The planning school versus the learning school
In new venture creation:
In South Africa

Ricky Solomons
297-523-71

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

10 November 2010
ABSTRACT

Over the past few years an intense debate has emerged with regard to the value of business planning for an entrepreneur, when launching a new business. The debate concerns the crucial question that all entrepreneurs and company founders face when embarking on the process of launching a new venture. The predicament that so many entrepreneurs and company founders face is whether to plan before embarking on the priceless quest for venture success or not to plan and rather to embark on the new venture in the hope it will succeed.

The purpose of this study is to examine both schools of thought and then to explore if in actual fact business planning has an effect on the growth rate of an entrepreneurial venture.
DECLARATION

I declare that this project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

____________________
Ricky Solomons
28 October 2010
ACKNOWLEDGEMENTS

I would like to thank the following people who were instrumental in assisting me with the completion of this research study, namely –

Mr. Greg Fisher, my supervisor. Greg thank you for your unwavering support, encouragement and all the patience that you have shown me throughout my research report. I commend you for your knowledge and all the time extended to me. I thank you most sincerely!

To my family, whom have all been a pillar of strength through this research, and throughout my MBA studies. Thank you for your patience, support and most importantly your tolerance towards me during those long and trying times.

To one of my MBA colleges Mr. Husam Ali thank you for assisting me during my darkest hours. Your help was instrumental in allow me to finish within my deadline, Thank you.

Finally to all those who said that I would never achieve, thank you. You made me even more determined to prove that you were wrong! I may never have come this far if, it were not for! THANK YOU.
# Table of Contents

ABSTRACT .................................................................................................................................................... II

DECLARATION ............................................................................................................................................. III

ACKNOWLEDGEMENTS ........................................................................................................................... IV

1. **INTRODUCTION TO THE RESEARCH PROBLEM** .................................................................................. 1
   1.1. Research title ........................................................................................................................................ 1
   1.2. Research problem ......................................................................................................................... 1
   1.3. Relevance of this topic to South Africa .......................................................................................... 2
   1.4. Research objectives ..................................................................................................................... 3
   1.5. Research aim ................................................................................................................................. 4

2. **LITERATURE REVIEW** .......................................................................................................................... 5
   2.1. Introduction ...................................................................................................................................... 5
   2.2. The Planning School ..................................................................................................................... 6
   2.2.1. Availability of Resources ...................................................................................................... 6
   2.2.2. The Development stage of the business ............................................................................... 7
   2.2.3. Venture and Company Performance ...................................................................................... 8
   2.2.4. Pre-Entry Knowledge and Experience .................................................................................. 9
   2.2.5. Arising Opportunities .......................................................................................................... 11
   2.2.6. New vs. Established Companies .......................................................................................... 12
   2.3. The Learning School ................................................................................................................... 14
   2.3.1. Availability of Resources ...................................................................................................... 14
   2.3.2. The Development Stage of the Business .............................................................................. 14
   2.3.3. Venture and Company Performance ...................................................................................... 15
   2.3.4. Pre-Entry Knowledge and Experience .................................................................................. 16
   2.3.5. Arising Opportunities .......................................................................................................... 17
   2.3.6. New vs. Established Companies .......................................................................................... 18
   2.4 Uncertainty ......................................................................................................................................... 20
   2.4.1. The Development Stage of the Business ............................................................................... 22
   2.4.2. Types of Uncertainty ............................................................................................................. 24

3. **RESEARCH QUESTION AND HYPOTHESES** ..................................................................................... 27
   3.1. Research Question ....................................................................................................................... 27
   3.2. Hypotheses ..................................................................................................................................... 27
   Hypothesis 1: ........................................................................................................................................ 28
   Hypothesis 2: ........................................................................................................................................ 28
   Hypothesis 3: ........................................................................................................................................ 29
   Hypothesis 4: ........................................................................................................................................ 30
   3.3. Differentiation between Hypothesis 3 and Hypothesis 4 .................................................................. 31

4.1. **Choice of Methodology** .................................................................................................................. 33

4.2. **Scope and Unit of Analysis** ............................................................................................................ 34

4.3. **Proposed Population** ................................................................................................................... 35

4.4. **Sample Size** .................................................................................................................................... 37

4.5. **Data Collection Process** .............................................................................................................. 38
   4.5.1. Measurements ....................................................................................................................... 38
4.6. Research Limitations ................................................................. 40

5. RESULTS AND ANALYSIS.......................................................... 42

5.1. Survey Results ................................................................. 42

5.2. Pie Charts ................................................................. 43

Figure 5-1: When launching my business I did not follow my business plan and instead used a trial and error approach. ............................................................................................................... 43
Figure 5-2: When launching my business I prepared a full written business plan. ....... 44
Figure 5-3: Does your business still have a written business plan in place? .............. 45
Figure 5-4: How important do you think the prior planning was to your business? ...... 46

5.3. Reliability Analysis ................................................................. 47

Table 5.1: Cronbach Alpha, Construct 1 – Prior Business Planning (Appendix Four). ..... 50
Table 5.2: Cronbach Alpha, Construct 2 – Uncertainty (Appendix Four) ..................... 51

5.4. Descriptive Statistics Report On Constructs ................................... 52

Table 5.3: Summary of Construct 1 – Prior Business Planning .................................. 52
Table 5.4: Normality Test of Construct 1 – Prior Business Planning ............................ 52
Histogram of Construct 1 – Prior Business Planning ............................................ 52
Table 5.5: Summary of Construct 2 – Uncertainty .................................................... 53
Table 5.6: Normality Test of Construct 2 – Uncertainty ............................................ 53
Histogram of Construct 2 – Uncertainty ...................................................... 53
Table 5.7: Summary of Dependent Variable - Revenue Growth .............................. 54
Histogram of Dependent Variable – Revenue Growth ........................................ 54
Table 5.8: Summary of Dependent Variable - Employee Growth ............................. 55
Histogram of Dependent Variable – Employee Growth ........................................ 55

5.5. Hypothesis Testing ................................................................. 56

Hypothesis 1 ....................................................................................... 56
Hypothesis 2 ....................................................................................... 56
5.5.1. Interpreting the Results of an Anova Analysis ............................................. 57
Anova Results H1 and H2 ........................................................................ 58
Table 5.9: Model Summary ........................................................................ 58
Table 5.10: Anova Summary ....................................................................... 58
Hypothesis 3 ....................................................................................... 63
Anova Results Hypothesis 3 ......................................................................... 64
Table 5.11: Model Summary ....................................................................... 64
Table 5.12: Anova Summary ....................................................................... 64
Revenue Growth ...................................................................................... 64
Employee Growth ...................................................................................... 66
Conclusion: Revenue and Growth - Under Conditions of High Uncertainty ........... 67
Hypothesis 4 ....................................................................................... 68
Anova Results Hypothesis 4 ......................................................................... 69
Table 5.13: Model Summary ....................................................................... 69
Table 5.14: Anova Summary ....................................................................... 69
Revenue Growth ...................................................................................... 69
Employee Growth ...................................................................................... 71
Conclusion: Revenue and Growth – Under Conditions of Low Uncertainty .......... 72
Conclusion of Hypothesis 3 and Hypothesis 4 ................................................... 73

5.6. Research Objectives and Question ........................................... 74

Research Objective 1: ........................................................................... 74
Research Objective 2: ........................................................................... 75
Research Objective 3: ........................................................................... 76
1. INTRODUCTION TO THE RESEARCH PROBLEM

1.1. Research title

THE PLANNING SCHOOL VERSUS THE LEARNING SCHOOL IN NEW VENTURE CREATION IN SOUTH AFRICA.

1.2. Research problem

Over the past few years an intense debate has emerged with regard to the value of business planning for established small and new companies. The debate concerns the crucial question that all entrepreneurs and company founders face when embarking on the process of launching a new venture. The predicament companies face is whether to plan before embarking on the priceless quest for venture success or just “storm the castle” (Brinckmann, Grichnik, & Kapsa, 2010).

Existing literature reveals that there are two schools of thought:

1. The scholars belonging to the first follow the belief that the business planning process has little or no effect on the current or future success of a newly established company;
2. Other scholars support the business planning process, and believe that planning indeed does have a positive effect on the current and future performance of a newly established company.
Bhide (2000), Carter (1996), Baron (1998), and Allinson (2000) all follow the belief that the business planning process is time consuming, which can often be very expensive. Those scholars believe that the founder's time, capital and other valuable resources are better off being used in acquiring additional resources, while at the same time attempting to establish business networks and in developing their product.

On the other side of the debate, Delmar and Shane (2003) follow the belief that the business planning process is critical to the current and future success of newly established ventures. These scholars follow the belief that the business planning process promotes the development of companies because resources are used more efficiently, the speed at which decisions are made is increased, flexibility is supported, and potential bottlenecks and problems can be and are identified (Delmar & Shane, 2003).

A founder's pre-entry knowledge and experience enhances their long run performance and survival. Dencker, Gruber, and Shah (2009) reveal that companies that enter an industry with knowledge about that industry or environment are more likely to succeed, as opposed to those who enter with no pre-knowledge or experience at all.

1.3. Relevance of this topic to South Africa

The relevance of this topic to the South African business environment
lies in the large number of business failures within the South African economy. With an estimated 85% of start-ups failing in the first 12 to 24 months of operation and approximately 60% to 65% of existing SMEs encountering major difficulties when embarking on a growth strategy. Both those figures signify that this is an area where attention need be focused (The Gordon Institute of Business Science, 2010).

1.4. Research objectives

This research report has two main aims:

Firstly, it is hoped this study will contribute to the existing body of academic literature that deals with the business planning process and entrepreneurial ventures.

Secondly, it is hoped that an answer will be found to the research question: “UNDER WHAT CONDITIONS DO BUSINESS PLANNING ACTIVITIES FACILITATE GROWTH OF A NEW VENTURE?”

The main objectives of the research will be:

• **Objective 1**: to determine under what conditions business planning has a POSITIVE effect on the growth of a new venture.
• **Objective 2**: to determine under what conditions business planning has a NEGATIVE effect on the growth of a new venture.
• **Objective 3:** to explore whether business planning has any effect on the growth of a new venture at all.

1.5. **Research aim**

The aim of this research is to determine the effect of business planning for entrepreneurs and SMEs under conditions of uncertainty.

The researcher also aims to enlighten other entrepreneurs, wishing to launch their own venture, to answer the question of whether it is better to plan extensively before embarking on the priceless quest for venture success or just “storm the castle?” (Brinckmann, Grichnik, & Kapsa, 2010).
2. LITERATURE REVIEW

2.1. Introduction

The intense debate that has raged over many years as to the effectiveness of business planning on the growth rate of the entrepreneurs’ venture has revealed that there are two main schools of thought.

1. The first group of scholars believe the business planning process indeed has a positive effect on entrepreneurial ventures;

2. The second group of scholars challenges the first group’s view, by believing that the business planning process has no effect on the entrepreneurial venture.

Brinckmann, Grichnik, and Kapsa (2010) refer to those two opposing groups as “the planning school” and “the learning school.”
2.2. The Planning School

2.2.1. Availability of Resources

Delmar and Shane (2003) state that the business planning process allows for more rapid decision-making due to the fact that planning empowers managers and CEO’S to:

- Anticipate information gaps and close them
- First test assumptions before expending valuable resources
- Streamline the flow of resources
- Avoid potential bottlenecks

The planning school follows the belief that the business planning process promotes the development of companies because resources are used more efficiently, the speed at which decisions are made is increased and flexibility is supported (Delmar & Shane, 2003).

Brinckmann, Grichnik, and Kapsa (2010) believe that an established small company has had the opportunity to develop their own organizational structure. That structure enables the company to develop their links to their market place and, in so doing, they will have built a database which holds information based on past operations and experience. The links and database can be viewed as a valuable resources and thus potentially making the business planning process more valuable.

The effectiveness of business planning might be dependent on the
stage of growth that the company is in. As mentioned above, an established company already has had the time and opportunity to acquire resources. That is opposed to a new company which still faces the challenge of establishing itself in the market place, while being exposed to many uncertainties; while at the same time having less information available on which to base their decision making processes (Brinckmann, Grichnik, & Kapsa, 2010).

2.2.2 The Development stage of the business

Measurements such as “positive cash flows” and “increased profitability levels” are generally measurements that are used to determine the success of a business venture. A company in its early stages of development often has not yet reached “positive cash flow levels” or “positive profitability levels” and, therefore, cash flow and profit cannot be used as a measurement of success for business ventures in the early stages of their development. Instead the business founder seeks to achieve milestones, including: product development, product launches and organizing the company. Focusing on and achieving these milestones are very important for the business during their planning process, as those milestones can be used as a measurement of success; especially in the early development stage (Delmar & Shane, 2003).
Castrogiovanni (1996) states that business-planning helps founders obtain the financing that is required in order to create and develop their business. Castrogiovanni (1996) also believes that such financing helps entrepreneurs ride out the start-up phase of their business when cash flows are likely to be negative and thus, one can say, that greater access to capital and financing, which in turn helps develop business start-ups, is a direct effect of pre-start-up planning.

### 2.2.3 Venture and Company Performance

The planning school believes that if the founder and manager have a systematic, prediction-oriented, and formal approach – which originates from a business planning process – towards the company or new venture that in turn will lead to superior venture performance (Brinckmann, Grichnik, & Kapsa, 2010).

Matthews and Scott (1995) state, “writing business plans are more important for company performance than the process of business planning as written documentation legitimises the new organization and enables better communication between the entrepreneurs, internal and external stakeholders.”

Scholars suggest that companies that have a sophisticated business planning process are more likely to have increased performance levels. The sophisticated aspects of a business plan refer to:

- The frequency of planning meetings
• The degree of market analysis and forecasting
• The extent to which the company makes use of technology e.g. computers and portfolio analysis (Brinckmann, Grichnik, & Kapsa, 2010).

Gruber (2005) states that business planning is a worthwhile activity due to the fact that it allows entrepreneurs to better understand the relationship between intention, action and performance. The business planning process helps entrepreneurs to better manage the supply and demand of their resources as well as aiding founders set out specific milestones to achieve their vision, and develop coherent action steps to reach those milestones in a timeous manner (Gruber, 2005).

2.2.4 Pre Entry Knowledge and Experience

A founder's pre-entry knowledge and experience enhances their chances of venture success as well as the success of the business, and its long run performance and survival. Dencker, Gruber, & Shah (2009) reveal that companies that enter an industry with knowledge about the industry or environment are more likely to succeed. “Evolutionary economics suggests that the company’s pre-entry resources and capabilities may affect its ability to adapt, hence companies that are better able to adapt, renew, and build upon their knowledge resources will be more likely to succeed”.

Castrogiovanni (1996) states that having a formal business planning process encourages the founder/entrepreneur to do some degree of
research about the new business or idea, and during the founders’ research stage proactive learning takes places.

Therefore, one can say that pre-start-up planning is positively associated with proactive learning, in that planning enhances a founder’s knowledge about the proposed business start-up; therefore, increasing the chances of venture success.

Dencker, Gruber, and Shah (2009) have found that founders who possess pre-entry knowledge and pre-entry experience about their business activity increase their survival and the benefits of early stage business planning “pre-entry knowledge and management experience moderate the relationship between learning activities and company survival”. Dencker et al., (2009) argue that pre-entry knowledge of the industry provides founders with industry specific information about the competitive landscape, customer preferences, profitable niche markets, employment practices, supply chain issues, and the rules and norms of the industry.

Pre-entry knowledge is said to facilitate the accumulation and integration of new knowledge. It influences the founder’s ability to learn, while at the same time applying new information in ways that those lacking the knowledge cannot replicate, and allows individuals and founders to adapt to new environments (Weick, 1979).
2.2.5 Arising Opportunities

Dencker, Gruber, and Shah (2009) argue that pre-entry knowledge of the industry provides founders with industry specific information about the competitive landscape, customer preferences, profitable niche markets, employment practices, supply chain issues and the rules and norms of the industry. That knowledge helps create and shape the opportunities that the founders envisage and wish to pursue.

Castrogiovanni (1996) states that the learning that occurs through pre-start-up planning, which is a result of the founder studying ones established competition, can often result in new opportunities being discovered and thus the founder can take advantage of these new opportunities, which may not have otherwise been discovered if it was not for the pre planning process.

Delmar and Shane (2003) argue that the business planning process helps company founders undertake new venture development activities, which in turn allows for arising opportunities. The reason for this is that the planning process helps facilitate goal attainment within the company. The planning process gives company founders the ability to make their decisions more quickly, rather than using a trial and error approach; which reduces the chances of success with regard to arising opportunities.
Hiatt and Sine (2008) state that researchers believe the business planning process increases opportunities for obtaining capital which in turn gives the business founders the ability to exploit new opportunities that may arise within the market. Adding to that, Hiatt and Sine (2008) have discovered that researchers who advocate the business planning process believe that business planning reduces company inefficiencies, while at the same time improving the decision making process.

2.2.6 New vs. Established Companies

The business planning process helps company founders undertake new venture development activities due to the fact that planning facilitates goal attainment. The planning process also helps company founders make decisions more swiftly, rather than relying on trial and error learning. That helps manage the supply and demand of resources, and thus minimises time-consuming bottlenecks as well as helping the founder turn abstract goals into concert operational activities (Delmar & Shane, 2003).

Research has shown that when founders invoke themselves into a planning process before taking action, the planning process improves the quality of most human actions. The business planning process should facilitate new venture creation, as it provides a framework within which subsequent actions take place, which in turn facilitates the achievement of goals.
Delmar and Shane (2003) present three benefits of the planning process to people and founders who wish to engage in new venture development:

1. “Planning facilitates faster decision making, by identifying missing information without first requiring the commitment of resources.”

2. “Planning provides tools for managing the supply and demand of resources in a manner that avoids time consuming bottlenecks.”

3. “Planning identifies action steps to achieve broader goals in a timely manner.”
2.3. The Learning School

2.3.1. Availability of Resources

Bhide (2000) challenges the value of the business planning process and contests that dedicating top-level managers’ and CEO’s time to business planning results in lower returns. Bhide (2000) believes that the managers’ and CEO’s time should rather be spent on acquiring resources and building the organization.

The business planning process has been cited by Baron (1998) as being a distraction and that it interferes with the efforts of time-constrained company founders to undertake more valuable actions, in order to develop their fledgling enterprises (Baron 1998).

2.3.2. The Development Stage of the Business

Brinckmann, Grichnik, and Kapsa (2010) state: “In the context of ambiguous and missing information, predictive and formal planning techniques are less effective for an organization’s survival and performance”.

In the early development stages of a company profit potential is uncertain and, because of this, companies in their early development stages prefer to rather limit potential losses and spending than strive for maximum profit. They will most definitely want to limit the initial costs of
market research and data analysis, and thus successful entrepreneurs whose companies are in the early stages of development will be more likely to focus on business aspects, such as building alliances and partnerships, than on planning activities, such as market research and competitive analysis (Brinckmann, Grichnik, & Kapsa, 2010).

2.3.3. Venture and Company Performance

Brinckmann, Grichnik, and Kapsa (2010) state a group of researchers challenged the value of prediction-oriented strategic approaches for the company’s performance. Those researchers believe instead that the founder and managers should focus more on learning, strategic flexibility, and the control of scarce resources, especially in environments where uncertainty prevail.

Strategic decision-making could potentially have a contradictory impact on the performance of the company. Strategic planning has the potential to improve the planned decision, but that requires time and other valuable resources. In order for strategic planning to achieve quality decisions the environmental information needs to be sufficient and unambiguous. If the information is ambiguous and not sufficient, strategic decision-making can have a negative effect on the company’s performance; under those circumstances the costs of strategic planning might outweigh the benefits (Brinckmann, Grichnik, & Kapsa, 2010).
Gruber (2005) states that previous studies have proposed that entrepreneurs rely on their intuition, as planning takes time away from the real organizational actions, such as buying and acquiring resources, facilities, and equipment, and that those actions are key to survival during the start-up phase. Furthermore, scholars argue that environment dynamism and uncertainty that is generally associated with start-ups and entrepreneurial ventures make it likely that the business plan will be outdated once the venture enters the market place.

2.3.4. Pre-Entry Knowledge and Experience

Research has shown us that founders who possess low levels of pre-entry knowledge and management experience, while at the same time following an in depth high level plan are often found to have increased failure rates (Dencker, Gruber, & Shah, 2009).

Scholars have found that companies that diversify and enter new ventures with the luxury of pre-entry experience and knowledge in their new fields survive longer than companies without the relevant experience or knowledge (Dencker, Gruber, & Shah, 2009).

Evolutionary economics suggest that founders who possess pre-entry knowledge and experience are more likely to succeed, as apposed to those who do not possess pre-entry knowledge and experience. Pre-entry knowledge and experience increases the company’s ability to
learn and adapt to its environment (Nelson & Winter 1982).

Company founders entering new environments are more likely to face a high degree of uncertainty because they may not possess the pre-entry experience that other companies in the same environment possess. Companies that enter into new markets need to make assumptions that will be difficult to test without a trial and error approach. Due to this companies could potentially face difficulties when it comes to evaluating customer needs and demands (Brinckmann, Grichnik, & Kapsa, 2010).

2.3.5. Arising Opportunities

Mintzberg (1994) follows the view that planning stifles creativity because the planning process forces the founder or manager’s to focus their attention and behaviour on certain outcomes and paths, and those outcomes may differ to those outcomes within an organization, which in turn creates confusion.

Planning is also said to lead founders and managers to an escalation of commitment towards a failing course of action. This is due to the fact that the decision maker is unwilling to admit that their plan and judgment was incorrect. In most cases the founder feels personally responsible for the chosen course of action and it is safe to assume that their psychological attachment to the business plan and decision will be
more pronounced, as opposed to the same course of action having been taken in a different context (Dencker, Gruber, & Shah, 2009).

Scholars who follow the learning school approach state that the value of the knowledge acquired through the business planning process within environments of uncertainty will most probably have a short life span; this is due to the fact that the information is ambiguous and not sufficient. In environments of uncertainty, such as this, the planning process has been found to lead founders and managers to stick to their original plan even when the environment and industry within which the company trades has its self-changed. Those environment and industry changes require the company to change and adapt, so that they are inline with the changes, but research has shown that the companies do not change and instead continue to follow the plan that will ultimately lead to failure (Dencker, Gruber, & Shah, 2009).

2.3.6. New vs. Established Companies

Bhide (2000) views the business planning process as an administrative process and believes that it is harmful to new venture creation. Bhide (2000) believes that founders should move directly to the process of acquiring facilities and equipment, while at the same time looking for external capital.

Delmar and Shane (2003) state that prior research argues that the
business planning process is not very helpful under the conditions of uncertainty that surround new venture creation and, in so doing, offer the following explanations:

Business planning takes time away from the more valuable activities that will signal to stakeholders that indeed the new venture is a reality. Carter et al. (1996: 154) states, “Behaviour such as buying facilities and equipment might be a more significant indicator to others that a nascent business is real than undertaking a behaviour such as planning. Buying facilities may show others that the entrepreneur has made a significant commitment to creating a new business compared to what might be a less public demonstration of commitment like planning”.

Entrepreneurs and company founders possess attributes and skills that make them better off relying on their intuition, rather than engaging in a planning process. Allinson et al. (2000) state: “that entrepreneur’s intuition makes company founders better able than other people to identify and evaluate opportunities.”

The uncertain and fast paced environment that entrepreneurs often find themselves competing in undermines the value of the business planning process. Due to this Allinson et al. (2000) believe that entrepreneurs are better off relying on their intuition, rather than on information that is likely to be outdated.
2.4 Uncertainty

McMullen and Shepherd (2006) state, “Entrepreneurship requires action.” That “action” can be conceptualized as the creation of new products or processes, the creation of new ventures, and the entry into new unknown markets. Actions evolve and take place over time and, because the future is unknown, one can safely assume that “action” is an inherent uncertainty.

This theory on uncertainty is further enhanced by Smith and DiGregorio (2002), who believe that entrepreneurs take part in the following actions when attempting to launch a new venture;

- The creation of a new product or services
- The creation of new ventures
- And the entry into new unknown markets

Therefore it is of no surprise that uncertainty plays a conceptual cornerstone for most theories of entrepreneurship.

McMullen and Shepherd (2006) discuss the role that uncertainty plays in preventing entrepreneurial action and have revealed two research streams, each being inspired by an alternative conceptualization of uncertainty.

The first stream deals with the amount of uncertainty that the entrepreneur might face and that stream frequently discriminates
against those businessmen/women who act entrepreneurially and “take action” from those who do not. The businessmen/women who do not act entrepreneurially are seen to have less knowledge, compared to the entrepreneurial businessman/women who are seen to have greater knowledge due to the fact that they are taking “action” and behaving in an entrepreneurial manner. From this one can derive that the level of uncertainty is considered to be a barrier between prospective entrepreneurs and entrepreneurial action.

The second stream focuses on the willingness to bear uncertainty, and proposes that those businessmen/women who have decided to act entrepreneurially can be distinguished from those who have not by differences in motivation, attitude and risk propensity. From this one can conclude that an unwillingness to bear uncertainty is deemed responsible for preventing prospective entrepreneurs from engaging in entrepreneurial action.

The above demonstrates that “action” forms a major part of being an entrepreneur. In order to determine if a businessman/women will indeed act entrepreneurially, one needs to first explore the various elements of “action”, which include the following (McMullen & Shepherd, 2006):

1. Knowledge, this relates to the amount of uncertainty perceived
2. Motivation, this relates to the willingness to bear uncertainty

Each of these elements manufactures a belief that is qualified by uncertainty and takes the form of doubt. This uncertainty prevents
action because it undermines the actor's belief for the following reasons:

1. The actor/entrepreneur has doubt as to whether an opportunity exists in the environment or marketplace
2. The actor/entrepreneur believes that the potential opportunity will not be feasible and, therefore, believes that it will not be profitable either
3. The actor/entrepreneur believes that some personal desire will not be satisfied even if the potential opportunity is exploited successfully

2.4.1 The Development Stage of the Business

Brinkermann (2010) believes those businesses that are in the start up stage or early growth stage will often have limited information, compared to that of an established business. This limited information can often have a negative effect on the growth of the business, due to the fact that having better information or having any information at all will enable the entrepreneur to plan more effectively, which then could transpire into increased growth. Therefore a business, which is more established in an industry, will find it easier to plan; as opposed to a start up or a business in the early growth stages that will encounter more difficulty when planning and thus face significant uncertainties.

Sarasvathy (2001) states, “Creating a company in an industry that does not yet exist calls for strategies very different from those used for penetrating a predefined and well structured market” and, thus,
businesses that enter into new markets face increased uncertainties.

Brinckemann (2010) believes that there is a large level of uncertainty and risk that pertains to the creation of a new venture and for an entrepreneur that can be very challenging and problematic, when making strategic business decisions. Existing literature states that the less uncertainty the entrepreneur faces, the more beneficial the business planning process will be for the company. Coupled with this is the fact that the more accurate and reliable the information which the entrepreneur is able to gain access to, the better and more successful the planning process will be; thus increasing the success rate of the entrepreneur, while at the same time decreasing the uncertainty.

Studies have found that uncertainty and environments of uncertainty surrounding the business will limit the success of the business planning process. The performance of a business will be decreased, due to uncertainty, which results in researchers believing that the business planning process is of little benefit to entrepreneurs who face environments of uncertainty (Forbes, 2007).

Dencker, Gruber, and Shah (2009) add to that view by believing that, when an entrepreneur strives to establish a new venture, most often the entrepreneur will be entering into a new environment and industry, and within that environment there will be many uncertainties. Due to those uncertainties the information that is required to create a business plan
may be inaccurate and have a short life span, thus making the planning process ineffective.

2.4.2 Types of Uncertainty

Uncertainty has played and continues to play an important role within entrepreneurial decision making processes. Knight (1921) identifies three types of uncertainty:

1. The first type of uncertainty that Knight (1921) refers to is a future in which the distribution is known and, therefore, the uncertainty can be accurately calculated. Knight compares this knowing distribution to mathematics: “This judgement of probability is on the same logical plane as the propositions of mathematics which also may be viewed ... as “ultimately” inductions from experience” (1921:37). This first type of uncertainty can generally be accepted and referred to as risk (Fisher, 2009).

2. The second type of uncertainty that Knight (1921) refers to is a future where the distribution is unknown but that the distribution can be estimated by studying history or past outcomes over time. Knight believes that empirical evaluation of historical frequency provides a basis for predicting future outcomes. He also states that “any high degree of confidence that the proportions found in the past will hold in the future is still based on an a priori judgment of indeterminateness.” Knight’s second type of
uncertainty is generally known as uncertainty (Fisher, 2009).

3. The third type of uncertainty that Knight (1921) refers to is a future in which the distribution is not only unknown, but also unknowable and non-existent. Knight referred to this type of uncertainty as “true uncertainty” and in today’s times this is referred to as “Knightian uncertainty”. The main differences between Knightian uncertainty and Knights first two types of uncertainty, is that Knightian uncertainty “involves dealing with a future that has no discernible distribution whatsoever, not even in theory” (Fisher, 2009). In the case of Knightian uncertainty, it is not possible to calculate future probabilities based on historical information and, therefore, statistical techniques cannot be used to estimate or predict future outcomes.

Knight’s first two types of uncertainty “risk” and “uncertainty” can be seen as being a favourable situation for followers of the “planning school.” The reason for this is that the future distribution is known or can be estimated by studying past outcomes over time and, therefore, the uncertainty can be accurately calculated or predicted based on historical frequency. This accurate calculation and prediction gives the entrepreneur pre-entry knowledge and more information, thus allowing the entrepreneur to plan more effectively. Dencker, Gruber, and Shah (2009) have found that founders who posses pre-entry knowledge and pre-entry experience about their business activity increase their survival and the benefits of early stage business planning “pre-entry knowledge
and management experience moderate the relationship between learning activities and company survival”.

Knight’s third type of uncertainty, “Knightian uncertainty” or “true uncertainty,” can be seen as being inline with scholars from the “learning school.” That is due to the fact that when an entrepreneur faces Knightian uncertainty or true uncertainty the future distribution and probability cannot be calculated. The inability to calculate the future distribution and probability will leave the entrepreneur with less pre-entry knowledge and less information; and, therefore, the entrepreneur will face greater uncertainties. Company founders entering new environments are more likely to face a high degree of uncertainty because they may not possess the pre-entry experience that other companies in the same environment possess. Companies that enter into new markets need to make assumptions that will be difficult to test without a trial and error approach (Brinckmann, Grichnik, & Kapsa, 2010).
3. RESEARCH QUESTION AND HYPOTHESES

3.1. Research Question

Under what conditions does business planning facilitate growth of a new venture?

3.2. Hypotheses

Delmar and Shane (2000) follow the belief that the business planning process is critical to the current and future success of a newly established venture. Those scholars follow the belief that the business planning process promotes the development of a company because resources are used more efficiently, the speed at which decisions are made is increased, flexibility is supported and potentially bottlenecks and problems can be identified (Delmar & Shane, 2003).

A founder’s pre-entry knowledge and experience enhances their long run performance and survival. Dencker, Gruber, & Shah (2009) reveal that companies that enter an industry with knowledge about that industry or environment are more likely to succeed against those who enter with no pre-knowledge or experience.

On the basis of these considerations and in the context of the theory, the researcher proposes the following hypothesis:
**Hypothesis 1:**

The first hypothesis (H₁) focused on the potentially positive effect that business planning might have on the growth rate of a business.

- **H₁₀:** The business planning process has no positive effect on the growth rate of the venture.
- **H₁₁:** The business planning process has a positive effect on the growth rate of the venture.

Bhide (2000), Carter (1996), Baron (1998), and Allinson (2000) follow the same belief that the business planning process is a time consuming process, which can also be very expensive. Those scholars believe that the founder's time, capital and other valuable resources are better off being used to acquire additional resources, while simultaneously attempting to establish business networks and develop their product.

On the basis of these considerations and in the context of the theory, the researcher proposes the following hypothesis:

**Hypothesis 2:**

The second hypothesis (H₂) focused on the potential negative effect that business planning might have on the growth rate of the business.

- **H₂₀:** The business planning process has a negative effect on the growth rate of the venture.
- **H₂₁:** The business planning process has no a negative effect on the growth rate of the venture.
Studies have found that uncertainty and environments of uncertainty surrounding the business will limit the success of the business planning process. The performance of a business will be decreased due to uncertainty and that results in researchers believing that the business planning process is of little benefit to entrepreneurs who face uncertain environments (Forbes, 2007).

Dencker, Gruber, & Shah (2009) add to this view by believing that when an entrepreneur attempts to establish a new venture, most often the founder will be entering into a new environment and industry, and within that environment there will be many uncertainties. Due to those uncertainties the information that is required in order to create a business plan may be inaccurate and have a short life span, thus making the business planning process ineffective.

On the basis of these considerations and in the context of the theory, the researcher proposes the following hypothesis:

**Hypothesis 3:**

The third hypothesis (H₃) focused on the effect that business planning might have on the growth rate of the business, under conditions of high uncertainty.

**H₃₀:** Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture.
**H3a:** Under conditions of high uncertainty, business planning will have an effect on the growth rate of the venture.

Brinckermann (2010) believes that there is a high level of uncertainty and risk that pertains to the creation of a new venture, and as an entrepreneur that can be challenging and problematic when making strategic business decisions.

The current literature on the subject states that the less uncertainty the entrepreneur faces, the more beneficial the business planning process will be for the business. Coupled with this is the fact that the more accurate and reliable the information that the entrepreneur is able to gain access to, the better, and the more successful the planning process will be, thus increasing the success rate of the entrepreneur, while at the same time decreasing the uncertainty.

On the basis of these considerations and in the context of the theory, we propose the following hypothesis:

**Hypothesis 4:**

The forth hypothesis (H₄) focused on the effect that business planning may have on the growth rate of the business, under conditions of low uncertainty.

**H₄₀:** Under conditions of low uncertainty, business planning will have little or no effect on the growth rate of the venture.

**H₄ₐ:** Under conditions of low uncertainty, business planning will have an effect on the growth rate of the venture.
3.3. Differentiation between Hypothesis 3 and Hypothesis 4

Hypothesis 3 and Hypothesis 4 are both very different and, thus, there is a need to test them separately. H3 and H4 could potentially mean different things; especially if both H3 and H4 are proven to be true or, on the other hand, both be proven to be false.

If H3 – ‘Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture’ - is proven to be true that does not mean that H4 – ‘Under conditions of low uncertainty there will be a positive relationship between the level of business planning and the growth rate of the venture’ - is to automatically also be true.

In other words, the relationship between H3 and H4 is, at this stage, inconclusive. Due to the fact that the relationship between H3 and H4 is inconclusive, the need exists that they both be tested, to pin point the exact conditions under which business planning may or may not have a positive effect on growth. The relationship between both H3 and H4 could be any one of the following:

H3 = True and H4 = True
H3 = False and H4 = False
H3 = True and H4 = False
H3 = False and H4 = True
Due to potential of having any of the above mentioned outcomes be proven true it is imperative that both hypothesis are tested.

The different variables to be analysed in this research study are presented in Figure 3.1.

**Figure 3.1: The Different Variables to be Analyzed in this Research Study**
4. RESEARCH METHODOLOGY

4.1. Choice of Methodology

The research will follow a deductive approach and the design will be quantitative and descriptive in nature. Zikmund (2003) describes descriptive research as that which is designed to describe characteristics of a population or a process that is observed to exist or happen; in this case business planning in relation to the success or growth of a venture. He goes on to explain how descriptive research is conducted when there is some previous understanding of the nature of the research problem. Descriptive research seeks to determine the answers to who, what, when, where, and how. This research study will answer the following questions:

What kind of business planning has been done?

Did the entrepreneur follow a formal or informal business planning process?

What is the relationship between business planning and growth?

What is the relative influence that business planning has on growth?

Who within the business is doing the business planning?

When and at what stage is business planning been done?

In what kind of environment(s) did the business planning process take place: high uncertainty or low uncertainty?
4.2. Scope and Unit of Analysis

The scope of this research will be as follows:

The research will be done within the Republic of South Africa and the participants will include only local businesses. (Should this study have included businesses from outside South Africa that would have made the data collection process extremely difficult, as all data needed to support this study had to be freshly collected during a personal one-on-one interview process with each participant.)

The participating business must have been operating between two and ten years. (This criterion was necessary so that the study could be considered recent and current.)

Entrepreneurial start-ups formed the focus of this study, to ensure the research environment would be of an entrepreneurial nature, where all participating businesses must have been a start-up and the founder must still be actively involved in the start-up process. (Any individual or individuals that established their own venture within South Africa was eligible to be included in this research study.)

The unit of analysis will be entrepreneurial ventures in South Africa.
4.3. **Proposed Population**

The relevant population will consist of the following:

1. Participants will be selected from the following South African industries:
   - The information and technology (I.T) industry – high level of uncertainty
   - The advertising industry – moderate levels of uncertainty
   - The construction industry – relative stable industry with low levels of uncertainty

2. This research studying is aimed at answering the question: Under what conditions does business planning facilitate growth of a new venture?

To answer that research question and arrive at a reliable and reputable conclusion that could be replicated and used by entrepreneurs of the future, this study will include data from three different industries that were selected because of the level of uncertainty that each industry portrays; thus ensuring the incorporation of a wide range of industry dynamics within this study.

Should only one industry or one level of uncertainty have been selected for analysis (i.e. high, medium or low) that would have meant that the results of this study would not have been an accurate reflection of the chosen field of study and, therefore, the results of
the analysis applied to answer the research question would not been reputable.

3. To be selected the participants will have either directly launched a business venture on their own or launched a venture together with a group of individuals, regardless of the success or failure of that venture. This research study is aimed at “new venture creation or entrepreneurial ventures” and, thus, the participants that are selected will of have to have launched a new venture.

4. The current owner or CEO must have started the venture and have been actively involved from its inception to date, as he/she would have been the one who decided on the planning process. If the current owner of the business is not the founder then he/she would have no record of the initial pre start-up planning process that may or may not have been followed, thus causing the data that would be collected inaccurate.

5. For this study to be considered recent, the age of the venture is required to have been in operation for the past two – ten years.

The population, however, will not include the following:

1. Any entrepreneur or start-up business that does not fall into the industry criteria listed above (i.e., I.T., advertising and construction). In order for the findings of this study to be considered relevant and reliable entrepreneurial or start-up businesses have to be selected from a wide variety of industries that match and pertain to all three
levels of uncertainty – high, medium and low. Selecting entrepreneurial or start-up businesses that do not fall into the industry criteria would result in inaccurate data being collected, which would render this study null and void.

2. Franchisees will not be included in this study, as they are not independent entrepreneurial or business start-ups, and this research study focuses on new venture creation. Franchisees are an off spring of franchisors, a much larger company, which generally handles certain the business activities - i.e. business planning, acquiring of equipment and marketing - on behalf of the franchisees.

4.4. Sample Size

The exact size of the sample has not yet been determined, as the size of the population of relevance is still unknown but the sample is expected to exceed 100 ventures. Non-probability sampling will be applied; Zikmund (2003) describes non-probability sampling as being a technique in which the probability of any particular member of the population being selected is unknown. To be more specific convenience sampling will be used in order to obtain a large number of completed questionnaires quickly and in the most economical way possible. The main disadvantage of convenience sampling is the fact that variability and bias estimates cannot be measured and projecting data beyond the sample is inappropriate (Zikmund, 2003). The objective of an ample sample size is to make sure that the response rate will be sufficient for
the kind of statistical analysis required for analysis - the Analysis of variance, i.e. Anova – to be used for this study.

4.5. Data Collection Process

The data collection process will be a combined group effort, as this research thesis forms part of a research stream. (A research stream occurs when a research scholar takes different research topics or themes and combines them together in order to come to a single outcome or conclusion.)

Once the sample has been determined, members of the research stream will cold call the respected potential participants from the predefined environments to set up an interview in which time the data can be collected. The data will be collected using a questionnaire within a structured interview process; the questionnaire that will be used is taken from a previous study and, therefore, will be more reliable due to the fact that its relevance has already been tested. Each member of the research stream will be expected to interview at least ten to fifteen entrepreneurs, all of whom are required to fit the enlisted criteria.

4.5.1. Measurements

Business planning will be measured using a predefined questionnaire that will ask a combination of operational planning and strategic planning questions. (Operational planning refers to the day-to-day business activities and strategic planning refers to the long-
term business activities.)

To be more precise, business planning will be measured using a 5-point Likert scale with closed ended responses, which in turn means that respondents are confined to select only the options that are available to them. This means that respondents do not have the ability to fill in random numbers that cannot be measured or that do not fit the statistical model that will be used in this research study.

In order to get a better spread of results the questionnaire has been modified so that it is in favour of “agree” – as there is only one option to select when choosing disagree and at least three available options when choosing agree – this modification has been done because it enables a better statistical analysis when running various forms of statistics.

The predefined questionnaire was used in a previous study and thus the researcher believes that it is the most accurate and most reliable way in which to measure business planning.

Growth will be measured based on the increase in revenue and the number of employees within the business pertaining to the time the business was started compared to the number at the current time.
Uncertainty can be viewed in two lights, objective uncertainty and perceived uncertainty. In this research we will be dealing with objective uncertainty, as this relates to the uncertainty within the relevant industry.

Once all the relevant data has been collected, it will then be entered into an online database, which all ten members of the research stream will have access to. The data will then be fed into a statistical model, which in turn will produce statistical figures that will then need to be interpreted to then arrive at a feasible conclusion. The statistical model that will be used in this research is called – the Analysis of variance, i.e. Anova. This type of statistical model was chosen as it will allow for the testing of the relationship between the business planning process and the growth of the venture, while using dynamism or uncertainty as a moderator.

4.6. Research Limitations

Based on this research scope and design, the following research limitations have been identified:

The normal limitations of a research questionnaire do apply here, which include non-response bias and response bias.

As this research report will be using non-probability sampling, the results from this report will not be generalisable.

This research report focuses on the relationship between the
business planning process and the growth of a venture over multiple industries. The use of multiple industries means that the sample will be relatively heterogeneous, and due to this one can expect to have a significant amount of “noise” that originates from external factors and that might impact the relationships being investigated.

The type of research that is being performed in this study is a cross sectional type and, therefore, may be of a limited nature. Longitudinal research on the relationship between the business planning process and the growth of a venture could enhance understanding of how the business planning process affects venture performance. Due to time constraints, a longitudinal study will unfortunately not be possible.
5. RESULTS AND ANALYSIS

Chapter 5 will present and discusses the results of the analysis of the data obtained through the one-on-one interview process. The statistical analysis is given for each of the research objectives, hypothesis and questions as well as the different research constructs.

This chapter is divided into two main sections. In the first section the statistical analysis of the data obtained from the interview process is presented for each of the research constructs. In the second, consists of the presentation and discussion of the statistical analysis for each research hypothesis as well as the research question.

5.1. Survey Results

As explained in Chapter 4, this research report forms part of a research stream, which allowed for a total of 121 completed questionnaires to be collected in an interview environment, which enabled a sample size of greater than 100 participants.

The results of the survey will be presented in a pie chart display and descriptive tabular format. Each set of data is presented in turn, together with an interpretation and discussion of the results.
5.2. Pie Charts

The following pie charts represent questions asked of the respondents with regard to the launching of their business, i.e. When launching my business I.... - Other questions regarding the importance of their business plan and whether they still have a business plan are also visually displayed.

Figure 5-1: When launching my business I did not follow my business plan and instead used a trial and error approach.

Figure 5-1 represents a sample size of 121 respondents. The graph measures those respondents who used a business plan or a trial and error approach when launching their business. The data collected reveals that the majority of entrepreneurs (26%) “somewhat agreed” to the using a business plan as apposed to a trial and error approach, while 21% “strongly agreed” and 19% “disagreed”.
Figure 5-2: When launching my business I prepared a full written business plan.

Figure 5-2 represents a sample size of 121 respondents and depicts the percentage of entrepreneurs who prepared a fully prepared business plan when launching their business. One can see that 51% of respondents did not prepare a business plan, while the minority (10%) did prepare a business plan.
Figure 5-3: Does your business still have a written business plan in place?

Figure 5.3 represents a sample size of 121 respondents and measures the percentage that still have a formal business plan. One can see that the majority of respondents (68%) still have either a written business plan or strategic plan in place, while the remaining 32% have no formal business plan.
Figure 5-4: How important do you think the prior planning was to your business?

Figure 5-4 indicates that the majority (35%) of the 121 respondents believed that prior planning was “somewhat important”, while 9% believed that prior planning was “extremely important,” while a further 9% believed that prior planning was “not important.”
5.3. Reliability Analysis

Cooper and Schindler (2006) define reliability as “the degree to which a measuring instrument is free from random error so as to supply consistent results.” Reliability also refers to the degree of consistency and internal validity between multiple measurements of a variable (Hair et al., 2006:137).

Cronbach’s alpha is a statistical measurement that is widely used to assess the internal consistency reliability of multi-item scales at an interval level of measurement (Cooper & Schindler, 2006:322). Cronbach alpha was used in this research report as an indicator of internal consistency reliability. That refers to the degree to which the set of items of a scale or constructs are internally consistent in their measurements and are measuring the same underlying construct (Hair et al., 2006:710).

The minimum level that is generally agreed upon for the Cronbach's alpha coefficient of a scale is 0.60. The Cronbach's alpha reliability coefficients of the constructs used in this research report are provided in Tables 5.1, 5.2, and 5.3.

The questionnaire survey comprised of business planning questions, uncertainty questions and growth questions:
The business planning questions are the independent variable for this report and all form part of one construct, i.e. Construct 1 = prior business planning.

The uncertainty questions form part of the moderator for this report and all form part of one construct, i.e. Construct 2 = uncertainty.

The growth questions are the dependent variable for this report and growth was calculated in two different ways:

The first measurement was calculated according to revenue generated in the most recent financial year, i.e. the respondents were asked to select the revenue category that was generated by the business for the most recent financial year. This answer was then divided by the number of years that the business has been in operation. The answer to this calculation was then averaged and plotted on a scatter plot, to form the dependent variable for this research study “Growth.” This growth measurement will be called “Revenue Growth.”

The second measurement scale was calculated according to the difference between the number of employees the business started with and their current number of employees; i.e. the respondents were asked to select how many employees the business started with, then they were asked to select how many employees the business currently employs. The difference between the two numbers was then divided by how many years the business has been in operation. The answer to this
calculation was then averaged across respondents and plotted on a scatter plot to form the dependent variable for this research study “Growth.” This growth measurement will be called “Employee Growth.”

The discussion and interpretation of the hypothesis results will follow after the reliability analysis.
Table 5.1: Cronbach Alpha, Construct 1 – Prior Business Planning (Appendix Four)

<table>
<thead>
<tr>
<th>Item / Variable</th>
<th>Item To Total Correlation</th>
<th>Cronbach Alpha If Item Is Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Economic Conditions</td>
<td>-0.28</td>
<td>0.86</td>
</tr>
<tr>
<td>Possible Changes – Target Customers</td>
<td>-4.13</td>
<td>0.87</td>
</tr>
<tr>
<td>Potential Competitive Advantage</td>
<td>1.25</td>
<td>0.87</td>
</tr>
<tr>
<td>Financial Forecast</td>
<td>-0.43</td>
<td>0.87</td>
</tr>
<tr>
<td>Estimated Sales Volume</td>
<td>0.35</td>
<td>0.86</td>
</tr>
<tr>
<td>Determined Break Even</td>
<td>1.11</td>
<td>0.86</td>
</tr>
<tr>
<td>Estimated Compensation Costs</td>
<td>0.29</td>
<td>0.86</td>
</tr>
</tbody>
</table>

The Cronbach alpha for the above scale which measures prior business planning is 0.88, which is greater than the accepted minimum value of 0.6.
Table 5.2: Cronbach Alpha, Construct 2 – Uncertainty (Appendix Four)

<table>
<thead>
<tr>
<th>Item / Variable</th>
<th>Item To Total Correlation</th>
<th>Cronbach Alpha If Item Is Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand For Product / Service</td>
<td>2.85</td>
<td>0.69</td>
</tr>
<tr>
<td>Future Innovations</td>
<td>2.74</td>
<td>0.72</td>
</tr>
<tr>
<td>Customers Preferences</td>
<td>2.01</td>
<td>0.62</td>
</tr>
<tr>
<td>Predict Industry Innovations</td>
<td>2.40</td>
<td>0.67</td>
</tr>
<tr>
<td>Ongoing Viability Of Product / Service</td>
<td>2.01</td>
<td>0.65</td>
</tr>
<tr>
<td>Ability To Respond To Competition</td>
<td>2.22</td>
<td>0.63</td>
</tr>
</tbody>
</table>

The Cronbach alpha for the above scale that measures uncertainty within a business environment is 0.70, which is greater than the accepted minimum value of 0.6.

The Cronbach alpha’s for both scale, i.e. prior business planning, and uncertainty are all above 0.6 and, therefore, have an acceptable level of internal consistency reliability.
5.4. Descriptive Statistics Report On Constructs

Table 5.3: Summary of Construct 1 – Prior Business Planning

<table>
<thead>
<tr>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>14.550</td>
<td>4.307</td>
<td>0.393</td>
<td>4</td>
<td>29</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 5.4: Normality Test of Construct 1 – Prior Business Planning

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Decision Value</th>
<th>Significant Value</th>
<th>Sufficiently Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shapiro-Wilk W</td>
<td>0.981</td>
<td>0.091</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Histogram of Construct 1 – Prior Business Planning

![Histogram of Construct 1 – Prior Business Planning](image)
Table 5.5: Summary of Construct 2 – Uncertainty

<table>
<thead>
<tr>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>14.258</td>
<td>4.187</td>
<td>0.382</td>
<td>6</td>
<td>27</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 5.6: Normality Test of Construct 2 – Uncertainty

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Decision Value</th>
<th>Significant Value</th>
<th>Sufficiently Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shapiro-Wilk W</td>
<td>0.979</td>
<td>0.057</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Histogram of Construct 2 – Uncertainty

Mean = 14.26
Std. Dev. = 4.188
N = 120
Table 5.7: Summary of Dependent Variable - Revenue Growth

<table>
<thead>
<tr>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>116</td>
<td>4.878</td>
<td>3.683</td>
<td>0.341</td>
<td>0.92</td>
<td>15</td>
<td>14.08</td>
</tr>
</tbody>
</table>

Histogram of Dependent Variable – Revenue Growth
Table 5.8: Summary of Dependent Variable - Employee Growth

<table>
<thead>
<tr>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>2.186</td>
<td>6.675</td>
<td>0.606</td>
<td>-6.55</td>
<td>65</td>
<td>71.55</td>
</tr>
</tbody>
</table>

Histogram of Dependent Variable – Employee Growth

![Histogram](image-url)
5.5. Hypothesis Testing

Hypothesis 1

The first hypothesis (H1) focused on the potential positive effect that business planning might have on the growth rate of the business:

- \( H_{10} : \) The business planning process has no positive effect on the growth rate of the venture.
- \( H_{1a} : \) The business planning process has a positive effect on the growth rate of the venture.

Hypothesis 2

The second hypothesis (H2) focused on the potential negative effect that business planning might have on the growth rate of the business:

- \( H_{20} : \) The business planning process has a negative effect on the growth rate of the venture.
- \( H_{2a} : \) The business planning process has no a negative effect on the growth rate of the venture.

Hypothesis 1 and Hypothesis 2 will be tested at a 5% level of significance.

Hypothesis 1 (H1) and hypothesis (H2) were addressed by asking respondents a selection of questions on prior business planning, i.e. construct 1. An Anova regression test was then used to test hypothesis 1 and hypothesis 2 i.e. Construct 1 against the two growth
measurements, i.e. Revenue Growth and Employee Growth.

5.5.1. Interpreting the Results of an Anova Analysis

The analysis of variance (Anova) consists of calculations that provide information about the level of variability within a regression model. The Anova calculation uses two main variables or measurements when interpreting the statistical analysis. Those variables or measurements are “R – Squared” ($R^2$) and “Level of Significance” otherwise knowing as a “p-value.”

Hair (2006) states that the power of the Anova test comes from the ability to determine and interpret the $R^2$. The $R^2$ can be defined as a ratio of measurement that measures the variance of the dependent variable that can be explained by the independent variables (Hair et al., 2006). In other words, the $R^2$ measures the percentage of the dependent variable that is explained by the independent variable.

The p-value, otherwise known as the level of significance, is used to make a decision in a hypothesis test. Anderson, Sweeney, and Williams (2002) define the p-value as “the probability of obtaining a sample result that is at least as unlikely as what is observed.” In other words, the p-value can be defined as, what is the chance of observing a sample test that is as big or bigger then the one that we have actually observed? If the p-value is smaller than the stated level of significance (0.05) then the stated null hypothesis ($H_0$) can be REJECTED and the alternative hypothesis can be ACCEPTED.
Anova Results H1 and H2

Table 5.9: Model Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>R</th>
<th>R - Squared</th>
<th>Adjusted R - Squared</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.347</td>
<td>0.120</td>
<td>0.066</td>
<td>3.485</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.340</td>
<td>0.116</td>
<td>0.061</td>
<td>6.468</td>
</tr>
</tbody>
</table>

Table 5.10: Anova Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Regression</td>
<td>187.724</td>
<td>7</td>
<td>26.818</td>
<td>2.208</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1372.493</td>
<td>113</td>
<td>12.146</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1560.217</td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Regression</td>
<td>619.151</td>
<td>7</td>
<td>88.450</td>
<td>2.114</td>
<td>0.048</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>4728.567</td>
<td>113</td>
<td>41.846</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5347.719</td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Hypothesis 1 and Hypothesis 2 focus on the effect of business planning on the growth rate of a business. In order to strengthen the results of this report two measurements of growth have been used as two separate dependent variables, i.e. construct 1 – prior business planning questions, has been tested against revenue growth and against employee growth.
Table 5.9 represents an $R^2$ of 0.120 (12%) for revenue growth and an $R^2$ of 0.116 (11.6%) for employee growth when tested against construct 1. The interpretation of both $R^2$ means that 12% of a business revenue growth can be accounted for or explained by business planning, and 11.6% of employee growth can be accounted for or explained by business planning.

Table 5.10 represents a p-value of 0.039 for revenue growth, and a p-value of 0.048 for employee growth. Since the p-values for both revenue growth and employee growth are less than the stated level of significance (0.05), the following conclusion can be made with regard to H1 and H2.

$H_{1_0}$: The business planning process has no positive effect on the growth rate of the venture.

The above null hypothesis of H1 can be REJECTED, since the p-values for both measurements of growth are smaller than the state level of significance. The rejection of $H_{1_0}$ automatically enables one to accept the alternative hypothesis $H_{1_a}$ - stated below -.

$H_{1_a}$: The business planning process has a positive effect on the growth rate of the venture.
H2₀: The business planning process has a negative effect on the growth rate of the venture.

The above null hypothesis of H2 can be REJECTED, since the p-values for both measurements of growth are smaller than the state level of significance. Rejecting H2₀ automatically allows one to accept the alternative hypothesis H2ₐ – stated below –.

H2ₐ: The business planning process has no a negative effect on the growth rate of the venture.

The rejecting of H1₀ is further supported by scholars of the planning school who believe that if the founder and manager have a systematic, prediction-oriented, and formal approach – which originates from a business planning process – towards the company or new venture, this in turn will lead to superior venture performance, i.e. increased revenue rates, thus having a positive effect on the growth rate of the venture. It is further suggested that companies that have a business planning process are more likely to have increased performance levels due to having frequent planning meetings which involve market analysis and forecasting (Brinckmann, Grichnik, & Kapsa, 2010).
Dencker, Gruber, & Shah (2009) further enhance that by stating that a founder’s pre-entry knowledge and experience enhances their chances of venture success as well as the success of the business and its proposed long term performance and survival. Dencker et al., (2009) reveal that companies that enter an industry with knowledge about the industry or environment are more likely to succeed. “Evolutionary economics suggests that the company’s pre-entry resources and capabilities may affect its ability to adapt, hence companies that are better able to adapt, renew, and build upon their knowledge resources will be more likely to succeed”.

The rejecting of H20 again can be supported by scholars from the planning school who believe that business planning is a worthwhile activity, mainly due to the fact that it allows entrepreneurs to better understand the relationship between intention, action, and performance. The business planning process helps entrepreneurs to better manage the supply and demand of their resources and in addition helps founders set out specific milestones, in order to achieve their vision and develop coherent action steps to reach those milestones in a timeous manner (Gruber, 2005).

Castrogiovanni (1996) supports the above findings by stating that by having a formal business planning process encourages the founder/entrepreneur to conduct some degree of research pertaining to the new business venture or idea, and during the founders’ research
stage proactive learning often does take place. Therefore one can assume that pre-start-up planning is positively associated with proactive learning, in that planning enhances the founder's knowledge with regard to the proposed business start-up, therefore, increasing the chances of the ventures success.
Hypothesis 3

The third hypothesis (H₃) focused on the effect that business planning might have on the growth rate of the business under conditions of high uncertainty:

H₃₀: Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture.

H₃ₐ: Under conditions of high uncertainty, business planning will have an effect on the growth rate of the venture.

Hypothesis 3 is similar to Hypothesis 1 in the sense that both test the effect of business planning on the growth rate of a venture. In Hypothesis 3 a moderating variable “uncertainty” is used to test the effect of business planning within environments of high uncertainty. A moderator is a variable that affects the directions and strength of the relationship between the independent and dependent variable (Baron & Kenny, 1986).

The information and technology industry (I.T) was chosen for this research as it is an industry with perpetually high levels of uncertainty. Hypothesis 3 will be tested in a similar manner to the way H₁ was tested. The hypothesis test for H₃ will only focus on respondents from the I.T industry, i.e. construct 1, will be tested against both revenue growth and employee growth but only for those respondents from the I.T industry. This will then display the effect that business planning has on environments with high levels of uncertainty.

Hypothesis 3 will be tested at a 5% level of significance.
Anova Results Hypothesis 3

Table 5.11: Model Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>R</th>
<th>R - Squared</th>
<th>Adjusted R - Squared</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.108</td>
<td>0.012</td>
<td>-0.028</td>
<td>3.578</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.357</td>
<td>0.127</td>
<td>0.094</td>
<td>7.137</td>
</tr>
</tbody>
</table>

Table 5.12: Anova Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Regression</td>
<td>11.205</td>
<td>3</td>
<td>3.735</td>
<td>0.292</td>
<td>0.831</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>947.596</td>
<td>74</td>
<td>12.805</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>958.801</td>
<td>77</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Regression</td>
<td>586.630</td>
<td>3</td>
<td>195.543</td>
<td>3.839</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>4024.346</td>
<td>79</td>
<td>50.941</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4610.976</td>
<td>82</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Revenue Growth

Table 5.11 represents an $R^2$ of 0.012 (1.2%) when the revenue growth rate of a business is tested against prior business planning question “construct 1” within an environment that illustrates high levels of uncertainty, i.e. the I.T industry.

The interpretation of the $R^2$ for revenue growth means that 1.2% of a businesses revenue growth can be accounted for or explained by
business planning within environments of high uncertainty.

Table 5.12 represents a p-value of 0.831 for revenue growth. Since the p-value for revenue growth is above the stated level of significance (0.05), the following conclusion can be made with regard to the null hypothesis of H3 when testing business planning against the revenue growth rate of a business under conditions of high uncertainty:

\[ H_3_0: \text{Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture.} \]

The above null hypothesis of H3 CANNOT BE REJECTED when using revenue growth as a dependent variable, since the p-value for the measurement of revenue growth is bigger then the stated level of significance. Due to the fact that \( H_3_0 \) CANNOT BE REJECTED it also means that the alternative hypothesis \( H_3_a \) - stated below – CANNOT BE ACCEPTED when using revenue growth as the dependent variable.

\[ H_3_a: \text{Under conditions of high uncertainty, business planning will have an effect on the growth rate of the venture.} \]
Employee Growth

Table 5.11 represents an $R^2$ of 0.127 (12.7%) for employee growth when tested against prior business planning question “construct 1” within environments that illustrate high levels of uncertainty, i.e. the I.T industry.

The interpretation of the $R^2$ means that 12.7% of employee growth can be accounted for or explained by business planning within environments of high uncertainty. This analysis clearly illustrates that under conditions of high uncertainty business planning will have an effect on the employee growth rate of the business venture.

Table 5.12 represents a p-value of 0.013 for employee growth. Since the p-value for employee growth is less than the stated level of significance (0.05), the following conclusion can be drawn with regard to the null hypothesis of H3:

**H3₀**: Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture.

The above null hypothesis of H3 can be REJECTED since the p-value for the measurement of employee growth is smaller than the stated level of significance.
The rejection of $H_3^0$ automatically enables one to accept the alternative hypothesis $H_3_a$ - stated below - when using the employee growth rate as the dependent variable.

$H_3_a$: Under conditions of high uncertainty, business planning will have an effect on the growth rate of the venture.

Conclusion: Revenue and Growth - Under Conditions of High Uncertainty

In concluding Hypothesis 3, it can be seen that business planning indeed does have an effect on the employee growth rate of the business. That effect is positive and the results can be generalized to the same population, due to the fact that the p-value is smaller then the stated level of significance. This allows $H_3^0$ to be rejected when testing business planning against the employee growth rate of a business under conditions of high uncertainty.

When testing business planning against the revenue growth rate of the business, the results indicate that there is an effect as the result of $R^2$ is positive and indicates a positive correlation. Despite having a positive $R^2$ the p-value for revenue growth is bigger then the stated level of significance and therefore the results of the Anova test cannot be generalized. This means that $H_3^0$ cannot be rejected when testing business planning against the revenue growth rate of a business under conditions of high uncertainty.
Hypothesis 4

Hypothesis 4 (H₄) focused on the effect that business planning may have on the growth rate of the business, under conditions of low uncertainty:

H₄₀: Under conditions of low uncertainty, business planning will have little or no effect on the growth rate of the venture

H₄ₒ: Under conditions of low uncertainty, business planning will have an effect on the growth rate of the venture

Hypothesis 4 again is similar to Hypothesis 1 in the sense that both test the effect of business planning on the growth rate of a venture. In Hypothesis 4 a moderating variable “uncertainty” is added to test the effect of business planning within environments of low uncertainty. The construction industry has been chosen for this research as being an industry with low levels of uncertainty, i.e. H₄ will only be tested against those respondents that were selected from the construction industry.

Hypothesis 4 will be tested at a 5% level of significance.
Anova Results Hypothesis 4

Table 5.13: Model Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>R</th>
<th>R - Squared</th>
<th>Adjusted R - Squared</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.136</td>
<td>0.018</td>
<td>-0.020</td>
<td>3.549</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Business Planning / Construct 1</td>
<td>0.387</td>
<td>0.150</td>
<td>0.116</td>
<td>3.108</td>
</tr>
</tbody>
</table>

Table 5.14: Anova Summary

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Regression</td>
<td>17.942</td>
<td>3</td>
<td>5.981</td>
<td>0.475</td>
<td>0.701</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>957.364</td>
<td>76</td>
<td>12.597</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>975.306</td>
<td>79</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employee Growth</td>
<td>Regression</td>
<td>129.362</td>
<td>3</td>
<td>43.121</td>
<td>4.462</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>734.461</td>
<td>76</td>
<td>9.664</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>863.830</td>
<td>79</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Revenue Growth

Table 5.13 represents an R² of 0.018 (1.8%) when the revenue growth rate of a business is tested against prior business planning question “construct 1” within environments that produce low levels of uncertainty, i.e. the construction industry.

The interpretation of the R² for the revenue growth rate means that 1.8% of the revenue that is generated by businesses can be accounted for or explained by business planning that is undertaken within environments
of low uncertainty. Table 5.14 represents a p-value of 0.701 for the revenue growth rate of a business. Since the p-value for the revenue growth rate is larger than the stated level of significance (0.05), the following conclusion can be made with regard to the null hypothesis of H4 when testing business planning against the revenue growth rate of a business within industries that illustrate low levels of uncertainty.

**H4₀**: Under conditions of low uncertainty, business planning will have little or no effect on the growth rate of the venture.

The above null hypothesis of H4 CANNOT BE REJECTED when using the revenue growth rate as the dependent variable, since the p-value for the measurement of revenue growth is bigger than the stated level of significance. Due to the fact that H4₀ CANNOT BE REJECTED this means that the alternative hypothesis H₄ₐ - stated below – CANNOT BE ACCEPTED when using the revenue growth rate as the dependent variable.

**H₄ₐ**: Under conditions of low uncertainty, business planning will have an effect on the growth rate of the venture.
Employee Growth

Table 5.13 represents an $R^2$ of 0.150 (15%) for the employee growth rate of a business when tested against prior business planning question “construct 1” within environments that illustrate low levels of uncertainty, i.e. the construction industry.

The interpretation of the $R^2$ means that 15% of the employee growth rate can be accounted for or explained by business planning within environments of low uncertainty. That analysis clearly illustrates that under conditions of low uncertainty business planning will have an effect on the employee growth rate of the business venture.

Table 5.15 represents a p-value of 0.006 for the employee growth rate. Since the p-value for employee growth is less than the stated level of significance (0.05), the following conclusion can be made with regard to the null hypothesis of H4 when testing the employee growth rate against business planning within environments that illustrate low levels of uncertainty.

**H4: Under conditions of low uncertainty, business planning will have little or no effect on the growth rate of the venture.**

**The above null hypothesis of H4 can be REJECTED since the p-value for the measurement of the employee**
growth rate is smaller then the stated level of significance. The rejection of $H_4$ automatically enables one to accept the alternative hypothesis $H_{4a}$ - stated below - when using the employee growth rate as the dependent variable.

$H_{4a}$: Under conditions of low uncertainty, business planning will have an effect on the growth rate of the venture.

Conclusion: Revenue and Growth – Under Conditions of Low Uncertainty

In concluding Hypothesis 4, it can be seen that business planning indeed does have an effect on the employee growth rate of the business. This effect is positive and the results can be generalized due to the fact that the p-value is smaller then the stated level of significance. This allows $H_{40}$ to be rejected when testing business planning against the employee growth rate of a business under conditions of low uncertainty.

When testing business planning against the revenue growth rate of the business, the results indicate that there is an effect as the result of $R^2$ is positive. Despite having a positive $R^2$ the p-value for revenue growth is larger then the stated level of significance and, therefore, the results of the Anova test cannot be generalized. That means that $H_{40}$ cannot be rejected when testing business planning against the revenue growth rate of a business.
Conclusion of Hypothesis 3 and Hypothesis 4

The results presented above indicate that when testing “business planning” against “the revenue growth rate” of a business, both the null of hypothesis 3 and hypothesis 4 CANNOT BE REJECTED. This is due to the fact that “the revenue growth rate” has a p-value that is bigger than the stated level of significance for both H3 and H4.

The results differ when testing “business planning” against “the employee growth rate” of a business, as both the null hypothesis of 3 and the null hypothesis of 4 can be REJECTED. This is due to the fact that “the employee growth rate” has a p-value that is smaller than the stated level of significance for both H3 and H4.

Based on the fact that under different measurements of growth, I.E. “the revenue growth rate” and “the employee growth rate” with regard to “the revenue growth rate”, the null of both H3 and H4 CANNOT BE REJECTED; however, with regard to “the employee growth rate” the null of both H3 and H4 can be REJECTED. Therefore the conclusion can be drawn that the effect of business planning is similar and, therefore, does not depend on what industry the business operates in.

Further more Brinckmann, Grichnik, and Kapsa (2010) believe that in the early development stages of a business, profit and revenue are uncertain but the number of employees that are employed within a
business is known and more stabile. The fact that revenues and profit are uncertain and unstable in the early development stages of a business can explain why the analysis between “the revenue growth rate” of a business and “business planning” is found not to be significant, i.e. the p-value is greater than the stated level of significance.

5.6. Research Objectives and Question

Research Objective 1:

Objective 1 of this research report was to determine under what conditions business planning has a positive effect on the growth of the new venture.

The effect that business planning has on the growth rate of a new venture can be viewed as being positive. That is a result of the Anova test producing a positive $R^2$, the Anova test produced an $R^2$ of 1.2% for the revenue growth rate and 12.7% for the employee growth rate under conditions of high uncertainty. Under conditions of low uncertainty the Anova test produced an $R^2$ of 1.8% and 15% for the revenue growth rate and the employee growth rate respectively.

In other words, under conditions of high uncertainty 1.2% of revenue generated and 12.7% of the variance of employee growth can be accounted for or explained by business planning. Under conditions of
low uncertainty 1.8% of revenue generated and 15% of employee growth can be accounted for or explained by business planning.

Based on the above it can be clearly concluded that business planning has a positive effect on the growth rate of a venture under conditions of high and low uncertainty.

Research Objective 2:

The second research objective was to determine under what conditions business planning has a negative effect on the growth of the new venture.

The results of Objective 1 reveal that business planning does have a positive effect on the growth rate of the venture and so from this one can clearly state that there is no negative effect on the growth rate of a business as a direct result of business planning.

The rejecting of the null hypotheses of H2 (H2₀) automatically allows for the accepting of the alternative hypothesis of H2 (H₂ₐ) – as stated below – that clearly illustrates that business planning has no negative effect on the growth rate of the venture.

H₂ₐ: The business planning process has no negative effect on the growth rate of the venture.
Research Objective 3:

The final objective of this research report was to explore whether, if at all, business planning has an effect on the growth of a new venture. The results from the Anova analysis when testing construct 1 “prior business planning questions” against both measures of growth, i.e. revenue growth and employee growth revealed a p-value of 0.039 and 0.048 respectively for H1. The p-values of both measurements of growth are smaller than the stated level of significance of 0.05 and therefore this is enough evidence to reject the stated null hypothesis of H1 – stated below:

\[ H_0: \text{The business planning process has no positive effect on the growth rate of the venture.} \]

The rejection of the above null hypothesis \( H_0 \) automatically enables one to accept the alternative hypothesis \( H_{1a} \) - stated below:

\[ H_{1a}: \text{The business planning process has a positive effect on the growth rate of the venture.} \]

The accepting of the above alternative hypothesis \( (H_{1a}) \) clearly illustrates that business planning has an effect on the growth of a business.

Research Question

As stated in Chapter 1, the research question for this report was the following:
Under what conditions does business planning facilitate growth of a new venture?

To answer that question, one needs to look at the $R^2$ results that were produced by the Anova analysis for H3 and H4. The analysis of the $R^2$ results for H3 - under conditions of high uncertainty - for both measurements of growth, i.e. “revenue growth” and “employee growth,” were 1.2% and 12.7% respectively. The $R^2$ analysis for H4 – under conditions of low uncertainty – for both measurements of growth, i.e. “revenue growth” and “employee growth,” were 1.8% and 15% respectively.

In conclusion based on the above results one can clearly state that the business planning relationship is similar, no matter what type of industry one is involved in. Under both conditions of uncertainty, i.e. low and high uncertainty, the $R^2$ has a positive effect on the growth of both revenue and employee growth due to business planning.

**Conclusion**

The objective in Chapter 5 was to clearly present and discuss the results of the analysis performed on the data obtained from answers obtained from the questionnaire and through the interview process. The statistical analysis and interpretation were given for each of the research objectives, hypothesis, and questions as well as the different research constructs.
6. CONCLUSION

The research process that supports this report successfully measured the impact that a business planning process has on the future growth rate of a new entrepreneurial venture. It highlights the study and impact of business planning within environments of low and high levels of uncertainty.

The business planning process comprised of a selection of prior planning questions that were presented to the select entrepreneurs. These questions were then tested against two different measurements of growth, which were the revenue growth rate of a venture and the employee growth rate of a venture. That was done to strengthen the results of this study.

6.1. Main Findings

This report illustrates that there is a positive association between the business planning process and both the revenue growth rate and the employee growth rate of a venture in environments of low uncertainty. This was evident in the results that were concluded from H1 and H2.

The null of Hypothesis 1 and Hypothesis 2 were both rejected. That allows one to conclude that business planning in an entrepreneurial environment of low uncertainty does indeed have a positive effect on the growth rate of the venture, and that business planning will have no
negative effect on the growth of an entrepreneurial venture.

The above findings support and back scholars from the planning school who believe that the business planning process allows for more rapid decision making, as planning gives managers and CEO’S the ability to anticipate information gaps, streamline the flow of resources, while avoiding potential bottlenecks which in turn leads to increased growth rates (Delmar & Shane, 2003).

Castrogiovanni (1996) believes that the business planning process has a hugely positive influence on a business and their respective founders when attempting to gain access to external capital funding. A business plan will enable the entrepreneur to illustrate to a potential investor or venture capitalist their proposed business idea and what means they intend taking in order to achieve the stated objective.

Gone are the days of the .com boom when, all one needed was an idea; in today’s times no investor will give an entrepreneur any form of funding without first seeing a concise set of growth forecasts in the form of an income statement, balance sheet, and cash flow statement together with a precise plan as to how the entrepreneur is to go about obtaining the proposed growth targets, which all originates back to the business planning process.
Brinckman, Grichnik, and Kapsa (2008) add to that belief that the business planning process indeed does have a positive effect on the growth rate of a venture by stating that if the entrepreneur has a systematic, prediction-oriented formal approach which originated from the business planning process this in turn will lead to superior venture performance.

The study also successfully examined the effect that business planning will have on the growth rate of a business within environments that are uncertain. The findings revealed that under both low and high levels of uncertainty, the business planning process would indeed have a positive effect on the growth of a specific venture. However, when business planning was tested against “the revenue growth rate” in both low and high uncertainty environments, the results were indeed found to be positive, but due to the results having a p-value that was greater than the stated level of significance the results cannot be generalized to the population.

On the other hand when testing business planning against “the employee growth rate” within both low and high uncertainty environments, the results were positive. The positive results found when using employee growth as a growth measurement can be generalized to the population, which is due to having a p-value that is smaller then the stated level of significance.
The reason why the results under “the employee growth rate” can be generalized are stronger than those results under “the revenue growth rate” is due to the fact that in the early development stages of a business, profit and revenue are uncertain but the number of employees that are employed within a business is known and more stable. The fact that revenue and profit are uncertain and unstable in the early development stages of a business can explain why the analysis between “the revenue growth rate” of a business and “business planning” is found to be weaker than the analysis between “the employee growth rate” of a business verse “business planning”.

6.2. Recommendations to Stakeholders

The implementation of a specific business planning process has been found to have a positive effect on the growth rate of a business. It is thus recommended that all entrepreneurs should indeed develop a business plan prior to striving for venture success without a specific business plan.

Mathews and Scott (1995), and Castrogiovanni (1996) state that preparing a business plan is far more important for the founding team than for the business itself, as a business plan encourages better communication between the entrepreneur and internal and external stakeholders. That critical and important communication enables proactive learning to take place and, in so doing, enhances the founding
team’s knowledge about the proposed business start-up and, therefore, increasing the chances of the proposed venture’s success.

6.3. Contributions to Theory

The main finding within this research report illustrates that there is a positive association between the business planning process and both the revenue growth rate and the employee growth rate. These findings are supported by the scholars of the planning school (Delmar & Shane, 2003); Brinckmann, Grichnik, & Kapsa (2010); Castrogiovanni (1996); Matthews & Scott (1995); Gruber (2005); Dencker, Gruber, & Shah (2009); Weick (1979); and Hiatt & Sine (2008)) who believe that the business planning process indeed does have a positive effect on the growth rate of a business.

The findings highlighted in this report may be heeded by entrepreneurs of the future who wish to launch a business venture and are faced with the predicament of whether to plan before embarking on the priceless quest for venture success or just storm the castle.

This research indicates that indeed an entrepreneur should and must follow the pre-business planning process, i.e. in environments of high and low uncertainty a business plan should be prepared. However, in an environment in which a high level of uncertainty is the norm, when major strategic decisions need to be made quickly on a daily base, the entrepreneur should rather use the business plan as a guide to the decision making process and not as a rigid policy tool.
The reason being that within such an environment it is highly necessary that both the entrepreneur and the business are flexible and agile, and display the ability to adapt and react quickly to changes within the environment. The consequence of being too entrenched within their own mind and not being agile enough is that they will be left behind. If success and longevity is the quest of the entrepreneur, then a business plan should be drawn up but get used only as a general guide for the business processes.

6.4. Future Research Opportunities

The future research opportunities that emerged from this research report might include the following:

A qualitative case study research that will examine the underlying benefits and the effect that the business planning process may have on the growth rate of a business venture.

This research tested the effect of business planning on the growth rate of an entrepreneurial venture and not on the growth rate of a non-entrepreneurial venture; this could be a focus area for further research. This could be done through the interviewing of multinational business and non-entrepreneurial ventures.

Analysing the effect, or its lack, that business planning may have on a start-up venture when it was launch by a multinational business and not by an entrepreneur.
APPENDICES

7.1 Appendix One: Reference List


7.2 Appendix Two: Consistency Matrix

<table>
<thead>
<tr>
<th>Proposition/Questions/ Hypotheses</th>
<th>Literature Review</th>
<th>Data Collection Tool</th>
<th>Analysis</th>
</tr>
</thead>
</table>
| **Hypothesis 1:** The business planning process has a positive effect on the growth rate of the venture. | Delmar & Shane, 2000  
Dencker, 2009  
Gruber & Shah, 2009  
Brinckmann, Grichnik and Kapsa, 2010 | Questionnaire | Anova |
| **Hypothesis 2:** The business planning process has a negative effect on the growth rate of the venture. | Bhide, 2000  
Carter, 1996  
Baron, 1998  
Allinson, 2000  
Baron, 1998  
Mintzberg, 1994 | Questionnaire | Anova |
| **Hypothesis 3:** Under conditions of high uncertainty, business planning will have little or no effect on the growth rate of the venture. | McMullen and Shepherd, 2006  
Brinkermann, 2010  
Sarasvathy, 2001  
Forbes, 2007  
Dencker, Gruber and Shah, 2009 | Questionnaire | Anova |
<table>
<thead>
<tr>
<th>Hypothesis 4:</th>
<th>Knight, 1921</th>
<th>Questionnaire</th>
<th>Anova</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under conditions of low uncertainty there will be a strong positive relationship between the level of business planning and the growth rate of the venture.</td>
<td>Brinkermann, 2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix Three: Project Time Line

<table>
<thead>
<tr>
<th>Task</th>
<th>Time Needed</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Research Proposal</td>
<td></td>
<td>10-May-10</td>
</tr>
<tr>
<td>Elective &amp; Preparation for Elective</td>
<td>2 Weeks</td>
<td>30-May-10</td>
</tr>
<tr>
<td>Elective &amp; Preparation for Elective</td>
<td>2 Weeks</td>
<td>09-Jun-10</td>
</tr>
<tr>
<td>Elective &amp; Preparation for Elective</td>
<td>2 Weeks</td>
<td>04-Jul-10</td>
</tr>
<tr>
<td>Elective &amp; Preparation for Elective</td>
<td>2 Weeks</td>
<td>18-Jul-10</td>
</tr>
<tr>
<td>Complete Literature Review</td>
<td>3 Weeks</td>
<td>30-Jul-10</td>
</tr>
<tr>
<td>Draft Chapter 1-4</td>
<td></td>
<td>10-Aug-10</td>
</tr>
<tr>
<td>Ethical Clearance Approved</td>
<td></td>
<td>10-Aug-10</td>
</tr>
<tr>
<td>Data Collection</td>
<td>4 Weeks</td>
<td>10-Sep-10</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>3 Weeks</td>
<td>30-Sep-10</td>
</tr>
<tr>
<td>Draft Chapters 5,6,7</td>
<td></td>
<td>15-Oct-10</td>
</tr>
<tr>
<td>Finalise Report</td>
<td></td>
<td>25-Oct-10</td>
</tr>
<tr>
<td>Proof Read and Print</td>
<td>1 Week</td>
<td>31-Oct-10</td>
</tr>
<tr>
<td>SUBMISSION OF RESEARCH REPORT</td>
<td></td>
<td>10-Nov-10</td>
</tr>
</tbody>
</table>
### Business Planning

This section of the questionnaire will examine some of the actions employed in the process of launching the business.

#### Prior to launching the business

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did a six to twelve month forecast on the future economic and business conditions within my industry and assessing their possible impact on sales</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Analysed the possible changes that may take place within a year among my target customers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Analysed my potential competitive advantage over the competition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Did a three to five year financial forecast of the proposed business (i.e. income statement, balance sheet, cash flow statement)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Estimated the sales volumes and the Rand sales the company expected to reach in a period of six to twelve months</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Determined the sales volume required to break even</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Estimated the total annual compensation and the cost of other employee benefits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### When launching my business

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Followed my original business plan for a period of six to twelve months</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Occasionally referred to my business plan</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Did not follow my business plan and instead used a trial and error approach</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Prepared a full written business plan</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Does your business still have a written business plan in place?  

<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your business still have a written business plan in place?</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

How important do you think the prior planning was to your business?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Not important at all</th>
<th>Not very important</th>
<th>Somewhat important</th>
<th>Very important</th>
<th>Extremely important</th>
</tr>
</thead>
</table>
### 7.4.2 Uncertainty Questions

**Uncertainty**
Below are some questions about the uncertainty that exists in the context in which you operate. Please respond to each question on the 5-point scale provided.

#### How certain are you about demand for your product or service?

1 = The demand for your product or service fluctuates, but the rate of change is moderate and steady.

5 = The rate of demand for your product or service fluctuates significantly and fluctuations are difficult to predict.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### How likely is it that future innovations will radically disrupt your product or service?

1 = Future technological innovations affecting the viability of the product or service occur, but they are in incremental (not discontinuous).

5 = Future technological innovations affecting the viability of the product or service are frequent and/or major.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### How certain are you about customers’ preferences with regard to your product or service?

1 = You have a strong idea of your customers’ preferences and demands with regard to your product, and these are predictable over time.

5 = It is not possible to predict in advance demand changes affecting the viability of the product.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### How effectively are you able to predict innovations in your industry?

1 = You are in a strong position to predict the nature and source of innovations that affect the viability of the product or service.

5 = It is not possible to predict with any certainty the kinds or timing of future technological innovations that will affect the viability of the product or service.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### How certain are you about the ongoing viability of your product or service?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = You have tangible reasons to believe that your firm has the ability to sustain viability in its current market through further radical and/or incremental innovations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 = It is not possible to foresee the ability of your firm to sustain viability in its current market through further radical and/or incremental innovations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How certain were you about your ability to respond to competition?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = By taking appropriate action your product or service will enjoy advantages long enough to realize worthy entrepreneurial returns.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 = You cannot predict how long your product or service will enjoy advantages before a competitive response erodes profits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How do you tend to launch new products or services?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = You tend to launch new products or services on a small scale, to a limited number of customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 = You tend to launch new products or services on a large scale, to the national market immediately.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 7.4.3 Growth Questions

#### Business Domain and Growth

This portion of the questionnaire will gather data on the area of business in which you operate and on the growth trajectory of the business.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>What broad industry does your company operate in?</td>
<td>Information Technology / Advertising / Construction</td>
</tr>
<tr>
<td>If possible, please indicate a sub-industry or specialization area in which your company operates.</td>
<td></td>
</tr>
<tr>
<td>Please provide a brief description of your company’s core function/s. What is the essence of your company?</td>
<td>E.g. <em>This company buys media space in advance and then sells it to corporations and/or agencies as and when they need it for specific advertising campaigns OR This company seeks to work with large corporations to reduce their IT expenses by incorporating open source software into their IT operating environment</em></td>
</tr>
<tr>
<td>In which year was your business founded?</td>
<td></td>
</tr>
<tr>
<td>How many people did you employ in the business at the end of year 1 of operation (including the founders)?</td>
<td></td>
</tr>
<tr>
<td>How many people do you currently employ in the business (including the founders)?</td>
<td></td>
</tr>
<tr>
<td>How much external equity (capital) has been invested in the business i.e. What is the total rand value of equity invested in the business?</td>
<td></td>
</tr>
</tbody>
</table>
| How much revenue did the business generate in the most recent financial year? | A. More than R100m  
B. R75m – R100m  
C. R50m – R75m  
D. R30m – R50m  
E. R20m – R30m  
F. R10m – R20m  
G. R5m – R10m  
H. R2m – R5m  
I. R1m – R2m  
J. Less than R1m                                                                 |
| How would you describe the rate of revenue growth in your business over the past 3 years? | A. Very high – annual increase in revenue of 50% or more  
B. High – annual increase in revenue of 30% - 50%  
C. Moderate to high - annual increase in revenue of 20% - 30%  
D. Moderate - annual increase in revenue of 10% - 20%  
E. Moderate to low - annual increase in revenue of 5% - 10%  
F. Low - annual increase in revenue of 1% - 5%  
G. Stagnant – no increase in revenue  
H. Declining – revenue has been declining over the past 3 years |
|---|---|
| In what range are your net profit margins? | A. Very high – net profit margins of 50% or more  
B. High – net profit margins of 30% - 50%  
C. Moderate to high - net profit margins of 20% - 30%  
D. Moderate - net profit margins of 10% - 20%  
E. Moderate to low - net profit margins of 5% - 10%  
F. Low - net profit margins of 1% - 5%  
G. Breakeven – not making profits but also not losing  
H. Losses – currently making losses |
| How many years did it take for the business reach breakeven i.e. begin making a profit? | A. Very high – annual increase in revenue of 50% or more  
B. High – annual increase in revenue of 30% - 50%  
C. Moderate to high - annual increase in revenue of 20% - 30%  
D. Moderate - annual increase in revenue of 10% - 20%  
E. Moderate to low - annual increase in revenue of 5% - 10%  
F. Low - annual increase in revenue of 1% - 5%  
G. Stagnant – no increase in revenue  
H. Declining – revenue has been declining over the past 3 years |