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **managerial support**.
- Ho5: There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **work discretion**.
- Ho6: There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **rewards/reinforcement**.
- Ho7: There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **time availability**.
- Ho8: There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **organisational boundaries**.
- Ho9: There is no need for a **CE development programme** in South Africa businesses.

## 5 LITERATURE REVIEW

The literature review gives a brief overview of research on and about: the definition of CE; the importance and value of CE; and how to foster, develop and implement CE.

## 5.1 DEFINITION OF CORPORATE ENTREPRENEURSHIP

According to Kuratko, Hurley and Hornsby (1991:200), various authors have various interpretations of the definition of CE. Ireland *et al.* (2006a:11) defines CE as a process through which individuals in an established business pursue entrepreneurial opportunities to innovate, without regard for the level and nature of currently available resources. Stevenson and Jarrilo (1990:23) refer to CE as a process by which individuals inside businesses pursue opportunities without regard to the resources controlled by them. Antoncic and Hisrich (2007:309, 2004:515, 2003:197) refer to emergent behavioural intentions or behaviours deviating from the customary way of doing business, and Hisrich, Peters and Shepherd (2008:68) as a spirit of entrepreneurship within the existing business. Morris, Kuratko and Covin (2008:11) define CE as a term used to describe entrepreneurial behaviour inside established mid-sized and large businesses.

For purposes of this research the construct “corporate entrepreneurship” will be referred to as defined by Sharma and Chrisman (1999:18): “Corporate entrepreneurship is the process whereby an individual or a group of individuals, in association with an existing organisation, create a new organisation or instigate renewal or innovation within the organisation”.

## 5.2 THE IMPORTANCE AND VALUE OF CORPORATE ENTREPRENEURSHIP

Kuratko and Hodgetts (2004:78) indicate that as the corporate landscape becomes more complex, competitive and global, established businesses have increasingly embraced CE for the purposes of profitability; strategic renewal; fostering innovativeness; gaining knowledge for future revenue streams; and international success. Kuratko, Ireland, Covin and Hornsby (2005:699) also indicated that CE is practiced in businesses to develop competitive advantages and a separate identifiable strategy.

Antoncic and Zorn (2004:6-7) state that past research has presented much evidence for the relationship of CE to organisational growth (Antoncic and Hisrich, 2001; Covin and Slevin 1989; Morris and Sexton, 1996; Wiklund, 1999; Zahra and Covin, 1985)

and profitability (Antoncic and Hisrich, 2001, 2000; Covin and Slevin, 1989; Wiklund, 1999; Zahra, 1993, 1991; and Zahra and Covin, 1995 ).

Morris and Sexton (1996) found a significant positive relationship between entrepreneurial intensity and increased growth. Zahra and Covin (1995:56) and Wiklund (1999:38) found that entrepreneurial orientation of businesses tends to have sustainable long-term effects on growth and financial performance in addition to short-term effects. Hisrich and Peters (1998) proved that entrepreneurship often results in the creation of new value. Organisational wealth creation has been considered an important, yet implicit, consequence of CE in general (Pinchot, 1985; Kanter, 1984; Peters and Waterman, 1982) as well as in CE induced performance measurement (Naman and Slevin, 1993). Antoncic and Hisrich (2004:542) indicate that businesses with entrepreneurial top management postures engaging in entrepreneurial activities are expected to achieve higher levels of growth (absolute – growth in sales and in number of employees and relative – growth in market share), profitability (absolute – return of sales, return on equity, and return on assets and relative – in comparison to competitors) and new wealth creation (new available funds), than businesses that are lower in CE engagement.

Ireland, *et al.* (2006a:10) proved that leading edge businesses see the effective use of CE as a source of competitive advantage and as a path to higher levels of financial and non-financial performance. Thornberry (2001:2) states that not all businesses need to embrace a concept of CE. Some businesses are doing quite well running their businesses in a planned, effective and efficient manner. But some businesses need an infusion of creativity, especially if they are operating in a rapidly changing or turbulent environment. Thornberry (2001) indicates that it is the large slow-moving bureaucratic business operating in an increasingly turbulent environment that needs to do the most entrepreneurial soul searching.

### **5.3 HOW TO FOSTER, DEVELOP AND IMPLEMENT CORPORATE ENTREPRENEURSHIP**

Hisrich, Peters and Shephard (2008:68) define an entrepreneurially fostering environment as an environment that enhances organisational members' perceptions

of entrepreneurial action as both feasible and desirable. Antoncic and Horn (2004:7) point out that one important organisational element that is beneficial to CE is organisational and management support for entrepreneurial activities. According to them, organisational support refers to management encouragement, worker's discretion about their work-related decisions, designating idea champions, establishing procedures to solicit and examine employee ideas, permeability of job boundaries, training, rewards and reinforcement, and availability of time and financial resources for pursuing new ideas or projects. Organisational support for entrepreneurial activities has been proved as beneficial for CE in the following ways: top management involvement (Antoncic, 2007; Merrifield, 1993); training (Stevenson and Jarillo, 1990); trusting individuals within the business to identify opportunities (Stevenson and Jarillo, 1990); resource availability (Kanter, 1984; Pinchot, 1985); encouragement (Hisrich and Peters, 1989); and rewards (Hisrich, Peters and Shephard, 2008; MacMillan, 1986).

The key to making an organisational structure entrepreneurial involves several factors, especially fostering the right climate or culture (Echols and Neck, 1998:38). An entrepreneurial climate that promotes the detection and facilitation of opportunities, as well as fostering motivation to pursue opportunities, provides an ideology to which employees can commit while facilitating the emergence of social capital.

Parboteeah (2000:28) states that developing and nurturing an entrepreneurial culture will contribute to businesses' ability to develop innovative solutions and sustain strategic competitive advantages. Kuratko and Hodgetts (2004:63) suggest that to structure the business for a corporate entrepreneurial climate, businesses need to invest heavily in entrepreneurial activities that allow new ideas to flourish in an innovative environment. As a way for businesses to develop key environmental factors for intrapreneurial activity, a CE training programme often induces the change needed in the work atmosphere. Toftaoy and Chatterjee (2005:15) states that CE training programmes, within the business, will separate businesses from their competitors. The corporate entrepreneurship training programme is a way of launching corporate entrepreneurial teams, via intrapreneurship workshops or seminars. Marcus and

Zimmerer (2003:11) investigated the corporate performance of Fortune 500 companies.

The investigation focused on corporate entrepreneurial training programmes in Fortune 500 companies, and utilised a self-reporting technique in order to determine the presence of such programmes in the business. All the respondents indicated that the impact of intrapreneurial programmes was positive. Marcus and Zimmerer (2003:18) conclude their findings and indicate that as CE programmes provide opportunities for success, increasing future research could provide an objective basis for determining the extent to which such programmes are feasible and have the potential to be incorporated into organisational structures.

## **6 RESEARCH METHODOLOGY**

### **6.1 RESEARCH DESIGN**

This research is designed as a formal study, consisting of a literature review and an empirical study. The literature review aimed to survey the importance and value of CE and how to foster, develop and implement CE. The empirical part of the study focused on conducting a corporate entrepreneurial health audit to determine the corporate entrepreneurial and innovative levels in South African short-term insurance businesses. The time dimension of the study was cross-sectional. The research was conducted in a field environment in South African short-term insurance businesses.

### **6.2 SAMPLING**

The target population was employees in South African short-term insurance businesses. The parameters of interest indicated that the participants had to be employees from different short-term insurance businesses employed in the South African short-term insurance industry; the employees had to be full time employees in South African short-term businesses; and the full time employees had to include employees from top management level to normal workers in all the various business units in the short-term insurance businesses. The study used a non-probability, purposive or judgmental sampling technique. The sample was drawn from five different short-term insurance businesses in the South African short-term insurance industry. These five businesses were used because of the accessibility to them. The



sample consisted of 1900 employees and 386 questionnaires were returned. This gives a response rate of 20.3%.

### 6.3 DATA COLLECTION

For the literature section of the study, data were collected by means of a literature search using secondary data such as journals, textbook, databases and the Internet. A self-administered questionnaire was used to assess the corporate entrepreneurial and innovative levels in South African short-term insurance businesses. The responses are anonymous and this data source will be respected in the study.

The entrepreneurial health audit developed by Ireland *et al.* (2006a) was used to conduct the assessment. The entrepreneurial health audit consists of three stages. First, the business level entrepreneurial intensity is determined by means of the Entrepreneurial Performance Index (EPI) of Morris (1998). The EPI consist of 21 questions. Secondly, the short-term insurance businesses internal work environment is examined to understand the factors accounting for the degree of entrepreneurial intensity the insurance business has at a point in time.

The Corporate Entrepreneurship Assessment Instrument (CEAI) of Kuratko *et al* (2001) was used to collect this information. The instrument consists of 78 five-point Likert-style questions. The desired outcome of the CEAI is to assess a level of CE intensity and recognition of CE by management within a business. Five distinct internal organisational factors are addressed: management support, work discretion, organisational boundaries, rewards/reinforcement and time availability. A summary of the meaning of these internal organisation factors (antecedents) is as follows (Morris, *et al* (2008:330):

- Managerial support refers to the willingness of top-level managers to facilitate and promote entrepreneurial behaviour, including the championing of innovative ideas and providing the resources people require for taking entrepreneurial actions.
- Work discretion/autonomy refers to top-level managers' commitment to tolerate failure, provide decision-making latitude and freedom from excessive oversight and to delegate authority and responsibility to managers.

- Rewards/reinforcement refers to developing and using systems that reinforce entrepreneurial behaviour, highlight significant achievements and encourage pursuit of challenging work.
- Time availability refers to evaluating workloads to ensure that individuals and groups have the time needed to pursue innovations and that their jobs are structured in ways that support efforts to achieve short- and long-term organisational goals.
- Organisational boundaries refer to precise explanations of outcomes expected from organisational work and development of mechanisms for evaluating, selecting and using innovations.

Thirdly, the audit reveals to businesses the type of work to be completed, to help employees establish an entrepreneurial mindset as the source of, and reinforcement for, the entrepreneurial behaviour to be displayed, in order for the chosen corporate entrepreneurial strategy to be successfully implemented. As a way for businesses to develop a sound programme for understanding entrepreneurial activity, a corporate entrepreneurial development programme should be established.

#### **6.4 DATA ANALYSIS**

The quantitative data of the questionnaires was analysed with the SPSS statistical package. SPSS was used to compile descriptive and inferential statistics. Based on the distribution of the descriptive statistics obtained from the study, the following techniques were used to perform the inferential analysis: frequency distribution, cross-frequency tabulation, item analysis, factor analysis, chi-square test, One-Way Analysis of Variance (ANOVA), Scheffe Post-Hoc test; t-test and Pearson's Correlation Coefficient.

### **7 RESULTS/FINDINGS**

The literature study revealed the necessity for businesses to stimulate, foster and develop CE in a business. Various methods and techniques were identified to stimulate, foster and develop CE in an existing business. Firstly the demographic profile of the respondents by means of descriptive statistics is reported. Secondly the

validity and reliability of the instruments are reported followed by the results of the businesses entrepreneurial intensity, the climate for CE and lastly the gaps that need to be addressed by a corporate entrepreneurial development programme.

## 7.1 DESCRIPTIVE STATISTICS

Descriptive statistics are provided, in Table 1, on the gender of respondents, age, ethnicity, highest education qualification, how many years the respondents have been with the business, the distribution of respondents in the various business units of the business, the current management levels and how many years the respondents have been in their current position.

Table 1 indicate that 36.41% of the respondents were males and 63.59% females. Most of the respondents (29.02%) fall in the age category of 26 to 30 years. The second largest group falls between the ages of 31 and 35 years (24.87%). Collectively the age distribution of the respondents indicates that 27.98% of the respondents are older than 36 years and 72.02% younger. This means that the respondents consist mostly of very young people. The respondents from the white or Caucasian ethnic group were 57.85%. The second biggest group was the coloureds (18.13%) followed by the blacks (12.83%) and lastly the Indian or Asians (11.78%).

From the statistics on the highest educational qualification it can be seen that 50.52% of respondents have a qualification of Grade 12 or lower. If the other two categories are grouped together it can be deduced that 49.48% of the respondents have a post matric qualification. Most respondents (54%) have been with the business for 3 or more years. A huge number of respondents fall in the category "0 to 2 years" (45%).

The business units were grouped into four broad categories: sales, information technology, claims and administration and shared services. The sales category includes direct sales, brokers and commercial sales. Claims and administration includes all the employees from the claims and administration departments as well as top management, legal employees, client services and the ombudsman. The shared services category includes financial services, operations, human resources, and risk and assurance. The information technology group includes all the employees working with computer related aspects, information systems and information technology. Most

respondents (59.06%) are allocated in the claims and administration business unit. This makes sense because the bulk of an insurance businesses staff will form part of claims and administration.

**Table 1: Descriptive statistics of respondents**

	Category	Frequency (n)	Percentage
<b>Gender</b>	Male	138	36.41
	Female	241	63.59
	<b>Total</b>	<b>379</b>	<b>100</b>
<b>Average age</b>	18 – 25 years	70	18.13
	26 – 30 years	112	29.02
	31 – 35 years	96	24.87
	36 – 40 years	57	14.77
	41 years and older	51	13.21
	<b>Total</b>	<b>386</b>	<b>100</b>
<b>Ethnic groups</b>	Black	49	12.83
	Coloured	67	17.54
	Indian or Asian	45	11.78
	White or Caucasian	221	57.85
	<b>Total</b>	<b>382</b>	<b>100</b>
<b>Educational qualification</b>	Grade 12 or lower	195	50.52
	Post Matric Diploma or Certificate	137	35.49
	Bachelor Degree(s) and/or Post Graduate Degree(s)	54	13.99
	<b>Total</b>	<b>386</b>	<b>100</b>
<b>Number of years with the business</b>	0 – 2 years	176	45.60
	3 -10 years	153	39.63

	Category	Frequency (n)	Percentage
	11 – years and more	57	14.77
	<b>Total</b>	<b>386</b>	<b>100</b>
<b>Business unit level</b>	Sales	52	13.48
	Information Technology	25	6.48
	Claims and Administration	228	59.06
	Shared Services	81	20.98
	<b>Total</b>	<b>386</b>	<b>100</b>
<b>Current position level</b>	Top and Senior Management	47	12.18
	Middle Management	36	9.33
	Supervisors (Junior Management)*	77	19.94
	Call Centre and Non-Call Centre staff	226	58.55
	<b>Total</b>	<b>386</b>	<b>100</b>
<b>Years in present position</b>	0 – 12 months	149	38.60
	1 – 2 years	138	35.75
	3 – more years	99	25.65
	<b>Total</b>	<b>386</b>	<b>100</b>
* Insurance businesses used the term Junior Management for Supervisors or Supervisory management			

In terms of the current management levels of the respondents the top management category includes the director and general managers. The middle management category includes the Business managers; Human Resources managers; Project managers; Development managers; Senior Brand managers; and Assistant General managers. The Supervisory (junior management) category includes Team managers; Sales managers; Marketing managers; Team Leaders; Brand managers; Office managers; and Supervisors. Lastly the Call Centre and non-Call Centre employees includes the following: Sales Consultants; Contact Centre Consultants; Message

Centre Consultants; Sales Administrators; Loss Adjustors; Claims Consultants; Personal Assistants, Programmers and Media Planners.

From Table 1 the majority representation (58.55%) is from employees in the Call Centre and general workers from the Non-Call Centre category. The responses from the top management (12.18%) and supervisors (junior management level) (19.94%) correspond with the compilation of businesses in general. The middle management level, in terms of the other levels, is under-represented with only 9.33%. In terms of the years that the respondents have been in their current positions Table 1 indicate that 38.6% of the respondents have been in their current positions for less than 12 months, 35.75 % of the respondents have been in their current position for one to two years and the remainder (25.65%) for three years or more.

When the time in current position is compared with time that the respondents have been in the business, there is a direct correlation. 45.6% of respondents indicated that they have been with the business for less than two years and 38.6% respondents indicated that they have been in their current position for less than a year. 54.4% of respondents indicated that they have been working in the business for 3 years or more and 25.65% respondents indicated that they have been in their current position for more than 3 years. This means that the employees in the short-term insurance businesses, although they have been with their business for a number of years, are not stagnating in the same positions and are either promoted or are moving from one business unit to another.

The outstanding characteristics resembling the profile of the respondents are as follows: Females, between the age of 26 and 30 years; from the white or Caucasian ethnic group; with an educational qualification of grade 12 or lower, that has been with the insurance business for less than 2 years; working in the claims or administrative section of the business and forms part of the call centre or non-call centre level and is less than 6 to 12 months in their present position.

## **7.2 VALIDITY AND RELIABILITY OF THE MEASURING INSTRUMENTS**

The EPI and the CEAI have been used widely in various research projects and in various countries. In all international research studies where these instruments have

been used it was proved that both instruments are valid and reliable (Hornsby, Kuratko and Zahra, 2002 and Morris, 1998). Studies conducted in South Africa also confirm the validity and reliability of these instruments (Bauwmeester, 2005; Nyanjom, 2007; Gantsho, 2006; Scheepers, Hough and Bloom, 2007). Based on these premises it can be stated that the two instruments used in this study are valid and reliable. To add further support to the validity and reliability of the CEAI, a rotated factor analysis was conducted in this study. Table 2 reflects the variances of the factors.

**Table 2: Variance explained by the factor (VP)**

Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Total
7.237	4.907	3.876	2.919	2.522	<b>21.461</b>
All Eigen values >1					

Although the cumulative variances explained (VP) in Table 2 are not on such a high level, it is still believed that there is a stable factor structure present. From the factor analysis the factors are labelled as follow: Factor 1, managerial support for CE and innovation, factor 2 - rewards, factor 3 -work discretion, factor 4 - organisational boundaries and factor 5, time availability.

To confirm the reliability and accuracy of the CEAI, the Cronbach alpha values were calculated for the five factors. Table 3 summarises these values. As can be seen from this table the Cronbach alpha values are relatively high. Nunally (1978) recommended that 0.500 is an acceptable threshold for an acceptable alpha score. It can be deduced that the accuracy is on an acceptable level and supports the fact that the CEAI is reliable. The overall alpha value of these factors is 0.9252.

**Table 3: Cronbach alpha values of the CEAI factors**

Factor	Description	Cronbach alpha value
Factor 1	Management support	0.9222
Factor 2	Rewards/reinforcements	0.7936
Factor 3	Work discretion	0.8700

Factor	Description	Cronbach alpha value
Factor 4	Organisational boundaries	0.6591
Factor 5	Time availability	0.7119

### 7.3 RESULTS OF THE SHORT-TERM INSURANCE BUSINESSES ENTREPRENEURIAL INTENSITY

The entrepreneurial intensity is measured in terms of the degree and frequency of entrepreneurship. Table 4 summarises the various components of the degree of entrepreneurship. The degree of entrepreneurship is measured on a 5-point Likert scale ranging from 1 – strongly disagree to 5 – strongly agree. On the premises of this scale it can be concluded that the business has a moderate degree of entrepreneurship because the average mean scores are around 3 to 4 out of 5 (45%)

**Table 4: Results of the variables of the degree of entrepreneurship**

	Variable	N	1	2	3	4	5	Mean	Std Dev
1	A high rate of new product/service introductions, compared to competitors (including new features and improvements)	385	1%	4%	18%	51%	26%	3.96	0.82
2	An emphasis on continuous improvements in methods of production and/or service delivery	386	1%	5%	11%	54%	29%	4.04	0.83
3	Risk-taking by key executives in seizing and exploring chancy growth opportunities	383	3%	10%	42%	36%	9%	3.37	0.90
4**	A "live and let live" philosophy in dealing with competitors	384	4%	12%	40%	37%	7%	3.32	0.91
5	Seeking of unusual, novel solutions by senior management to problems via the use of "idea people", brainstorming, etc.	385	3%	15%	28%	42%	12%	3.46	0.98
6**	A top management philosophy that emphasises proven products and services, and the avoidance of heavy new product development costs	385	1%	14%	41%	34%	10%	3.37	0.88
<b>Top level decision-making that is characterised by:</b>									
7**	Cautious, pragmatic, step-at-a-time adjustments to problems	385	3%	20%	30%	41%	6%	3.27	0.94



	Variable	N	1	2	3	4	5	Mean	Std Dev
8	Active search for big opportunities	383	3%	6%	25%	49%	17%	3.72	0.91
9	Rapid growth as the dominant goal	373	2%	10%	32%	42%	14%	3.53	0.93
10	Large, bold decisions despite uncertainties of the outcomes	382	3%	28%	40%	22%	7%	3.00	0.95
11**	Compromises among the conflicting demands of owners, government, management, customers, employees and suppliers	380	2%	16%	48%	29%	5%	3.18	0.82
12	Steady growth and stability as primary concerns	381	2%	7%	25%	50%	16%	3.71	0.88
**Questions 4, 6, 7 and 11 are reversed									

In terms of the stated hypothesis it can be deduced that **Hypothesis Ho1 is accepted**. The degree of entrepreneurship in South African businesses is not high. The frequency of entrepreneurship refers to how many entrepreneurial events took place in a given period of time (Morris, *et al.*, 2008). The EPI uses 9 questions to determine a business's frequency of entrepreneurship. With these 9 questions there is a clear distinction between the products, services and processes. For purposes of this study the products and services questions are combined, because of the nature of the businesses, therefore only 5 questions were used to determine the frequency of entrepreneurship. The results of the frequency of entrepreneurship are presented in Table 5.

Table 5 indicates that 45 % of the respondents don't know how many products or services their businesses introduced during the past two years. A large number of respondents (45%) indicated that they had been working for their business for less than 2 years (refer to Table 1). These relatively new employees may not be aware of all the products and services offered by their business. A possible reason for this is that these new products/services introduced in the insurance business are not clearly communicated throughout the business and/or that a culture regarding new product innovation is not present in their businesses. From the results presented in Table 5 it can be deduced that most of the new products and services introduced during the last two years (2007 to 2000) range between 0 – 5.

The results of the number of new processes implemented by the short-term insurance business in the last two years is almost the same as the number of new products and services introduced by the business over the same period of time. As can be seen in Table 5, 43 % of the respondents don't know how many new processes were implemented by their business. 35% of the respondents indicated that between 0 and 5 new processes were implemented and 18% of the respondents indicated that 6 to 10 new processes were implemented. The same argument as offered with regard to Table 5 can be used for the implementation of new processes.

It is evident that 41% of respondents indicated that as an individual they introduced more product improvements or revisions during the last two years (2007 to 2009) compared to previous years. This is a good sign especially when compared to the 6% of respondents that had less new improvements or revisions than the previous two years. It is not a good sign that 37% of the respondents had no new product improvements or revisions.

**Table 5: Results on the frequency of entrepreneurship (2007 – 2009)**

Variable	Categories	Frequency (n)	Percentage
Number of new products/services introduced by the business	0 – 5	141	38
	6 – 10	51	14
	> 10	12	3
	Don't know	167	45
	<b>Total</b>	<b>371</b>	<b>100</b>
Number of new processes implemented by the business	0 – 5	127	35
	6 – 10	65	18
	> 10	14	4
	Don't know	156	43
	<b>Total</b>	<b>362</b>	<b>100</b>
Number of new product	Less	23	6

Variable	Categories	Frequency (n)	Percentage
improvements/revisions of individual respondents introduced	Same	56	16
	More	147	41
	None	132	37
	<b>Total</b>	<b>358</b>	<b>100</b>
Number of new product introductions compared with major competitors	Less	23	6
	Same	20	14
	More	188	51
	None	107	29
	<b>Total</b>	<b>368</b>	<b>100</b>
Degree to which new product introductions include products that did not previously exist in the market	Less	19	5
	Same	63	17
	More	163	44
	None	124	34
	<b>Total</b>	<b>369</b>	<b>100</b>

The majority of the respondents (51%) indicated that their business compared well with their businesses' major competitors in the industry. It is very important for any business to introduce new products or services to a market and also to determine the effect of these products or services that did not exist previously in the market. Table 5 shows that the short-term, insurance businesses introduced 44 % more new products or services to the market that did not previously exist in the market. These findings contradict the findings where respondents indicated the number of new products and services that their businesses introduced during the past two years (2007 – 2009). It was indicated that between 0 to 5 new products and services were introduced. This could hardly be 44 % more than what previously existed in the market.

From the results presented in terms of the frequency of entrepreneurship a few contradictions exist and it indicates that the overall frequency of entrepreneurship is not very high. In terms of the stated hypothesis it can be deduced that **hypothesis**

**Ho2 is accepted** - the frequency of entrepreneurship in South African businesses is not high.

The degree and frequency of entrepreneurship need to be combined to determine the entrepreneurial intensity. Because the degree and frequency of entrepreneurship is not high, it can be deduced that **hypothesis Ho3 is accepted** - the entrepreneurial intensity in South African businesses are not high.

#### 7.4 RESULTS OF THE CLIMATE FOR CORPORATE ENTREPRENEURSHIP

The CEAI was used to determine the perception of employees in the workplace of the business. The CEAI distinguishes five distinctive organisational antecedents which form the dependent variables of this study. These antecedents and the CEAI were referred to in the literature review.

Hypotheses 4 to 8 are formulated in relation to these dependent variables and various independent variables. The one-sample chi-square test is carried out to indicate significant differences of the variables of interest posed in this study and is a determinant of accepting or rejecting the null hypotheses 4 to 8. The level of significance used in this study is 0.05. This measure indicates  $p > 0.05$  and implies that there are no differences. Conversely measures of  $p < 0.05$  reveal that a statistical significance has been observed suggesting the real difference to have occurred from the causes.

Table 6 indicates that in terms of the biographical data of this sample and the various dependent factors there is a significant statistical difference in terms of work discretion, time availability and organisational boundaries. No statistical difference was found in terms of managerial support and rewards/reinforcement.

**Table 6: Overall ANOVA in terms of biographical and dependent variables**

Factors	Mean Square	F Value	Pr Value
Management support	1.63	1.72	0.0295
Work discretion	3.87	4.58	<.0001***
Rewards/reinforcement	0.94	0.99	0.4775

Factors	Mean Square	F Value	Pr Value
Time availability	2.08	2.21	0.0023***
Organisational boundaries	2.66	3.00	<.0001***
p*** statistical significance at the 5 % level			

Table 7 gives a summary of the relationship between the corporate entrepreneurial factors (dependent variables) and managers and employees perception (independent variables).

**Table 7: Relationship between the corporate entrepreneurial factors (dependent variables) and managers and employees (independent variable) perception**

Independent variable	Factors				
	Management support	Work discretion	Rewards/ reinforcement	Time availability	Organisational boundaries
Management level	0.0039***	0.0046***	0.8833	0.2706	0.0001***
p*** statistical significance at the 5% level					

Table 7 indicates that statistical significant differences exist in the factors, management support, work discretion and organisational boundaries. After rigorous analysis of the management levels in terms of management support, work discretion and organisational boundaries it is determined where the significant differences occurred. These differences are presented in tables 8, 9 and 10.

**Table 8: Mean scores of the management levels in terms support**

Management level (p value = 0,0039)					
Level			Frequency (n)	Means	
a	Top management		a<d	40	3.4
b	Middle management		b<c b<d	35	3.6

c	Lower management		71	3.2
d	Call and non-Call centre employees		204	3.1
Symbols with < indicate that there is a significant difference at the 5% level				

It is found that there is a significant statistical difference between top management and the employees of the call and non-call centre. Middle management also differs from lower management and the employees of the call and non-call centre employees. There is no statistical difference between top management and middle and lower management; and between lower management and the call and non-call centre employees. The mean scores also support this finding.

**Hypothesis Ho4 is rejected.** There is **no statistical significant difference** between the CE opinions of **managers and employees** in South African businesses regarding the CE construct: **managerial support**.

**Table 9: Mean scores of management level in terms of work discretion**

Management level (p value = 0,0046)				
Level			Frequency (n)	Means
a	Top management	a<d	40	3.7
b	Middle management	b<c b<d	35	3.8
c	Lower management		71	3.3
d	Call and non-Call centre employees		204	3.2
Symbols with < indicate that there is a significant difference at the 5% level				

Table 9 shows that there is a significant statistical difference between top management and the call and non-call centre employees. There is also a difference between middle management and lower management as well as between middle management and the call and non-call centre employees. The findings for the different management levels in terms of work discretion are the same as for management support. When looking at the mean scores it seems as if top and middle management employees are more positive towards their businesses' work discretion.

**Hypothesis Ho5 is rejected.** There is no statistical significant difference between the CE opinions of **managers and employees** in South African businesses regarding the CE construct: **work discretion**.

**Table 10: Mean scores of management level in terms of organisational boundaries**

Management level (p value = <.0001)				
Level			Frequency (n)	Means
a	Top management	a<b a<c a<d	40	2.9
b	Middle management	b<c b<d	35	2.7
c	Lower management		71	2.4
d	Call and non-Call centre employees		204	2.4
Symbols with < indicate that there is a significant difference at the 5% level				

There is a significant statistical difference between top management and the rest of the employees in the businesses (middle and lower management as well as call and non-call centre employees). There is also a difference between middle and lower management as well as between middle management and the employees from the call and non-call centre. Organisational boundaries refer to precise explanations of outcomes expected from organisational work and development of mechanisms for evaluating, selecting and using innovations. Top level management's perception of organisational boundaries is more positive than the rest of their businesses' employees.

**Hypothesis Ho8 is rejected.** There is no statistical significant difference between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **organisational boundaries**.

In terms of hypotheses Ho6 and Ho7 the following can be deduced:

**Hypothesis Ho6 is accepted.** There is **no statistical significant difference** between the CE opinions of **managers and employees** in South African businesses regarding the CE construct: **rewards/reinforcement**.

**Hypothesis Ho7 is accepted.** There is **no statistical significant difference** between the CE opinions of the **managers and employees** in South African businesses regarding the CE construct: **time availability**.

## **7.5 GAPS IDENTIFIED FROM THE RESULTS OF THE CORPORATE ENTREPRENEURIAL HEALTH AUDIT**

From the results presented on the entrepreneurial intensity and on the climate for CE, it is clear that gaps exist that need to be addressed in South African short-term insurance businesses in order to improve the overall corporate entrepreneurial and innovation levels for this industry. The following gaps were identified from the results presented in this study:

- The degree and frequency of entrepreneurship as well as the entrepreneurial intensity of South African short-term insurance businesses is not high. This means that there needs to be training and development with regard to innovativeness, proactiveness and risk taking (the components of entrepreneurial intensity).
- There is a significant statistical difference between people who have been working in their businesses for 2 years and less versus the employees that have been working for 3 years or more.
- There are differences between the various business units (Sales, IT, Claims and Administration, Shared Services) with regard to innovations.
- There are differences in the perceptions of management levels (top, middle, lower management, and call and non-call centre employees) in terms of innovativeness, proactiveness and risk taking. There is a very distinct difference between top and middle level management and the rest of the employees).
- Only a few (41%) of the employees indicated that they had introduced new products or made improvements or revisions. It could be that most employees



don't know how to innovate or that only certain employees or units in their businesses are able to innovate.

- New employees do not have the same exposure to innovation compared to the employees that have been working longer in their businesses.
- Only 0 to 5 new products were developed and 0 to 5 processes implemented in a two year period. There is a gap in terms of idea identification.
- The scores on time availability and organisational boundaries were not high and need to be addressed.
- Although the scores on management support for CE and work discretion were higher than for time availability and organisational boundaries, they are still not very high and also need to be addressed.

If the gaps are summarised it can be stated that there exist a gap in the following areas: idea identification; how to innovate; time availability; organisational boundaries; management support and work discretion.

## 7.6 CORPORATE ENTREPRENEURSHIP DEVELOPMENT PROGRAMME

The third and final step of the entrepreneurial health audit includes the compilation of a corporate entrepreneurial development programme that focuses on the development of entrepreneurial behaviour that the business is requesting of the relevant parties in the business. According to Ireland *et al.* (2006b) this is the foundation of a successful entrepreneurial strategy. They stated that if a business achieves a low corporate entrepreneurial score it will also indicate the areas that need to be addressed in a development programme.

Because of the gaps identified from the two measuring instruments (EPI and the CEAI) it is clear that a need for a CE development programme exists to address these gaps. **Hypothesis Ho9 can be rejected.** There is no need for a CE development programme in businesses in South Africa.

## 8 CONCLUSION

This study analysed the CE and innovative levels in South African short-term insurance businesses by means of an established corporate entrepreneurial health audit instrument. This study was the first of its kind in South Africa. Many times international researchers develop instruments and they are only tested in the country of origin. This does not imply that the instrument will be successful in other countries. This study proves that an internationally developed instrument can be applied in a South African context. Further contributions to the science are as follows:

- The results of this study can serve as the beginning of establishing benchmarks for the South African short-term insurance industry in terms of entrepreneurial intensity and a culture for CE.
- No research has been done on the South African short-term insurance industry and CE. The Entrepreneurial health audit tool can be used by decision makers as part of their effort to help their businesses successfully to engage in entrepreneurship as a path to organisational effectiveness.
- As indicated by Thornberry (2003:333) and Zahra (1991:193), not enough empirical research exists in the field of CE. This study contributes to the empirical studies and the body of knowledge in the field of CE.
- The findings can assist the managers not only in South African short-term insurance businesses but also in other businesses to understand the corporate entrepreneurial process, and can provide guidelines for businesses involved in CE.
- The guidelines given in this study to foster and implement CE can be used by industry leaders, businesses and managers. Insights are helpful to businesses in understanding what can be done to improve the businesses ability to compete in the complex, rapidly changing, competitive environments. These guidelines can also assist managers in undertaking change efforts directed at stimulating a corporate entrepreneurial and innovative mindset.

## 8.1 LIMITATION OF THE STUDY

Cooper and Schindler (2008) emphasise that all research studies have their limitations, and the sincere investigator recognises that researchers need aid in judging the study's validity. In this regard the reader should be aware of the following limitations of this study:

- For future research the sample size should be increased to explain fully the population's characteristics and to limit the chance of a sampling error occurring, and to increase the response rate of the respondents.
- The study need to be expanded to include businesses from various industries in South Africa, not just short-term insurance businesses.
- No benchmarks exist on the South African businesses and it is difficult to determine whether the entrepreneurial intensity score is low, high or moderate. As literature indicated (Morris *et al.*, 2008) industry benchmarks need to be established.
- Results of the entrepreneurial health audit applied in other international countries are not available. This could have been beneficial to compare with this study.

## 8.2 RECOMMENDATIONS AND FUTURE RESEARCH

CE is a relatively young field in South Africa. South African industries and businesses can take note of the findings of international research on how to structure their businesses to become more entrepreneurial. For future research the following recommendations can be made:

- Corporate entrepreneurial and innovative benchmarks should be established for South African industries. This could encourage the individual businesses to assess their corporate entrepreneurial and innovative levels. This could also assist them in improving their entrepreneurial intensity and corporate entrepreneurial climate.
- The empirical knowledge on the processes associated with corporate entrepreneurial activities is mostly based on case studies. Different research approaches to document the processes and problems associated with the implementation of CE need to be exploited.

- A longitudinal study should be conducted to determine whether high levels of entrepreneurial intensity are sustainable over time, and what the effect will be after conducting a corporate entrepreneurial development programme.
- Research can also be done on how the corporate entrepreneurial process develops on successfully exploiting opportunities in a South African context.
- An extensive research project can be launched to determine which South African businesses make use of CE development programmes and the content of these programmes, plus how they compare to international programmes. It could also be determined whether these development programmes are evaluated to determine their successfulness.

### **8.3 MANAGERIAL IMPLICATIONS OF THE STUDY**

The study has the following managerial implications:

- Businesses must assess their entrepreneurial intensity and climate for CE to identify gaps to address in developing CE in their businesses.
- A corporate entrepreneurial programme is one of the best methods to instil CE and innovation in a business.
- Not only top- and senior level management, but all the employees in the business need to undergo training and development in CE and innovation.
- Entrepreneurial activity is driven by individuals and the more a business can exhibit entrepreneurial qualities and its people believe in behaving entrepreneurially – the greater the businesses ability to achieve maximum innovation or entrepreneurial success.
- CE needs to be integrated throughout the entire business – cannot focus on just one specific area.
- Entrepreneurial intensity has a direct influence on organisational performance.
- A business's entrepreneurial intensity is influenced by the businesses strategic management practices.

- In businesses that want to foster and develop CE, the executives must first of all know what they want to achieve. They must begin with establishing the desired corporate entrepreneurial outcomes, develop measurable goals, make decisions on degree and frequency of entrepreneurship, determine whether the business wants to be a follower or leader in terms of innovation; determine how much time employees can devote to new versus existing initiatives and lastly the amount and type of innovation that needs to come from the different levels in the business.
- Research has shown that businesses that want to be successful in terms of CE and innovation need to adhere to the following: small number of managerial layers; organisational structure without highly structured job roles; controls that are able to balance loose and tight properties promote and nurture entrepreneurial behaviour; the human resource management system is a valuable tool to encourage and reinforce entrepreneurial behaviour; training should be continuous, less structured and focused on individualised knowledge requirements; high importance is placed on the empowerment of people to allow them to act creatively and to fulfil their potential; authority and responsibility are decentralised; and business is structured with clear communication of employees' roles and responsibilities, and is supportive.

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