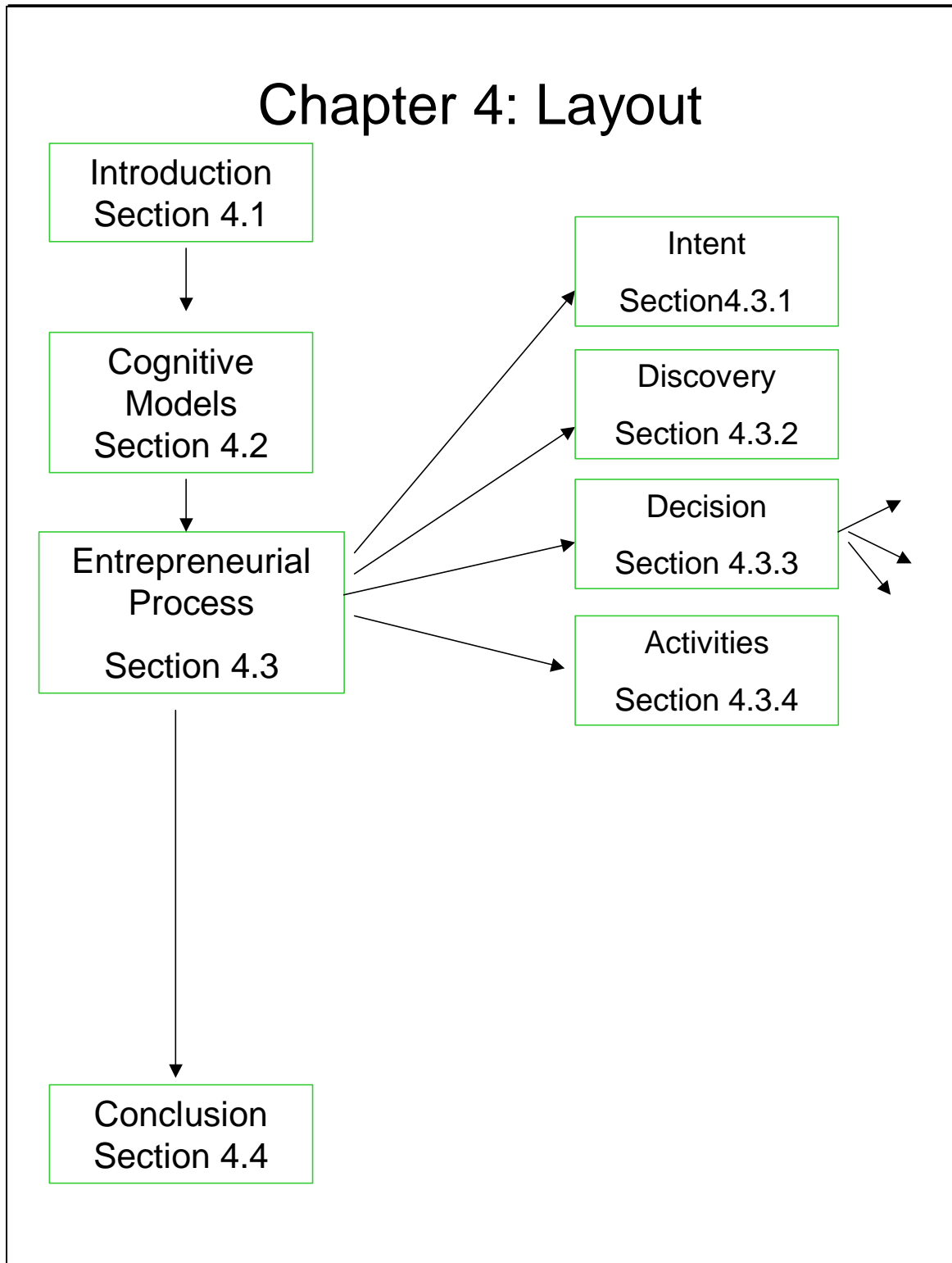


Chapter 4: Entrepreneurial Process Perspective



4.1 Introduction

“You see things and you say ‘Why?’” But I dream things that never were and I say ‘Why not?’” (Shaw, 1992, in Gaglio, 2004: 533).

Dreaming of things that do not yet exist, bringing them into being and gaining market acceptance are perhaps the most mesmerising of all entrepreneurial behaviours. This certainly represents the foundation of the modern conceptualisation of entrepreneurship (Stevenson & Gumpert, 1985, as quoted by Gaglio, 2004: 533). It is therefore also evident in the literature that a growing consensus exists that entrepreneurship involves the recognition and exploitation of opportunities (Kirzner, 1997; Shane & Venkataraman, 2000, as quoted by McMullen & Shepherd (2002: 1). Ucbasaran, Wright, Westhead & Busenitz (2003: 243) suggest that one of the fundamental reasons for the fascination with entrepreneurs and the inventions that they develop seems to centre around why and how they see new opportunities. An entrepreneurial opportunity involves the development of new ideas that most others overlook.

An opportunity may be dramatically depicted as “creatively destroying” existing industries (Schumpeter, 1950), or more humbly characterised as the “motivated propensity of man to formulate an image of the future” (Kirzner, 1985: 56). It is, however, more important to acknowledge that the process of identifying and shaping market opportunities is emerging as a focal point of the field of entrepreneurship (Gaglio, 1997b; Kirzner, 1979; Shane & Venkataraman, 2000; Venkataraman, 1997).

The possibility that entrepreneurs possess knowledge structures (i.e. the sum of their stored information and knowledge) that help to identify opportunities and that they differ from those of other persons has frequently been suggested in the entrepreneurial cognition literature. For instance, as noted above, Shane (2000; 2001) has found evidence suggesting that opportunity recognition is closely linked to the amount and kind of information individuals possess. In short, an entrepreneur’s knowledge structures may play a key role in the entrepreneurial

process (Baron & Ward, 2004: 558). Ucbasaran et al (2004: 243) postulate that those with an entrepreneurial cognition orientation (i.e. extensive use of heuristics) often see new opportunities where others do not.

While stocks of information create mental schemas providing a framework for recognising new information, opportunity recognition and information search by entrepreneurs may be a function of the individual's capacity to handle complex information (Venkataraman, 1997). He believes that three areas of differences between individuals exist:

- Cognitive differences
- Knowledge and information differences
- Behavioural differences

One or two people, either the entrepreneur alone or the entrepreneur with a manager, normally run new ventures. It can therefore be suggested that their beliefs (cognitive differences) and decision-making processes (based on knowledge and information differences) are likely to be more concentrated than those of large organisations (Forbes 1999: 417). "Why", "when" and "how" certain individuals exploit opportunities appears to be a function of the joint characteristics of the opportunity and the nature of the individual (Shane & Venkataraman, 2000, as quoted by Ucbasaran et al, 2004: 243).

Forbes (1999: 416) postulates that cognition research has the potential to shed new light on many aspects of new venture creation, such as:

- The new venture creation process, which includes the initial identification and interpretation of opportunities
- The process of representing those opportunities to investors, employees and customers
- The process by which representation of opportunity becomes templates for structuring and engaging in business activities

- The fact that every entrepreneurial venture is unique and its successes are the result of its having faced and addressed a wide variety of issues

It is, however, necessary as well as useful, in order to make sense of the whole entrepreneurial process, to view the process of entrepreneurship in a more generalised way. This may then provide a framework for understanding entrepreneurship, and guidelines for decision-making when planning to start a new venture (Wickham, 2001: 37).

In order to better understand the entrepreneurial process we need to take a closer look at three elements:

- The definition of an entrepreneur as presented by different authors in the literature
- A cognitive model and the window of opportunity process in an attempt to generalise the entrepreneurial process
- The entrepreneurial process

Different authors have defined entrepreneurs and entrepreneurship as follows:

Hisrich and Peters (1998) see the entrepreneur as someone creating something new with value by devoting time and effort, assuming the accompanying financial, physical and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence.

Timmons (2000) believes entrepreneurship is the process whereby the entrepreneur creates or takes an opportunity and pursues it, regardless of the resources currently controlled.

Nieman & Bennet (2002: 58) postulate that an entrepreneur is a person who sees an opportunity in the market, gathers resources and creates and grows a business venture to meet these needs. He or she bears the risk of the venture and is rewarded with profit if it succeeds.

Gaglio (2004:554) defines an entrepreneur as an individual who recognises or discovers an opportunity to create something new (e.g. a new product or service, new market, new production or raw material, or a new way of organising existing technologies) and who then uses various means to exploit this opportunity.

There are as many definitions as there are authors. The aim of this study is not to create another definition; the focus is rather on identifying the key elements associated with entrepreneurship, namely:

- Opportunity – as the key element
- The person acting as an entrepreneur
- Resources application
- Business risk perception
- Profit or reward
- Value creation for customers
- Entrepreneurial process
- Growth of the venture

One can therefore argue that the process starts with the entrepreneur's perceiving an opportunity, gathering resources and growing the business, as well as accepting the business risks involved. In order for an entrepreneur to be successful (creating value, making profit and growing the business), the entrepreneur needs to be able to complete a new venture creation process. The following discussion will introduce a cognitive model suggested by Forbes (1999) and the window of opportunity metaphor of Wickham (2001) as a generalised approach for understanding the entrepreneurial process.

4.2 Two models of relevance

The two models under investigation in an attempt to generalise the entrepreneurial process are:

- The cognitive model of Forbes (1999)
- The window of opportunity metaphor of Wickham (2001).

Forbes (1999:428) proposed a cognitive model in an attempt to help generalise the new venture creation process. He suggests a five-stage cognitive model in the development of the new venture. The five stages; intention; scanning; interpretation; action; and performance, are now explored:

- Intention

Forbes postulates that entrepreneurs appear to base their intention to create a new venture on the perceived feasibility and desirability of that action. Social support, role models and mentoring may have a decisive influence on individuals who are uncertain about their entrepreneurial ambitions.

- Scanning

There is, according to Forbes (1999: 427), substantial evidence that entrepreneurs prefer informal sources of information. This may include engaging their social networks and gaining word-of-mouth recommendations from their customers and business affiliates. Trade magazines are a commonly used source of impersonal information (Brush 1992). Entrepreneurs often overlook the more formal sources of information, which may mean that those who make use of formal information may be able to exploit information to their strategic advantage.

- Interpretation

Forbes (1999: 427) suggests that there is at least preliminary evidence for the existence of entrepreneurial cognition, and quotes Busenitz & Lau (1996), who argue that entrepreneurs have a distinctive set of thought processes they use to interpret data. These include a reliance on decision-making biases and a tendency to interpret equivocal situations favourably. Other research shows that there may be significant differences in cognition among entrepreneurs (Cooper et al, 1995, as quoted by Forbes, 1999: 427). Entrepreneurial cognition may in some instances be detrimental to entrepreneurs. Intervention techniques may help to identify and correct these biases.

- Action

Mental models may play a critical role in enabling entrepreneurs to structure behaviour. Entrepreneurs often use metaphors to convey ideas that they have difficulty in expressing. They often use organisational milestones, such as the first month of positive cash flow, as a way of bracketing time and lending structure to the ambiguous process of new venture creation. In other words, Forbes postulates that entrepreneurs make use of mental models to structure their activities.

- Performance

General performance measures are used, such as sales growth, profit, opportunity, return on investment and return on equity.

Wickham, on the other hand, uses a metaphor to explain the entrepreneurial process. Metaphors are ever present in communication and represent an attempt to illuminate an idea by drawing attention to something it is like. The “window of opportunity” is a metaphor used to give form to the process of identifying, evaluating and exploiting a new business opportunity. This section is based on the work of Wickham (2001: 209).

According to Wickham (2001: 210), the first stage in this metaphor is described as a solid wall representing the competitive environment the entrepreneur seeks to enter. The wall is solid due to the competition from established businesses. However, established businesses leave gaps that present the window of opportunity for the entrepreneur to exploit. The window of opportunity consist of five stages:

- Seeing the opportunity (scanning for new opportunities)

This involves scanning the solid wall (of protection) to find the windows and spot the gaps (cracks) left by the existing role-players in the market. This process demands an active approach in identifying new opportunities and innovatively reacting to them.

- Locating the window (positioning the new venture)

The entrepreneur develops an understanding of where the window is located. It requires an understanding of both the positioning of the venture and how the venture can position itself relative to the existing players in the market.

- Measuring the window (what the potential venture is worth)

This step involves evaluating the opportunity and recognising the potential it offers for creating new value. Measuring the window also demands that the entrepreneur develop an understanding of the risks the venture might encounter. Measuring refers to quantification of the opportunity in financial, risk and return terms. It also determines the resource requirements to successfully start and operate the venture.

- Opening the window (gaining commitment)

Opening the window refers to turning the vision into reality and actually starting the new business. This is about acting on the opportunity. The commitment of stakeholders is crucial in this stage. Starting the business gives the entrepreneur the opportunity to move through the window.

- Closing the window (sustaining competitiveness)

Once the window has been opened and the entrepreneur has moved through it, it must be closed in order to keep the competition out. If the entrepreneur moves through successfully and he or she is able to keep others out, it means that a long-term sustainable competitive advantage for the business has been created.

The window does not stay open forever. When the first person makes a move, the window opportunity diminishes because someone else has then closed it. The window is open for only a short period of time. The opportunity or opportunity opening has a time limit in which the entrepreneurs have to take hold thereof.

The growth of any market means that an opportunity arises at a certain time and as growth increases it becomes satisfied and the opportunity possibilities

decrease. The length of time that the opportunity is 'open' is thus very important (see Figure 4.1).

Each of the five stages mentioned in the two models presents itself to the entrepreneur as a series of decisions, which need to be addressed so that the business can be developed. The entrepreneurial process involved in the seizing of the opportunity is now explored.

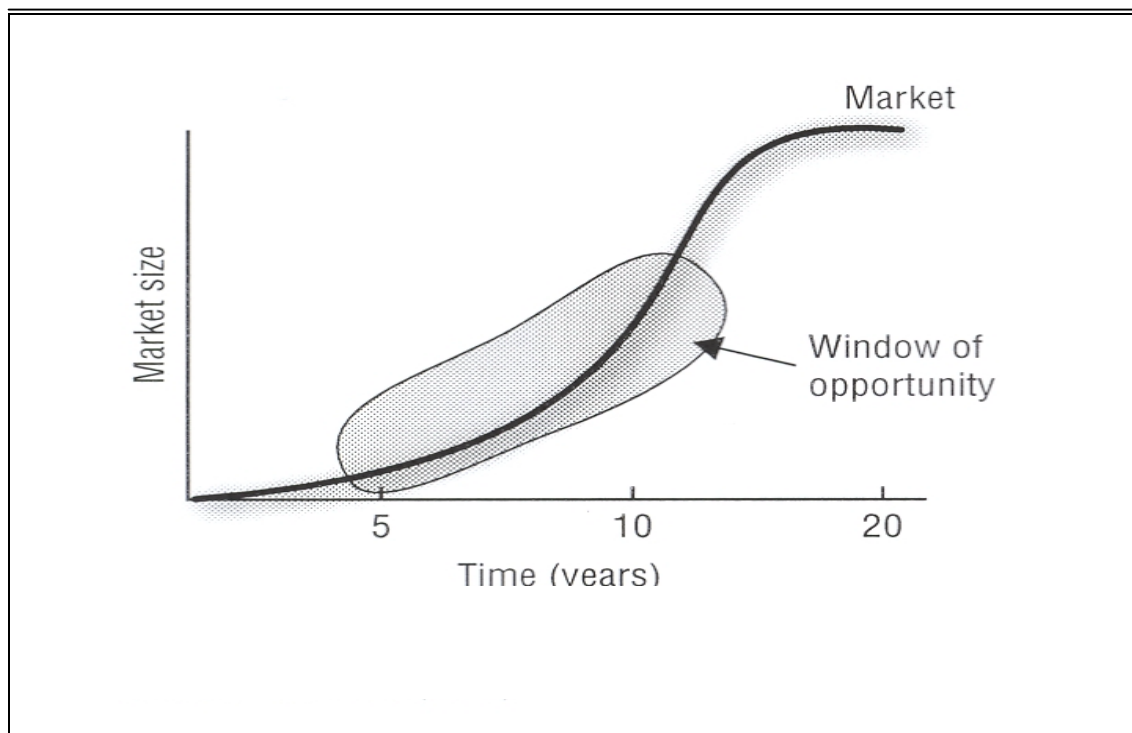


Figure 4.1 Analysis of an opportunity

Source: Timmons (1999: 84).

4.3 Entrepreneurial process

Through the years many authors have suggested models to explain the entrepreneurial process and act as a framework for understanding entrepreneurship. Baron & Shane (2005: 14), Timmons & Spinelli (2004: 47), Krueger et al (2004: 414), Lim et al (2002: 125), Wickham (2001: 37) and Shook, Priem & McGee (2003: 381) are cited as their recent works summarise previous

works. For this study the focus will mainly be on the process as suggested by Shook et al (2003: 381) as the principal model.

Baron & Shane (2002: 14) argue that the entrepreneurial process cannot be divided into neat and easily distinguished stages but can in general be divided into the generation of the following stages:

- Assembling the resources needed to launch a new venture
- Launching the new venture
- Managing and growing the business
- Harvesting the rewards.

Forbes (1999: 418) also suggests that the new venture creation process includes conceiving of or executing the start of a new organisation, which may include:

- Activities undertaken in preparation for the creation of a new venture
- The founding event itself
- Activities undertaken in the first several years of the venture development.

According to Baron & Shane (2002: 9), the entrepreneurial process begins when one or more persons recognise the opportunity and the fact that it is worth pursuing. The opportunity emerges from a complex pattern of changing conditions, which could be due to a change in political, social, technological, economic or demographic conditions. Opportunities vary greatly in their potential value, resulting in only some being worth pursuing; for only some opportunities is the return potential ratio favourable enough to justify efforts to exploit them. These authors also believe that at the heart of the entrepreneurial process is a connection (a nexus) between the opportunity and people that start the process and sometimes change the world.

Timmons & Spinelli (2004: 47) suggest that entrepreneurship is a way of thinking, reasoning and acting that is opportunity-obsessed. They also argue that entrepreneurship results in creation, enhancement and realisation, as well as

renewal of value for all participants and stakeholders. At the heart of the entrepreneurial process, they hold, are:

- The creation and/or recognition of opportunities
- The will and initiative to seize these opportunities
- The taking of both personal and financial calculated risks, balancing the risk against potential reward.

Timmons & Spinelli (2004: 57) depict a model in which the following can be seen as the driving forces necessary to create a new venture opportunity:

- The opportunity is seen at the heart of the process, with many ideas needed to realise one good opportunity.
- Secondly, resources need to be found. Timmons postulates that many untried entrepreneurs have the misconception that you first need all the resources in place, especially money, to succeed with a venture.
- Thirdly, the entrepreneurial team is a key ingredient in the higher potential venture.

Timmons & Spinelli (2004: 58) suggest that the rounding off of the three driving forces of the model depends on the fit and balance between them (See Figure 4.2).

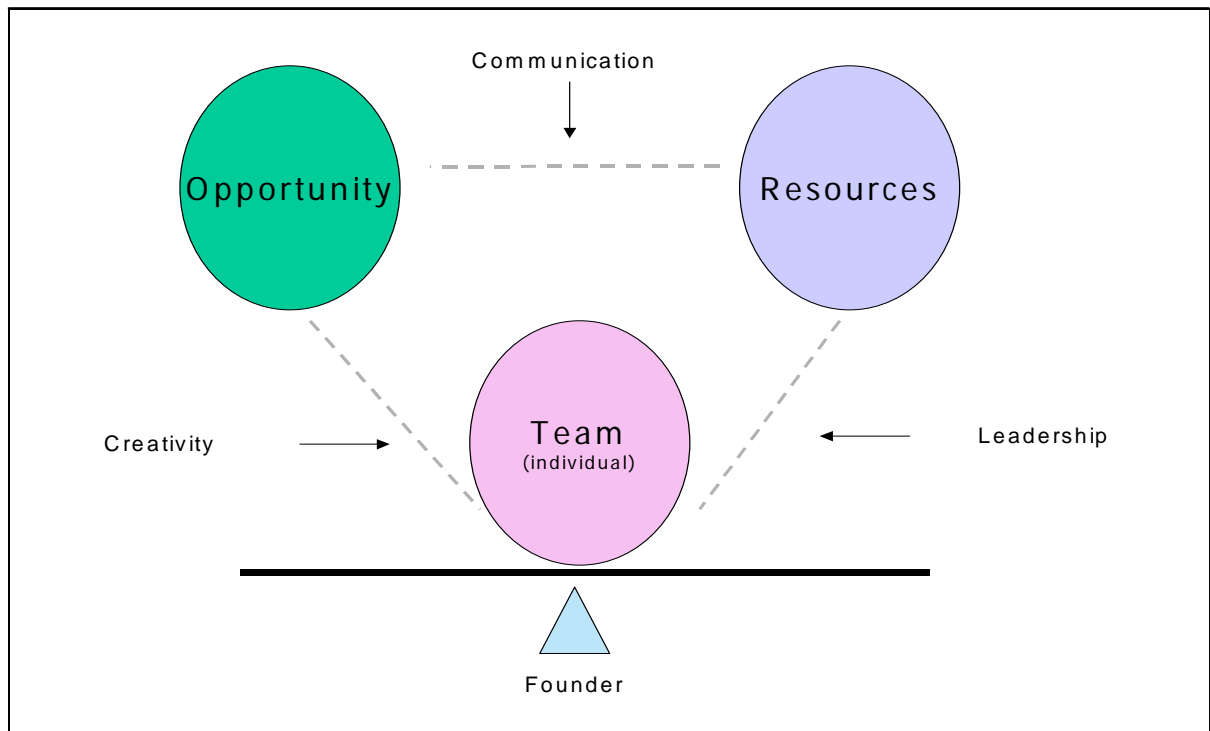


Figure 4.2 Driving forces for opportunity realisation

Source: Timmons & Spinelli (2004: 57)

Krueger et al (2004: 414), like Timmons & Spinelli (2004), postulate that entrepreneurship is a way of thinking that emphasises opportunities over threats. Their emphasis, however, is on the opportunity identification process, which is seen as an intentional process. Krueger et al (2000: 414) quote Bagozzi et al (1989), who argue that intention is an unbiased prediction of action even where a lapse in time exists. They postulate that a strong intention to start a business should eventually result in an attempt, even if circumstances such as marriage, a lucrative job or childbearing may dictate a delay.

Keh et al (2002: 125) quote Bygrave & Hofer (1991), who argue that the entrepreneurial process involves all functions, activities and actions associated with the perception of opportunities, and the creation of organisations to pursue these opportunities. Kuratko & Welsch (2001: 178) also suggest the following regarding opportunity perception:

- Organisations do not see opportunities, but individuals do
- Opportunity perception depends closely on the perception that the situation is positive and controllable
- Opportunity perception reflects an intentional process; in short, intentions are driven by perceptions of feasibility or desirability
- Entrepreneurs have mental models that they share, the scripts and schemas that differentiate entrepreneurs from others (Bird, 1988; Mitchell & Chesteen, 1995). Entrepreneurs have access to the availability of both an “opportunity“ schema and a “threat’ schema
- The decision to undertake entrepreneurial activity requires a pre-existing belief that the activity is both desirable and feasible
- At the heart of these scripts and schemas are critical perceptions that map elegantly onto the common framework of intentionality

Wickham (2001: 37) argues that the entrepreneurial process is based on four interacting elements:

- The entrepreneur
- A market opportunity
- A business organisation
- Resources to be invested.

The entrepreneurial process is thus seen as the result of the actions of the entrepreneur, which can only take place if the entrepreneur acts to develop an innovation and promote it to customers. It is a dynamic process with a constant interaction between the four fundamental elements needed for success. Ardichvilli et al (2003: 113) suggest that the processes of opportunity identification and development by entrepreneurs are, however, also influenced by factors such as:

- Entrepreneurial alertness
- Information asymmetry and prior knowledge
- Discovery versus purposeful search
- Social networks

- Personality traits including risk-taking, optimism and self-efficacy, and creativity.

Although all the above-mentioned authors have contributed to a clearer understanding of the entrepreneurial process, the following organising model as proposed by Shook et al (2003:381) will be used to further explore the entrepreneurial process. The organising model of Shook et al (2003: 381) includes four stages of venture creation:

- Entrepreneurial intent to start-up
- Searching for and discovering an opportunity
- Decision to exploit the new venture
- Engaging in the exploitation activities.

The role of the enterprising individual has been studied within each of these phases. They also suggest that there is room for research to develop the understanding of the cognitive processes during the different stages, but simultaneously point out that the number of variables that determine each specific venture creation situation are so many that meaningful comparison of entrepreneurs is almost impossible. The complexities associated with each of the combinations of variables prove to be impossible to quantify (Pretorius et al, 2004: 4). The four stages will now be explored individually.

4.3.1 Entrepreneurial Intent to start-up

McMullen & Shepherd (2002: 1) quote Mises (1949) as stating that action takes place in a flux of time and is therefore inherently uncertain. They also believe that for entrepreneurial action (i.e. the creation of new firms, products, processes, markets, or combinations thereof (Smith, 2001) to occur, one must exercise judgement under uncertainty (Cantillon, 1755). Knowledge can be seen as an essential aspect of this judgement (Shane, 2000), but without considering motivation, an incomplete picture is provided. Although motivation is a crucial ingredient for entrepreneurial action, Krueger et al (2000: 421) postulate that

intentions are the single best predictor of any planned behaviour, including entrepreneurship.

Entrepreneurial intentions, according to Krueger (2000; 2003) and Baron & Ward (2004: 556), can be defined as the cognitive state that precedes the decision to act (e.g. form a new venture). Kuratko & Welsh (2001: 173) also argue that in the absence of intentions no action is likely to take place. Intentions represent the belief that one will perform certain behaviour, the belief that one will act. Thus intent logically precedes action. Understanding intentions helps researchers and theoreticians to understand related phenomena such as:

- What triggers opportunity scanning
- The source of ideas for a business venture
- How the venture ultimately becomes a reality.

Krueger et al (2000: 412) postulate that entrepreneurship is a way of thinking; one that emphasises opportunities over threats. According to them, not only entrepreneurs but also those who teach and train them should benefit from a better understanding of entrepreneurial motives. The lens provided by intentions affords them the opportunity to understand why they made certain choices in their vision of the new venture. These authors also argue that the opportunity identification process is clearly an intentional process.

A study done by Krueger et al (2000: 412) compared the intention-based model of Ajzen (1987) and Shapero (1982). Ajzen's theory of planned behaviour (TPB) argues that intentions in general depend on perceptions of personal attractiveness, social norms and feasibility, while Shapero's model emphasises the perceptions of personal desirability, feasibility and the propensity to act. Krueger et al (2000: 424) developed the following model based on the work of Shapero and Ajzen (see Figure 4.3). The model illustrates the fact that intentions predict planned behaviours. As entrepreneurship is a planned behaviour, they believe that the adapted-intentions models may be useful in understanding the antecedents of intentions, which implies understanding the behaviour.

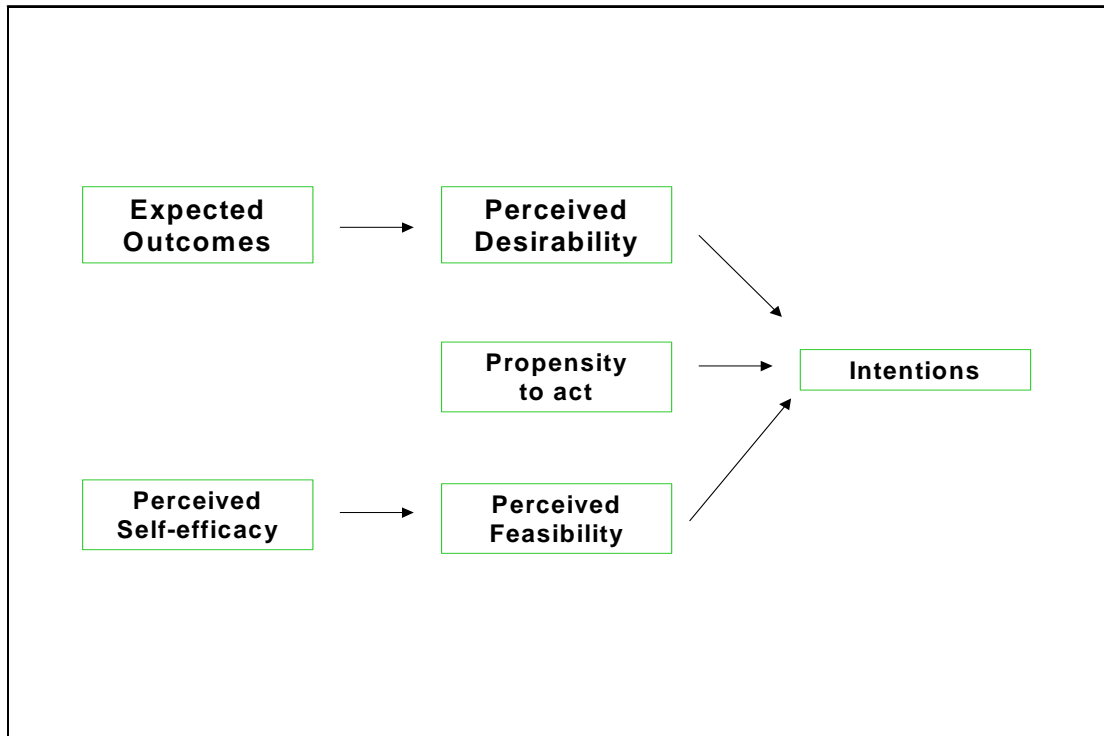


Figure 4.3 The Shapero-Krueger model (2000: 424) of intention-based behaviour.

The perception-based literature argues that the entrepreneurs' decisions to initiate a venture or entrepreneurial action are based upon their *intentions* to proceed, which in turn are generated by their *perception* that the action is both *feasible* and *desirable*. Given the importance of entrepreneurial activity to society, researchers have isolated factors that increase perception of feasibility and desirability. For example, findings suggest that the breadth of an individual's prior exposure to entrepreneurship, the positive nature of exposure, supportive social norms and cultural values such as high-power distance, individualism, low uncertainty avoidance, and high masculinity may all increase feasibility and desirability (Simon et al, 2002: 107).

Although researchers have not found that traits directly affect action, they may influence perception. For instance, other research suggests that self-efficacy (defined as persons' belief in their ability to perform a given task) may positively influence desirability and feasibility, leading to an increase in research interest in self-efficacy (Simon et al, 2002: 107).

The following section investigates why, how and where an entrepreneur searches and discovers opportunities.

4.3.2 Searching for and discovering an opportunity (scanning)

Antonites (2004:100) quotes Mart Twain:

“I was seldom able to see an opportunity until it had ceased to be one.”

According to Timmons (1999: 80), an opportunity can be defined as a phenomenon that seems attractive. Attractiveness refers to the profitability it offers the entrepreneur as well as to the value it will hold for the consumer destined to use it. The opportunity must be maintainable, and in the free market system it usually presents itself in a changing environment or situation. It is also important to note that an opportunity is situational.

An opportunity can also be defined as a future situation that the decision-makers deem personally desirable and feasible (i.e. within their control and competence). The state of being “desirable” and “feasible” is subjective to the individual. An opportunity is said to exist when a bundle of resources can be sold at a higher price than the cost of packaging and delivering it. However, most entrepreneurs do not have problems generating ideas, as there are numerous sources of ideas, and evaluation is the key to differentiating an idea from an opportunity (Keh et al, 2002: 126).

According to Ardichvili, Cardozo & Ray (2003: 108), an opportunity in broad terms may be the chance to meet a market need (or interest or want) through a creative combination of resources in order to deliver a superior value (Schumpeter, 1934; Kirzner, 1973; Casson, 1982).

Gaglio (2004: 534) argues that although many in the entrepreneurial discipline use the term “opportunity” meaning the chance to start a business (quoting Hills, Shrader & Lumpkin, 1999; Long & McMullan, 1984), one can also follow the tradition established by leading theorists (Schumpeter, 1950; Kirzner, 1979) and

define “opportunity” as the chance to introduce innovative (rather than imitative) goods, services or processes to an industry or economic marketplace. The identification or discovery of innovative opportunities involves breaking the existing means-end framework and creating an alternative one.

Opportunities are per definition limited and are presented in the window of opportunity as discussed earlier in the chapter. Hisrich & Peters (2002: 41) regard the window of opportunity as one wherein the true and perceived value of opportunity must be determined as well as the risk and income that could result from it. They postulate that the “window” could be the most measurable determinant of risk and income. The risk reflects the market, competition, technology and the amount of capital needed.

The question of why some people and not others discover opportunities is an intriguing and practical one. Baron & Shane (2005: 68) argue that research on this question offers fairly clear answers, namely the central role of information. They postulate that some people are more likely to recognise opportunities because they have better access to certain kinds of information, as well as the fact that they utilise the information better once they have it. They also speculate that if we can understand why some people recognise opportunities that others do not, it may offer valuable clues as to how to increase the ability to recognise opportunities.

Baron & Shane (2005: 68) also suggest that entrepreneurs possess a mental framework (a schema) that assists them in being alert to and therefore recognising opportunities. This schema (pattern) or “mental scaffold” is built up through experience and helps us to process information efficiently. These schemas provide a framework into which new information can be slotted and assist us in linking new information to information already stored in memory (see Chapter 2 on patterning and thinking preferences). Gaglio (2004: 534) confirms this thinking and states that cognitive behaviours are present during entrepreneurial opportunity identification.

Keh et al (2002: 125) quote Krueger (2000) as arguing that in order to understand what promotes or inhibits entrepreneurial activities, it is important to understand how entrepreneurs construct credible opportunities, and the role of perceptions in that process. According to Keh et al (2002: 125), many researchers argue that opportunity recognition is the cornerstone of entrepreneurship.

Ardichvili et al (2003: 106) also argue that the ability to identify and select the right opportunity for new businesses is amongst the most important abilities of a successful entrepreneur. Entrepreneurs identify business opportunities to create and deliver value for stakeholders in prospective ventures (Ardichvili et al, 2003: 106). They also quote Venkataraman (1997), who explains the discovery and development of opportunities as a key part of entrepreneurship.

The extent to which individuals recognise opportunities and search for information to evaluate the opportunity will depend on the make-up of the various dimensions of the individual's human capital (Usbasaran et al, 2003: 243). These authors also quote Kaish & Gilad (1991) and Woo, Folta & Cooper (1992), who identify two broad perspectives relating to opportunity and search behaviour of the entrepreneur:

- Perspective-based or neo-classical economic theory, which takes a conscious search perspective in which information search is a means of optimising performance (Caplan, 1990; Stigler, 1961, as quoted by Usbasaran et al (2003: 245)
- Entrepreneurial alertness, based on the work of Kirzner (1973), which suggests that opportunities cannot be accurately modelled as a rational search process, since opportunities are unknown until discovered (Kaish & Gilad, 1991), as quoted by Usbasaran et al (2003: 245). Entrepreneurial alertness then refers to the “flashes of superior insight” that enable the entrepreneur to recognise an opportunity (Usbasaran et al, 2003: 244)

Many different models of opportunity recognition and/or development have been presented in recent years (Bhave, 1994; Schwartz & Teach, 1999; Singh et al, 1999; De Koning, 1999; Sigrist, 1999), based on different and often conflicting

assumptions. These are borrowed from disciplines ranging from cognitive psychology to Austrian economics. Although they help us to understand opportunity identification, they also fall short of offering a clear understanding of the process (Ardichvili et al, 2003: 107).

Moving from identification of an opportunity to the starting of the venture involves a series of decisions made by the entrepreneur. The next section investigates the decision to actually start the venture.

4.3.3 Decision to exploit the new venture

The importance of prior knowledge of an industry is an important variable in the decision-making process of an entrepreneur. According to Baron & Ward (2004: 557), Shane (2000) studied eight entrepreneurs who had discovered entrepreneurial opportunities. Shane found that prior knowledge of a particular market increased the likelihood of discovering an opportunity in that market.

Minniti (2004: 637) argues that entrepreneurial decisions are strategic decisions and as such do not take place in a vacuum. Decisions are contingent on and significantly influenced by their environment. She also postulates that the entrepreneur's combination of decisions and choices creates something that was not there before. Minniti (2004: 641) quotes Kirzner (1973, 1979), who argues that when an entrepreneur's alertness produces a discovery, the entrepreneur learns more about the opportunity and in the process of acting on the new knowledge keeps on acquiring more information. Markman, Baron & Balkin (2004: 1) also point out that early empirical studies suggest that entrepreneurs spend significantly more time searching for information than do executives (Kaish & Gilad, 1991).

This study deals specifically with the decision to start or not to start a proposed venture, as set out in the case study (see Appendix A). The role of cognition in entrepreneurial decision-making is of relevance in order to determine how the decision to start was influenced by cognitive processes. This section deals with the decision to start and specific cognitive processes that may be of relevance.

4.3.3.1 Cognition and the entrepreneurial decision to exploit

As already discussed in Chapter 3, cognition (mental models) and cognitive psychology concern themselves with the study of individual perception, memory and thinking (Mitchell et al, 2002: 96). According to Pretorius et al (2004: 4), they involve all processes by which sensory input is transformed, reduced, elaborated, stored, recovered and used. As stated before, social cognition theory considers that individuals exist within a total situation or configuration of forces described by two pairs of factors, one being cognition and motivation and the other being the person in the situation.

Cognition has to do with the mental processing used by individuals to interact with their environment and is relevant to the distinction between entrepreneurs and non-entrepreneurs. Mitchell et al (2002: 97) argue that entrepreneurial cognition relates to the knowledge structures that people use to make assessments, judgements or decisions involving opportunity evaluation, venture creation and growth. Pretorius et al (2004: 5) postulate that research in entrepreneurial cognition is about understanding how entrepreneurs use simplifying mental models to piece together previously unconnected information that helps them to identify and invent new products or services, and to assemble the necessary resources to start and grow businesses as well as pursuing opportunities (or not).

Figure 4.4 shows a model for information processing suggested by Miller (1987) as quoted by Allison & Hayes (1994). Perception (pattern recognition and attention) and thought (inductive reasoning as seen in classification, analytical reasoning and judgement) can influence the final response of the individual (Pretorius et al, 2004: 5). Permanent memory further plays a moderating role in both perception and thought with regard to such aspects as feeling, angle, background, experience and culture, which is defined as the collective mental knowledge of groups (Mitchell, Smith, Morse, Seawright, Perero & McKenzie, 2004: 13).

Pretorius et al (2004: 5) quote Baron (1998: 297) as suggesting that entrepreneurs are more exposed to factors such as information overload, high uncertainty, high novelty, strong emotions, time pressure and fatigue than non-entrepreneurs. This leads them to being increasingly susceptible to the use of heuristics and biases such as counterfactual thinking, regret affect infusion, self-serving bias, planning fallacy and self-justification in their decision-making.

The decision to use a case study in order to lead up to the question of the decision to start or not to start a venture was suggested by the information-processing model of Allison & Hayes (1994) (see Figure 4.4). The role of risk perception, self-efficacy, misconceptions and illusion of control bias in decision making are further explored.

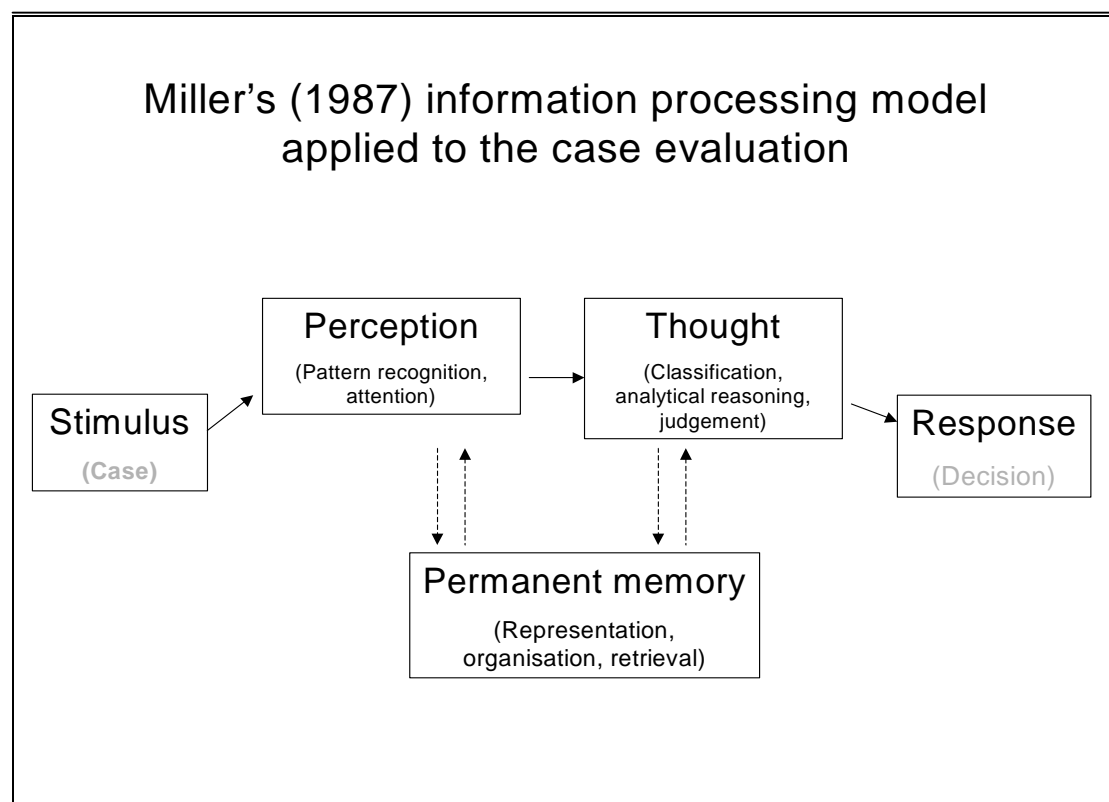


Figure 4.4 Information processing model (Miller 1987) as quoted by Allison & Hayes (1994) with additions to explain the role of this study (Pretorius et al, 2004: 5).

Entrepreneurial Application

Entrepreneur's function in an environment with a high information overload due to the many decisions regarding product, service, markets, competition and many other start-up related issues they need to take. Using cognitive processes and models helps the entrepreneur to deal with the information overload more effectively, resulting in the ability to speed up the decision-making process.

This may, however, lead to decision errors due to the short cuts taken to avoid dealing with the all information at hand.

4.3.3.2 Risk perception and making the decision to exploit

The question is often asked what effect cognitive biases have on an entrepreneur's risk perception. Risk perception refers to the subjective judgement of the amount of risk inherent in a situation and has been found to differ between entrepreneurs and non-entrepreneurs (Keh et al, 2002: 19). According to Baron (2004: 237), reduced risk perception is the reason why some people but not others become entrepreneurs.

Risk perception is also influenced by cognitive biases. According to Simon et al (1999: 113), before the decision to exploit a venture opportunity is taken, risk perception may differ because certain types of cognitive biases lead individuals to perceive less or more risk. Pretorius et al (2004: 6) remind us that cognitive biases are common mental short cuts used to make judgements and that these judgements are at the heart of the decision-making process.

Entrepreneurial Application

The risk perception of entrepreneurs seems to be influenced by their cognitive biases. This may lead to a lower risk perception, resulting in a decision to start

the venture. Simon et al (1999: 125) found in their study that individuals who perceive lower levels of risk were more likely to form a venture.

Cognitive biases are seen to be at the heart of the decision-making process, resulting in entrepreneurs making judgements about the risk more easily.

4.3.3.3 Misconceptions and making the decision to exploit

Cognitive biases seem to reduce uncertainty and improve decision-making speed, but may lead to context-specific misconceptions. As discussed in Chapter 3, the following misconceptions often lead entrepreneurs to ineffective decision-making regarding the decision to start or not to start a new venture creation (based on the work of Clouse, 1990: 45):

- Underestimating competitive response
- Overestimating market demand
- Overestimating long-term profit
- Misjudging asset requirements
- Overestimating short term cash-flow requirements
- Misjudging the managerial fit (jockey and horse metaphor).

Gaining insight into these and other potential misconceptions that might arise may help entrepreneurs cope more effectively with problems, leading to a scenario where better and more informed decisions take the place of over-quick decisions.

Entrepreneurial Application

As already stated, cognitive biases may reduce uncertainty and improve decision-making speed. This, however, may lead to ineffective decision-making (based on incomplete information), which may result in context-specific misconceptions regarding the decision to start or not start the venture. Simon & Houghton (2002:

117) argue that people use an information lens, which suggest that the entrepreneurs' information context and information search process contribute to cognitive biases, which lead to context specific misperceptions that in turn generates the decision to start.

It is therefore important that entrepreneurs be aware of these misconceptions in order to allow for better and more informed decision-making.

4.3.3.4 Self-efficacy and making the decision to exploit

As discussed in Chapter 3, self-efficacy is defined as the belief in one's own ability to accomplish something. In social cognitive theory, a sense of personal efficacy is presented as proportional beliefs that are embedded in a network of functional relationships with other factors that operate together in the management of different realities (Bandura 1997: 3).

High self-efficacy leads to increased initiative and persistence and thus improved performance. Indeed people with high self-efficacy think differently and behave differently from people with low self-efficacy (Pretorius et al, 2004: 7). Kuratko & Welsch (2001: 172) also suggest that perceptions of competence strongly influence our perceptions of whether a situation is controllable. Perception of self-efficacy is a substantial antecedent of perceived opportunity (Krueger & Dickson, 1994 as quoted by Urban 2004 : 21). If we see ourselves as competent we are more likely to see a course of action as feasible which may more probably result in seizing the opportunity.

Entrepreneurial Application

Entrepreneurs perceive themselves as competent and able to control the situation. This perception of self-worth may lead to the decision to start the

venture even when it is a poor opportunity.

Individuals that perceive themselves as entrepreneurial capable are expected to be alert and sensitive to opportunities and be able to take advantage of such opportunities if worthwhile. According to Krueger (2000: 6) “we do not find opportunities, we construct them. Opportunities are in the eye of the beholder; this tells us that perceptions are critical (as quoted by Urban, 2004: 21).

4.3.3.5 Illusion of control bias and decision-making

Illusion of control is a bias in which an individual overemphasises the extent to which his or her skills can increase performance in situations where chance plays a larger role and skill is not necessarily the deciding factor. Two reasons are reported for this illusion of control:

- People are motivated to control their environment and the feeling of competence will result from being able to control the uncontrollable.
- Skill and chance factors are closely associated and it is often hard to discriminate between them.

As mentioned in Chapter 3, illusion of control is different from overconfidence, which refers to an overestimation of one’s certainty regarding one’s meta-knowledge instead of one’s skills or ability to cope with and predict future events (Russo & Shoemaker, 1992, reported by Keh et al (2002: 131). Entrepreneurs show an unusually strong preference for exerting control over their outcomes because they believe they can exert control over people and events (Pretorius et al, 2004: 8), resulting in a lower risk perception and positive evaluation of the opportunity, leading to the decision to start the new venture. According to Keh et al (2002: 131), the overall result of illusion of control is that individuals may underestimate risk because they believe their skills can prevent negative occurrences.

Entrepreneurial Application

The entrepreneur's illusion of control biases may lead to the belief that the individual can control the outcome of a situation. The decision to start is then based on the entrepreneur's belief that he himself is the reason why the start-up will be successful.

The belief in their own ability may lead entrepreneurs to an underestimation of the risks involved. Entrepreneurs are prepared to take the chance based on their desire to control the environment, as well as their perceived skills. It may, however, be difficult for them to discriminate between skill and chance, which may lead to a "rosier" view of the possibility for venture success. As mentioned above Keh et al (2002: 131) argue that individuals exhibiting an illusion of control will underestimate risk because they believe their skills can prevent negative occurrence.

The decision of whether or not to initiate a venture is central to the understanding of entrepreneurial activity. Although different authors discuss new venture creation from various perspectives, decision-making is an important part of each author's conceptualisation. Clouse (1990: 45) quotes Timmons (1985), who argues that when an entrepreneur is faced with a constant flow of opportunities, the decision on whether to focus on an opportunity or to say no to it is critical.

Clouse (1990: 46) points out that authors offer a variety of criteria to consider in decision-making when starting a new venture. The four most important aspects of a new venture decision are as follows:

- Market-related aspects, in order to determine the market potential of the product or service offered and the competitive response
- Financial decisions, in order to manage cash flow and a profit and loss orientation

- Decisions regarding resources needed
- A good fit between the skills and abilities of the entrepreneur or the entrepreneurial team

These aspects of decision-making correlate with the typical misconceptions discussed in Chapter 3.

Simon & Houghton (2002: 116) have explored how the context of the decision gives rise to particular biases and how those biases may give rise to context-specific misconceptions and subsequent action. They also looked at the decision context of a pioneering product introduction, and how that context may affect the ultimate decision whether or not to introduce a pioneering product (Simon et al, 2002: 116).

In the context of entrepreneurial decision-making we can distinguish three steps (Simon & Houghton, 2002: 107):

- The first stage of information processing highlights the need for entrepreneurs to **search** for information
- In the second stage, this information must **be interpreted, or encoded** to be meaningful to the entrepreneur before the entrepreneur can make a decision.
- In the third place **to make a judgement** about going forward with a specific idea or not

This entire decision-making process is constrained in many ways:

- Individuals have limited resources and cannot gather and interpret all the information available
- The information processing occurs in a specific information context that affects how the information is acquired and what sources of information are used. Two broad categories are the firm's characteristics and the specific decision under consideration

- Thinking preferences impact on the selection of information and the use thereof

If we look at the type of information embodied in firm's characteristics we see information such as organisational age and size. New firms are seen as firms between the ages of conception and eight years. As the venture progresses through the different stages, it encounters different problems. The age of the firm thus has a great effect on decision-making (Simon & Houghton, 2002: 108).

The decision context may also influence the information search process. The two possible options for investigation are a pioneering action (being first in the market) or introducing mainstream products. According to Simon & Houghton (2002: 108), information processing that results in misconceptions may be more problematic for entrepreneurs who pioneer. They quote Zacharakis & Shepherd (2001), who postulate that when entrepreneurs are surrounded by unfamiliar tasks, greater bias is likely to arise due to the fact that there is often very little relevant information or the information available is not applicable.

As mentioned by Mitchell et al, (2002: 10), cognitions are structured in the minds of individuals and these knowledge structures act as scripts (patterns) that are the antecedents of decision-making. Individuals draw upon them when making decisions, which may result in information-processing errors. They do, however, help to increase the speed of decision-making.

4.4 Activities (Engaging in the exploitation activities)

According to Brockner et al (2004: 207), many laypersons equate entrepreneurship with the act of creating or inventing an idea or concept that proves to satisfy the needs of multiple stakeholders. Alexander Graham Bell, Henry Ford and Bill Gates helped to create products that have changed the lifestyle of people across the world. While idea generation is an important (early) step in the entrepreneurial process, it is by no means the only one. Thomas Edison, creator of the light bulb, once said that success is "one percent inspiration and 99 percent perspiration" This statement suggests that once the idea is

generated it only has the potential to be successful. The further step, namely the activity (or perspiration), will determine how well the entrepreneur can complete the entrepreneurial process.

Thus, the definition of entrepreneurial activity encompasses more than launching of a new business organisation. Existing organisations, in an attempt to maintain competitive advantage, are trying to develop innovative products and processes. Some scholars (McGrath & MacMillan, 2000) argue that the entrepreneurship mindset is the new paradigm for strategic thinking (Brockner et al, 2004: 205).

Gatewood et al (1995: 372) argue that creating a business is a process fraught with difficulty and failure. They also postulate that the cognitive orientation or ways of thinking of potential entrepreneurs would have a significant influence on their willingness to persist in entrepreneurial activities in the face of these difficulties. According to them entrepreneurs who believe they can control the environment through their actions will be more likely to persist in entrepreneurial activities when they encounter difficulties in the start-up process. They also suggest that how entrepreneurs think about themselves (self-efficacy) and their situation (illusion of control, misconceptions) will influence their willingness to persist towards the achievement of their goal. An entrepreneur's persistence influences two aspects of starting a business:

- The activities undertaken to start a business
- Success at starting a business

According to Gatewood et al (1995: 373), one can, in general, assume that the more time and effort devoted toward accomplishing a task, the more likely it is that the achievement of this task will occur.

Although creating a business is fraught with difficulties and the starting of the venture requires self-efficacy and illusion of control, the important next step in the process is to actually move into the start-up mode. Brockner et al (2004: 207) point out that whether the idea is realised depends upon how well entrepreneurs complete the next steps in the process: that is where the activity or "perspiration"

of which Edison spoke becomes relevant. More specifically, once an idea with potential is spawned, it needs to be screened or reality tested and several hard questions should be asked in order to be able to complete the start-up process successfully. The following questions are of relevance:

- Is there a market for the product / service?
- Will we be able to deliver?
- What is the competitive advantage?
- What are the risks associated with the venture and how can we manage it best?

If the screening process indicates that the entrepreneur can proceed, the next activity is resource procurement (financial, technological and human), followed by a business model (including a prototype) to prove the idea viable. The last phase, sometimes called the roll-out phase, consists of a larger commitment to the production process.

Ardichvili et al (2003: 106) also argue that entrepreneurs identify business opportunities to create and deliver value for stakeholders in prospective ventures. While elements of opportunities may be “recognised”, opportunities are made, not found, which implies activity. They postulate that careful investigation of and sensitivity to market needs as well as an ability to spot suboptimal deployment of resources may help an entrepreneur to begin to develop an opportunity, which may or may not result in a business. Opportunity development, according to them, involves entrepreneurs’ creative work. They also argue that the focus should be on opportunity development (activity) rather than on opportunity recognition, because the need or resource recognition or perception cannot become a viable business without the development thereof.

Ardichvili et al (2003: 106) also argue that the development process begins when entrepreneurial alertness exceeds a threshold level. The reason for the alertness may be the coincidence of several factors such as personality traits, prior knowledge and experience, as well as social networks. The particular activities

within the process are also affected by specific knowledge about market needs and resources.

The entrepreneurial process as discussed in this chapter is the result of the action taken by the entrepreneur. The model as presented by Shook et al (2003: 381) was used as a basis for discussing the entrepreneurial process. The success of the entrepreneurial process, according to Brockner et al (2003: 204), relies on a combination of beliefs and behaviours. They suggest that two types of foci are necessary for the entrepreneurial process to be successful: a promotion focus and a prevention focus. Both these foci are part of a regulatory focus theory that attempts to shed light on the entrepreneurial process. The prevention focus is concerned with security, safety and responsibility, while the promotion focus is concerned with advancement, growth and accomplishment of the venture. Both foci are a function of the situation as well as the person.

4.5 Conclusion

From this chapter it is evident that certain elements are required for an entrepreneurial venture to be successfully brought about. The identification of the opportunity, the gathering of resources and the decisions taken regarding the potential of the venture, its viability and long-term sustainability, are all important factors to be taken into account. Opportunities are per definition time-limited, and taking all aspects mentioned into account may help the entrepreneur to successfully start and grow the business. The entrepreneurial process was used to provide a framework for understanding the process.

It also becomes clear that cognitive processes are part and parcel of the entrepreneur's perception and thinking and form the backbone of entrepreneurial decision-making.

The literature review being concluded, the next chapter (5) discusses the methodology applied to the empirical part of the study.