

Bachelor Thesis Organization & Strategy

Characteristics of entrepreneurs and risk taking

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June, 11 2010

Number of words: 6361

Management Summary

The question why some entrepreneurs do not make it with their businesses and while others do survive is one of the basic concerns of business scholars nowadays (Suarez and Utterback, 1995). Clearly, starting entrepreneurial ventures based on new discoveries and innovations entail a great deal of risk.

The subject of this thesis deals with the influence of characteristics of entrepreneurs and the degree of risk taking in comparison with non-entrepreneurs.

This thesis consists of one problem statement and three research questions. The first research question tries to give an answer to make a distinction between the different characteristics an entrepreneur possesses. According to the trait and behavioral approach five characteristics are relevant for the entrepreneur, besides these traits, gender can play an important role.

The second research question deals with the different perceptions of risk. Knight (1921) drew a sharp distinction between risk, as referring to events subject to a known or knowable probability distribution and uncertainty, as referring to events for which it was not possible to specify numerical probabilities. Further, risk is divided into three concepts; risk as variance, risk as downside loss and risk as opportunity costs. Risk as downside loss is the most appropriate perception for entrepreneurs.

The third research question examines if there is a relation between the characteristics found in chapter 2 and risk taking. The five characteristics are related to the propensity of risk taking. Next a comparison is made between the entrepreneur and the non-entrepreneur. Different studies show that the entrepreneur and the manager both entail risk taking, but entrepreneurs are generally believed to take more risks than do managers. This has to do with the fact that the entrepreneur faces a less structured and more uncertain set of possibilities (Bearse, 1982).

Table of Contents

1 Introduction

1.1 Problem indication	5
1.2 Problem statement.....	5
1.3 Research questions	6
1.4 Methodology	6
1.5 Structure of the thesis	7

2 Characteristics of entrepreneurs

2.1 Introduction.....	8
2.2 Brief historical outline.....	8
2.3 Trait approach	9
2.4 Behavioral approach.....	10
2.5 Female versus male entrepreneurs	11
2.6 Conclusion.....	12

3 Risk

3.1 Introduction.....	13
3.2 Perception of risk	13
3.2.1 Risk as variance	14
3.2.2 Risk as downside loss	14
3.2.3 Risk as opportunity costs	14
3.3 Entrepreneurial risks.....	15
3.4 Conclusion.....	16

4 Relationship between characteristics of entrepreneurs and risk taking

4.1 Introduction.....	17
4.2 Risk taking propensity.....	17
4.3. Relationships	17
4.3.1 Risk taking.....	18
4.3.2 Perseverance and proclivity	18
4.3.3 Creativity and innovation.....	18
4.3.4 Vision.....	19
4.3.5 Pursue opportunities.....	19
4.3.6 Female versus male entrepreneurs	19
4.4. Comparison of entrepreneur with non-entrepreneur.....	20
4.5 Conclusion.....	21

5 Conclusions and recommendations

5.1 Introduction.....	22
5.2 Conclusion.....	22
5.3 Recommendations.....	23

References.....	24
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1 Introduction

1.1 Problem Indication

The question why some entrepreneurs do not make it with their businesses and while others do survive is one of the basic concerns of business scholars nowadays (Suarez and Utterback, 1995). Clearly, starting entrepreneurial ventures based on new discoveries and innovations entail a great deal of risk. Survival rates of new firms are strikingly low: according to Bartelsman (2005) about 20 to 40% of entering entrepreneurs fail within the first two years of life, while only 40 to 50% survive beyond the seventh year (OECD, 2003).

When new businesses pursue uncharted waters with the intent of achieving substantial growth and above average performance, risk is an inescapable reality (Busenitz, 1999). In economics, entrepreneurs have long been assumed to have a high risk propensity relative to the general population (Xu and Ruef, 2004). Due to the fact that entrepreneurs run small organizations it might be that the characteristics of entrepreneurs are of influence on the performance of their organizations. It is clear that entrepreneurship brings a certain amount of risk with it, but how can this risk be understood?

While scholars explore the extent to which managers and entrepreneurs perceive risk differently (Busenitz and Barney, 1997), understanding the source of these differences remains a fruitful area of research for entrepreneurial scholars.

This thesis tries first to describe the characteristics of entrepreneurs and give a clear view of the question: Who is an entrepreneur (Gartner, 1988)? Subsequently the concept of risk is addressed. Much recent work on risk has focused on cognition and perception, premised on the idea that entrepreneurs evaluate risk differently than non-entrepreneurial peers (Simon, Houghton, Aquino, 2000).

1.2 Problem statement

In the previous section the problem of this paper has been described. This leads to the following problem statement:

What is the influence of the characteristics of entrepreneurs and the degree of risk taking compared with non-entrepreneurs?

1.3 Research Questions

In order to answer the problem statement, the following research questions are formulated. The first research question is set up to give some insight in the field of entrepreneurship and the various characteristics of entrepreneurs. The second research question is drawn to explain and discuss risk taking in organizations.

The third question researches if there is a connection between the characteristics of entrepreneurs and the degree of risk taking. Further a comparison is made between entrepreneurs and non entrepreneurs entailing risk taking.

1. Which characteristics of entrepreneurs can be distinguished?
2. What are the different perceptions of risk taking?
3. What is the relationship between the characteristics of entrepreneurs and the degree of risk taking?

1.4 Methodology

This thesis is a literature study and has an exploratory and descriptive character. A literature study is the documentation of a comprehensive review of the published and unpublished work from secondary sources of data in the areas of specific interest to the researcher (Sekaran, 2003).

In order to delineate the topic and problem statement, and in order to make both the topic and problem statement as specific and attainable as possible, it is important to know what studies have been performed in the past with regard to the topic.

Through examining literature and articles, the answers to the research questions and the problem statement are found. A list of top journals is selected by the University of Tilburg, only articles published in these top journals are used. An advantage of these articles is that they are scientific and academic; therefore they could provide reliability. The articles are acquired from JSTOR and ABI/Inform.

The list of data examined, is enclosed in the references.

1.5 Structure of the thesis

The structure of this thesis is constructed around the research questions. In chapter one the problem statement is described, as well are the research questions. Further includes the first chapter the methodology used and is the structure of the thesis summed up.

The second chapter of this thesis deals with the first research question: Which characteristics of entrepreneurs can be distinguished? Primary an introduction is written to give some insight in the field of entrepreneurship. Subsequently different approaches and theories are discussed in order to obtain an answer to the research question. The chapter finishes with a conclusion.

The third chapter tries to answer the second research question: what is meant by risk taking? The fourth chapter handles the last research question: what is the relationship between the characteristics of entrepreneurs and the degree of risk taking? Further a comparison is made between entrepreneurs and non entrepreneurs entailing risk taking.

The final chapter, chapter five, contains all information needed to review the problem statement and tries to give a clear answer as possible to the problem statement.

Recommendations for further research are as well included in this chapter.

2 Characteristics of entrepreneurs

2.1 Introduction

In this chapter the different characteristics of entrepreneurs are examined. First the terms entrepreneur and entrepreneurship are explained and described by reviewing other authors during decades of time. This section is followed by describing two approaches that are relevant for this paper; these approaches are called the trait approach and the behavioral approach. They question the matter if traits and characteristics are acquired through life experience or if they are inherent.

Further, the chapter illustrates in short the different characteristics between male and female entrepreneurs; there is an increasing number of women deciding to start their own business, to become an entrepreneur and therefore it might be interesting to explore differences in male and female entrepreneurs. The chapter ends with a conclusion.

2.2 Brief historical outline

The philosopher and economist Mill was the first to utilize the expression entrepreneur among economists. He considers direction, supervision, control and risk taking to be the functions of the entrepreneur. To his believe the main distinguishing feature between the manager (non-entrepreneur) and the entrepreneur is risk bearing.

Schumpeter (1912, 1926, and 1939) believes both the manager (non-entrepreneur) and the entrepreneur experience risk. According to Schumpeter not risk bearing, but the role of innovation is the distinctive aspect for entrepreneurs. His definition of the entrepreneur type was made in terms of the functions that the type reformed. These functions were the establishment of new combinations, developing new products or services, developing new methods of production, identifying new markets, discovering new sources of supply, and developing new forms of organizations (Carlin, 2007). An entrepreneur has entrepreneurial tasks contain breaking the inertia of traditions and routines, finding strategic partners for the carrying out of innovations, and gaining the acceptance of consumers (Schumpeter, 1926). The entrepreneurial function is characterized by the capability for creative response. Schumpeter characterizes the essential features of an entrepreneurial (*'Unternehmer'*) type as follows: unpredictably creative, novelty-embracing spontaneous, visionary imagination and uncertainty-spreading innovation.

The ideas of Schumpeter's entrepreneur type are supported by Kirzner (1978). He considers the identification of market opportunities is the fundamental function of the entrepreneur.

Gartner (1988) has a similar look on entrepreneurs and entrepreneurship, he thinks of entrepreneurship as the creation of new organizations.

As though many authors agree on the term entrepreneurship as the creation of new organizations (Gartner, 1988), there are in the literature on entrepreneurship numerous alternative theories developed. However none of these theories are generally accepted (Bull and Willard, 1993). According to Bull and Willard (1993) the existing literature on entrepreneurship can be grouped into five broad categories.

The first category focuses on a definition of the word entrepreneur, the second category might be considered the trait approach, the third category emphasizes the study of success strategies, and the fourth category studies the formation of new ventures. The last category underlines the effect of environmental factors on entrepreneurial actions, this category is also known as the behavioral approach.

Since this paper studies the relationship of the characteristics of entrepreneurs and risk taking, the trait approach theory as well as the behavioral approach theory might be useful for distinguishing the characteristics of entrepreneurs. The next sections explain the trait approach and the behavioral approach a little further.

2.3 Trait approach

Prior to World War 2, the emphasis in leadership research was on analyzing individual personality traits and characteristics. According to the trait approach the entrepreneur is assumed to be a particular personality type (Gartner, 1988). The approach tries to solve the question: 'Who is an entrepreneur?' and focuses on the characteristics and traits of the entrepreneur. In this approach the entrepreneur is the basic unit of analysis and his characteristics and traits are the key to explaining entrepreneurship.

One of the earliest surveys on individual traits characterizing leaders was made by Bird (1940). He found 79 traits mentioned in 20 different studies, however only 5 percent which were common to four or more investigations.

Gartner (1988) attempted to organize concisely much of the major literature on the entrepreneur to prove that the trait approach is not sufficient to define the entrepreneur. Among all these studies, the only common conclusion that receives even fair support is that leaders excel non-leaders in intelligence, scholarship, responsibility, activity, and social participation (Geier, 2006).

Another study of Gartner (1990) illustrated that entrepreneurship involves individuals with unique personality characteristics and abilities. In his research, Gartner (1990) explored the underlying meanings researchers have about entrepreneurship and to outline some themes that characterize entrepreneurs. The results of this research reflect, among other things, that most of the attributes that described the entrepreneur involves risk taking, locus of control, autonomy, perseverance, commitment, vision, creativity and innovation (Gartner 1990).

2.4 Behavioral approach

As a consequence an entrepreneur has some characteristics and traits that distinguish an entrepreneur from a non-entrepreneur. Entrepreneurs are persons who take action- they engage in vigorous, persistent efforts to convert their ideas and visions into profitable, operating companies (Baron, 2007). This proclivity can be seen as another characteristic of an entrepreneur. Without this proclivity, thus in the absence of action, there would be no entrepreneurship and now new ventures (Baron, 2007). Other authors agree on this; Shane, Locke, and Collins (2003) state that entrepreneurship involves human agency, the entrepreneurial process occurs because people act to pursue opportunities. If entrepreneurs are indeed an essential part of the process through which new ventures are created, it is reasonable to suggest that at least some aspects of their behaviour and cognition play an important role in this process (Baron, 2007). This is called the behavioural approach and in this approach the entrepreneur is seen as a set of activities involved in organization creation (Gartner, 1988). When the perspective (trait approach) that entrepreneurs are born with certain skills and abilities is given up, the question of what are the specific organization creation skills an entrepreneur needs to know raises (Palmer, 1971). How are these skills and abilities acquired (Gartner 1988)? Some research suggests that entrepreneurial skills are 'learn-as-you-go' (Collins and Moore, 1970, Gartner, 1984). Entrepreneurs who have started one organization seem to be more successful and are more efficient in the start up of their second and third organizations (Vesper, 1980).

But which aspects of their behaviour and cognition are most relevant? Baron (2007) believes the focus should lie on those aspects of the behaviour of entrepreneurs that are most closely linked to the activities entrepreneurs perform (Landy and Conte, 2006). To put it differently, behavioural and cognitive variables are of interest to entrepreneurship researchers only to the extent that they are closely related to activities involved in the conception, launch, development, and operation of new ventures (Shane, Locke and Collins, 2003).

2.5 Female versus male entrepreneurs

As is indicated in the previous sections there are a quite some different characteristics that can be ascribed to entrepreneurs. Another important characteristic of entrepreneurs has to do with gender. Is there a difference in the characteristics of female entrepreneurs in comparison with male entrepreneurs?

The influence of women into the workforce over the past half century and their growing interest in managerial and professional careers is one of the major developments of contemporary American society. Paralleling the movement of women into the workforce, there is an increasing number of women deciding to start their own business, to become an entrepreneur (Bowen, Hisrich, 1986).

A study from Sexton and Bowman-Upton (1990) examined 105 female business owners that rate in the top 10% with respect to sales and number of employees. These women were compared with those of similar male business owners. The results from the study showed no significant differences on 5 of the 9 traits that were measured. The women scored significantly lower on traits related to energy level and risk taking. They also scored significantly higher on the traits related to autonomy and change. These scores indicate that female entrepreneurs are less willing than male entrepreneurs to become involved in situations with uncertain outcomes (risk taking) and have less of the endurance or energy level needed to maintain a growth-oriented business. The study showed that the psychological propensities of female and male entrepreneurs are more similar than they are different. While some differences did exist, they would not be expected to affect the person's ability to manage a growing company (Sexton and Bowman-Upton, 1990).

2.6 Conclusion

The chapter started with an introduction of the term entrepreneur. In this section it became quite apparent that many authors agree on the term entrepreneurship as the creation of new organizations (Gartner, 1988).

According to the trait approach, the entrepreneur can be seen as a particular personality type (Gartner, 1988). The behavioral approach states the entrepreneur as a set of activities involved in organization creation (Gartner, 1988). With this perspective entrepreneurs arise as persons who need to acquire skills and abilities.

The previous statement raises the question if characteristics of entrepreneurs are acquired through experience or that entrepreneurs are born with specific traits. The following table points up the characteristics of an entrepreneur according to the trait and behavioral approach.

<i>Trait approach characteristics</i>	<i>Behavioral approach characteristics</i>
Risk taking	Proclivity (take-action)
Locus of control	Pursue opportunities
Autonomy	'learn-as-you-go'
perseverance	
commitment	
vision	
Creativity and innovation	

Although the study of Sexton and Bowman-Upton (1990) illustrated little significant differences between male and female entrepreneurs, it might be worthwhile to take account of these differences when studying the influence of characteristics of entrepreneurs and their level of risk taking. Especially when considering women scored significantly lower on traits related to energy level and risk taking.

3 Risk

3.1 Introduction

The aim of this chapter is to provide a brief overview of the different perceptions of risk and what the perception of entrepreneurs is on risk. The first section shows the different perceptions of risk; it gives a quite clear insight of what is really meant by the term risk. Further this section divides risk into three singular concepts. The following section of this chapter contains entrepreneurial risks; it explains which kind of risks an entrepreneur faces. The chapter finishes with a conclusion.

3.2 Perception of risk

One of the biggest challenges in understanding risk perceptions rests with simply defining what is meant by the term risk (Janney & Dess 2006). The term risk was first defined in the academic literature by the author Knight (1921). Knight (1921) drew a sharp distinction between risk, as referring to events subject to a known or knowable probability distribution and uncertainty, as referring to events for which it was not possible to specify numerical probabilities.

Risk reflects the degree of uncertainty and potential loss associated with outcomes which may follow from a given behaviour or set of behaviours (Forlani & Mullins, 2000). According to Yates & Stone (1992) and the basic element of risk construction can be identified as: potential losses and the significance of those losses.

In the classical decision theory, risk is most commonly conceived as the reflecting variation in the distribution of possible outcomes. Risk is mostly measured either by nonlinearities in the revealed utility for money or by the variance of the probability distribution of possible gains and losses associated with a particular alternative (Pratt 1964; Arrow 1965). In the latter formulation, a risky alternative is one for which the variance is large and risk is one of the attributes which, along with the expected value of the alternative, are used in evaluating alternative gambles (Pratt 1964; Arrow 1965).

Several remarkable works (Baucus, Golec & Cooper, 1993; McNamara and Bromiley, 1999; Bromiley, Miller & Cau, 2001) investigate the dilemma that the term risk has polysemic meanings, stating that the results of risk assessment differ with the choice of measurements and methods used. With other words risk can represents different aspects, it depends on which measurements and methods are used.

Because of the dilemma stated above, Janney & Dess (2006) distinguish risk into three different concepts; these are subsequently risk as variance, risk as downside loss and risk as opportunity costs. The three concepts are related to each other to a limited degree, and thus a given measurement that adequately captures one concept, might somewhat capture elements of the other two (Janney & Dess, 2006). These concepts are further explained in the following subsections.

3.2.1 Risk as variance

In traditional finance theory the risk of an investment is seen as being embodied in the variance of the expected distribution of returns (Duxbury and Summers, 2004). Risk as variance is classically measured financially as the stock market return risk in which changes in the firm's stock price (in relationship to the market in general) can be largely attributed to specific outcomes (Brown and Warner, 1985). Risk as variance emerges from measurements of financial leverage, (Hall and Weiss, 1967), income stream variability (Miller and Bromiley, 1990), and level of diversification (Jensen, 1989).

3.2.2 Risk as downside loss

In contrast to risk as variance, measuring downside risk generally occurs via survey data that asks managers to assess the likelihood of loss, as well as the consequences for decisions turning out poorly, and other related hazards (March and Shapira, 1987; Shapira, 1994; Lumpkin and Dess, 1996). Risk as downside loss is built upon the view that it may be better to forego a positive outcome if in doing so one must first accept a relatively greater possibility of a negative outcome (MacCrimmon & Wehrung, 1986). Similarly, if probabilities are similar, downside loss will be considered more risky as the magnitude of loss increases. As a result, measurements developed to capture risk as variance often fail to adequately capture the concerns of risk as downside loss.

3.2.3 Risk as opportunity costs

Risk as opportunity costs is similar to risk as downside loss, in the sense that both are concerned with the likelihood and magnitude of outcomes—but in the former case, opportunity focuses on potential upside gain. In this conceptualization, risk increases with rise in opportunity costs, that is, what entrepreneurs must give up to receive the potential upside gain. The study of Gimeno, Folta, Cooper, Woo (1997) measures the relative income and education levels of

entrepreneurs, as proxies for their alternatives. They found entrepreneurs required greater upside potential as the value of their alternative opportunities rise. This perspective is similar to the work of Dickson and Giglierano (1986). Dickson and Giglierano (1986) suggest two elements of entrepreneurial risk; missing the boat and sinking the boat. While sinking the boat is the same as the concept of risk as downside loss, missing the boat suggests that foregoing profitable opportunities incurs significant risks as well.

3.3 Entrepreneurial risks

In the former subsections three concepts of risk were clarified. In this section the entrepreneurial risks, risks related to entrepreneurs, are described. Entrepreneurs share financial risk, management risk and personal risk; it is quite obvious that entrepreneurs put their whole career on the line in their pursuit of a new and independent enterprise (Gartner, 1990).

Duxbury and Summers (2004) believe that entrepreneurs, like managers concern themselves mostly with the risk of downside loss, relative to risk as variance. That is, the most appropriate measures of risk for entrepreneurs measure the likelihood and magnitude of downside loss, or hazards, as opposed to an overall variance of returns.

Liles (1974) hypothesized about what he believed is at risk in a new venture. Liles (1974) suggested that in becoming an entrepreneur a person risks his financial well-being, his career opportunities, his family relations, and his psychic well-being. For example, when a new business results into an unsuccessful enterprise, the entrepreneur has to deal with the consequential financial obligations and he could jeopardize his future standard of living. For this reason, Liles (1974) recommended that the future entrepreneur should be well advised to analyze carefully the risks associated with his specific business proposal and then to determine whether or not he is willing to undertake them.

Liles (1974) concluded his statement on entrepreneurial risks that the decision to start a business depends to a great extent upon the potential entrepreneur's perception of the risk involved. This aspect of the perception on risk of the entrepreneur is described in chapter 4.

Entrepreneurial risk can be divided into three components: the general risk taking propensity of a potential entrepreneur, the perceived probability of failure for a specific venture, and the perceived consequences of failure. Because the last two components require intimate knowledge of the specific project before they can be evaluated. A study based on them would be very difficult and very likely subject to uncontrolled independent variables. However, the

general risk taking propensity of the entrepreneurs and managers (non-entrepreneurs) can be compared empirically to determine whether this component of risk distinguishes entrepreneurs from managers. The propensity of risk taking is further explained in chapter 4 as well as the comparison made between the entrepreneur and the manager.

3.4 Conclusion

The focal point of this chapter is risk. The chapter gives an overview of what is actually meant by the term risk. Further it divides risk into 3 concepts; risk as variance, risk as downside loss, and risk as opportunity costs. For entrepreneurs, risk as downside loss is the most appropriate measure (Duxbury & Summers, 2004). Entrepreneurs face different kinds of entrepreneurial risks; financial risk, management risk and personal risk (Gartner, 1990). How entrepreneurs perceive and deal with these kinds of risk is elucidated in chapter 4. In this chapter the propensity of risk taking is as well explained.

4 Relationship between characteristics of entrepreneurs and risk taking

4.1 Introduction

In the former chapters 2 and 3, the characteristics of entrepreneurs and the different perceptions of risk taking are described. In this chapter the focus is on the study if there is a relationship between the characteristics of entrepreneurs and the degree of risk taking and how these two concepts are related to each other.

The first paragraph contains the topic of risk taking propensity, a definition is given as well as an explanation of the subject relating to the characteristics is given. In the following subsection the relationship between the two concepts are described. Later on in this chapter the findings of the relationships are compared with non-entrepreneurs. The chapter ends with a conclusion.

4.2 Risk taking propensity

As mentioned earlier in paragraph 3.3, entrepreneurial risk can be divided into three components. One of these components is risk-taking propensity and it can be effectively conceptualized as a person's orientation toward taking chances in a decision-making scenario (Sexton and Bowman, 1985). Another definition of risk taking propensity is defined by Brockhaus (1980): the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation. This definition illustrates the situation the entrepreneur faces when he decides to establish a new business project.

The question whether an entrepreneur has a greater tendency to take risk is being answered by other studies. Colton and Udell (1976), for example, proposed that taking risk is a better indicator of the likelihood of starting a business.

It becomes apparent in the next paragraph that the propensity of taking risk is strongly related to the different characteristics an entrepreneur should possess.

4.3 Relationships

The relevant characteristics found in chapter 2 for a connection between the degree of risk taking are as follows: Risk taking, perseverance and proclivity, creativity and innovation, vision

and 'pursue opportunities'. These characteristics and their association with risk taking are described in the following subsections, furthermore the propensity of risk taking is considered as well.

4.3.1 Risk taking

According to the trait approach one characteristic an entrepreneur should have is the ability of taking risk. Colton and Udell (1976) proposed that the trait risk-taking, along with creativity and flexibility, is a better indicator of the likelihood of starting a business than is achievement motivation. Studies generally support the notion that risk-taking is predispositional and not simply a situational variable (Jackson, Hourany & Vidmar, 1972) and (Plax & Rosenfeld 1976), and there is strong evidence for a propensity for risk-taking (Jackson, Hourany & Vidmar, 1972). Differently put, an entrepreneur must take risk to establish a business venture. Types of risk, an entrepreneur faces are financial risk, management risk and personal risk (Gartner, 1990).

4.3.2 Perseverance and proclivity

The trait approach as well as the behavioral approach showed that perseverance and proclivity are other characteristics necessary for an entrepreneur. A study of Stewart, Watson, Carland and Carland (1999) showed a portrait of an entrepreneur. According to their study an entrepreneur is an individual who is highly driven to succeed, a motivation that is also connected with a higher propensity for risk-taking. Besides that, an entrepreneur has a stubborn determination, belief and perseverance that he can and will achieve his goals and objectives (Gartner, 1990). In the face of adversity this seems to be a requirement for the successful entrepreneur (Gartner, 1990). Because of the stubborn determination, the entrepreneur perceives possible risk less than individuals who don't possess these characteristics, and therefore the propensity to take a risk is higher.

4.3.3 Creativity and innovation

Parallel to perseverance and proclivity, the entrepreneur sparks innovation by altering the economic characteristics of products, markets or industries. Decades of research and theorizing about the entrepreneur indicate the confluence of these factors in distinguishing entrepreneurs from their corporate counterparts. The results of this study reinforce this conceptualization of the entrepreneur as an achieving, creative risk-taker (Stewart, Watson, Carland and Carland, 1999).

Entrepreneurship is the sum of qualities and activities of a person who establishes, and assumes the risk for, a new or innovative business venture. Entrepreneurs have special skills and talents, which include management skills and give them a 'sixth sense' for business. Those personality traits and characteristics as well as imagination, creativity, and long-term vision can probably be enhanced with experience (Gartner, 1990). For these reasons, an entrepreneur perceives risk differently than other individuals and therefore can take a higher degree of risk.

4.3.4 Vision

Entrepreneurs are typically risk takers who have a vision that their need for achievement, power and control over their life and venture can be best accomplished in a new environment under their direction and control. They must also have the ability to challenge common wisdom of logical intelligent advisors, friends, and associates who indicate that they will be unable to achieve their goals and objectives (Gartner, 1990).

In addition, entrepreneurs can have a different perception of risk when long-term vision is enhanced with experience (Gartner, 1990); consequently entrepreneurs dare to take more risk, because they are confident of their business ventures.

4.3.5 Pursue opportunities

The way, the time and the pattern of revelation of the existence of entrepreneurial opportunities are the starting point for understanding entrepreneurship. The second stage of the understanding procedure is to clarify why, when and how entrepreneurial agents discover and evaluate opportunities. The final stage is when and how different models of their exploitation are employed (Venkataraman, 1997). Opportunities rise in the uncertain environment. Living in an uncertain environment means taking a position against risk.

An economy without risk is an economy without entrepreneurship. Therefore, the level of risk that the economic agent assumes for a given level is indicative of the level of entrepreneurship within which he or she chooses to act (Petrakis, 2004).

As well as vision, entrepreneurs dare to take more risk with this trait and hence the propensity to take risk is greater.

4.3.6 Female versus male entrepreneurs

Although gender cannot typically be defined as a characteristic or a trait of an entrepreneur, it has a quite interesting role in the relationship of characteristics and the degree of risk taking. As

earlier showed in this thesis, a study from Sexton and Bowman-Upton (1990) examined 105 female entrepreneurs. These women were compared with male entrepreneurs. The women scored significantly lower on traits related to energy level and risk taking. This study indicates that female entrepreneurs are less willing than male entrepreneurs to become involved in situation with uncertain outcomes. With other words, female entrepreneurs are more reluctant to take risk and thus have fewer propensities to take risk.

4.4 Comparison of entrepreneurs with non-entrepreneurs

That entrepreneurs differ from managers of existing firms is generally accepted (Janney & Dess, 2006). However, the central question that psychologists have been studying for decades is whether entrepreneurs have a greater risk propensity than non-entrepreneurial managers (Xu & Ruef, 2004). This paragraph sums up briefly what the differences and similarities are between the entrepreneur and the non-entrepreneur when it comes to taking risk.

With a non-entrepreneur, a small business owner is meant and the appropriate definition for this term is: A small business owner operates a business as an extension of the individual's personality to further personal goals and to produce family income (Stewart, Watson, Carland and Carland, 1999).

As mentioned in section 2.2, Schumpeter (1912, 1926, and 1939) believes both the manager (non-entrepreneur) as well as the entrepreneur experience risk, however the distinctive factor for entrepreneurs is the role of innovation. Other research has indicated more differences between non-entrepreneurs and entrepreneurs. These other differences can among other things be found in objectives (Litzinger, 1965) and decision-making styles (Busenitz 1992). The latter two issues are not relevant for this paper, therefore only the focus is on similarities and differences related to risk.

Different studies show that the entrepreneur and the manager both entail risk taking, but entrepreneurs are generally believed to take more risks than do managers. This has to do with the fact that the entrepreneur faces a less structured and more uncertain set of possibilities (Bearse, 1982). Besides that, the entrepreneur actually bears the ultimate responsibility for the decision (Gasse, 1982) (Kilby, 1971) (Knight, 1921).

4.5 Conclusion

This chapter studied the relationship between the characteristics of entrepreneurs and the degree of risk taking and how these two concepts are related to each other. The characteristics found in chapter 2 are combined with risk. The following table illustrates these relationships.

<i>Characteristics</i>	<i>Degree of risk/ Risk taking propensity</i>
Risk taking	Higher degree of risk taking
Perseverance and proclivity	Higher degree of risk taking
Creativity and innovation	Higher degree of risk taking
Vision	Higher degree of risk taking
Pursue opportunities	Higher degree of risk taking
Gender	Female entrepreneurs are willing to take less risk

Besides the relationships, this chapter showed a comparison between the entrepreneur and the non-entrepreneur. According to Schumpeter (1912, 1926, 1939) both the manager (non-entrepreneur) as well as the entrepreneur experience risk, however the distinctive factor for entrepreneurs is the role of innovation.

Different studies show that the entrepreneur and the manager both entail risk taking, but entrepreneurs are generally believed to take more risks than do managers. This has to do with the fact that the entrepreneur faces a less structured and more uncertain set of possibilities (Bearse, 1982).

5 Conclusion and recommendations

5.1 Introduction

Despite of the high risk involved, thousands of individuals decide to start ventures (Chen & Dong, 2002) and start to become entrepreneurs. The problem statement of this thesis is to examine the influence of the characteristics of entrepreneurs and the degree of risk taking compared with non-entrepreneurs.

In this chapter the answer to the problem statement can be found: In the section 'Conclusions' the findings of this research are expressed.

In the paragraph 'recommendations' further recommendations and limitations of the research are discussed.

5.2 Conclusion of thesis

The objective of this thesis is to examine the influence of the characteristics of entrepreneurs and the degree of risk taking compared with non-entrepreneurs. This section tries to give a clear answer on this problem statement.

In the second chapter the different characteristics of entrepreneurs are described according to the trait and behavioral approach. The next chapter involves the matter of risk. Diverse perceptions of risk are explained and risk is divided in three distinct aspects. One of these aspects is relevant for entrepreneurs; entrepreneurs perceive risk as downside loss.

In chapter 4 the relationship between the two subjects are revealed, in this chapter the building blocks for the answer of the problem statement are made. It became clear that the six characteristics or traits are related with the degree of risk taking. In this paragraph the influence of the characteristics on risk taking is explained.

It became apparent that five characteristics have a positive influence on the degree of risk taking. This means that when an entrepreneur possesses one of these characteristics (risk taking, perseverance and proclivity, creativity and innovation, vision, or 'pursue opportunities') he is willing to take more risk and hence has a higher propensity of risk taking. The other characteristic is gender, depending on the entrepreneur is a male; the entrepreneur has the tendency to take more risk. The question why an entrepreneur has a greater tendency to take risk can hence be clarified by the characteristics.

So far one part of the problem statement is answered. Though, the aspect of the comparison between the entrepreneur and the non-entrepreneurs hasn't yet been made. Different studies show that the entrepreneur and the manager both entail risk taking, but entrepreneurs are generally believed to take more risks than do managers. This has to do with the fact that the entrepreneur faces a less structured and more uncertain set of possibilities (Bearse, 1982).

5.3 Recommendations

During this study it became quite apparent that there is much research done about entrepreneurs and risk taking. However, it was difficult to easily discover the particular characteristics and traits needed for an entrepreneur related to the propensity of risk taking. Therefore it might be practical for potential entrepreneurs to develop a framework where these characteristics and traits are expressed. The author of this thesis wishes this thesis is a little contribution to this possible framework.

In this thesis the focus was on entrepreneurs and risk taking. Nevertheless, a host of psychological factors associated with entrepreneurship has been studied in other researches. For evaluating a psychological predisposition for entrepreneurship there are three streams of research that are most commonly evident in descriptions of the entrepreneur (Bellu 1987), (Carland, Hoy, Boulton, & Carland, 1984) and (Long 1983): achievement motivation, risk-taking propensity, and preference for innovation. Research has generally supported relationships between these three psychological constructs and the entrepreneur (Gasse 1977). This paper only has the focus on risk taking propensity; however it might be interesting to explore these other two streams more in further research.

Additionally, there are of course other aspects entrepreneurs must consider when it comes to taking risk. These factors can be examined in further studies, an example of such aspects is given next: the factors determining entrepreneurial behaviour and especially entrepreneurial behaviour towards risk may be distinguished in six main broad areas: macro-environmental, cultural idiosyncrasies, cognitive variables, entrepreneurial motives and personal traits, entrepreneurial demographic characteristics and finally the microeconomics of the project (Petrakis, 2005).

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