


# **Entrepreneurial Strategic Decision-Making: An Exploratory Qualitative Analysis**



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**Defense:** January, 31<sup>st</sup> 2011  
**Room:** DZ 3, 13.00 p.m.

## Management Summary

The following problem statement was investigated in this study: *To what extent do entrepreneurial behavior and the strategic decision-making process of entrepreneurs explain, why they continue with divested business units of Philips and NXP semiconductors?* An explorative qualitative research is performed to answer this question. In doing so, a literature review and semi-structured interviews were conducted.

The literature review explains entrepreneurial behavior by means of a historical overview about the concept of entrepreneurship. Perspectives regarding this entrepreneurial concept changed in the last decades. Initially, entrepreneurs were considered as risk bearing firm leaders operating in low competitive environments. Perspectives changed in 1911, where historical contributors concluded that innovative entrepreneurs were uncertainty bearing individuals, operating in more competitive environments. From 1973 until now, entrepreneurs are considered as arbitrageurs, who need to possess particular knowledge to discover and exploit entrepreneurial opportunities, when operating in high competitive and complex environments. In consequence of this historical overview, the aim of this thesis was to strive for a complete combination of variables identified in a conceptual framework, elaborated on particular relationships pointed out in previous literature. This framework includes the following variables: entrepreneurial opportunities, opportunity discovery, entrepreneurial strategy, opportunity exploitation, innovativeness, firm performance and competitive advantage. The conceptual framework describes when innovative entrepreneurs, which possess particular knowledge, discover and exploit entrepreneurial opportunities. Once those entrepreneurial opportunities are in accordance with a firms' strategy, value will be added by achieving a higher firm performance or the development of a competitive advantage.

Next to the aforesaid conceptual framework, there is another model of SDM developed by Ivanova and Gibcus (2003), which is based on perspectives of Mintzberg et al. (1976). Their SDM model consists of three interlinked variables (the entrepreneur, the decision environment and the SDM process) and explains that entrepreneurs need to possess particular knowledge to accurately understand their decision environment, while making strategic decisions. However, according to Busenitz and Barney (1997), entrepreneurs are unable to possess a large amount of knowledge and face high costs regarding the collection and disposal of information. By the time all the necessary information is collected to make a more rational decision, the window of opportunities for entrepreneurs would often be gone. Due to these constraints, it can be concluded that strategic decisions made by entrepreneurs are simplified as they rely more on cognitive heuristics in contrary to managers that are more rational. Besides the use of cognitive heuristics (e.g. intuition, overconfidence or representativeness), entrepreneurs and managers differ in making strategic decisions, by means of: entrepreneurial self-

efficacy and tolerance for ambiguity (higher for entrepreneurs), and cognitive motivation (higher for managers).

The aim of this study was to explore why entrepreneurs continue with divested business units and why managers divest particular business units. Twelve semi-structured interviews provided information regarding two categories of these strategic decisions: strategic managerial decisions to divest a particular unit, by means of: asset sell-offs, spin-offs or equity carve-outs, and strategic entrepreneurial decisions to continue strategically with a particular (business) unit. From the conducted managerial interviews, managers divest for the following reasons: the need for money, focus on the core business, a units' loss generating character, over diversification or heuristics. Managers divested those units to: the highest bidder, to third party firms to develop strategic value, to a related firm or they close a particular unit. From the conducted entrepreneurial interviews, entrepreneurs continue strategically with a particular (business) unit to provide their firm: a better strategy focus, a better market position, firm growth, geographical distribution or distribution of risk, and they continue by means of heuristics. From the aforementioned can be concluded that managers mainly divest to the highest bidder or to a third party firm to focus on their core business again, while entrepreneurs mainly continue with sold-off or spun-off units to achieve firm growth.

## **Preface**

This study is the result of an exploratory qualitative research and a literature review carried out in 2010/2011. Writing a dissertation is the final requirement to finish the Master Strategic Management at the University of Tilburg.

This study is conducted in pursuance of a recent trend within Philips and NXP Semiconductors, where both firms want to achieve economic growth every year, but shrink in size because managers divest particular business units. Furthermore, entrepreneurs expand their existing firm by means of the continuation with those divested business units. Due to a remarkable body of research focusing on entrepreneurship, but the absence of studies based on this trend, this study adds something new to existing literature. Therefore Entrepreneurial Strategic Decision-Making is chosen as topic to investigate in this thesis.

I want to utilize this opportunity to thank my Master Thesis supervisor dr. A.D. Timmers for supervising me throughout this thesis, and my second supervisor dr. A.A.C.J. van Oijen. Furthermore, I want to thank my participants, who were able to provide useful results for this research.

R.J.G. Philippart

Tilburg

January 2011

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# Chapter 1: Introduction

## *1.1 Problem Indication*

Individuals who run and start their own businesses and have specific characteristics that influence the strategic decision-making process are called entrepreneurs (Vermeulen & Curşeu, 2008). In doing so, entrepreneurs and managers both make strategic decisions, where differences in strategic decision-making activities are caused by their behavior. For entrepreneurs, this specific decision-making behavior is called entrepreneurial behavior, which is characterized by the following specific characteristics: innovation, complexity, control, rationality and uncertainty (Vermeulen & Curşeu, 2008). Those specific characteristics influence, for example, the decision to divest business units or resources (Chen & Guo, 2005). Managerial behavior instead is different from entrepreneurial behavior and refers to the objective and systematic processes, the neutral and devotion of emotions to their surrounding culture (Ferris, Fedor & King, 1994).

As aforementioned, entrepreneurial behavior is an important individual orientated driver for entrepreneurship (Acs & Szerb, 2007). Characteristic traits entrepreneurs' possess do not necessarily explain entrepreneurial behavior, but the quality to destroy the status quo on the market, if products and/or services are not competitive to the market anymore, by providing new products and services, does explain entrepreneurial behavior. The former is called the innovation perspective in entrepreneurship (Vermeulen & Curşeu, 2008). According to the innovation perspective, entrepreneurs bear uncertainty to discover and exploit opportunities that are overlooked by others.

Besides the discovery and exploitation of entrepreneurial opportunities, the strategic decision-making process of entrepreneurs, from an organizational orientated perspective, is important, for example starting up a new venture (McVea, 2009). According to Taormina and Lao (2007), there are two approaches which influence strategic decisions for entrepreneurs to start-up a business: the personal traits approach and the environmental rates approach. The personal traits approach refers to the presence of psychological characteristics, which explain the entrepreneurial behavior of entrepreneurs. The environmental rates approach holds that the exploitation of entrepreneurial opportunities creates new opportunities for other entrepreneurs, thereby creating an environment where opportunities are more likely to be discovered (Holcombe, 2003; Taormina & Lao, 2007). In the next section, the companies Philips and NXP are chosen to describe how entrepreneurial behavior and strategic decision-making changed their focus on achieving economic growth every year.

Philips is a company who wants to grow every year (Koninklijke Philips Electronics N.V., 2009). Although the goal of achieving economic growth every year, their size shrinks due to the divestment of business units (Financieel Dagblad [FD], 2006; Koninklijke Philips Electronics N.V., 2009). Entrepreneurs who were whether former employee of Philips or independent entrepreneurs, focused



purely on these divested business units in the form of new venture creation (Acs, Braunerhjelm, Audretsch & Carlsson, 2009). The tendency is arising that these divested business units became profitable after those entrepreneurs started their own business and restarted with those units.

The former example of unit divestiture is also applicable to NXP semiconductors (NXP, 2009). NXP is a company which is founded by Philips in 2006, when Philips sold 80.1 percent of their semiconductor division and created a private equity consortium. The reason why Philips sold the majority stake of their semiconductor division is because they wanted to reduce costs at this business and they wanted to focus on their core business again (Bickerton, Politi & Griggs, 2006). For already three years, NXP has a steady sales volume (NXP, 2009), which is a disaster for a company who wants to grow every year. This steady sales volume occurs, for example, due to the economic crisis and thereby the necessity for NXP to divest business units.

## ***1.2. Problem Statement***

To what extent do entrepreneurial behavior and the strategic decision-making process of entrepreneurs explain, why they continue with divested business units of Philips and NXP semiconductors?

### ***1.2.1 Research Questions***

To answer the above mentioned problem statement, research questions have to be formulated. Each individual question focuses on an important concept stated in the problem statement. The answers together provide useful conclusions to answer the entire problem statement. Two theoretical questions and two empirical questions are formulated below.

#### ***1.2.1.1 Theoretical Questions***

- What are important factors of entrepreneurial behavior?
- Which phases in the strategic decision-making process, explain why entrepreneurs divest business units?

#### ***1.2.1.2 Empirical Questions***

- In spite of the goal to achieve economic growth every year, why do managers of Philips and NXP divest their business units?
- In spite of starting a new venture, why do entrepreneurs continue with divested business units of Philips and NXP?

### ***1.3 Methodology***

This study is an exploratory study, due to the combination of scientific entrepreneurial orientated papers and conducting semi-structured interviews as a tool to provide results. Furthermore, an exploratory study describes the assessment of existing phenomena, searches for new insights and finds out what is happening (Saunders, Lewis and Thornhill, 2007: 133). The research strategy turns out to be a case study, due to the empirical investigation of a particular contemporary phenomenon within a real life context (Saunders et al., 2007: 139). This empirical investigation will be done by using a mono-method technique to collect information, by conducting semi-structured interviews. Semi-structured interviews are non-standardized, where the researcher has a list of questions to be covered which may vary from interview to interview (Saunders et al., 2007: 312).

The case study is associated with a deductive type of research and qualitative data will be collected by means of twelve semi-structured interviews: three interviews within Philips, three interviews within NXP, three interviews with entrepreneurs who focus on former divested business units of Philips and three interviews with entrepreneurs who focus on prior divested business units of NXP. Primary sources of data will be collected, from those interviews, to provide information for the methodology part. Primary data refers to data which is initially collected for the research which will be undertaken (Sander et al., 2007: 607).

The aim of this research is to provide the researcher useful information about why business units are divested and why entrepreneurs want to continue with those former divested business units.

### ***1.4 Structure***

The remaining research is divided into five chapters. Chapter two provides an historical overview, including perspectives from historical contributors that have changed in previous decades. Furthermore, a conceptual framework of entrepreneurship will be provided, which aim is to strive for a complete combination of variables identified in a conceptual framework. Chapter three describes the strategic decision-making process of entrepreneurs. First, general definitions and perspectives of strategic decision-making are given. Second, a general SDM model consisting of three interlinked variables will be explained. Finally, differences in the strategic decision-making process of entrepreneurs and managers will be given, including corporate divestiture as important strategic decision. The methodology part of this research will be explained in chapter four. The results of this research, obtained by the conducted semi-structured interviews, will be given in chapter five. Finally, conclusions, limitations and recommendations will be given in chapter six.

## **Chapter 2: Entrepreneurial Behavior**

Historically, scientists argued that entrepreneurs were not valuable to the economy. Entrepreneurs were not considered as individuals who enhance society's well-being. This idea changed when the first historical contributors to the field of entrepreneurship surfaced. The behavior of entrepreneurs was considered important for economic development and society's well-being. But what is entrepreneurship? What is the function of entrepreneurs? What is the role of innovation in the model of entrepreneurship? What other factors influence entrepreneurship? Those questions will be answered in this chapter.

### ***2.1 Historical Overview***

For several decades, researchers have attempted to provide the most appropriate definitions about entrepreneurship. Richard Castillon was the first contributor to the field of entrepreneurship in 1755. Castillon (1979) concluded that entrepreneurs are contributors to the economic value of society. Therefore, the entrepreneur was not an innovative individual, instead an entrepreneur was functionally described as a risk bearing individual who buys something at a certain price and sells it at an uncertain price. This paragraph describes the transformation of entrepreneurial perspectives in previous decades, by historical entrepreneurial contributors: Jean-Baptiste Say, Alfred Marshall, Joseph Schumpeter, Frank Knight and Israel Kirzner.

#### ***2.1.1 Historical Contributors***

After Richard Castillon, Jean-Baptiste Say (1971) was the second contributor who concluded, in 1981, that entrepreneurs have a mediating function, which comprises a managerial and coordinating role in the production and distribution of capital and nature. Production and distribution of capital and nature creates wealth for both the entrepreneur and his customers. Furthermore, successful entrepreneurs are risk bearing individuals who require a rare combination of qualities, like knowledge, skills, experiences and the ability to judge. Here success is defined as the duration of the venture of entrepreneurs (Van Praag, 1999). Due to this rare combination of qualities, the amount of entrepreneurial competitors in the market is low.

The third contributor is Alfred Marshall (1930), who provided a more neo-classical view on entrepreneurship. In his neo-classical model, there exists perfect rationality where all needed information is available to individuals. In this point-of-view, every individual could become an entrepreneur. For the first time market equilibrium existed, where demand prices for each good equals their supply, and passive entrepreneurs act without uncertainty to focus their attention on this equilibrium. Furthermore, Marshall (1930) illustrates the importance of innovation, where the entrepreneur has to take the full responsibility and control within its firm. The amount of competition

in this neo-classical world is high. As long as successful entrepreneurs earn more than the amount of costs, the amount of competition remains high.

Joseph Schumpeter is the fourth, most important and most innovatively focused historical contributor. In 1911, Schumpeter (1934) concluded that entrepreneurship is an activity that disrupts the market equilibrium. An entrepreneur is no longer manager of the enterprise, but an innovative leader or prime mover of the economic system. Besides innovation, an entrepreneur seeks opportunities, decides which objectives have to be pursued and introduces new innovative combinations that destroys the existing market equilibrium and create a new equilibrium. Entrepreneurs obtain temporary monopoly power when they create new innovative combinations. Notwithstanding the profit-driven activities realized by innovations, business success is the motivating factor that drives the innovative behavior of entrepreneurs (Schumpeter, 1934).

Frank Knight (1971) was the fifth historical contributor and the first who distinguished between entrepreneurial risk and uncertainty in 1921. Entrepreneurs bear uncertainty, referring to a type of probability which concerns the outcome of a unique event, because there is no valid basis for classifying instances (Van Praag, 1999), instead of bearing risk. Besides bearing uncertainty, entrepreneurs are responsible for the direction and control of an enterprise, they are a companies' decision maker and they can change consumer demands or purchasing power of customers. Therefore, an entrepreneur needs to have specific abilities to handle these responsibilities and to make responsible decisions. The amount of competition is dependent on supply and demand of entrepreneurial services.

The last historical contributor is Israel Kirzner (1973), who had a neo-Austrian perspective. Neo-Austrian theorists conclude that the market tends toward equilibrium where profit opportunities are created (Kirzner, 1973; Yu, 2001). Entrepreneurs are called arbitrageurs who focus on the dynamics of opportunity discovery and exploitation (Kirzner, 1973; Shane & Venkataraman, 2000). Furthermore, entrepreneurs are considered as alert uncertainty bearing persons in complex and uncertain economies, which discover and exploit entrepreneurial opportunities (Vermeulen & Curşeu, 2008). To exploit opportunities, entrepreneurs need to have additional qualities, like leadership and creativity. The amount of competition depends on the alertness of entrepreneurs to discover an opportunity.

After 1979, Low and MacMillan (1988), Busenitz (1999), Plummer et al. (2007) and Kroeck et al. (2010) referred to entrepreneurship as the phenomenon of new venture creation, where innovative entrepreneurs have to discover and exploit entrepreneurial opportunities that have to fit the entrepreneurial strategy of an organization.

Like aforementioned, entrepreneurial perspectives transformed and developed the last decades. Initially, perspectives about the existence of market equilibrium arise. An entrepreneur was considered

to be the leader of the firm who earns profit as a residual for bearing risk, where the amount of competition was low. In 1911, perspectives about the market equilibrium changed, due to the innovating function of entrepreneurs who still received profit, not for bearing risk but for bearing uncertainty. The entrepreneur was not considered to be the leader anymore, but an innovating individual. The amount of competition depends on supply and demand of entrepreneurial services. Nowadays, perspectives about a destroyed equilibrium transformed into a market that tends toward equilibrium, where the entrepreneur is an arbitrageur who has to be alert to discover and exploit entrepreneurial opportunities. Entrepreneurs are considered as individuals who are still receiving profit for operating in complex and uncertain environments, where the amount of competition depends on the alertness of entrepreneurs to discover and exploit opportunities. Furthermore, innovation is considered to be the decisive factor of new venture creation. The aforementioned characteristics of an entrepreneur are considered to be variables for a conceptual framework of entrepreneurship, described in the next paragraph.

## ***2.2 Conceptual Framework Entrepreneurship***

The latest description of entrepreneurship refers to innovative entrepreneurs who have to discover and exploit entrepreneurial opportunities that have to fit the entrepreneurial strategy. An entrepreneurial opportunity is defined as the introduction of new means-end relationships by means of the combination of resources, like new raw materials, goods, organizing methods and services, which have the potential to change economic exchange terms and that engages entrepreneurial action (Ardichvili, Cardozo & Ray, 2003; Companys & McMullen, 2007; Davidsson & Wiklund, 2009). Those entrepreneurial opportunities, that attend innovation, arise in today's complex and uncertain environments, where existing situations change rapidly (Companys & McMullen, 2007). Therefore, the entrepreneurial strategy have to fit the environment, that is intense competitive and highly uncertain (Park, 2005; Companys & McMullen, 2007). Defining the best strategy involves a process of maximizing returns by making a determination of decisions, the optimal set of actions and commitments (Plummer et al. 2007). In doing so, entrepreneurs have to be innovative, referring to: the novel, unique and exclusive way of introducing new ideas, ways of doing things and new things, undertaken by large or small organizations, as well as individuals (Park, 2005; Alsaaty & Harris, 2009). After the opportunity is discovered, referring to the speculation that resources are not put to its best use or are priced too low so that entrepreneurs belief that their output can be sold at another place, in another form or in a different combination (Plummer et al. 2007), and fits the entrepreneurial strategy, entrepreneurs exploit the opportunity and try to achieve a higher firm performance or generate a competitive advantage (Companys & McMullen, 2007). Entrepreneurial exploitation refers to building efficient business systems for full scale operations by which investments and activities are committed to gain returns from new products arising out of opportunities (Choi & Shepherd, 2004).

From the above can be concluded that relationships exist between an entrepreneur, innovativeness, the discovery and exploitation of entrepreneurial opportunities, an entrepreneurial strategy, firm performance and competitive advantage. Due to the absence of an integrated theoretical framework of entrepreneurship, explaining the development of entrepreneurial opportunities, its emergence and relationships between the aforementioned variables (Choi & Shepherd, 2004; Companys & McMullen, 2007), a conceptual framework (see figure 1) is made, which is based on relationships pointed out in previous literature. Each article describes only a particular relationship in the conceptual framework. The variables will be described in the next subparagraphs.

### ***2.2.1 Entrepreneurial Opportunities***

The first variable in the model of entrepreneurship is an entrepreneurial opportunity. According to Gatignon and Xuereb (1997), Tan (2001) and Companys and McMullen (2007), there are two types of entrepreneurial opportunities: technological opportunities, that make the creation of new services and goods possible, and market opportunities, that enable the commercialization of these new services and goods for wealth creation. Entrepreneurs are only able to search for and discover technological and market opportunities when they possess necessary knowledge about a specific event or concept and when they are innovative (Shane, 2000; Eckhardt & Shane, 2003; Corbett, 2005). In doing so, there are two types of knowledge: deliberated acquisition knowledge and non-deliberated acquisition knowledge (Yu, 2001). Deliberated knowledge refers to the knowledge which is already available to entrepreneurs, such as knowledge about where to sell and buy products or other already available know-how. Non-deliberated knowledge refers to the spontaneously absorption of knowledge about an event from everyday life experience (Corbett, 2005). This specific knowledge increases entrepreneurial innovativeness to opportunity discovery (Eckhardt & Shane, 2003; Corbett, 2005; Park, 2005). Entrepreneurial innovativeness will be described in the next section.

### ***2.2.2 Entrepreneurial Innovativeness***

Entrepreneurs always try to discover opportunities. In doing so, entrepreneurs need to have specific knowledge about the opportunity, due to the impossibility to discover something that is unknown. However, not every entrepreneur posses this specific knowledge. Therefore, multiple entrepreneurs act differently in similar situations and are unable to make fully rational decisions (Yu, 2001; Minniti, 2004; Vermeulen & Curşeu, 2008). The absorption and possession of knowledge for operations is necessary to create entrepreneurial innovativeness, which can be gained by experience, dedication and devotion (Cohen & Levinthal, 1990; Eisenhardt, 1999; Van den Bosch, Volberda & de Boer, 1999; Yu, 2001; Barney, 2002; Corbett, 2005; Park, 2005; Alsaaty & Harris, 2009). Entrepreneurs have to be innovative when goods and/or services are no longer competitive to the market, in doing so, entrepreneurial innovativeness is used to support the discovery and exploitation of opportunities by translating new ideas into practice (Companys & McMullen, 2007; Alsaaty & Harris, 2009). For

example, an entrepreneur implements a strategy of business survival, by means of the introduction of improved services, processes, goods, technologies and/or organizational capabilities. Entrepreneurial innovativeness comprises of two approaches which both highlight the importance of entrepreneurial opportunities: the inside-out approach and the outside-in approach (Alsaaty & Harris, 2009). The inside-out approach refers to entrepreneurs' abilities to identify 'hidden' opportunities, by means of innovations and inventions. The outside-in approach refers to entrepreneurs' discovery of opportunities by offering innovative products or services. Subparagraph 2.2.3 describes the variable: opportunity discovery.

### ***2.2.3 Opportunity Discovery***

The third variable in the conceptual framework is opportunity discovery. Entrepreneurial opportunities arise in an economy where the market becomes at disequilibrium, due to differences in knowledge about resources, expectations and beliefs between individuals (Holcombe, 2003; McMullen & Shepherd, 2006; Plummer, Haynie & Godesiabo, 2007). Therefore, individuals (e.g. entrepreneurs) possess different information. As aforementioned, entrepreneurs discover opportunities when they possess specific knowledge needed to discover opportunities and when they are innovative (Shane, 2000). Therefore, entrepreneurial innovation influences opportunity discovery (Shane, 2000; Hitt et al. 2001). An example of entrepreneurs' specific knowledge is the misallocation of resources. They discover that resources are not put to their best use, obtain and recombine them and sell those resources at a higher price than the costs of recombining and obtaining them. Due to the importance of knowledge, companies have to invest in human capital (R&D). Investing in R&D creates an environment in which employees in the enterprise (including entrepreneurs) obtain specific knowledge to discover entrepreneurial opportunities (Holcombe, 2003; Ireland et al. 2003). The discovery of an opportunity has to be in accordance with the entrepreneurial strategy (Plummer et al. 2007). The next variable is the entrepreneurial strategy, described in the next subparagraph.

### ***2.2.4 Entrepreneurial Strategy***

The strategic decision to exploit an opportunity has to fit the strategy of the organization. The way an entrepreneur identifies the best strategy for exploitation under uncertainty, where they also have to keep in mind the nature of the opportunity and the environment where the opportunity will be exploited in, is called: entrepreneurial strategizing (Plummer et al., 2007). The 5 most widespread drivers for an organization to define a strategy are: provide a better focus on the core activity, strengthen the market position, geographical distribution and risk distribution, growth of the entire organization (for example, increasing knowledge or size) and the involvement of heuristics in the strategy formation process (McMullen & Shepherd, 2006; Plummer et al. 2007; Vermeulen & Curşeu, 2008). When a discovered opportunity does not fit the entrepreneurial strategy of an organization, entrepreneurs search for other entrepreneurial opportunities that do fit the entrepreneurial strategy.

After an opportunity fits the entrepreneurial strategy of an organization, entrepreneurs exploit these opportunities. Opportunity exploitation is the next variable that will be described.

### ***2.2.5 Opportunity Exploitation***

The next variable is opportunity exploitation. Entrepreneurs make several strategic decisions about when to exploit opportunities: they can reduce uncertainties in their organization, exploitation lengthens their lead time (referring to the period of monopoly for the first entrant prior to the entry of competitors) and the exploited opportunity has to add value to the customer (Choi & Shepherd, 2004). The period of monopoly provides the first entrant a competitive advantage or first mover advantage, such as preemption, technological leadership and buyer switching costs. After a competitive advantage is developed, a higher firm performance can be achieved for the organization (Ireland et al. 2003; Companys & McMullen, 2007). Entrepreneurs only develop a competitive advantage and may achieve a higher firm performance when they exploit their opportunities in external environments (Hitt et al. 2001; Ireland et al., 2001; Hitt et al. 2002; Ireland et al. 2003). A competitive advantage as a result of opportunity exploitation will be described in the next subparagraph.

### ***2.2.6 Competitive Advantage***

As aforementioned, the monopoly period provides the first entrant a competitive advantage, which can only be sustainable if the new product or service is rare, valuable, inimitable and costly to imitate (Barney, 1991; Gove, Sirmon & Hitt, 2003). Lengthening the period of monopoly or lead time allows entrepreneurs to benefit from competitive or first mover advantages. Furthermore, if entrepreneurs are able to manage resources strategically, they can create a sustainable competitive advantage, instead of creating a temporary competitive advantage, when exploiting entrepreneurial opportunities (Hitt et al. 2001; Ireland et al. 2003). In doing so, entrepreneurs try to discover opportunities with specific knowledge they possess (Shane & Venkataraman, 2000; Hitt & Ireland, 2000; McGrath & MacMillan, 2000; Amit & Zott, 2001). Before first movers are able to maximize their competitive advantage, they have to make large investments in developing new markets or large scale operations (e.g. R&D) (Lambkin, 1988). When entrepreneurs are unable to develop a competitive advantage by exploiting an opportunity, but the opportunity fits the entrepreneurial strategy, they may still exploit the entrepreneurial opportunity to achieve a higher firm performance (Companys & McMullen, 2007). Firm performance will be described in the next subparagraph.

### ***2.2.7 Firm Performance***

Firm performance is the last variable in the conceptual framework of entrepreneurship. Because of the objective to achieve superior firm performance in today's highly competitive and uncertain environments, firms have to refresh their structure towards the discovery and exploitation of entrepreneurial opportunities and their strategy continually (Rindova & Kotha, 2001). In doing so, the



resource portfolio has to be effectively structured (resources have to be acquired, accumulated and divested), resources have to be organized to create capabilities, select and implement firm strategies (bundling), and specific choices have to be made about leveraging capabilities across and within business units. These processes contribute to an increased firm performance (Kogut & Zander, 1992; Barney & Arkan, 2001; Ireland et al. 2003; Sirmon & Hitt, 2003; Sirmon, Hitt & Ireland, 2003). Firms do not have to develop a competitive advantage to achieve a higher firm performance.

**2.2.8 Conclusion**

Figure 1 represents the conceptual framework of entrepreneurship, involving all variables and interlinked relationships described in the aforementioned subparagraphs. According to the aforementioned, it would be obvious that an integrated conceptual framework of entrepreneurship exists, this is not the case. Due to the absence of an integrated conceptual framework in previous literature, this conceptual framework is based on the combination of particular relationships described in previous literature. Table 1 (see appendix A) represents the particular relationships between variables mentioned in the conceptual framework. As can be seen in table 1, those relationships are confirmed by multiple scientific articles. Therefore, this conceptual model is useful and those references enabled the self-creation of the conceptual framework.

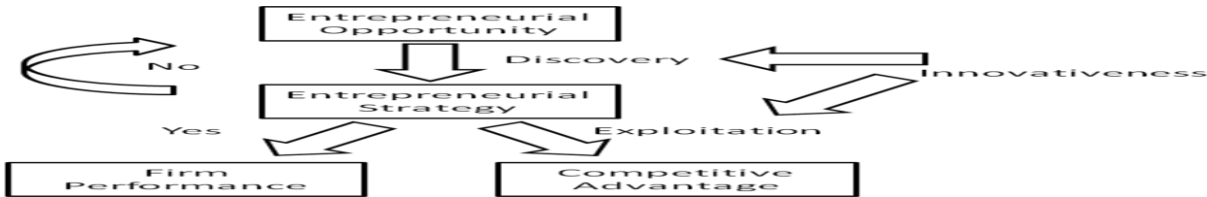


Figure 1: Conceptual Framework of Entrepreneurship

In short: there are a lot of entrepreneurial opportunities that are unnoticed. Entrepreneurs have to be innovative (possess specific knowledge) to discover an entrepreneurial opportunity. Those entrepreneurial opportunities have to fit the entrepreneurial strategy. When those discovered opportunities do not fit the entrepreneurial strategy, entrepreneurs have to discover other opportunities that do fit the entrepreneurial strategy. However, when the discovered opportunities do fit the entrepreneurial strategy, opportunities will be exploited to increase firm performance or to develop a competitive advantage. Opportunity exploitation also requires entrepreneurial innovativeness, because entrepreneurs have to possess necessary knowledge to know how to exploit an entrepreneurial opportunity.

### ***2.3 Conclusion***

The purpose of this chapter was to explain entrepreneurial behavior by means of an historical overview regarding the concept of entrepreneurship. Perspectives considering the entrepreneurial concept changed in previous decades. Initially, entrepreneurs were considered as risk bearing individuals who earn profit for operating in low competitive environments. In 1911 perspectives about the entrepreneurial concept changed. Entrepreneurs were seen as innovative, uncertainty bearing individuals, which operate in highly competitive environments. From 1973 until now, the concept of entrepreneurship includes new venture creation, wherein alert entrepreneurs possess particular knowledge to discover and exploit entrepreneurial opportunities.

In addition to this recent entrepreneurial perspective, innovative entrepreneurs exploit entrepreneurial opportunities to add value to their firm by trying to achieve a higher firm performance or by developing a competitive advantage. In doing so, the absorption and possession of knowledge is very important for entrepreneurs to create innovativeness, which in turn is necessary to discover technological and market opportunities. There are two sources of knowledge: deliberate acquisition knowledge and non-deliberate acquisition knowledge, and two approaches of innovation highlighting the importance of entrepreneurial opportunities: the inside-out approach and the outside-in approach. As a result, innovative entrepreneurs tend to discover and exploit entrepreneurial opportunities in their external environment, which are in accordance with the core business or the strategy their firm implements.

Several characteristics of entrepreneurs were combined into a conceptual framework. This conceptual framework (figure 1) describes when innovative entrepreneurs, which possess particular knowledge, discover and exploit entrepreneurial opportunities. Once those entrepreneurial opportunities are in accordance with a firms' strategy, value will be added by achieving a higher firm performance or the development of a competitive advantage.

## **Chapter 3: The Strategic Decision-Making Process of Entrepreneurs**

Individuals prefer to live in a world in which explanations for things that happen are known. However, they work in enterprises facing an unstable business environment with a high level of uncertainty.

Those environments are uncertain, due to the presence of different actors, like customers, suppliers, governmental regulations, competitors and investors. Therefore, individuals have to make strategic decisions about how to adapt its activities with the known characteristics of other actors and how to act in the given environment, for example, the divestment of business units. But what are these strategic decisions that entrepreneurs have to make? What does strategic decision-making means and what phases comprises the strategic decision-making process? Is there any general model reflecting the core assumptions of the decision-making process? Do managers differ from entrepreneurs in their process of strategic decision-making? Why do firms divest and what is the essence is corporate divestiture? Answers to those questions are provided in this chapter.

### ***3.1 Strategic Decision-Making***

Individuals make decisions every day. Some of these decisions are personally (for example: what to wear today), while others are of major importance for a company (for example: which unit to divest). Decision-makers sometimes estimate with relative certainty the probability of an outcome, while this is impossible for other decisions. For some decisions, decision-makers use already existing strategies, whereas for other decisions they need to create new alternatives or need to use additional information to make a decision (Schwenk, 1984; Wally & Baum, 1994). Decisions are sometimes based on routines or are labeled strategic. A strategic decision refers to the goal-directed cognitive process where the importance of planned actions or nonprogrammable decisions in uncertain and complex environments, affect the health and survival of an organization where the future is unpredictable (Mintzberg, Raisinighani & Théorêt, 1976; Eisenhardt & Zbaracki, 1992; Wally & Baum, 1994; Vermeulen & Curşeu, 2008). Furthermore, strategic decision-making (SDM) involves the commitment of substantial organizational resources in order to accomplish organizational goals (Mazzolini, 1981; Schwenk, 1984; Nutt, 1998). This process of SDM usually starts with a vague idea about what a possible solution for a problem can be. Such a solution is mainly characterized by entrepreneurs' innovativeness, due to its novelty, open-endedness and complexity (Mintzberg et al. 1976).

Afterwards, decisions can be made by introducing new products (opportunity decisions), responding to extreme pressures (crisis decisions) or responding to pressures that are gentler than that during a crisis (problem decisions).

Ivanova and Gibcus (2003) developed a model of SDM representing three interlinked variables involved in making strategic decisions: the entrepreneur or decision-maker, the decision environment and the SDM process itself. This model is chosen in accordance with: Mintzberg et al. (1976), Beach

and Mitchell (1978), Schneider and De Meyer (1991), Rajagopalan et al. (1993), Papadakis et al. (1998) and Mador (2000), who concluded that there are three levels of analysis: the contextual environment, the strategic decision-making process itself and the decision-maker. For example, Mador (2000) concluded that the business environment is a multidimensional construct including: complexity, dynamism and uncertainty. As aforementioned, entrepreneurs are uncertainty and ambiguity bearing individuals (Schwenk, 1988). In the next subparagraph the model of SDM will be described, including its variables.

### 3.1.1 Model of Strategic Decision-Making

As mentioned above, the model of SDM comprises of three variables: the entrepreneur or decision-maker, the decision environment and the SDM process, which are in constant interaction with each other, as depicted in figure 2. This model of SDM is comparable to the integrative model of Papadakis et al. (1998), who concluded that contextual factors (environment), decision-specific characteristics (SDM process) and top management (entrepreneurs), are continually interlinked.

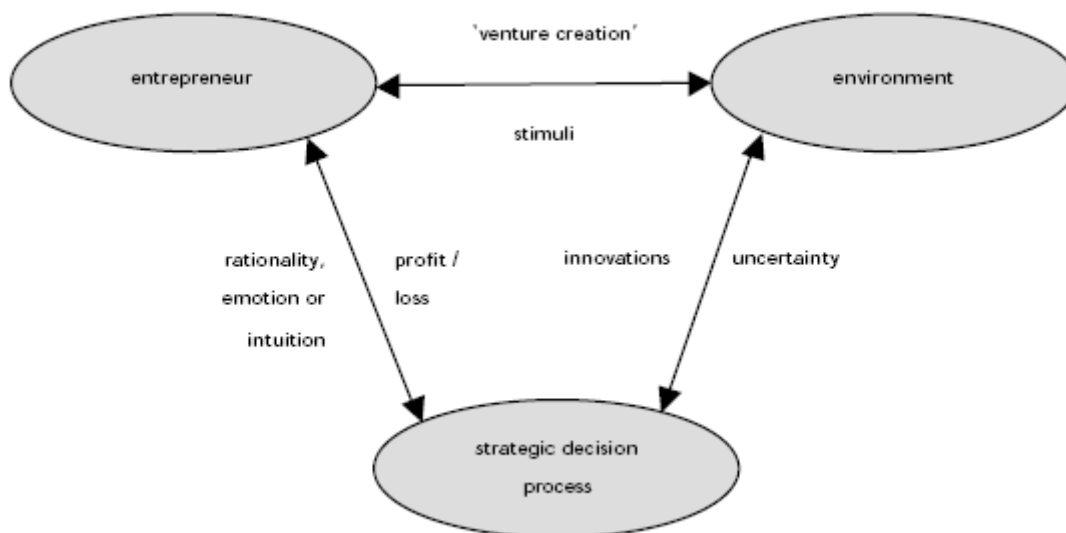


Figure 2: The Model of SDM

Based on: Ivanova and Gibcus (2003)

As can be seen in figure 2: there are three bilateral relationships between the variables. The entrepreneur influences the SDM process by adopting rational, emotional and intuitive decisions. The SDM process affects the entrepreneur by bringing profit or loss to the enterprise. The entrepreneur influences the environment by creating new ventures and making other strategic decisions. The environment affects the entrepreneur by providing stimuli, acting as driving forces to make entrepreneurial strategic decisions. Finally, the SDM process creates growth by introducing innovative

methods. The environment, which is turbulent, brings the possibility of a negative outcome by bringing uncertainty. Now it is known how these variables are interlinked, the next sections explain the variables in more detail.

### 3.1.1.1 The Entrepreneur

The strategic decision to create a new venture depends on two factors: the environment (subparagraph 3.1.1.2) and the entrepreneur (Ivanova & Gibcus, 2003). As mentioned in chapter two, the entrepreneur has to be innovative and bears a certain risk, due to its imperfect knowledge about critical factors of industry development. In doing so, an entrepreneur only decides to create a new venture when its cognitive ability to evaluate the situation is high, its intuition to code and access the relevance of an outcome is ready, its tolerance for risk is high and its propensity to act is strong (Eisenhardt & Zbaracki, 1992; Wally & Baum, 1994). Besides this creative role, the entrepreneur is an economic agent who undertakes entrepreneurial events (Schwenk, 1984) and who has several other roles, as the six historical contributors already concluded in chapter two. As mentioned in chapter 2, those historical contributors to the field of entrepreneurship described the entrepreneur as a coordinator, an arbitrageur, an *innovator* and an uncertainty bearer. Those roles influence the SDM process both positive (profit) or negative (loss), as depicted in figure 3.

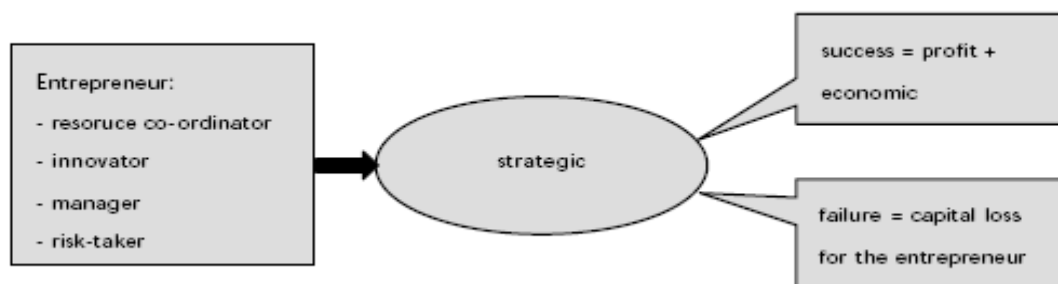


Figure 3: The entrepreneurial roles with its impact on the strategic decision-making process

Based on: Ivanova and Gibcus (2003)

The second part of the SDM model is the environment, which is the other important factor in establishing a new venture. This part will be described in the next subparagraph.

### 3.1.1.2 The Environment

Besides the entrepreneur as a factor of new venture creation, the decision-maker needs to have an accurate understanding of the decision environment. Without knowledge about the environment, it is impossible for decision-makers to choose among alternatives because they do not have access to probable consequences (Mintzberg et al. 1976). Knowledge is required about different forces acting in

the environment, such as competitors, buyers, suppliers and the government. The availability of alternatives, preferences, values and the degree of collected information about those factors is defined as the decision environment (Vermeulen & Curşeu, 2008). The most favored decision environment includes every possible alternative and all accurate information available. However, due to time and effort constraints, alternatives and information are always limited (Schwenk, 1984).

Nowadays, decision environments face unstable business environments, due to rapid changing factors such as dynamism (Papadakis et al. 1998). Therefore, entrepreneurs strive for satisfying alternatives instead of choosing optimal alternatives, due to the impossibility to possess all information needed (Mintzberg et al. 1976).

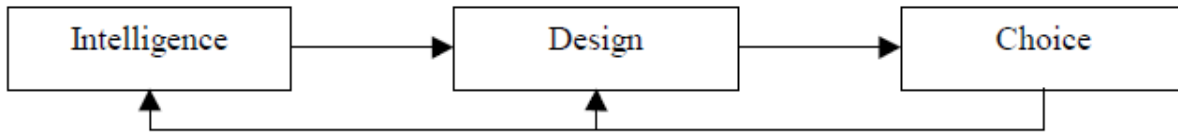
To overcome uncertainty in turbulent/unstable environments, entrepreneurs use cognitive heuristics or simplifying mechanisms to face multiple problems (Busenitz & Barney, 1997). In doing so, entrepreneurs use short-cuts and planning to simplify complex problems (Vermeulen & Curşeu, 2008). The use of short-cuts minimizes entrepreneurs' cognitive effort, by means of simplification mechanisms. In addition, collecting all possible information is too expensive. Therefore, entrepreneurs simplify decisions to reduce costs for collecting information.

Planning is more likely in stable environments than unstable environments, due to its positive relationship with firm performance, rather than a negative relationship in turbulent environments.

From the aforementioned can be concluded that the decision environment is another important part of the SDM model. Today's firms face unstable business environments with high levels of uncertainty. To overcome uncertainty, entrepreneurs use simplifying mechanisms. The third and last part of the SDM model is the SDM process itself, described in the next subparagraph.

### ***3.1.1.3 The Strategic Decision-Making Process***

The SDM process, characterized by complexity, novelty and open-endedness, can be conceptualized as involving three basic phases: identification, development and selection (Mintzberg et al. 1976; Mazzolini, 1981; Vermeulen & Curşeu, 2008). Those phases are similar to the work of Simon (1965) and Wally and Baum (1994), who wrote about intelligence, design and choice activities which are interlinked activities involved in the SDM process. As can be seen in figure 4, Simon (1965) constructed a trichotomy where he made a distinction between three phases in the strategic decision-making process: intelligence, design and choice (Dillon, 1998). In doing so, each phase could be a SDM process itself: finding an event which calls for a decision refers to the intelligence phase, the development of alternatives refers to the design phase and the choice phase refers to the selection of a particular course of action (Simon, 1965; Deitz, 1995).



*Figure 4: Simon's (1965) Trichotomy of the Decision Process  
Based on: Dillon (1998)*

According to Pool (1990), a lot of previous research is based on the trichotomy of Simon when addressing the concept of strategic decision-making. However, those phases were unstructured and grew more complex, until the SDM process model of Mintzberg et al. (1976) was introduced. They tried to identify a logical underlying structure between strategic decisions, by means of the characterization of these decisions by novelty, open-endedness and complexity (Mintzberg et al. 1976; Deitz, 1995). In doing so, Mintzberg et al. (1976) tried to turn this development of unstructured SDM process phases which grew more complex. They took the trichotomy of Simon (1965) as their basis, and defined and expanded that model with 12 basic elements of strategic decision-making. The decision process, Mintzberg et al. (1976) talk about, refers to dynamic factors and a set of actions, where a stimulus is identified before there is any commitment with the initial action. Because the descriptive model of Mintzberg et al. (1976) can be seen as a successor of and is very similar to the trichotomy model of phases of Simon (1965), the former model is chosen within this research (Deitz, 1995).

Furthermore, the model of Mintzberg et al. (1976), depicted in figure 5, is useful and therefore chosen, because: it is the most referenced SDM model in the SDM literature, it is taken as the basis for other SDM process models and it represents the three basic phases of SDM interlinked by sets of routines intended as relationships, as a successor of the trichotomy of Simon (1965) and model of phases of Glueck (1976), although they are very similar (Mazzolini, 1981; Dutton et al. 1983; Schwenk, 1984; Wally & Baum, 1994; Deitz, 1995; Vermeulen & Curşeu, 2008).

### ***Identification***

The first phase in the SDM process is identification, which comprises two routines: decision recognition and diagnosis (Lyles & Mitroff, 1980; Schwenk & Thomas, 1983).

### **Decisions Recognition Routine**

Decision-makers observe the occurrence of weak signals in their environment, by means of single or multiple stimuli. The need to make a decision arises when difference exist between expected standards and goals, and certain actual situations (Nutt, 1998). Recognition depends on the available time entrepreneurs have to make a decision, and the way decision-makers gather and process information (Schwenk, 1984).

### **Diagnosis Routine**

Decision-makers determine who and what will be involved in the decision-making process (Vermeulen & Curşeu, 2008). Necessary and accurate information has to be gathered by existing information channels and founding new information channels (Wally & Baum, 1994).

### **Development**

The second phase includes the development of one or more solutions to a crisis, problem or the amplification of an opportunity. It therefore forms the heart of the SDM process. This phase comprises two routines: search and design (Mazzolini, 1981).

#### ***Search Routine***

During this routine, decision-makers try to find ready-made solutions, by means of a set of pre-established criteria (Mazzolini, 1981). In doing so, decision-makers may scan the organizations' memory (memory search), they may wait for alternatives (passive search), they may use search generators to produce alternatives (trap search) or they may seek for alternatives directly (active search) (Mintzberg et al. 1976; Schwenk, 1984).

#### ***Design Routine***

If there are too many ready-made solutions, decision-makers narrow down this amount by engaging in activities where available alternatives are modified or custom-made. Due to the time consuming process of selecting only one alternative from the amount of ready-made solutions and because organizations often do not want to spend more resources on one alternative, only a single alternative is typically designed (Schwenk, 1984; Vermeulen & Curşeu, 2008).

### **Selection**

The last phase of the SDM process consist of three routines: screening, the evaluation of choices and authorization (Schwenk, 1984).

#### ***Screen Routine***

Decision-makers screen the large amount of ready-made solutions to reduce this amount to only a few feasible solutions. In doing so, decision-makers make use of earlier selected information (Mazzolini, 1981).

#### ***Evaluation-Choice Routine***

During this routine, decision-makers investigate the obtained feasible solutions and choose only one alternative by means of three choice modes: judgment, bargaining and analysis (Mintzberg et al. 1976). Judgment is defined as making a choice in the decision-makers own mind which cannot or can be explained. The choice to select an alternative made by a group of decision-makers, which have conflicting goals, refers to the bargaining mode. The analysis mode refers to the managerial choice of an alternative by judgment or bargaining. Judgment is the most favored mode, because it is fast, less



stressful and the most convenient one (Vermeulen & Curşeu, 2008).

The evaluation-choice routine gets distorted by time constraints and incomplete information.

Therefore, decision-makers first consider and develop a single alternative before other alternatives are taken into account (Mintzberg et al. 1976; Mazzolini, 1981).

### **Authorization Routine**

This is the final step in the selection phase. This routine is of major importance for the organization, due to the lack of in-depth knowledge of authorizers, time and energy constraints and outside political forces (Wally & Baum, 1994; Nutt, 1998). Apparently, individuals who make the final decision to choose an alternative, do not have the authority to give the organization a course of action. Therefore, the final decision has to be approved by the top management (Mintzberg et al. 1976; Mazzolini, 1981).

As mentioned above, the model of Mintzberg et al. (1976) is useful, because: it is the most referenced SDM model in the SDM literature, it is taken as the basis for other SDM process models and it represents the three basic phases of SDM interlinked by sets of routines intended as relationships, better than the trichotomy of Simon (1965), although they are very similar.

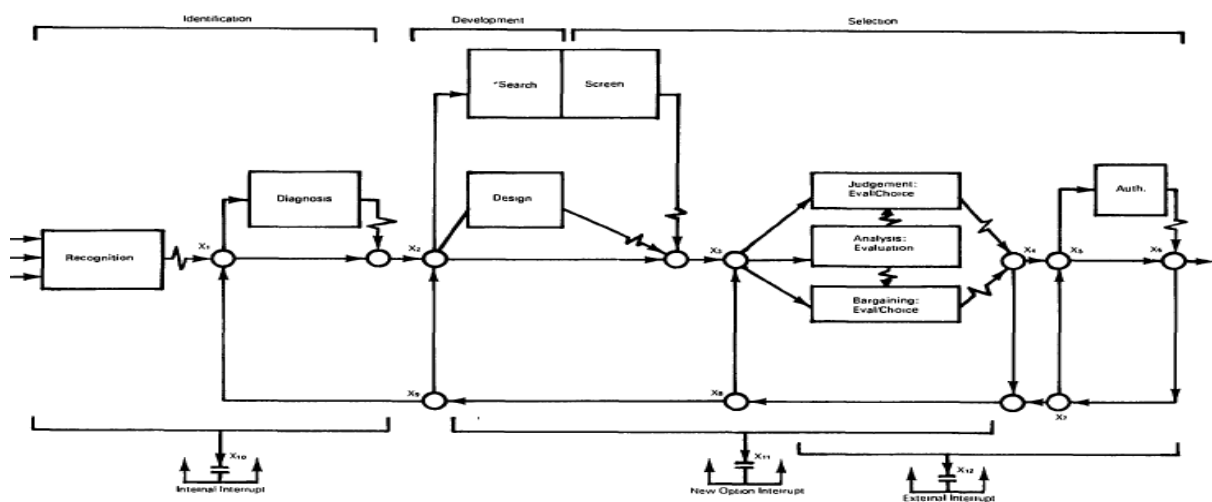


Figure 5: Model of the SDM Process

Based on: Mintzberg et al. (1976)

In short: the line in the center of the model shows the recognition and evaluation-choice routines. Those are of major importance in the model. The model starts with the identification phase (including the recognition and diagnosis routines), continues with the development phase (including the search and design routines) and ends with the selection phase (including the screen, selection-choice and authorized routines). X10, X11 and X12 show three different interruptions in the model: internal, external and new option interruptions. Internal interruptions comprises a disagreement in the need to make a decision, external interruptions comprises of outside forces that obstruct the selection of a full-developed alternative and new option interruptions which leads the process back to the elaboration,

design or selection of an alternative. Finally, the model shows broken lines, indicating inherent delays in making decisions, such as time delays or failures.

Now it is known what strategic decisions are and which important variables, with their underlying relationships, are involved in making strategic decisions, the next question comprises how decision-makers actually make their decisions and in which ways they differ from each other. Therefore, the next paragraph describes differences between entrepreneurs and managers in making strategic decisions.

### ***3.2 Entrepreneurs vs. Managers***

Managers and entrepreneurs are both decision-makers in the upper hierarchy of an organization and thereby involved in making uncertain complex strategic decisions (Busenitz & Barney, 1997). However, the way they make decisions are different. As aforementioned, entrepreneurs are unable to make fully rational decisions, because they face uncertainty and are risk seeking when making decisions, while managers are mainly risk averse and less uncertainty bearing. Though, those contradictions are not the only way entrepreneurs differ from managers in making strategic decisions. The way decision-makers are motivated to maintain, energize and initiate goal-directed behavior (entrepreneurial motivation) and the way decision-makers simplify complex and uncertain decisions (cognitive heuristics), are other important differences between managers and entrepreneurs. Due to these differences between entrepreneurs and managers, while they are both decision-makers in the upper hierarchy of an organization, those types of decision-makers will be compared in this paragraph. Once again, differences in entrepreneurial motivation (3.2.1) and cognitive heuristics (3.2.2) will be described in this paragraph.

#### ***3.2.1 Entrepreneurial Motivation***

First, entrepreneurs differ from managers in their motivation to achieve a goal or to make strategic decisions. In doing so, entrepreneurial motivation starts with entrepreneurial action.

Entrepreneurial action is influenced by the combination or integration of cognition and motivation (Shane et al. 2003; Collins, Hanges & Locke, 2004). Cognitive factors, such as knowledge, skills and abilities (KSA), enables the entrepreneur to develop a vision, which refers to the basic idea of how to exploit an opportunity (Shane et al. 2003), regarding the economic success of an organization.

Entrepreneurial motivation, referring to the factors by which goal-directed behavior is maintained, energized and initiated (Vermeulen & Curşeu, 2008), facilitates entrepreneurs to acquire those cognitive factors in the first place.

There are three motivational factors which distinguish entrepreneurs from managers (Begley & Boyd, 1987; Shane et al. 2003; Vermeulen & Curşeu, 2008).

The first factor is entrepreneurial self-efficacy (ESE), which refers to a set of individual beliefs towards individual capabilities, to use and mobilize motivational and cognitive resources that give those individuals the feeling that they can control different life events (Begley & Boyd, 1987). From the aforementioned can be concluded that individuals with a high ESE will become entrepreneurs, while individuals with a low ESE try to avoid becoming an entrepreneur (Shane et al. 2003; Vermeulen & Curşeu, 2008).

The second factor is cognitive motivation. Individuals high in need for cognition tend to acquire, seek, think about and reflect on relevant information to reduce uncertainty when trying to solve cognitive tasks, while individuals low in need for cognition rely on social comparison, external expertise and

cognitive heuristics (Collins, Hanges & Locke, 2004). Notwithstanding the need for specific knowledge, entrepreneurs have a lower need for cognition compared to managers, because they rely more on cognitive heuristics (Manimala, 1992; Busenitz & Barney, 1997).

The last motivational factor is tolerance for ambiguity (TA), referring to ambiguous situations that are considered as attractive instead of threatening (Begley & Boyd, 1987; Shane et al. 2003). Because entrepreneurs do face more uncertainty in their decision environment and are more successful in operating with incomplete information compared do managers that face less uncertainty, when making decisions, entrepreneurs score relatively high in TA compared to managers (Shane et al. 2003; Vermeulen & Curşeu, 2008).

### ***3.2.2 Cognitive Heuristics***

The second distinction between entrepreneurs and managers can be made based on cognitive heuristics. Entrepreneurs are unable to make purely rational decisions, while managers often do, due to high costs and the impossibility to possess all necessary information. In particular, by the time all the necessary information is collected to make a more rational decision, the window of opportunities for entrepreneurs would often be gone (Busenitz & Barney, 1997). Therefore, heuristics, often called short-cuts or simplifying mechanisms, are used more frequently by entrepreneurs than do managers, to influence the information processing abilities in uncertain, complex decisional situations (Vermeulen & Curşeu, 2008). Furthermore, heuristics positively cause the relationship between entrepreneurial innovativeness and the minimum requirements of starting a business with some degree of success (Manimala, 1992).

Due to its importance and the possibility to distinguish entrepreneurs from managers in making strategic decisions, previous literature paid large attention to two heuristics: overconfidence and representativeness (Busenitz & Barney, 1997; Vermeulen & Curşeu, 2008).

Overconfidence refers to an individuals' overly optimistic assessment of situations, its own capabilities, skills and knowledge (Tversky et al. 1982). Entrepreneurs are more overconfident than managers, due to the absence of historical performance patterns or other decision-making tools, which are available to managers. Thereby entrepreneurs often try to forecast missing pieces or interpret threatening signals as perfect that are based on imperfect information.

Representativeness refers to the decision-makers' willingness to generalize about phenomena or persons based on only a few attributes or observations (Tversky et al. 1982). This representativeness is mainly based on a decision-makers willingness to generalize from small non-random samples, especially by personal experience. Entrepreneurs rely more on non-random samples than do managers, in doing so, managers are able to make more rational decisions, than do entrepreneurs.

Once again, entrepreneurs differ from managers in their decision-making behavior. Differences in decision-making are based on differences in entrepreneurial motivation and cognitive heuristics. Table

2 provides a clear overview of the differences between entrepreneurs and managers. As can be seen, managers are only higher in cognitive motivation, because entrepreneurs rely more on heuristics.

		<b>Entrepreneurs</b>	<b>Managers</b>
<b>Entrepreneurial Motivation</b>	ESE	High	Low
	Cognitive Motivation	Low	High
	TA	High	Low
<b>Cognitive Heuristics</b>	Overconfidence	More	Less
	Representativeness	More	Less

*Table 2: Differences between decision-makers*

As aforementioned, strategic decisions are cognitive processes where actions and decisions in complex and uncertain environments are made, affecting the health and survival of organizations. Examples of strategic decisions managers and entrepreneurs make, involve decisions about diversification, restructuring and corporate divestiture (Berry, 2010). Corporate divestiture refers to the removal and sale of assets, divisions, product lines, facilities, subsidiaries and business units by parent companies (Moschieri & Mair, 2008).

From now on, there will be focused on the decision of managers to divest units and the decision of entrepreneurs to continue with divested units, because this strategic decision forms the major emphasis of this research. The next paragraph describes this strategic decision to divest and the associated exit mechanisms.

### ***3.3 Corporate Divestiture***

Firms mainly divest because they want to focus on their core businesses again, to increase firm performance (Slovin et al. 1995; Chen & Guo, 2005; Moschieri & Mair, 2008; Berry, 2010). For example, managers could decide to invest in opportunities in other markets (geographical or product), which improve firm resources. Thereby, core product market opportunities will be successfully exploited by divesting peripheral activities, which allow managers to pay more attention to their core product market activities (Berry, 2010). Additionally, firms divest due to poor firm performance, firms' highly unrelated diversification, high debt and growth opportunities which provides an efficient use of resources (Moschieri & Mair, 2008). In addition, managers do not want to divest because of information asymmetries (Chen & Guo, 2005). Divestments occur frequently in highly concentrated industries, industries characterized by a high R&D intensity and profitability and where the parents'

market share is large (Moschieri & Mair, 2008). The next subparagraph explains different types of exit mechanisms, used by decision-makers.

### ***3.3.1 Exit Mechanisms***

According to Slovin et al. (1995), Nixon et al. (2000), Chen and Guo (2005) and Moschieri & Mair (2008), there are three possible exit mechanisms to divest business units: asset sell-offs, spin-offs and equity carve-outs. Asset sell-offs refer to direct unit sales to a third party by private negotiations, thereby transferring control to the other firm and raising cash. Spin-offs refer to the distribution of unit shares to existing shareholders, without external financing. Equity carve-outs refer to the public sale of unseasoned equity claims, where the parent company retains controlling interest in the subsidiary. Nixon et al. (2000) conclude that sell-offs are more frequently used by firms with high financial debt, a lower percentage of ownership, weaker financial performance and more business segments. Additionally, Chen and Guo (2005) conclude that firms with a high revenue growth, more diversification, high book-to-market ratio and high information asymmetry divest by asset sell-offs. Firms mainly spin-off units when the value of the unit divested is high, when the firm has only a few board of directors and when board chair and offices of CEO are separated (Nixon et al. 2000). Furthermore, firms with a low revenue growth, high leverage, more diversification and high dividend yield divest by spin-offs (Chen & Guo, 2005). Finally, firms that have a high need for external financing, firms with a poor operating performance, high financial leverage, higher revenue growth, more diversification, high dividend yield and low cash flows divest by means of equity carve-outs (Chen & Guo, 2005; Moschieri & Mair, 2008). Those conclusions indicate that the probability of a sell-off is higher in large organizations, in organizations that have a greater need for cash and in organizations that have a large board of directors. However, the probability of a spin-off is higher in organizations with a higher operating performance margin and by firms with a higher managerial ownership (Nixon et al. 2000). Asset sell-offs and spin-offs are the most frequently used exit mechanisms, and so, equity carve-outs are used less frequently (Slovin et al. 1995; Moschieri & Mair, 2008).

### **3.4 Conclusion**

Personal and company related decisions are made by individuals every day. Similarly, strategic decisions, referring to the goal-directed cognitive process where the importance of planned actions or nonprogrammable decisions in uncertain and complex environments, affect the health and survival of an organization where the future is unpredictable. Furthermore, it involves the commitment of substantial organizational resources in order to accomplish organizational goals.

This process of strategic decision-making (SDM) is only one part of the mutually dependent general model of strategic decision-making developed by Ivanova and Gibcus (2003), which further consists of the variables: decision environment and the entrepreneur. The entrepreneur decides to create a venture when he/she has accurate knowledge about different forces/actors in the decision environment. Because it is impossible for entrepreneurs to possess all necessary information, they use heuristics to make strategic decisions that are based on incomplete information.

As mentioned above, the SDM process is part of the model of strategic decision-making. Initially, Simon (1965) constructed a trichotomy of phases represented in a model, consisting of three phases: intelligence, design and choice. Due to the unstructured nature of the model which grew more complex, Mintzberg et al. (1976) developed a descriptive model of SDM process. In doing so, Mintzberg et al. (1976) tried to turn this development by making a more structured model including 12 basic elements of SDM, by means of characterizing strategic decisions by open-endedness, novelty and complexity. Therefore, Mintzberg et al. (1976) developed a useful descriptive model which consists of three phases: the identification, development and selection phase. During the identification phase, decision-makers observe the occurrence of weak signals in the environment (decision recognition routine) and they decide what will be involved in the SDM process (diagnosis routine). In the development phase decision-makers try to find ready-made solutions by means of pre-established criteria (search routine), when those solutions do not exist, they engage in activities where alternatives are modified or custom-made (design routine). Finally, during the selection phase, decision-makers reduce the amount of ready-made solution (screen routine), they investigate the reduced alternatives and prepare to choose only one feasible alternative (evaluation-choice routine) and in the end choose an alternative (authorization routine).

The decision-makers who run through this SDM process are both entrepreneurs and managers. They differ in terms of their entrepreneurial motivation and use of cognitive heuristics. Entrepreneurial motivation consists of three motivational factors: entrepreneurial self-efficacy (ESE), cognitive motivation and tolerance for ambiguity (TA). It can be concluded that entrepreneurs score high on ESE and TA, while they score lower cognitive motivation, compared to managers.

Entrepreneurs do more frequently use cognitive heuristics or simplifying mechanisms to make

strategic decisions, due to their impossibility to make full rational decisions. Furthermore, entrepreneurs are more overconfident and do rely more on non-random samples than managers.

Entrepreneurs and managers both divest, because they mainly want to focus on their core businesses again, to increase firm performance. Divestments refer to the removal and sale of assets, divisions, product lines, facilities, subsidiaries and business units by parent companies. There are three possible exit mechanisms used to divest: asset sell-offs, spin-offs and equity carve-outs.

Asset sell-offs occur frequently in large organizations, in organizations that have a greater need for cash and in organizations that have a large board of directors. The occurrence of a spin-off is higher in organizations with a higher operating performance margin and by firms with a higher managerial ownership. However, equity carve-outs occur less frequently than spin-offs or sell-offs, but do occur in organizations with a poor operating performance, high debt and a high degree of diversification.



## **Chapter 4: Methodology**

### ***4.1 Research Design***

Quantitative and qualitative research are both terms used to collect and analyze data meaningfully (Saunders et al. 2009). They can be distinguished in two different ways. Quantitative data uses or generates numerical data, gathered by graphs and statistics (analysis procedures) or questionnaires (collection technique). In contrast, qualitative data uses or generates non-numerical data, gathered by categorizing data (analysis procedure) or interviews (data collection techniques). Therefore, qualitative data is mainly expressed in words, while quantitative data mainly focuses on numbers (Saunders et al. 2009). In consequence of the problem statement, less available data and twelve in-depth semi-structured interviews which provided more insights about in-house company affairs, this research is qualitative. Furthermore, data is gathered by way of a mono-method collection technique and transcripts are used to analyze the semi-structured interviews.

There are several reasons why the use of interviews is a better data collection technique than is the use of questionnaires. A questionnaire consists of a lot of ‘bare’ questions where the provider only gets answers on these questions, while an interviewer is able to know more about the topic by asking questions alongside of the pre-determined list of questions. Besides, an interview provides the opportunity for an interviewer to know more about behavior and strategic decision-making, due to the importance of participants’ body language, feelings and emotions, which are not observable when using a questionnaire.

During the interviews, participants provided confidential information for the following reason: the interviewer created a confidential relationship with the participant. In doing so, the interviewer guaranteed a participants’ anonymity, guaranteed the participant to provide a copy of the transcript before using it for the results part of the thesis and was well-informed about the topic in advance. Therefore, the interviews were in-depth and the participant tends to provide confidential information.

The interviews are non-standardized, and therefore called: qualitative research interviews, which are semi-structured (Saunders et al. 2009). Those ‘face-to-face’ interviews are characterized by open-ended questions (Appendix B), which may vary from interview to interview, due to differences between organizational contexts. Furthermore, all interviews will be audio-recorded and notes will be made, because it enables the possibility to analyze interviews better.

The interviews are not structured, because: questions are not exactly read out as preliminary written and structured interviews are referred to as quantitative research interviews, while this research comprises qualitative research interviews. Additionally, the interviews are not unstructured, because: there is a predetermined list of questions, which are not exactly read out as preliminary written, and

the interviews are directive, instead of non-directive. Finally, semi-structured interviews are used, because it is in relation with the exploratory nature of this research (Saunders et al. 2009).

## 4.2 Sample

Philips and NXP Semiconductors are both large companies, chosen to investigate why different managers make strategic decisions to divest units and why there are entrepreneurs who continue with those divested units. Philips is a large company which divested a lot of business units in the past decades, including NXP semiconductors. Philips had a 19,9% stake in NXP, until September 7<sup>th</sup> 2010, when Philips sold their entire stake to a British pension fund (subparagraph 6.3). NXP is a chip manufacturing listed company, owned by KKR. NXP Semiconductors is chosen because it was divested from Philips. Philips and NXP Semiconductors are the main companies for this research and are used to gather information from managers, to be exact why they decided to strategically divest (business) units. Three responsible managers within Philips and three responsible managers within NXP were interviewed. Furthermore, entrepreneurs from FEI, VDL and Whirlpool were asked why they continued with the divested (business) units of Philips, and entrepreneurs from Virage Logic, ST-Ericsson and Trident Microsystems were asked why they continued with divested (business) units form NXP. Table 3 provides an overview of the sample:

	Philips	NXP Semiconductors
<b>Managers</b>	Philips 1 Philips 2 Philips 3	NXP 1 NXP 2 NXP 3
<b>Entrepreneurs</b>	FEI VDL Whirlpool	Virage Logic Trident Microsystems ST-Ericsson

Table 3: Sample Overview

## 4.3 Analyzing Interviews

As aforementioned, semi-structured interviews are audio-recorded and subsequently produced as a written account by using actual words, so called: transcribing the interviews (Saunders et al. 2009). Besides the time consuming procedure of transcribing the data, spontaneity is also important, referring to the participants' non-verbal communications (Saunders et al. 2009). The transcript will be send back to the participant, who erases data or corrects grammar and language errors, to make sure that the

transcript is accurate. This process of erasing and correcting errors is called: cleaning data (Saunders et al. 2009). Afterwards, factual accuracy is ensured by sending the final copy of the written interview to the participant, who checks the document for the last time.

Once non-standardized data is cleaned, it needs to be grouped (categorized), condensed (summarized) and restructured (unitizing) to support a meaningful analysis (Saunders et al. 2009). All three types of qualitative analysis processing are used in combination, due to a better represent the data.

First, important findings are emphasized and marked bold in the transcripts, because it provides the researcher a better overview of the most important results gathered during interviews. This is called summarizing the key points emerged from interviews.

Second, results are coded and derived into the categories managers or entrepreneurs, due to the possibility to generalize results. Managers divest (business) units in 4 ways: receiving the highest bid, develop strategic value, divest to a related firm and closure of (business) unit. Furthermore, there are 5 reasons why managers decide to divest a (business) unit: the firm needs cash, there strategy is to focus on the core business again, the (business) unit only generates loss, the firm is over diversified and they divest units by means of heuristics. Table 4 (see Appendix C) represents the coding table for managers. Entrepreneurs have several reasons why to continue with divested (business) units from Philips or NXP: they want a better focus on their strategy, they want to strengthen their market position, the entire organization has to grow, a greater geographical distribution or distribution of risk and they decide to continue with a (business) unit by means of heuristics. Furthermore, entrepreneurs continue with (business) units that are divested by means of: asset sell-offs, spin-offs or equity carve-outs. Table 5 (see Appendix C) represents the coding table for entrepreneurs.

Third, the coded data from the matrices will be unitized. Unitizing coded data refers to using codes in the research (Saunders et al. 2009).

#### ***4.4 Reliability and Validity of Research Findings***

According to Saunders et al. (2009), reliability refers to “the extent to which your data collection techniques or analysis procedures will yield consistent findings”. Participant bias is minimized, because managers and entrepreneurs high in hierarchy of an organization were interviewed. Due to their position, they are accountable for their own words and explanations. Observer error is minimized, because there was only one interviewer conducting all twelve interviews, asking questions with the same goal, according to the same direction. Therefore, observer bias is also minimized, because there was just one way of interpreting results. However, participant error could not be minimized, due to the impossibility to arrange interviews, with both managers and entrepreneurs, at preferred times. Those persons were busy and had a full schedule. Therefore, the researcher was unable to reduce participant error. This threat could be minimized by arranging all interviews at the

beginning or at the end of the working week. According to the minimization of three threats to reliability, this research is more than adequate reliable and will therefore yield consistent findings.

According to Saunders et al. (2009), validity means: do you really measure what you want to measure?

The testing threat to validity is minimized, due to the creation of a confidential relationship with the participant, by guaranteeing a participants' anonymity, providing a copy of the transcript before using it and an interviewers' well-informed presentation. The maturation threat to validity is minimized by interviewing all participants after the complete divestment of NXP Semiconductors from Philips. At September 7<sup>th</sup> 2010, Philips divested their last 19,9% stake in NXP. Therefore, Philips is not involved in NXP anymore. Because participants were all interviewed after this entire divestment, instead of a part before the divestment and the other part after the divestment, the maturation threat to validity is minimized.

The previous threats to validity tested the internal validity of this research. Now the external validity or generalizability of the research will be tested. Due to the relatively small number of self-selected interviews in this research, the use of a single case study, the use of a non-probability sample and the significance of this research towards explained theory, results are generalizable (Saunders et al. 2009). Due to the minimization of the internal threats to validity and possibility to generalize results, the research is valid.

## Chapter 5: Results

Managers differ from entrepreneurs in their strategic decision-making behavior, as described in the literature review. In order to compare managers with entrepreneurs, twelve semi-structured interviews were conducted. A well considered research sample, consisting of six managers and six entrepreneurs, was interviewed and provided the input for this results chapter. Those accountable managers, three within Philips and three within NXP, were asked whether they decided to divest a particular (business) unit or not. The other category of the research sample consists of six entrepreneurs who decided to continue strategically with a particular divested (business) unit of Philips (three entrepreneurs) and NXP (three entrepreneurs).

This chapter will be divided in two major parts: a managerial part and an entrepreneurial part. The managerial part describes when managers decide to divest particular business units strategically. Unlike the divestment of businesses, the entrepreneurial part describes whether entrepreneurs decide to continue strategically with particular business units or not.

### ***5.1 Managers' Cognitive Motivation***

Managers are high in need for cognition and therefore tend to acquire, seek, think about and reflect on relevant information to reduce uncertainty (Collins, Hanges & Locke, 2004). In doing so, managers are able to use complete information in making rational well considered decisions. This paragraph describes managerial reasons for divesting a particular (business) unit.

#### ***5.1.1 Firm Needs Cash***

The first reason for managers to divest a particular unit is the need for money. There are several examples why firms need cash, like: to expand their organization. Therefore cash is needed to: integrate a newly acquired business, to finance a transaction, to hire new employees, to pay dividend to its shareholders or to reserve an amount of money within their organization. In doing so, a particular business unit is sold-off to the highest bidder to receive the highest amount of money.

*At a certain point, permission was given to sell-off the entire White Goods division. This is really what you say: selling silverware, due to the importance of our White Goods division at that time. Initially, my opinion was to sell-off Philips White Goods only when strategic value can be developed. However, the corresponding manager argued that Philips needed money and had to sell the cash-cow division Philips White Goods, to receive the highest amount of money. By doing so, the development of strategic value was of secondary importance.*

According to the aforesaid, the particular unit is sold-off to the highest bidder, mainly a direct competitor, when cash is needed. However, it is not always common to sell-off a unit to the highest bidder. Instead, the divesting firm may also want to develop strategic value by divesting the unit to a

third party, so that the sold-off unit could be threatening for a direct competitor. Therefore the divesting firm neither divests to a direct competitor, nor to the highest bidder. Strategic value has to be developed once the divested unit includes: the presence of important underlying technologies, which could be threatening for the divesting firm by means of competitive position, opportunities or development time. In other words: if negative consequences arise, if a direct competitor competes with the divesting firm by means of underlying technologies implemented by the divesting firm, it should develop strategic value by selling it to a third party firm.

*It must be strategically useful to keep a particular business, otherwise this business have to be divested. In doing so, shareholders appreciate a high amount of money, generated by the particular sell-off. However, as negative consequences for the future arise, as a result of this specific divestment, our firm must divest the particular unit to a third party firm to develop strategic value.*

By divesting a unit to a third party firm, managers accept a lower amount of money and ensure to avoid any negative consequences, which arise from products containing underlying technologies implemented by them. Besides the need for money, managers also divest units because their firm wants to focus on their core business again. This second reason will be described in the next subparagraph.

### **5.1.2 Core Business Focus**

It is of major importance that firm activities (e.g. businesses it operates in) are in accordance with the strategy a firm implements. When particular units represent activities that are not in accordance with a firms' strategy, decision-makers decide to divest those activities. Receiving a high amount of money by selling them to the highest bidder is a major way to strategically divest, because a firm decides to step out of the business it operates in and it therefore does not matter to whom it will be divested.

*From the moment our firm became independent, we wanted to shape our organization by divesting units that did not fit our HPMS Strategy. In doing so, units like 'Mobile and Personal' and our 'Home Division' were strategically divested because we did not want to operate in those businesses anymore, and it therefore does not matter to whom it will be divested.*

In addition to the aforesaid decision to sell-off a unit to the highest bidder, divestments accompanied by the development of strategic value, is another major reason to divest.

*Businesses that are not in accordance with our strategy should be divested to a third party firm, which normally pay a reduced amount of money, but do not compete in our target*

*markets. By doing so, our direct competitors are unable to compete with our divested units, including underlying technologies implemented by our firm.*

Besides the previously discussed major divestment decisions, non-core businesses are divested to related firms, which have a specific strategic connection with the particular divested business. The loss generating character of particular activities is another reason for managers to divest. This will be pointed out in the next subparagraph.

### **5.1.3 Loss Generating Businesses**

Business units that only generate loss, influence the entire annual report of an organization in a negative way.

*If every business generates positive revenues independently, with the exception of one loss generating unit, this weak spot depresses the comprehensive revenues of the entire firm. Consequently, this unit has to be divested because it negatively influences our firm which is a profit generating.*

It is therefore not a surprise that some companies want to get rid of those ‘weak spots’. Due to their loss generating character, neither any company wants to pay a large amount of money, nor any possibility exist for the divesting firm to develop strategic value by means of opportunities, competitive position or development time.

*In accordance with our firm growth strategy: every loss generating unit or weak spot, which is not profitable within 4 years, will be divested. By doing so, our firm will be healthy in the future again.*

According to the aforementioned, loss generating businesses will be divested to related firms that are able to add value to the particular unit, because of their narrow business focus. Besides the divestment to a related firm, loss generating businesses will be closed, because large amounts of money gushed out of the firm. Whether, despite of large investments, money still gushes out of the firm, particular businesses are not interesting to divest anymore and should be closed.

*Our firm operated in unfavorable markets where large investments in particular businesses are in vain. Despite those large investments, large amounts of money still gushed out of the firm and as a result: we closed those businesses. By doing so, our firm focused on the HPMS strategy again.*

Business units that only incur expenses and yield nothing, negatively influence the entire firm. Therefore particular firms close these businesses. In addition to the divestment or closure of loss

generating businesses, managers also divest a unit because their firm is over diversified. This decision will be described in the next section.

#### **5.1.4 Over Diversified Firms**

Firms need to have a lot of management talent to control a widely diversified firm. The more diversified a company is, the more it detracts from the present management talent. In other words: the amount of management talent reduces, when a company is over diversified. Due to this over diversified character, managers divest particularly cyclic activities, by which they become less vulnerable.

*At some point, we wanted to reduce our cyclic activities, where NXP was our biggest one. Therefore we divested NXP to a Venture Capitalist, by which Philips became less dependent from NXP. Subsequently, we had to divest NXP immediately, instead of considering it as a profit generating unit in the first place.*

In addition to become less vulnerable, managers generally divest cyclic activities because: their firm wants to become less volatile, their level of business specific knowledge is too scanty or the activity does not belong to the core business of their firm. Particular managers argued that their firm was over diversified, whereby cyclic activities have to be divested to related firms that regard this type of business as their core business.

*Due to the over diversified character of our firm, we were too broadly orientated and often vertical integrated. We even made cardboards and toilet seats by ourselves. This had led us to divest businesses that were not considered as our core business activities. By doing so, our firm became less dependent and volatile.*

As mentioned above, managers divest particular businesses to become less volatile and dependent. By doing so, these managers reduce their firms' over diversified character. The last reason for a manager to divest a unit is based on heuristics (e.g. feelings or emotions). This final reason will be described in the next subparagraph.

#### **5.1.5 Managerial Cognitive Heuristics**

As mentioned in chapter 3, managers rely less on cognitive heuristics and are therefore able to make rational decisions, due to the possibility of considering a large amount of information and lower collection and disposal costs of information. In doing so, cognitive heuristics (e.g. intuition, overconfidence or representativeness) play a negligible role in making strategic decisions, instead, strategic decisions are generally well considered.



*Intuition concerns trust in your partner, its inconsistency or a specific department, but it only plays a negative role in making strategic decisions. Important strategic decisions are based on a solid financial analysis and a solid business case, approved by the entire management team.*

This argument is comparable to another manager, who argued that a firm needs to have a mission statement before operating in a particular market.

*A firm only operates in particular businesses once they are in accordance with the mission statement a firm implements. This is comparable to our firm. Normally, responsible managers place particular activities as a template on our mission statement. If those activities are not in accordance with the mission statement, we divest those businesses.*

A manager may feel that an activity does not fit a firm's strategy. However, this unit will only be divested when the entire management team shares this particular thought.

Besides the previously discussed managerial part, the next paragraph describes the entrepreneurial part of the conducted semi-structured interviews.

## **5.2 How Entrepreneurs Select a Particular Business**

The semi-structured interviews were conducted in a phase where entrepreneurs only had to screen and evaluate the already derived alternatives, by which the identification and development phase of the SDM process model of Mintzberg et al. (1976) have already passed. Despite the availability of already derived alternatives, entrepreneurs are unable to make fully rational strategic decisions regarding the continuation with a particular (business) unit. This paragraph describes the SDM behavior of participated entrepreneurs, in their way of continuation with a sold-off, spun-off or carved-out business.

### **5.2.1 Focus**

Entrepreneurs need to have a good focus on their strategy or mission statement, when making strategic decisions regarding the continuation with a particular business. As aforesaid, managers divest businesses that are not in accordance with their core business. In doing so, entrepreneurs continue with a particular business when their aim is to provide a better focus on their firm's strategy.

*Besides our mission to grow, we wanted to realize another goal by means of this spin-off from Philips Electro Optics. Due to this spin-off, we were able to implement our mission of providing our customers with a complete supply of products and services.*

In addition of providing customers with a complete supply of products, firms may also want to manufacture products in-house by making use of specific knowledge.

*I believe in a knowledge industry. Therefore specific knowledge is a condition and has to be permanently available in our own manufacturing faculties. In doing so, the entire management team has to search for and evaluate potential businesses, where specific knowledge is involved in the deal. In other words: our firm does not continue with potential businesses that do not possess particular in-house knowledge.*

Due to the permanent availability of knowledge in-house, this entrepreneur has already derived potential alternatives based on in-house knowledge. Therefore the screen and evaluation process concerns potential alternatives that possess knowledge and are in accordance with the implemented strategy of their firm. The second reason for continuation is strengthening a firms' market position, which will be described in the next section.

### **5.2.2 Market Position**

Entrepreneurs continue with particular businesses to strengthen their market position in several target markets. For example: entrepreneurs want to develop world coverage, by means of buying an organization that already had a world-wide network.

*Whirlpool wanted to develop a world-wide network in White goods. However, it takes a couple of years to develop a world-wide network by yourself. This is the reason why we strategically acquired Philips White goods. They are already represented in several continents and by acquiring this business, we developed world coverage.*

Other examples of strengthening the market position are: a merger between two firms to reduce the amount of market competition, acquisitions to fulfill a firms' aim to become a one billion dollar company or employee carve-outs to increase "in-house" knowledge about a particular case.

*The 150 employees carved-out from NXP to Virage Logic provided more specific knowledge to our core competences. By means of this carve-out, we wanted to expand our 'Design' domain and become a major player in this particular Design market. Besides the ambition to grow, we also increased our customer base and finally strengthened our competitive position.*

This equity carve-out includes a well considered entrepreneurial screening and evaluation process. However, as mentioned in Chapter 3, entrepreneurs are unable to make fully rational strategic decisions. Consequently, entrepreneurs have to decide quickly, because otherwise the window of opportunities for entrepreneurs would often be gone (Busenitz & Barney, 1997). Besides strengthening their market position, entrepreneurs also continue with a particular business to achieve firm growth. This will be pointed out in the next subparagraph.

### **5.2.3 Firm Growth**

A firm is unable to exist if it does not grow.

*In our world: growth is a companies' blood, while competition ensures that a company remains healthy. By doing so, firms have to compete with other players in the market by means of mergers and acquisitions. Therefore growth is of major importance in doing business.*

Firms can grow by means of, for example: knowledge, businesses, size and scope. There are two ways a firm can grow: mergers and acquisitions by buying other firms or businesses, or autonomous by utilizing in-house qualities. When firms want to become bigger, entrepreneurs screen and evaluate those firms which may increase their organization in terms of, for example, size or economies of scale.

*A firm has to grow in-depth, instead of being over diversified. Mergers and acquisitions are ways to increase in size and therefore enable a firm to develop world coverage. Our market share is high in America, but we wanted to develop world coverage. In doing so, we focused our screening and evaluating process on related firms that are largely represented in the rest of the world.*

The aforementioned assumes that mergers and acquisitions are absolute ways to achieve firm growth. However, mergers and acquisitions are also relative ways to achieve firm growth, for example: when the merged company obtained access to patents or sales channels.

*Due to the continuation with the spun-off unit 'home' from NXP, Trident Microsystems obtained access to the distribution channels and patents of NXP. Before this spin-off, we had access to only 3 patents, but due to this spin-off we obtained access to 1200 patents.*

According to the aforementioned, firm growth is of major importance in the decision to continue strategically with a particular unit. Risk distribution or geographical distribution is a fourth reason to continue with a business, described in the next subparagraph.

### **5.2.4 Geographical Distribution or Distribution of Risk**

Despite the disadvantages of managing a diversified firm (e.g. reduction of management talent, high monitoring costs or high costs for possessing a lot of knowledge), entrepreneurs consciously choose to be widely diversified. In doing so, they argue that risk can be distributed over multiple businesses, instead of only one core business.

*From the moment we were divested from Philips in 1998, there was no market structure and only one market division. In the meantime, our firm consists of 4 market divisions, by what it is more diversified and therefore provides us some distribution of risk.*

Besides the distribution of risk, being diversified provides a firm to be geographically distributed, for example: in emerging markets.

*Due to our diversified activities in the Far East, we are represented on a broader geographical level. By doing so, we exploit secondary activities in emerging market, while exploiting core activities in markets where we are mainly operating in. We therefore screen and evaluate firms which operate in emerging markets.*

Because firms are represented on a broader geographical level, they spread their risk over multiple businesses. As mentioned in the previous chapters, entrepreneurs make strategic decisions (e.g. continuation with divested businesses) by means of heuristics. The use of cognitive heuristics by entrepreneurs will be described in the last subparagraph.

### **5.2.5 Entrepreneurial Cognitive Heuristics.**

Due to the inability to possess a large amount of knowledge and high collection and disposal costs of information, entrepreneurs use cognitive heuristics to simplify complex strategic decisions. In doing so, entrepreneurs are unable to screen and evaluate every alternative in detail.

*Our firm is unable to screen and evaluate every alternative in detail, due to high additional costs of contacting every alternative until ten decimals. However, if this were the case, an unworkable situation would occur. Therefore most of the entrepreneurial firms mainly agree with any consequence.*

According to the aforementioned, entrepreneurs make decisions based on main features and do have to accept any negative consequences associated with the decision. This process of making decisions based on heuristics includes only the beginning procedure of making a decision. Afterwards, a well considered due diligence process rationally underpins those cognitive heuristics.

*Heuristics play an important role in screening possible alternatives. For example: we choose a potential investor based on feelings and intuition, because we need cash to finance a transaction. Due to those feelings, we evaluate whether this investor could add value to our organization or not. Finally, a due diligence process, which is labor intensive, underpins the initial feeling rationally.*

As can be seen, cognitive heuristics only play an important role in the beginning of the SDM process. Subsequently, a well considered due diligence process underpins this process rationally. This view differs from the managerial view, where cognitive heuristics play a negligible role in the SDM process.

### 5.3 Conclusion

From the managerial results can be concluded that managers' cognitive motivation determines how they reduce uncertainty in their effort to solve cognitive tasks (e.g. the divestment of particular business units). As mentioned in chapter 3, managers are high in need for cognition and are therefore able to acquire, seek, think about and reflect on relevant information. Managerial contributors who participated in six semi-structured interviews, provided useful information regarding why and to whom they divest particular business units. Those interviews showed that managers divest for the following reasons: the need for money, focus on the core business, a units' loss generating character and over diversification. Cognitive heuristics are considered as factors that influence these strategic decisions by means of feelings and intuitions. Furthermore, they divest units to: the highest bidder, a third party firm, a related firm or close a unit. In pursuance of the aforesaid, figure 6 provides an overview of the managerial divestment reasons and directions. From those results can be concluded that managers predominantly divest to the highest bidder or a third party firm, because they want a better focus on their core business. Because a better core business focus is by far the most common reason for a manager to divest a particular business unit, this single divestment reason is discussed here. Furthermore, diverged attention is paid among the other managerial divestment reasons.

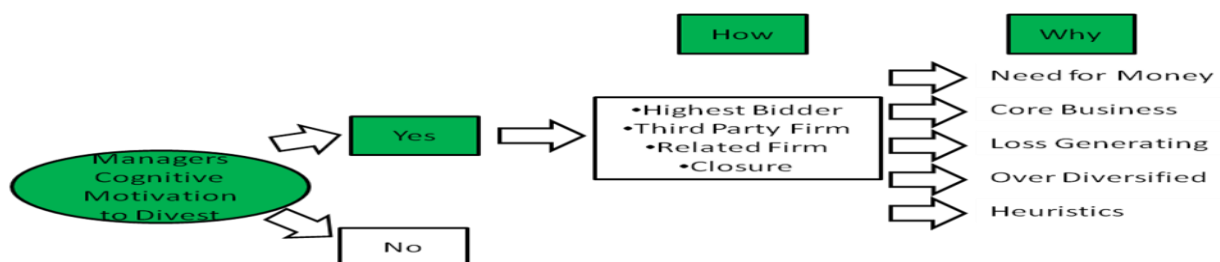


Figure 6: Managers' Divestment Reasons and Directions

Empirical results regarding entrepreneurs showed that they continue strategically with particular business units, divested from Philips and NXP Semiconductors. Mintzberg et al. (1976) elaborated to this field of research by developing a model representing three basic phases: identification, development and selection. Because entrepreneurs continue with sold-off, spun-off or carved-out units, possible alternatives have already been identified and developed. Therefore entrepreneurs are concerned with the evaluation phase of the model of Mintzberg et al. (1976), including a carefully considered screen and evaluation process. From the six conducted entrepreneurial interviews can be concluded that entrepreneurs continue strategically with a particular unit, because: they want a better strategy focus, they want to strengthen their market position, they want their firm to grow and they want to distribute geographically and distribute risk. The reliance on cognitive heuristics was not seen as a reason to continue with particular units, but only influence strategic decisions. According to the aforesaid, figure 7 provide an overview of entrepreneurs' strategic continuation with particular business units.

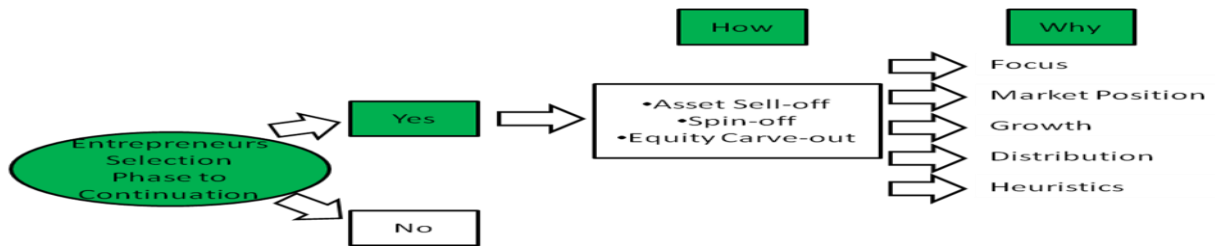


Figure 7: Entrepreneurs' Selection for Continuation

The entrepreneurial interviews showed that entrepreneurs predominantly continue with a particular business unit that is sold-off, spun-off or carved-out, to achieve firm growth or to strengthen their companies market position. Because the achievement of firm growth and strengthening a their firms market position are by far the most common reasons for entrepreneurs to continue with a particular business unit, these continuation reasons are discussed here. In addition, derived attention was paid among the other entrepreneurial continuation reasons.

## **Chapter 6: Discussion**

### ***6.1 Introduction***

The aim of this study was to answer the following problem statement: *To what extent do entrepreneurial behavior and the strategic decision-making process of entrepreneurs explain, why they continue with divested business units of Philips and NXP semiconductors?* An explorative qualitative research is performed to answer this question. In doing so, a literature review and twelve semi-structured interviews were conducted. The following paragraph describes a short theoretical overview of this study.

### ***6.2 Theoretical Background***

Historians concluded that entrepreneurial behavior contains important characteristics an entrepreneur possesses, in trying to add value to their organization. Perspectives from historical contributors regarding the concept of entrepreneurship, changed in previous decades. First, entrepreneurs were considered as risk-bearing firm leaders, operating in low competitive environments. In 1911 perspectives changed, where entrepreneurs were considered as innovative uncertainty bearing individuals, operating in more competitive environments. From 1973 until now, historical contributors concluded that entrepreneurs are arbitrageurs, who need to possess particular knowledge to discover and exploit entrepreneurial opportunities. As a result of the foregoing definition, the aim of this research was to explain entrepreneurial behavior by means of developing a conceptual framework, which is based on particular relationships pointed out in previous literature. This conceptual framework describes when innovative entrepreneurs add value to their organization, by discovering and exploiting entrepreneurial opportunities that are in accordance with a firms' strategy. Additionally, this conceptual framework provides information about why participated entrepreneurs continue with divested business units.

Next to the conceptual framework, Ivanova and Gibcus (2003) developed another model of SDM, which is based on perspectives of Mintzberg et al. (1976). Their SDM model consists of three interlinked variables (the entrepreneur, the decision environment and the SDM process) and explains that entrepreneurs need to possess particular knowledge to accurately understand their decision environment, while making strategic decisions. The aim was to explain how entrepreneurs make strategic decisions regarding the continuation with divested business units. They concluded that innovative entrepreneurs need to possess particular knowledge, to accurately understand their decision environment. However, entrepreneurs are unable to make fully rational strategic decisions and therefore rely more on cognitive heuristics, in contrary to managers which are more rational. By the time entrepreneurs have collected all the necessary information to make a more rational strategic decision; the window of opportunities would often be gone.

In consequence of the aforesaid, the aim of this study was to explore why and how managers divest particular business units. Furthermore, this study explores why and how entrepreneurs continue with divested business units. Explanations about those strategic issues were provided by twelve semi-structured interviews. In pursuance of these interviews, the opportunity arose to test the conceptual framework. The next paragraph describes the results from the empirical study.

### ***6.3 Results Empirical Study***

As mentioned above, managerial and entrepreneurial semi-structured interviews were conducted and provided useful results. Firms aim to achieve economic growth every year, but shrink in size because their managers divest business units strategically for a variety of reasons. According to the conducted managerial interviews, managers divest for the following reasons: the need for money, a better core business focus, the loss generating character of a particular unit and over diversification. Cognitive heuristics are not considered as a reason to divest, but influence strategic decisions by means of feelings and intuitions. In doing so, those participated managers divest particular units to: the highest bidder, a third party firm, a related firm or close the entire unit. Empirical results about the negligible reliance on cognitive heuristics when divesting particular units, is in accordance with previous literature. Managers decide to divest a unit strategically by way of a well considered labor expensive due diligence process, which influences a managers' cognitive motivation to divest. By doing so, the reliance on cognitive heuristics when making strategic decisions is negligible for managers.

Besides the managerial interviews, participated entrepreneurs provided useful information regarding how and why they evaluate particular business units to continue with. This empirical finding is consistent with previous literature, wherein innovative entrepreneurs screen and evaluate every developed alternative. According to Mintzberg et al. (1976), once entrepreneurs are in the evaluation phase of SDM, they screen and evaluate every identified and developed alternative. The semi-structured interviews showed that entrepreneurs evaluate particular units for the following reasons: a better strategy focus, strengthening their market position, firm growth and distribution of risk and geographical distribution. The reliance on cognitive heuristics was not seen as a reason to continue with particular businesses, but only influence strategic decisions. However, expanding an existing firm by achieving firm growth and the reliance on cognitive heuristics during the entire SDM process, as mentioned in previous literature, is different from the empirical findings. First, expanding an existing firm contradicts with previous literature, in which stated that innovative entrepreneurs focus on new venture creation. The aim of participated entrepreneurs was to expand their existing firm, instead of exploiting opportunities to create a new venture. Second, instead of relying on cognitive heuristics the entire SDM process, participant entrepreneurs have indicated that only the beginning of the SDM process involves the use of cognitive heuristics. When the time arises that a strategic decision has to be made, a labor extensive due diligence process underpins the use of cognitive heuristics rationally.



Returning to the reasons for continuation, entrepreneurs continue with units that are: sold-off, spun-off or carved-out by Philips of NXP Semiconductors.

In summary: managers predominantly divest particular businesses, because: they want to focus on their firms' core business again, by divesting particular units to the highest bidder or a third party firm. Because a better core business focus is by far the most common reason for a manager to divest a particular business unit, this single divestment reason is discussed here. The empirical results in this thesis confirmed the results distinct in the literature review.

From the entrepreneurial part can be concluded that entrepreneurs predominantly continue with particular units that are sold-off, spun-off or carved-out, to achieve firm growth or to strengthen their firms' market position. Those continuation reasons are discussed here, because they are by far the most common reasons for entrepreneurs to continue with particular business units. As mentioned above, some empirical findings among entrepreneurs differ from previous literature. In pursuance of those empirical results, managers and entrepreneurs can be recommended about what to do in the future. These recommendations or managerial implications are described in the next paragraph.

#### ***6.4 Managerial Implications***

This exploratory study allows the opportunity to provide some useful recommendations for managers and entrepreneurs.

First, empirical results showed that the achievement of firm growth, by means of mergers and acquisitions, is a more efficient way to grow for entrepreneurial firms, instead of growing autonomously, due to lower relative costs. Those relative costs are expressed in number of years required for developing a world-wide network autonomously, and its corresponding costs. Relative costs for the development of a world-wide network autonomously are higher, in contrary to a single transaction (e.g. merger or acquisition) where entrepreneurs are able to develop a world-wide network within a smaller time period. However, certain conditions are needed to achieve firm growth by means of mergers and acquisitions, like: the availability of money and a carefully considered screen and evaluation process. Entrepreneurs are able to finance a merger or acquisition, once they have access to a particular amount of money to finance the transaction. When entrepreneurs are unable to finance the merger or acquisition, they predominantly choose to grow autonomously. Furthermore, a carefully considered screen and evaluation process is required before merge with or acquires a particular unit. Entrepreneurs should ensure that the target business adds value to their organization; otherwise the particular unit is not interesting to continue with.

Second, from the semi-structured interviews can be concluded that entrepreneurs continue with particular business units that are in accordance with their firms' strategy, to achieve firm growth. In doing so, entrepreneurs aim to expand their existing firm, instead of creating a new venture. As a result of the aforesaid, entrepreneurs are advised to expand existing firms in their target markets, in

relation with their core businesses, to ensure an optimal use of the available management talent. By doing so, entrepreneurs ensure that their existing firm remains focused, instead of being over diversified, by which the amount of management talent is maintained or even increases. Therefore entrepreneurs are able to effectively manage their organization.

Third, the empirical results showed that managers are driven by their cognitive motivation in divesting particular business units. Furthermore, these managers want the highest amount of money received for their business units, without being threatened in their target markets by products or services containing underlying technologies implemented by them. However, it is unrealistic that a third party firm, instead of a direct competitor, pays the highest amount of money for a certain unit. Therefore managers divest predominantly to a direct competitor as soon as they want to receive the highest amount of money. Based on the previous part, managers are advised to sell-off the particular unit to a third party firm. In doing so, they do not compete with products or services in their target markets that contain underlying technologies implemented by themselves, but receive a lower amount of money for their divesting unit.

Finally, from the empirical results can be concluded that entrepreneurs only rely on cognitive heuristics at the beginning of the strategic continuation process. Therefore entrepreneurs are advised to rely on cognitive heuristics only at the beginning of the continuation process, instead of relying on cognitive heuristics the entire process. Cognitive heuristics only judge potential alternatives that are weighted against each other. The final decision to continue with a particular business should be based on a due diligence process that underpins the reliance on cognitive heuristics rationally. Besides useful recommendations, this study includes some limitations. These limitations will be described in the next paragraph.

### ***6.5 Limitations and Future Research***

This study contains some limitations. First, semi-structured interviews are only conducted among men, whereby cognitive heuristics affect purely managerial and entrepreneurial behavior of male participants. Women may have other feelings or intuitions towards managerial or entrepreneurial behavior (e.g. the divestment of particular business units). Therefore alongside behavioral interviews among men, future research could focus on behavioral interviews with women. By doing so, it might be impossible to generalize managerial and entrepreneurial results again.

Second, all twelve interview participants were men from at least 40 years old, which are experienced in divesting units or continue with particular units. Future research could focus on younger managers or entrepreneurs that perhaps have a different view on the divestment of or continuation with particular businesses. Those younger managers or entrepreneurs are often less experienced, in contrary to their older counterparts. Because younger managers or entrepreneurs are less experienced, their behavior is different, whereby they might make different strategic decisions.

Finally, entrepreneurs are constrained by their innovative behavior as soon as they decide to continue strategically with particular business units. Therefore they have to be innovative in making strategic decisions, by possessing a large amount of knowledge. Future research may focus on other entrepreneurial characteristics in relation to strategic decision-making, like: entrepreneurial alertness. Perhaps future research shows different entrepreneurial behavior once entrepreneurs are alert, instead of being innovative.

## Reference list

### Book and Article References

- Acs, Z.J., Szerb, L., (2007). Entrepreneurship, Economic Growth and Public Policy. *Small Business Economics*, 28:109-122.
- Acs, Z.J., Braunerhjelm, P., Audretsch, D.B. & Carlsson, B. (2009). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, 32: 15-30.
- Alsaaty, F.M. & Harris, M.H. (2009). The Innovation Event: An Insight into the Occurrence of Innovation. *The Business Review*, Cambridge, Vol. 14, Nr. 1, 292-299.
- Alvarez, S.A. & Barney, J.B. (2002). Resource-based theory and the entrepreneurial firm. In M. A. Hitt, R.D., Ireland, S.M. Camp & D.L. Sexton (Eds.), *Strategic entrepreneurship: Creating a new mindset*: 89–105. Oxford: Blackwell Publishers.
- Alvarez, S.A. & Barney, J.B. (2007). Discovery and Creation: Alternative Theories of Entrepreneurial Action. *Strategic Entrepreneurship Journal*, Vol. 3, No. 6, 123-152.
- Amit, R. & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, 22: 493–520.
- Ardichvili, A., Cardozo, R. & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18, 105-123.
- Ashton-James, C.E. & Ashkanasy, N.M. (2008). Affective Events Theory: A Strategic Perspective. *Research on Emotion on Organizations*, Vol. 4, 1-34.
- Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99-120.
- Barney, J. B. & Arikan, A. M. (2001). The resource-based view: Origins and implications. In M. A. Hitt, R. F. Freeman & J. S. Harrison (Eds.), *Handbook of strategic management*: 124–188. Oxford: Blackwell Publishers.
- Barney, J.B. (2002). *Gaining and sustaining competitive advantage*. Upper Saddle River, NJ: Prentice-Hall.
- Beach, L.R. & Mitchell, T.R. (1978). A Contingency Model for the Selection of Decision Strategies. *The Academy of Management Review*, Vol. 3, No.3, 439-449.

- Begley, T.M. & Boyd, D.P. (1987). A comparison of entrepreneurs and managers of small business firms. *Journal of Management*, 13, 99-108.
- Berry, H. (2010). Why Do Firms Divest? *Organization Science*, Vol. 21, No. 2, 380-396.
- Bhave, M. (1994). A process model of entrepreneurial venture creation. *Journal of Business Venturing*, 9 (2), 223–242.
- Bouchard, T.J. Jr. (1976). Field Research Methods: Interviewing, Questionnaires, Participant Observation, Systematic Observation, Unobtrusive Measures. In M.D. Dunnette (ed.), *Handbook of Industrial Organizational Psychology* (363-413). Chicago, IL: Rand McNally.
- Burns, T. & Stalker, G.M. (1961). *The Management of Innovation*. London: Tavistock.
- Busenitz, L.W. (1999). Entrepreneurial Risk and Strategic Decision Making : It's a Matter of Perspective. *The Journal of Applied Behavioral Science*, 35: 325-340.
- Busenitz, L.W. & Barney, J.B. (1997). Differences Between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision-Making. *Journal of Business Venturing*, 12, 9-30.
- Cantillon, R. (1979). *Essai sur la Nature du Commerce en Général*. Takumi Tsuda (ed.). Tokyo, Kinokuniya bookstore Co.
- Carayannis, E.G. & Alexander, J. (2002). Is technological learning a firm core competence, when, how and why ? A longitudinal, multi-industry study, of firm technological learning and market performance. *Technovation*, 22(10), 625-643.
- Chen, H-L. & Guo, R-J. (2005). On Corporate Divestiture. *Review of Quantitative Finance and Accounting*, 24: 399-421.
- Choi, Y.R. & Shepherd, D.A. (2004). Entrepreneurs' Decisions to Exploit Opportunities. *Journal of Management*, 30(3), 377-395.
- Cohen, W. M. & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35: 128–152.
- Collins, C.J., Hanges, P.J. & Locke, E.A. (2004). The Relationship of Achievement Motivation to Entrepreneurial Behavior: A Meta-Analysis. *Human Performance*, 17(1), 95-117.
- Companys, Y.E. & McMullen, J.S. (2007). Strategic Entrepreneurs at Work: The Nature, Discovery, and Exploitation of Entrepreneurial Opportunities. *Small Business Economics*, 28: 301-322.

- Corbett, A.C. (2005). Experiential Learning Within the Process of Opportunity Identification and Exploitation. *Entrepreneurship Theory and Practice*, 473-491.
- Davidsson, P. & Wiklund, J. (2009). Scott A. Shane: winner of the Global Award for Entrepreneurship Research. *Small Business Economics*, 33: 131-140.
- Deitz, R.M.H. (1995). *Investing in strategic information systems: on the role of selection in decision-making*. Eindhoven: Eindhoven University of Technology.
- De Koning, A. (1999). Conceptualizing Opportunity Recognition as a Socio-Cognitive Process. *Centre for Advanced Studies in Leadership*, Stockholm.
- Denrell, J., C. Fang & S.G. Winter, (2003). The Economics of Strategic Opportunity. *Strategic Management Journal*, 24, 977–990.
- Dillon, S.M. (1998). Descriptive Decision Making: Comparing Theory and Practice. *Department of Management Systems*, 1-10.
- Dutton, J.E., Fahey, L. & Narayanan, V.K. (1983). Toward Understanding Strategic Issue Diagnosis. *Strategic Management Journal*, Vol. 4, No. 4, 307-323.
- Eckhardt, J.T. & Shane, S.A. (2003). Opportunities and Entrepreneurship. *Journal of Management*, 29(3), 333-349.
- Eisenhardt, K.M. & Zbaracki, M. (1992). Strategic Decision Making. *Strategic Management Journal*, Vol. 13, 17-37.
- Eisenhardt, K.M. & C.B. Schoonhoven, (1996). ‘Resource- Based View of Strategic Alliance Formation: Strategic and Social Effects in Entrepreneurial Firms’. *Organization Science*, 7(2), 136–150.
- Eisenhardt, K. M. (1999). Strategy as strategic decision making. *Sloan Management Review*, 40(3): 65–72.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21: 1105–1121.
- Ferris, G.R., Fedor, D.B. & King, T.R. (1994). A Political Conceptualization of Managerial Behavior. *Human Resource Management Review*, Vol. 4, No.1, 1-34.

- Fiedler, K., & Bless, H. (2000). The formation of beliefs at the interface of affective and cognitive processes. In N. H. Frijda & A. Sorrentino and R. Manstead (Eds.), *Emotions and belief: How feelings influence thoughts. Studies in emotion and social interaction* (144-170). New York: Cambridge University Press.
- Forgas, J.P. (1995). Mood and Judgment: The Affect Infusion Model (AIM). *Psychological Bulletin*, Vol. 117, No. 1, 39-66.
- Garud, R. & P.R. Nayyar, (1994). 'Transformative Capacity: Continual Structuring by Intertemporal Technology Transfer'. *Strategic Management Journal*, 15(5), 365–385.
- Gatignon, H. & Xuereb, J. (1997). Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, 34(1), 77-90.
- Gersick, C.J G. (1994). 'Pacing Strategic Change: The Case of a New Venture'. *Academy of Management Journal*, 37(1), 9–45.
- Gluck, F.W., Kaufman, S.P. & Walleck, A.S. (1980). Strategic management for competitive advantage. *Harvard Business Review*, 58(4): 154-161.
- Glueck, W.F. (1976). *Business Policy: Strategy Formulation and Management Action*. New York: McGraw-Hill.
- Gove, S., Sirmon, D.G. & Hitt, M.A. (2003). Relative resource advantages: The effect of resources and resource management on organizational performance. Paper presented at the annual *Strategic Management Society Conference*, Baltimore.
- Hitt, M. A. & Ireland, R. D. (2000). The intersection of entrepreneurship and strategic management research. In D. L. Sexton & H. Landstrom (Eds.), *Handbook of entrepreneurship*: 45–63. Oxford: Blackwell Publishers
- Hitt, M.A., Ireland, R.D., Camp, M.S. & Sexton, D.L. (2001). 'Guest Editors' Special Introduction to the Special Issue on Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation. *Strategic Management Journal*, 22, 479-491.
- Hitt, M. A., Ireland, R. D., Camp, S. M. & Sexton, D. L. (2002). Strategic entrepreneurship: Integrating entrepreneurial and strategic management perspectives. In M. A. Hitt, R. D. Ireland, S. M. Camp & D. L. Sexton (Eds.), *Strategic entrepreneurship: Creating a new mindset*: 1–16. Oxford: Blackwell Publishers.

- Holcombe, R.G. (2003). The Origins of Entrepreneurial Opportunities. *The Review of Austrian Economics*, 16:1, 25-43.
- Ireland, R. D., Hitt, M. A., Camp, S. M. & Sexton, D. L. (2001). Integrating entrepreneurship and strategic management action to create firm wealth. *Academy of Management Executive*, 15(1): 49–63.
- Ireland, R.D., Hitt, M.A. & Sirmon, D.G. (2003). A Model of Strategic Entrepreneurship: The Construct and its Dimensions. *Journal of Management*, 29: 963-989.
- Ivanova, E. & Gibcus, P. (2003). The decision-making entrepreneur: Literature Review. *EIM Business and Policy Research*.
- Jacobson, R. (1992). The “Austrian” School of Strategy. *The Academy of Management Review*, Vol. 17, No. 4, 782-807.
- Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago, University of Chicago Press.
- Kirzner, I.M. (1979). *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I.M. (1999). Creativity and/or Alertness: A Reconsideration of the Schumpeterian Entrepreneur. *Review of Austrian Economics*, 11: 5-17.
- Klein, P.G. (2008). Opportunity Discovery, Entrepreneurial Action and Economic Organization. *Strategic Entrepreneurship Journal*, 1-33.
- Knight, E. (1971). *Risk, Uncertainty and Profit*. Chicago: University of Chicago Press.
- Kogut, B. & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3: 383–397.
- Korunka, C., Frank, H., Lueger, M. & Mugler, J., (2003). The entrepreneurial personality in the context of resources, environment, and the startup process - A configurational approach. *Entrepreneurship Theory and Practice*, vol.28, nr.1 (Fall), 23-42.
- Kroeck, K.G., Bullough, A.M. & Reynolds, P.D. (2010). Entrepreneurship and Differences in Locus of Control. *The Journal of Applied Management and Entrepreneurship*, Vol. 15, No.1, 21-49.
- Lambkin, M. (1988). Order of entry and performance in new markets. *Strategic Management Journal*, 9: 127-140.
- Lawler, E.J. (2001). An Affect Theory of Social Exchange. *American Journal of Sociology*, Vol. 107, 321-352.



- Lévesque, M. & Minniti, M. (2006). The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, 21: 177-194.
- Lieberman, M.B. & D.B. Montgomery, (1988). 'First-Mover Advantages'. *Strategic Management Journal*, 9, 41-58.
- Low, M.B. & MacMillan, I.C. (1988). Entrepreneurship: Past Research and Future Challenges. *Journal of Management*, 14(2): 139-161.
- Lumpkin, G.T., Hills, G. & Shrader, R. (2004). Opportunity Recognition. In H.P. Welsch (ed.). *Entrepreneurship: the way ahead*. New York: Routledge.
- Lyles, M.A. & Mitroff, I.I. (1980). Organizational problem formulation: an empirical study. *Administrative Science Quarterly*, 25, 102-119.
- Mador, M. (2000). Strategic Decision-Making Process Research: Are Entrepreneur and Owner Managed Firms Different? *Journal of Research in Marketing and Entrepreneurship*, Vol. 2 (3), 215-234.
- Manimala, M.J. (1992). Entrepreneurial Heuristics: A Comparison between High PI (Pioneering-Innovative) and Low PI Ventures. *Journal of Business Venturing*, 7, 477-504.
- Marshall, A. (1930). *Principles of Economics*. London: MacMillan and Co.
- Mazzolini, R. (1981). How Strategic Decisions are Made. *Long Range Planning*, Vol. 14, No.3, 85-96.
- McGrath, R. M. & MacMillan, I. C. (2000). *The entrepreneurial mindset*. Boston: Harvard Business School Press.
- McKelvie, A. & Wiklund, J. (2004). How knowledge affects opportunity discovery and exploitation among new ventures in dynamic markets. In Butler, J.E. (eds.) *Opportunity Identification and Entrepreneurial Behavior*. Greenwich: Information Age Publishing.
- McMullen, J.S. & Shepherd, D.A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. *Academy of Management Review*, Vol. 31, No. 1, 132-152.
- McMullen, J.S., Plummer, L.A. & Acs, Z.J. (2007). What is an entrepreneurial opportunity? *Small Business Economics*, 28: 273-283.
- McVea, J.F. (2009). A field study of entrepreneurial decision-making and moral imagination. *Journal of Business Venturing*, 24, 491-504.

- Meyer, G.D., Neck, H.M. & Meeks, M.D. (2002). The Entrepreneurship-Strategic Management Interface (19-44). In Hitt, M., Ireland, R.D., Camp, M.S. & Sexton, D.L. (eds.). *Strategic Entrepreneurship, Creating a new Minds*. Oxford: Blackwell.
- Miles, R.E. & Snow, C.C. (1978). *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- Minniti, M. (2004). Entrepreneurial alertness and asymmetric information in a spin-glass model. *Journal of Business Venturing*, 19: 637-658.
- Mintzberg, H., Raisinghani, D. & Théorêt, A. (1976). The Structure of “Unstructured” Decision Processes. *Administrative Science Quarterly*, Vol. 21, No. 2, 246-275.
- Mosakowski, E. (1998). ‘Entrepreneurial Resources, Organizational Choices and Competitive Outcomes’. *Organization Science*, 9(6), 625–643.
- Moschieri, C. & Mair, J. (2008). Research on corporate divestitures: A Synthesis. *Journal of Management & Organization*, 14: 399-422.
- Nelson, R.R. & S.G. Winter, (1982). *An Evolutionary Theory of Economic Change*. Cambridge, MA: The Belknap Press.
- Nixon, T.D., Roenfeldt, R.L. & Sichernan, N.W. (2000). The Choice Between Spin-offs and Sell-offs. *Review of Quantitative Finance and Accounting*, 14, 277-288.
- Nutt, P.C. (1998). Framing Strategic Decisions. *Organization Science*, Vol. 9, No. 2, 195-216.
- Papadakis, V.M., Lioukas, S. & Chambers, D. (1998). Strategic Decision-Making Processes: The Role of Management and Context. *Strategic Management Journal*, Vol. 19, No.2, 115-147.
- Park, J.S. (2005). Opportunity recognition and product innovation in entrepreneurial hi-tech start-ups: a new perspective and supporting case study. *Technovation*, 25: 739-752.
- Plummer, L.A., Haynie, J.M. & Godesiabo, J. (2007). An Essay on the origins of Entrepreneurial Opportunity. *Small Business Economics*, 28: 363-379.
- Pool, J. (1990). *Sturing van strategische besluitvorming*. Amsterdam: Vrije Universiteit Amsterdam.
- Rajagopalan, N., Rasheed, A.M.A. & Datta, D.K. (1993). Strategic Decision Processes: Critical Review and Future Directions. *Journal of Management*, 19(2): 349-384.

- Rauch, A. & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation and success. *European Journal of Work and Organizational Psychology*, 16 (4), 353-385.
- Rindova, V.P. & C.J. Fombrun, (1999). 'Constructing Competitive Advantage: The Role of Firm-Constituent Interactions', *Strategic Management Journal*, 20, 691-71.
- Rindova, V.P. & Kotha, S. (2001). 'Continuous, Morphing': Competing Through Dynamic Capabilities, Form and Function. *Academy of Management Journal*, 44(6), 1263-1280.
- Rumelt, R. (2005). *Handbook of Entrepreneurship Research*. Springerlink.
- Saunders, S., Lewis, P., Thornhill, A. (2009) *Research Methods for Business Students*. Harlow: Pearson Education Limited.
- Say, J-B (1971). *A Treatise on Political Economy or the Production, Distribution and Consumption of Wealth*. New York: A.M. Kelley Publishers.
- Schneider, S.C. & De Meyer, A. (1991). Interpreting and Responding to Strategic Issues: The Impact of National Culture. *Strategic Management Journal*, 12(4): 307-320.
- Schumpeter, J.A. (1934). *The Theory of Economic Development*. Cambridge, M.A: Harvard University Press.
- Schwartz, R. & Teach, R. (1999). A model of opportunity recognition and exploitation: an empirical study of incubator firms. Presented at the 13th UIC/AMA *Symposium on Marketing and Entrepreneurship Interface*, Nice.
- Schwenk, C.R. & Thomas, H. (1983). Formulating the mess: the role of decisions aids in problem formulation. *The International Journal of Management Science*, Vol. 11, No.3, 239-252.
- Schwenk, C.R. (1984). Cognitive Simplification Processes in Strategic Decision-Making. *Strategic Management Journal*, Vol. 5, No.2, 111-128.
- Shane, S. (2000). Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science*, Vol. 11, No. 4, 448-469.
- Shane, S. & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, Vol. 25, No 1, 217-226.
- Shane, S. (2003). *A general theory of entrepreneurship: the individual-opportunity nexus*. Cheltenham: Edward Elgar.

- Shane, S., Locke, E.A. & Collins, C.J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13, 257-279.
- Sigrist, B. (1999). Entrepreneurial opportunity recognition. A presentation at the Annual UIC/AMA symposium at *Marketing/Entrepreneurship Interface*, Sofia-Antipolis, France.
- Simon, H.A. (1965). *The Shape of Automation*. New York: Harper and Row.
- Singh, R., Hills, H. & Lumpkin, G.T. (1999). Examining the role of self-perceived entrepreneurial alertness in the opportunity recognition process. Presented at the 13th UIC/AMA Symposium on *Marketing and Entrepreneurship Interface*, Nice.
- Sirmon, D. G. & Hitt, M. A. (2003). Managing resources: Linking unique resources, management and wealth creation in family firms. *Entrepreneurship Theory and Practice*, 27(4):339–358.
- Sirmon, D. G., Hitt, M. A. & Ireland, R. D. (2003). Managing the firm's resources in order to achieve and maintain a competitive advantage. Paper presented at the annual *Academy of Management meeting*, Seattle.
- Slovin, M.B., Sushka, M.E. & Ferraro, S.R. (1995). A comparison of the information conveyed by equity carve-outs, spin-offs, and asset sell-offs. *Journal of Financial Economics*, 37, 89-104.
- Stevenson, H.H. & Jarillo, J.C., (1990). A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal*. Vol. 11, Special Issue : Corporate Entrepreneurship (Summer, 1990), 17-27.
- Steward, W.H. & Roth, P.L. (2001). Risk propensity differences between entrepreneurs and managers: a meta-analytic review. *Journal of Applied Psychology*, 86 (1), 145-153.
- Tan, J. (2001). Innovation and Risk-taking in a Transitional Economy: A Comparative study of Chinese Managers and Entrepreneurs. *Journal of Business Venturing*, 16, 359-376.
- Taormina, R.J. & Lao, S.KM., (2007). Measuring Chinese entrepreneurial motivation; Personality and environmental influences. *International Journal of Entrepreneurial Behaviour & Research*, vol.13, nr.4, 200-221.
- Teece, D.J., G. Pisano & A. Shuen, (1997). 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal*, 18(7), 509–533.
- Tsai, W. (2001). Knowledge transfer in intra-organizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44: 996–1004.

Tversky, A., Slovic, P. & Kahneman, D. (1982). *Judgment under Uncertainty: Heuristics and Biases*. Cambridge, MA: Cambridge University Press.

Van den Bosch, F. A. J., Volberda, H. W. & de Boer, M. (1999). Co-evolution of firm absorptive capacity and knowledge environment: Organizational forms and combinative capabilities. *Organization Science*, 10: 551–568.

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research: an editor's perspective. In: Katz, J. & Brockhaus, R. (Eds.), *Advances in Entrepreneurship, Firm Emergence, and Growth*. Vol. 3, pp. 119–138.

Vermeulen, P.A.M. & Curşeu, P.L. (2008). *Entrepreneurial Strategic Decision-Making: A Cognitive Perspective*. Cheltenham, UK: Edward Elgar.

Wally, S. & Baum, J.R. (1994). Personal and Structural Determinants of the Pace of Strategic Decision Making. *Academy of Management Journal*, Vol. 37, No.4, 932-956.

Wiersma, T. & Kim, Y-H. (2006). Philips will sell unit to VDL Groep. *The Wall Street Journal Europe*.

Wood, M.S. & Pearson, J.M. (2009). Taken of Faith? The Impact of Uncertainty, Knowledge Relatedness, and Richness of Information on Entrepreneurial Opportunity Exploitation. *Journal of Leadership*, 16: 117-130.

Yu, T.F-L. (2001). Entrepreneurial Alertness and Discovery. *The Review of Austrian Economics*, 14:1, 47-63.

### **Internet References**

Bickerton, I., Politi, J. & Griggs, T. (2006). *Philips sells bulk of chip division*. Retrieved from: <http://www.catiaworld.com/>.

Financieel Dagblad, (2006). *En weer een Philips spin-off*. Retrieved from: <http://www.financieel-dagblad.com/>.

Koninklijke Philips Electronics N.V. (2009). *Staying focused, acting decisively*, 172-173. Retrieved from: <http://www.philips.com/>.

NXP (2009). *Annual Report*. Retrieved from: <http://www.nxp.com/>.

NXP semiconductors (in press: 2010). Philips Semiconductors becomes NXP. Retrieved from: <http://www.nxp.com/>.

Reijnga, A. & Luttikhedde, H. (2010). *Update: Philips verkoopt NXP-belang aan Brits Pensioenfonds*. Retrieved from: <http://www.beurs.nl/>.

Reuters, T. (1991). *VDL Groep BV acquires Philips Mechanical Precision from Koninklijke Philips Electronics*. Retrieved from: <http://www.alacrastore.com/>.

VDL Groep, (2008). *Annual Report*, p. 20. Retrieved from: <http://www.vdlgroep.com/>.

## Appendix

### Appendix A: Conceptual Framework

Relationship	References
<b>Entrepreneurial Opportunity → Opportunity Discovery</b>	(Bhave, 1994), (De Koning, 1999), (Kirzner, 1999), (Schwartz & Teach, 1999), (Sigrist, 1999), (Singh et al.1999), (Venkataraman, 1997), (Rindova & Fombrun, 1999), (Shane, 2000), (Shane & Venkataraman, 2000), (Tan, 2001), (Yu, 2001), (Ardichvili et al. 2003), (Eckhardt & Shane, 2003), (Corbett, 2005), (Park, 2005), (McMullen & Shepherd, 2006), (Alvarez & Barney, 2007), (Companys & McMullen, 2007), (McMullen et al. 2007), (Plummer et al. 2007), (Klein, 2008), (Wood & Pearson, 2009).
<b>Opportunity Discovery → Entrepreneurial Strategy</b>	(Miles & Snow, 1978), (Gluck, Kaufman & Walleck, 1980), (Jacobson, 1992), (Rindova & Fombrun, 1999), (Meyer et al. 2002), (Ireland et al. 2003), (Shane, 2003), (Rumelt, 2005), (Alvarez & Barney, 2007), (Companys & McMullen, 2007), (McMullen et al. 2007), (Plummer et al. 2007).
<b>Entrepreneurial Strategy → Opportunity Exploitation</b>	(Burns & Stalker, 1961), (Gersick, 1994), (Mosakowski, 1998), (Rindova & Fombrun, 1999), (Hitt et al. 2001), (Rindova & Kotha, 2001), (Ireland et al. 2003), (Shane, 2003), (Choi & Shepherd, 2004), (Park, 2005), (Alvarez & Barney, 2007), (Companys & McMullen, 2007), (McMullen et al. 2007), (Plummer et al. 2007).
<b>Opportunity Exploitation → Firm Performance</b>	(Burns & Stalker, 1961), (Kogut & Zander, 1992), (Garud & Nayyar, 1994), (Teece, Pisano & Shuen, 1997), (Mosakowski, 1998), (Rindova & Fombrun, 1999), (Rindova & Kotha, 2001), (Ireland et al. 2003), (Sirmon, Hitt & Ireland, 2003), (Companys & McMullen, 2007), (McMullen et al. 2007).
<b>Opportunity Exploitation → Competitive Advantage</b>	(Lambkin, 1988), (Liebermann & Montgomery, 1988), (Barney, 1991), (Eisenhardt & Martin, 2000), (McGrath & MacMillan, 2000), (Hitt et al. 2001), (Rindova & Kotha, 2001), (Carayannis & Alexander, 2002), (Ireland et al. 2003), (Shane, 2003), (Choi & Shepherd, 2004), (Park, 2005), (Companys & McMullen, 2007).
<b>Innovativeness → Opportunity Discovery</b>	(Nelson & Winter, 1982), (Eisenhardt & Schoonhoven, 1990), (Jacobson, 1992), (Venkataraman, 1997), (Van den Bosch et al.1999), (Hitt & Ireland, 2000), (McGrath & MacMillan, 2000), (Shane, 2000), (Shane & Venkataraman, 2000), (Amit & Zott, 2001), (Hitt et al. 2001), (Ardichvili et al. 2003), (Denrell et al. 2003), (Eckhardt & Shane, 2003), (Holcombe, 2003), (Lumpkin et al. 2004), (McKelvie & Wiklund, 2004), (Corbett, 2005), (Park, 2005), (McMullen & Shepherd, 2006), (Companys & McMullen, 2007), (Alsaaty & Harris, 2009).
<b>Innovativeness → Opportunity Exploitation</b>	(Nelson & Winter, 1982), (Eisenhardt & Schoonhoven, 1990), (Jacobson, 1992), (Van den Bosch et al. 1999), (Shane, 2000), (Hitt et al. 2001), (Tsai, 2001), (Alvarez & Barney, 2002), (Barney, 2002), (Denrell et al. 2003), (Ireland et al. 2003), (Choi & Shepherd, 2004), (McKelvie & Wiklund, 2004), (Park, 2005), (Companys & McMullen, 2007), (Alsaaty & Harris, 2009), (Wood & Pearson, 2009).

Table 1: References according to the Conceptual Framework of Entrepreneurship

In this table of references, regarding the conceptual framework, a minimum number of 10 references for each particular relationship are used to underpin the conceptual framework, and to make this conceptual framework reliable and useful.

## ***Appendix B: Question Forms Interviews***

### **Question Form Manager:**

1. Kunt u me wat meer vertellen over uzelf en uw functie?
2. Philips/NXP is een bedrijf dat jaarlijks wil groeien en een economische groei wil realiseren, terwijl het in omvang juist kleiner wordt. Wat is de gedachte achter het afstoten van bepaalde units, terwijl uw bedrijf jaarlijks juist wil groeien, zowel in omvang als economisch?
3. Hoe worden deze units hoofdzakelijk afgestoten?
4. Ondernemers maken bij het nemen van strategisch belangrijke beslissingen, veelal gebruik van zogenaamde versimpelde mechanismen, omdat bij het nemen van deze beslissingen vaak te weinig informatie voor handen is om een volledig rationele beslissing te kunnen nemen. Voorbeelden hiervan zijn: beslissingen op basis van teveel vertrouwen of beslissingen op basis van slechts een aantal observaties, het zogenaamde generaliseren van beslissingen. Nu is mijn vraag: In hoeverre spelen deze versimpelde mechanismen mee in het nemen van strategisch belangrijke beslissingen, zoals het afstoten van units?
5. Worden deze units afgestoten aan product gerelateerde bedrijven of worden ze at random afgestoten? Hiermee bedoel ik: wordt bijvoorbeeld de tak chip productie bewust afgestoten aan een chip fabrikant, of bieden jullie deze unit aan, aan elk willekeurig bedrijf dat interesse heeft in deze unit?
6. Wanneer kiest Philips/NXP ervoor om een bepaald belang in een afgestoten unit te behouden? Vb. Philips, hebben tot 7 september jongleden een belang in NXP gehad, maar hebben ervoor gekozen om uiteindelijk dit belang te verkopen aan een Brits pensioenfonds.
7. Hoe vergaat het uw bedrijf nu?



## **Question Form Entrepreneurs:**

- 1.** Kunt u me wat meer vertellen over uzelf en uw functie?
- 2.** Wat is de link tussen u, uw bedrijf en Philips/NXP? Hiermee bedoel ik: bent u vanuit Philips/NXP meegegaan met de afgestoten unit of bent u voor dit bedrijf gaan werken toen het al afgestoten was? En zo ja, waarom?
- 3.** Wat heeft u zoal overwogen te gaan doen wanneer de kans zich voordeed om een bepaalde unit over te nemen? Bijvoorbeeld: het opdoen van kennis, het inkopen van kennis door het aantrekken van gespecialiseerde werknemers of de concurrentie proberen voor te blijven enz.
- 4.** Wanneer valt uiteindelijk de keuze op een bepaalde unit? Dus met andere woorden: wanneer is het moment gekomen om een bepaalde unit over te nemen? Denk hierbij aan de te nemen risico's of de mate van concurrentie.
- 5.** Managers maken bij het nemen van strategisch belangrijke beslissingen, veelal geen gebruik van zogenaamde versimpelde mechanismen, omdat bij het nemen van deze beslissingen vaak voldoende informatie voor handen is om een vrijwel volledig rationele beslissing te kunnen nemen. Voorbeelden van deze mechanismen zijn: beslissingen op basis van teveel vertrouwen of beslissingen op basis van slechts een aantal observaties, het zogenaamde generaliseren van beslissingen. Nu is mijn vraag: In hoeverre spelen deze versimpelde mechanismen voor u juist mee in het nemen van strategisch belangrijke beslissingen, zoals het overnemen of aantrekken van een afgestoten unit van Philips/NXP?
- 6.** Zag uw bedrijf deze unit, ten tijde van het afstoten door Philips/NXP, als een kans om in de toekomst te groeien of is het juist een breedte-investering geweest die de concurrentiepositie van uw bedrijf zou verstevigen?
- 7.** Hoe vergaat het uw bedrijf nu?

*Appendix C: Coding Tables*

	<b>Highest Bid</b>	<b>Strategic Value</b>	<b>Related Firm</b>	<b>Closing</b>
<b>Firm Needs Cash</b>	(NC_HB)	(NC_SV)	(NC_RF)	(NC_C)
<b>Core Business</b>	(CB_HB)	(CB_SV)	(CB_RF)	(CB_C)
<b>Loss Generating</b>	(LG_HB)	(LG_SV)	(LG_RF)	(LG_C)
<b>Over Diversified</b>	(OD_HB)	(OD_SV)	(OD_RF)	(OD_C)
<b>Heuristics</b>	(H_HB)	(H_SV)	(H_RF)	(H_C)

*Table 4: Coding Table Managers*

	<b>Asset Sell-off</b>	<b>Spin-off</b>	<b>Equity Carve-out</b>
<b>Focus</b>	(F_AS)	(F_S)	(F_EC)
<b>Market Position</b>	(MP_AS)	(MP_S)	(MP_EC)
<b>Growth</b>	(G_AS)	(G_S)	(G_EC)
<b>Distribution</b>	(D_AS)	(D_S)	(D_EC)
<b>Heuristics</b>	(H_AS)	(H_S)	(H_EC)

*Table 5: Coding Table Entrepreneurs*

## Appendix D: Results Tables

Managers	Highest Bid	Strategic Value	Related Firm	Closing
<b>Firm needs Cash</b>	<p>1. Dat hij de divisie groot huishouden mocht verkopen. Dit was dus echt wat je zegt: tafelzilver verkopen Ik dacht: dat moet strategic value zijn en dan krijg ik er meer voor. Maar om een lang verhaal kort te maken, al die onderdelen en zaken hebben we dus verkocht simpelweg omdat we geld nodig hadden en niet om strategic value te behalen.</p>	<p>6. Het moet strategisch zinvol zijn om het bedrijf niet te houden, je moet ervan af willen. Je moet dit dus doen op een manier om zoveel mogelijk geld ervoor te krijgen, dit om je aandeelhouders tevreden te stellen. Als de verkoop van een bedrijf aan een concurrent, strategisch slechte gevolgen kan hebben voor het overblijvende bedrijf in de toekomst, dan doe je dit niet, tenzij zij er zoveel voor betalen dat alle moeilijkheden gecompenseerd worden.</p>		
<b>Core Business (Strategy)</b>	<p>4. Maar wij hebben juist allerlei bedrijfsonderdelen, de ene maakt chips voor bankpassen en de ander chips voor transportsystemen, weer een ander voor auto's, dus die aparte bedrijfsonderdelen hebben allemaal hun eigen specifieke knowledge base. Als je dus zo'n bedrijfsonderdeel verkoopt dan kun je het daarna zelf ook niet meer maken. Dan snap ik niet waarom je niet gewoon gaat voor de beste deal.</p> <p>8. Vooral in het begin waren we bezig om de organisatie te 'shapen', en voornamelijk datgene waar we strategisch gezien niet meer in geïnteresseerd waren en dus dat af te stoten. We hebben nu een duidelijk HPMS strategie (High Performance Mixed Signal). Die is nu helder en goed gedefinieerd en al dat geen wat we daarin niet konden gebruiken, dat is nu afgestoten, zoals 'mobile and personal' en de 'home division' met zijn digitale tv. Het maakt dan niet meer uit aan wie je dit verkoopt, je concurreert er toch niet meer mee in die business.</p> <p>9. Het is in principe zo dat wanneer je een business verkoopt, dat je uit deze business stapt. En vaak is de grootste concurrent de grootste bieder, dus dan is het voordelig om het onderdeel af te stoten aan de hoogste bieder als je zelf toch niet meer actief wilt zijn in die business. Dat betekent dat ze het geld niet ergens anders uit kunnen geven, dus een ideaal</p>	<p>1. Nu ga jij als Philips zijnde een nieuwe activiteit beginnen en dit moet succesvol zijn, daar besteed je een hoop aandacht aan en dit onttrek je aan wat je eigenlijk je aandacht moet geven, je core business. Je moet dus focus houden! De zieke bedrijven moeten er dus uit. Als jij een product hebt en ik wil dit product afstoten dan heeft dit alleen maar meerwaarde als het 'strategic value' kan hebben. Als ik nu een product heb wat een beetje bedreigend kan zijn voor een ander product, wat ook in andere handen is, dan heeft dit product strategic value. Dus dit omvat: de tijdsspannen, de ontwikkelingskosten, de concurrentiepositie, bedreigingen en opportuniteiten.</p> <p>2. Je verkoopt je bedrijf in principe niet aan je grootste concurrent. Tenzij hij de absolute topprijs betaalt. Je neemt vaak toch genoeg met een iets mindere prijs, als je het maar niet verkoopt aan een bedrijf dat je vervolgens kan gaan dwarszitten.</p> <p>8. Het kan wel zo zijn dat je een bepaalde activiteit afstoot waar technologieën aan ten grondslag liggen, waarmee de ontvangende partij wellicht nog andere producten kan maken die weer wel concurrerend zijn. Dan ga je daar juist wel heel bewust mee om. Dan zorg je er wel degelijk voor dat die technologie niet bij een concurrent komt te liggen. Ik denk dat dit alleen geldt wanneer er een technologie meegaat, wat de concurrent in het zadel kan helpen in andere marktsegmenten met andere producten.</p>	<p>6. Deze units hielden bij nader inzien eigenlijk helemaal geen strategisch of logisch verband met onze plannen, of hadden helemaal geen strategische connectie met de markt waarop we ons wilden richten en ze waren vaak ook niet winstgevend, maar hingen al jaren lang aan het bedrijf en waren eigenlijk ook niet meer rechtvaardigbaar. We zijn toen begonnen met het afknippen van al dat vet, wat er in al die jaren aan was gekomen. Dus in die tijd hebben we ontzettend veel tenten gesloten en gekocht, van alles is er gebeurd, maar het was vooral het afknippen van kleine wratjes als het ware. NXP was niet passend, dit gaan we afstoten omdat het onafhankelijk, als het op eigen benen staat, beter af zou zijn. We zijn toen gaan optimaliseren, wat ertoe geleid heeft dat we simpeler zijn geworden, meer sensible, meer achter een bepaalde strategie geschaard die we ook jaar in en jaar uit volhouden.</p>	

	scenario voor ons.			
<b>Loss Generating</b>			<p>1. Boonstra zei ook: alles wat verliesgevend is, gaat eruit. Alles wat niet over 4 jaar rendabel zou zijn gaat eruit. Alles waarover ik twijfel in de toekomst gaat eruit. Dus Boonstra is bezig geweest met het gezond maken van het bedrijf Philips, maar is niet met de groeistrategie bezig geweest, door meer geld voor een af te stoten unit te vragen.</p> <p>6. Maar de reden voor Philips Whitegoods was, dat die business niet echt winstgevend was. Ik denk dat die business acceptabel was, maar het zag er hoogstwaarschijnlijk niet naar uit dat deze business ook daadwerkelijk acceptabel zou blijven. Toen verkopen nu het nog winst maakt en het combineren met een partij die er schaal aan toe kan voegen en voor wie het heel veel waard was en dat was Whirlpool.</p>	<p>2. Een van de eerste besluiten die ik heb genomen is om alle fabrieken in allerlei (ongeveer 7 a 8 landen) te sluiten. Dit omdat ontwikkelingen ook na faillissement, enorm snel doorgingen, geld spoot eruit.</p> <p>9. Uiteindelijk zal zich dit, over een periode van 10, 15 jaar, dan uitspelen en maakt er uiteindelijk iemand wel winst, maar voor de komende jaren moest je er grote investeringen doen, zonder winst te maken en eigenlijk grote verliezen. Dus dat was gewoon een ongunstige markt en daar moet je dan uitstappen. Toen hebben we eerst ongeveer 10 businesses gestopt, omdat het gewoon ongunstige businesses waren.</p>
<b>Over Diversified</b>	<p>2. Uiteindelijk is er begonnen om een groot gedeelte verder af te bouwen, voornamelijk de hele cyclische activiteiten waaronder NXP. Het ging ook om een hele grote transactie waarbij het een venture capital was die dit voor een deel heeft overgenomen. Philips wilde gewoon minder kwetsbaar worden en minder afhankelijk van NXP. Achteraf gezien hadden ze NXP meteen helemaal moeten verkopen.</p>		<p>6. Dat leidde ertoe dat je soms bizarre brede businesses kreeg en een spectrum bestreek wat ontzettend breed was Dat leidde ertoe dat Philips enorm gediversificeerd was, dikwijls erg verticaal geïntegreerd, we maakten zelfs het karton voor de verpakking zelf, dat heeft er bijv. toe geleid dat we zelfs matrassen gemaakt hebben en wc brillen. Philips moest dus minder volatiel zijn. Dat heeft betekend dat bepaalde volatiele bedrijven uit ons bedrijf werden gehaald en dat we die wilden verkopen aan andere bedrijven die daar meer raad van wisten. NXP was hierin de grootste klant.</p>	
<b>Heuristics</b>	<p>1. De afdeling whitegoods is niet afgestoten op basis van enige strategische gronden, maar gewoon omdat Philips centen nodig had. Normaal moet je als het ware als een sjabloon je activiteiten op je missie leggen en als er dan activiteiten zijn die hier echt niet in passen, dan moet je die afstoten.</p>		<p>8. Buikgevoel komt er natuurlijk altijd bij kijken, maar ik denk meer in negatieve zin. Dat als je geen vertrouwen hebt in je partij, in je partner, als hij inconsistent is in de dingen die hij doet en je krijgt geen duidelijk aanspreekpunt, dan valt hij op een gegeven moment af. Dan ga je daar niet mee in zee. In die zin denk ik dat buikgevoel wel eens mee kan spelen. Als een transactie echt tot stand komt, dan is die gebaseerd op 'solid financial analysis' en een solide business case, want anders doen we het niet.</p>	

Table 6: Results Table Managers

Entrepreneurs	Asset Sell-off	Spin-off	Equity Carve-out
<b>Focus</b>	7. Ik geloof alleen in een kennisindustrie. De kennis moet pertinent aanwezig zijn in het bedrijf en dat kan alleen maar wanneer je de machinefabrieken zelf in handen hebt en je de producten dus zelf vervaardigd.	10. Naast een groei van de onderneming, probeerden FEI door deze spin-off, een completer aanbod te realiseren.	
<b>Market Position</b>	5. Whirlpool wilde op een gegeven moment wereldwijd (World Coverage) gaan en wat is dan makkelijker dan een bedrijf als Philips te kopen, wat al in die business zat, maar er vanaf wilde omdat het geld nodig had. Philips zat namelijk met haar activiteiten, zoals Whitegoods, al in de hele wereld. Om zelf een “World-wide-network” op te bouwen, dat kost je jaren en enorm veel miljoenen. Dus dan zeg je, vanuit strategisch oogpunt, we kopen een bedrijf.	10. De combinatie van 2 (FEI en Philips Electron Optics) heeft de positie op beide markten versterkt. Het initiatief van de transactie is natuurlijk van 2 partijen gekomen, want ook Philips had hier baat bij.  11. Wij waren eerst Philips Semiconductors, daarna NXP Semiconductors en nu dus Trident Microsystems. In 2006 was NXP opgedeeld in 4 business units, waaronder 1 business unit en dat heette: Home. Deze unit heeft in de gebieden waar het actief was, altijd onder druk gestaan na het analoge tijdperk om het realiseren van de marges in het digitale domein. Op 1 Januari 2009 waren er nog maar 4 spelers op de markt. Er is toen een hele speciale constructie bedacht, waarbij NXP nog steeds voor 60% eigenaar is van Trident. Trident heeft dit dus gedaan om zijn marktpositie te verbeteren en zijn objective om een 1 miljard bedrijf te worden, dat hadden wij op een bepaald moment, te realiseren. Op dit moment zijn wij in deze wereld van TV en digitale decoders, weer nummer 1.	12. Dus vanuit de optiek van Virage Logic, paste dit in de strategie: Virage Logic wilde graag het bedrijf versterken met mensen die in het ‘Design’ domein werken, ze wilden graag één van de sterkste organisaties zijn binnen dat domein, Virage Logic krijgt een groter klantenbestand en heeft de ambitie om te groeien. Deze Carve-out van 150 man van NXP naar Virage Logic is gericht op het versterken van de concurrentiepositie. Dit door meer knowhow in-house te hebben en verder is het ook de ambitie van Virage Logic om in de ‘Design’ tak een sterke poot te hebben. Hierdoor is de ‘Equity Carve-out’ dus minder gericht op groei van de organisatie zelf.
<b>Growth (increased knowledge)</b>	3. De unit voor chips van mobiele telefonie is meegegaan in een Joint Venture tussen ST Microelectronics en NXP, op basis van het portfolio en de ‘economies of scale’ bij NXP. Deze unit moest groter worden, maar kon dat niet binnen NXP.  5. Het enige wat Whirlpool doet is Whitegoods, dus wanneer ze hiermee zouden stoppen, stopt Whirlpool. Ik denk dat je niet kunt bestaan als je niet groeit, dus moet je als bedrijf groeien en dit kun je alleen realiseren door efficiënt de diepte in te gaan en niet de breedte! Dat kan door fusies en overnames, of door autonome groei. Voor Whirlpool was het dus: ik moet groeien! Ik heb mijn marktaandeel al zeer groot in Amerika, maar nog niet in de rest van de wereld, dus neem je bedrijven over, zoals Philips	10. FEI was een spin-off van de Universiteit van Portland. Philips heeft door middel van een ‘Reversed Take-Over’ een meerderheid van de aandelen in FEI verworven en heeft dat aandelenbelang opeenvolgend afgebouwd. De hoofd driver voor die merger, vanuit een FEI perspectief, is te komen tot een groei van de onderneming. Het is hoofdzakelijk voor de groei van FEI geweest.  11. Trident heeft dankzij deze spin-off toegang verkregen tot patenten en zijn sales-kanalen vergroot. Op dit gebied heeft deze spin-off gezorgd voor groei binnen Trident.	

	Whitegoods.  7. Kijk toen wij die machinefabrieken van Philips overnamen, wilden wij in eerste instantie groeien. Dat is de belangrijkste rede, maar ook van groot belang in de economie.		
<b>Distribution (Geographical/Risk)</b>	7. En de geografische spreiding. Je bent over een breder vlak vertegenwoordigd op de markt. Voornamelijk produceren in de groeiende markten van Singapore en het Verre Oosten.	10. Wij zijn in 1998 afgesplitst van Philips, toen was er geen marktstructuur, er was echter gewoon één bedrijf. Ondertussen hebben wij 4 marktdivisies. Die marktdivisies geven ons een stukje diversificatie, dus ook risicospreiding.	
<b>Heuristics</b>	3. Op een gegeven moment moet je een besluit nemen. Je hebt geen tijd om alle details tot 10 cijfers achter de komma uit te zoeken. Wil je dit wel, dan moet je zo verschrikkelijk veel mensen gaan contacteren dat het dan een onwerkbaar situatie wordt. Op dat moment neem je dus een besluit op basis van hoofdlijnen en accepteer je de consequenties op basis van de beschikbare details.	11. Op basis buikgevoel zou ik zeggen dat we wat moeten gaan doen, waarbij één van de mogelijkheden kan zijn dat wanneer we bijvoorbeeld een oorlogskas hebben of we vinden investeerders die ervoor zorgen dat er zo'n oorlogskas komt, is dat we dan bedrijven gaan overnemen. Dat een bepaald bedrijf dan een potentiële kandidaat is. Vanuit dat onderbuikgevoel ga je dus kijken van welk bedrijf kan mij bepaalde meerwaarde bieden. Uiteindelijk zorgt een 'due diligence' proces ervoor, dat is een zeer arbeidsintensief werk om daar de data uit te halen die jou buikgevoel rationeel gaan onderbouwen, dat dit de juiste partij is op basis van dit en dit.	

Table 7: Results Table Entrepreneurs