Sustained value creation & value capture in organizations

Sustainable success factors in SMEs

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Table of Contents

Summary .................................................................................................................. 3

Chapter 1: Introduction .......................................................................................... 6
1.1 Introduction ......................................................................................................... 6
1.2 Core concepts and problem description ............................................................ 7
  1.2.1. Sustained value creation and value capture ................................................ 7
  1.2.2. Business model .......................................................................................... 7
1.3 Research objective ............................................................................................. 9
1.4 Research question .............................................................................................. 10
1.5 Scientific relevance .......................................................................................... 10
1.6 Practical relevance ........................................................................................... 11
1.7 Thesis outline ................................................................................................... 11

Chapter 2: Theoretical framework ....................................................................... 12
2.1 Business models ............................................................................................... 12
2.2 Value creation and value capture; components of business models .............. 13
  2.2.1 What is sustained value creation and value capture? ................................. 15
2.3 Capabilities and Capacities ............................................................................... 15
2.4 Business model innovation .............................................................................. 16
  2.4.1. What are the critical capabilities or critical success factors in creating value
       and capturing value? ....................................................................................... 19
2.5 Critical success factors and value creation/value capture ............................ 22
  2.5.1. Entrepreneurial capabilities .................................................................... 22
  2.5.2. Innovative capabilities ............................................................................. 23
  2.5.3. Dynamic capabilities ................................................................................ 23
  2.5.4. Open innovation capabilities .................................................................... 23
  2.5.5. Absorption capacity ................................................................................ 24
  2.5.6. Change capacity ....................................................................................... 24
  2.5.7. Transformative capabilities ...................................................................... 24
2.6 Conceptual model ............................................................................................. 24

Chapter 3: Research Design .................................................................................. 27
Summary

In order for a commercial organization to secure their existence both in the present and in the future, one has to be profitable. This is realized as organizations perform certain activities as described in their business model. The business model of an organization can be defined as the set of activities a firm performs, how it performs them, and when it performs them. As it uses its resources to perform these activities, given its industry, to create superior customer value and put itself in a position to appropriate value (Afuah, 2004 cited by Lambert & Davidson, 2013). A business model can be subdivided into two separate yet connected components. The first component is concerned with the creation of value and the second component is concerned with the capture of value.

Given the dynamics of the environment in which an organization operates, an organization needs a business model that is appropriate for handling these dynamics. So, for an organization to be able to keep up with changing demands, one has to posses an innovative business model to create value and capture value on a continuous base. This thesis has been written to examine how organizations are able not only to be successful in the present but remain to be so in the future. This has been realized by examining the organizational capabilities supporting value creation and value capture. To examine this, the research question for this research is therefore:

Which critical success factors affect the realization of sustained value creation and value capture within SMEs?

In order to support the main research question, several sub questions have been designed to explain some of the underlying points of concern. Critical success factors are a term that is being frequently used in the literature. It is therefore of importance to understand what the critical success factors in creating and capturing value are. Furthermore, the term 'sustained value creation and value capture' needs to be explained for it to be measured. And finally, it is of importance to know how SMEs realize sustained value creation and value capture.

To gain further insights into business models and their components a literature review has been performed. In this theoretical framework various theories around business models have been studied. The distinction between strategy and a business model is first discussed whereafter the business model concept is
discussed. This relative new concept in science has many different interpretations. This study has followed a widely accepted view as to which components appertain to a business model. These components have been elaborately discussed together with the underlying capability theories supporting them. Many different capabilities have been explained and linked to one another establishing a framework that embodies several different capabilities that support the components of a business model. The importance for organizations to be innovative has been discussed and the capabilities they have to possess in order to achieve this have been identified based purely based on literary findings. Furthermore comprehensive tables have been designed to provide a clear picture of the many different capabilities.

The next step to answer the research question has been the design of a research framework to examine this. The decision has been made to choose for secondary research as the research method for this thesis, this because there was a large and valuable set of data readily available to be used. The secondary data for this research came from past primary research performed by students of the Fontys Hogeschool/Business Management SME. First several reports have been analysed. These report measured the innovation capacities of SMEs on several fields such as – acquiring knowledge and technologies, - generating and concretizing ideas, and – exploiting new products. To support these results, several fitness tests that have also been conducted by the students have been analysed. These fitness tests measured the innovation capacities of SMEs on five different dimensions such as – organization, - linkages and – learning.

The results of these analysis’s show that the researched SMEs possess many organizational capabilities supporting value creation but lack capabilities supporting value creation. Both the absorption capacity, open innovation capacities and the entrepreneurial capability were among the most commonly found organizational capabilities. The absorption capacity can be defined as a collection of routines that includes the ability to initiate a change from the inside as well as to identify and assimilate ideas from the external environment (Lewin, Massini & Peeters, 2011). The open innovation capacity can be defined as the paradigm that assumes that organizations can and should make use of both internal and external ideas (West & Bogers, 2014). And the entrepreneurial capability can be defined as the ability to identify and acquire the necessary resources in order to respond to new chances in the market, or to create new chances (Karra, Phillips & Tracey, 2008).
Besides the confirmation of the importance of these organizational capabilities supporting value creation, other findings have been made. The absence of value capturing capabilities is one of the main results of this thesis. This absence seems to be mainly due to shortage of time and lack of sufficient systems in place in the researched organizations to capture the benefits from innovations.

In addition to these findings, a more practical finding has been made. The role of owner/managing director has proven to be an all-important factor when examining the innovation capacities of an SME. This single person has the power to make or break any (potential) innovations. This variable has not been taken into account in any of the existing audit frameworks measuring the innovation capabilities of SMEs. Therefore it should be included in these audit frameworks to give a more complete picture of the factors influencing sustained value creating and value capture within SMEs.

The results that this thesis provides are an addition to the science in management through the link between several innovation theories and change concepts, thereby complementing each other. Time has been, as in many cases, a limitation for this thesis. Therefore further research could proceed and build on this thesis to gain more insight into this relatively new field in science.
Chapter 1: Introduction

1.1 Introduction

‘Business model concepts’ are at the basis of value creation and value capture processes of organizations. A business model describes how an organization creates, delivers and captures value. Nielsen & Lund (2012) cited by Bonazzi & Zilber, (2014) define a business model as the cohesion of the strategic choices of the organization, which enable relationships to create value at the operational, tactical and strategic level. The relevant business model is designed to conform to the current situation of the organization. In an ever-changing environment there is a need for organizations to be dynamic and flexible enough to be able to go along with this changing environment. Organizations have to innovate in order to continually create, deliver and capture value bases on their business model. Koen, Bertels & Elsum (2011) state that business model innovation represents a new frontier in innovation beyond just product or service innovation. However, it challenges most established firms to the core of their organization and culture and has proven very difficult for many companies. Giesen et al. (2010) cited by Lambert & Davidson (2013) state that successful business model innovations are – focuses both internally and externally, - based on en continually guarded by the use of advanced analyses and - designed to be adaptable.

Despite the acknowledgement in the literature for the necessity of business model change, empirical evidence is still lacking on what is necessary to bring this change about (Achtenhagen, Melin & Naldi, 2013). With this statement, the importance of change is meant that goes beyond the acknowledgement that strategy and thus experimenting are involved. To achieve sustainable value creation, an organization must have certain capacities in order to anticipate constantly to the changing environment. These difficult to replicate capabilities enable the organization to transform itself and adapt to the environment (Achtenhagen et al., 2013).
1.2 Core concepts and problem description

In this paragraph several core concepts will be explained that are of importance for this study.

1.2.2. Business model

Business models are a relatively new concept in science in which in recent years more and more research has been done. Chesbrough (2010) defines a business model in a comprehensive manner by explaining the functions of a business model. According to Chesbrough (2010) a business model fulfils the following functions;

- Articulates the value proposition.
- Identifies a market segment and specify the revenue generation mechanism.
- Defines the structure of the value chain required to create and distribute the offering and complementary assets needed to support position in the chain.
- Details the revenue mechanism(s) by which the firm will be paid for the offering.
- Estimates the cost structure and profit potential.
- Describes the position of the firm within the value network linking suppliers and customers.
- Formulates the competitive strategy by which the innovating firm will gain and hold advantage over rivals.

Creating and retaining value, also called value creation and value capture, are the two main components of the concept of a business model. To achieve long-term value creation and value capture it takes more than static capabilities. An organisation needs to possess dynamic capabilities to cope with the changes in a dynamic environment.

1.2.1. Sustained value creation and value capture

Sustained or sustainable, in this sense refers to value creation and value capture on a continuous basis. This sustained value creation and value capture is achieved if on a continuous basis objectives are met. Not only by targeting the business model of the organization to specific developments and circumstances. But by constructing the organization and its business model in such a way that it is dynamic enough to cope with an dynamic environment on a continuous basis. Organizations that have
already been successful for a period run the risk of discontinuity if they continue to do what has always seems to be right. In doing what they always have been doing, which therefore seems to be right for them, they do not adapt their business model to the competitive situation (Doz & Kosonen, 2010 cited by Achtenhagen, 2013). Nowadays, it is for example important to innovate in networks, where previous innovation within the organization was sufficient to create value (Benner & Tuschman, 2013). Sustained value creation and value capture is based on the successful forming, adapting and renewing of the underlying business model of the organization on a continuous basis, which compromises the basic concept of how an organization creates, delivers, and captures value (Osterwalder & Pigneur, 2010 cited by Achtenhagen et al., 2013). Thus, what value is for an organization can be subjected to continuous change.

1.2.3. Capabilities and capacities

The perspective of dynamic capabilities is aimed at explaining the sources of organizational success by focusing on difficult to replicate capabilities that enable the organization to change, shape and adapt to the environment (Teece, Pisano, & Shuen, 1997; Eisenhardt and Martin, 2000 cited by Achtenhagen, 2013). Dynamic capabilities enable business model innovation. These capabilities are what enable an organization to be dynamic and be innovative in their activities. Key elements of dynamic capabilities are organizational and management processes that support the discovery and seizure of business, technological and market opportunities (Teece, 2007 cited by Achtenhagen et al., 2013).

It has been argued that the deployment of different capabilities creates value for customers. In highly uncertain environments, companies require continuously enriched and reconfigured capabilities, as well as new capabilities (Sirmon, Gove & Hitt, 2008 cited by Achtenhagen et al., 2013). A company does not only have to maintain their single loop learning capabilities, but also their double-loop learning abilities (Argyris, 2000). This implies that the continued success, -sustainable value creation and value capture-, requires more than selecting a business idea and mobilize resources and competencies that are hard to imitate (Achtenhagen et al., 2013).

However, knowledge about dynamic capabilities is limited so that the dynamic capabilities framework is somewhat abstract and unspecified. There is insufficient
evidence from studies about what it takes to cope with change and what it takes to achieve sustained value creation and value capture. Various fields of research describe several different capabilities supporting value creation and value capture within organizations. Entrepreneurship theory mentions the identification and creation of chances, while open innovation theory mentions the participation in innovation projects and networks. The absorption theory describes the identification of ideas and the initiating of change. The change theory mentions the will and desire to learn and break of routines. And the innovation theory mentions the development and transformation of knowledge into products.

Dynamic capabilities enable a company to shape, adapt and renew business models to create value and ultimately capture value in a sustainable way. These capabilities can be seen as the critical capabilities supporting sustained value creation and value capture as will be further discussed later on.

Therefore, this research focuses on the entrepreneurial capabilities, innovation capacity, open innovation capacity, absorption capacity and the capacity for change. Furthermore research shows, that there are few influential individuals in organizations that can be crucial factors according to Suarez to create continuous value and support innovations (interview Tilburg University, 2011). This is supported by Aral & Walker (2012) who state that these so-called influential individuals catalyse the diffusion of opinions, behaviours and innovations. Also, the size of the organization affects the capabilities that an organization should possess (Spithoven, Vanhaverbeke & Roijakkers 2013). SMEs require different capabilities in comparison with larger companies.

1.3 Research objective

The goal of this research is to gain insight into how (continuous) business model innovation can be achieved in order to be able to adequately respond to changes in the dynamic environment. This is being done by analysing different organizational capabilities that are of importance for the creation and capturing of value. By doing this, a clear overview is created, showing the critical success factors to achieve sustained value creation and value capture. When this insight is established an audit tool concept will be created in order to measure these organizational capabilities. Existing audit tools focus individually on the different organizational capabilities. This new audit tool will contain all of the organizational capabilities that have proven to be
of importance for SMEs with regard to this research in order to achieve sustained value creation and value capture.

1.4 Research question

To accomplish the research objective, critical success factors that are required to achieve sustained value creation and value capture will have to be identified. These critical success factors are what enable organizations to create value in a sustainable way by shaping, adapting and renewing their business model (Achtenhagen et al., 2013)

This study covers open innovation defined by West & Bogers (2014) as the paradigm that assumes that organizations can and should make use of both internal and external ideas. This will be done by conducting a study on the characteristics of the (open) innovation capabilities of SME’s.

The research question for this study is as follows:

*Which critical success factors affect the realization of sustained value creation and value capture within SMEs?*

In addition to the main research question some sub questions will be answered to support and complement the main research question of this paper. The following sub questions will be answered in this paper.

- What is sustained value creation and value capture?
- What are critical capabilities or critical success factors in creating value and capturing value?
- How do SMEs realize sustainable value creation and value capture.

1.5 Scientific relevance

Despite the acknowledgement in literature about the need for business model innovation, empirical evidence is still lacking about what is necessary to bring this change about (Achtenhagen et al., 2013). This research contributes to the science in management by examining which critical success-factors SME’s have to possess in order to realise sustained value creation and value capture. Little research has been done on open innovation in SME’s en how these organizations differ from larger organizations (Spithoven et al., 2013). Furthermore, a review and synthesis
of various capability literatures has not been done yet. This paper will focus on this synthesis therefore helping to clarify these large concepts and their relations.

1.6 Practical relevance

The practical relevance of this research can be found in the focus on SME’s. Most previous research has focused on capabilities in large organizations. SME organizations differ from large organizations because of their different characteristics. For example, because of their relatively small size they are in most cases better able to respond to changes in their environment (Spithoven et al. 2013). Eventually some critical success-factors will be identified that support the realization of sustained value creation and value capture. This identification is of practical relevance.

1.7 Thesis outline

This introduction chapter has focused on the core concepts and the problem description, the research objective, the research question and the scientific and practical relevance. Chapter two contains the theoretical framework and the conceptual model. Chapter three contains the research design, the methodology, data collection and operationalization. Chapter four will present the results from the research. And in the final chapter five the discussion, conclusion, limitations and implications can be found. The appendix contains a newly developed audit framework and the explanation of the innovation scan that has been used.
Chapter 2: Theoretical framework

This theoretical framework contains various theories about business models and business model innovation derived from the literature. This chapter tries to give a comprehensive representation of these subjects by identifying them and linking them to one another. Choices have been made to include the components that are of primary importance for this thesis, therefore excluding components that belong to business models nonetheless but are not regarded to be of primary importance.

2.1 Business models

Strategy is determined in order to achieve the organizational goals and to give direction to activities. The strategy of an organization is regarded as the choice of the business model with which the organization will compete on the market (Casadesus-Masarell, 2011). Strategy can be seen as the input for the business model. It is important to emphasize the distinction between strategy and a business model. Strategy is more focused on value capture, competition and the creation of value for shareholders. Where a business model is focused on value creation, collaboration and the creation of value for stakeholders (Chesbrough & Rosenbloom 2002; Zott et al., 2011 cited by Casprini, 2015). Creating and retaining value, also called value creation and value capture, are the two main components of the business mode concept. Although there is no comprehensive definition of a business model to be found in the literature, there are several definitions of business models in the literature.

A business model according to Teece (2010) articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. Nielsen & Lund (2012) cited by Bonazzi & Zilber (2014), define a business model as the consistency of the strategic choices of the organization, enabling relationships to create value at the operational, tactical and strategic level. Casadesus-Masarell (2011) describes a business model as the logic of the business, how it works and how it creates value for its stakeholders. A business model provides both organizations' configuration-endorsement of a particular opportunity (George & Bock, 2011) as a consistent and integrated view of a company and the way it generates sales and profits (Yunus, Moingeon, & Lehmann-Ortega, 2010).
According to Casprini (2015), a broad definition of a business model can be identified by looking at a business model as the way an organization creates and captures value. Although there is still some disagreement about the relatively new concept, a business model, many authors agree that both value creation and value capture are part of a business model. Afuah (2004) cited by Lambert & Davidson (2013) defines a business model as the set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate value.

The theory around the concept of business models is relatively new, meaning that a comprehensive definition of a business model cannot be given yet. Most researchers, however, agree that two components in any case belong to a business model. Value creation and value capture. On the basis of these two components, a business model will be defined in this study.

2.2 Value creation and value capture; components of business models

The term ‘value’ or rather ‘perceived value’ can be translated into monetary terms. It can be defined as the price the customer is willing to pay for the product if there would be a single source of supply. This judgment is based on the assessment of the value of the product coupled with the willingness of the individual to pay (Bowman & Ambrosini, 1998). The term value creation is defined by Lepak (2007) as a concept that is dependent on the relative amount of the value which is subjectively realized by an intended user (or buyer). And that this subjective value is at least translated into the readiness of the user to exchange a monetary amount for the received value.

Bowman & Ambrosini (1998) argue that value is realized when a sale is made. A sale can be realized if customers believe that one product offers more consumer surplus shows than other feasible alternatives. So organizations create value through the production and sale of products or services. It has become clear that the creation of value can be seen from several different perspectives. Wallin (2000) has provided a framework shown in figure 2.1 to explain value creation within organizations. In his value creation framework Wallin categorizes a firm's business capabilities among two axes, which are internal-external and resources-customers.
In this way it is possible to distinguish amongst capabilities and see how they create value for the organization.

**Figure 2.1 Value creation framework**

<table>
<thead>
<tr>
<th>Resources</th>
<th>Customer-Interaction Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource-integration Capabilities</strong></td>
<td>Is the capability to listen to and understand the customer, as well as the ability to communicate to the customer the value creation possibilities of the firm, and to do so over long periods of time.</td>
</tr>
<tr>
<td><strong>Generative Capabilities</strong></td>
<td>Is the ability to create new bundles of product traits that constitute firm-specific competences. Two important features of generative capability can be identified, innovation and execution.</td>
</tr>
<tr>
<td><strong>Transformative Capabilities</strong></td>
<td>Refers to the ability to combine bundles of product traits that in terms of physical, service and people content have the threshold traits required by each customer and which can be offered at costs less than their perceived value-creating potential.</td>
</tr>
</tbody>
</table>

Value capture goes a step further, since this concept is concerned with the capture of value, the capture of the benefits from the innovation. These two concepts are connected to each other, but the retention of value or extracting value is described as a step beyond just creating value. The extraction of value from value-creating benefits and assets is for many organizations the main objective. The generic strategies such as cost leadership, differentiation and focus, focus on the company level, and are formulated explicitly in terms related to value capture (Porter, 1985 cited by Pitelis, 2009). Bowman & Ambrosini (1998) argue that value capture depends on customers; the bargaining relationship between the organization and the customer. The presence of nearby viable substitutes reduces the potential of the organization to capture value in the form of high prices.

Value can be subdivided into tangible and intangible value. According to Allee (2008) intangible assets include relationships, employee know-how and competency, the effectiveness of the organisation’s work groups and structure, the efficiency of the organisation’s production and service processes and the level of trust between the people or organisations forming the relationships. Tangible assets are financial resources and other capital-based resources that are controlled by the firm.
2.2.1 What is sustained value creation and value capture?

It is known from previous research that companies that have been successful for some time, run the risk to fail if they continue doing for too long what used to be right, without adapting their business model to changes in the competitive situation (Doz & Kosonen, 2010 cited by Achtenhagen et al., 2013). Sustained value creation relies on successfully shaping, adapting and renewing the underlying business model of the company on a continuous basis, which comprises the rationale of how an organization creates, delivers, and captures value (Osterwalder & Pigneur, 2010 cited by Achtenhagen et al., 2013). This continuous shaping, adapting and changing the business model is in the literature described as business model innovation. In this perspective sustained value creation can be understood as a firm’s continuous success.

Achtenhagen et al., (2013) discuss three strategizing actions for sustained value creation:
- Combining organic growth with strategic acquisitions
- Focusing on simultaneous expansion along different dimensions
- Combining cost-efficiency with a high-quality focus.

Sustained value capture means that the organization can continuously capture the benefits from the innovation(s). Creating value is one thing, but capturing this value is a different component of the business model. Sustained value creation and value capture therefore means not only being successful in the present, but also in the future.

2.3 Capabilities and Capacities

For an organization to create and ‘hold’ value it needs to have certain capabilities. Winter (2000) defines an organizational capability as a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization’s management a set of decision options for producing significant outputs of a particular type. If organizations want to change they have to possess the capacities to do so. This organizational capacity for change, is defined by Floyd & Wooldridge (1996) as a broad and dynamic organizational capability that allows the enterprise to adapt old capabilities to new threats and opportunities as well as create new capabilities. This definition implies that the capabilities are part of the
capacity of the organization. The capabilities are the components that form the capacity; they can be seen as the building blocks of a capability.

In order to keep creating and capturing value in a constantly changing environment, more dynamic capacities and capabilities are required. Dynamic capabilities distinguish themselves from other capacities by the fact that they are involved in change. These dynamic capacities are according to Eisenhardt (2000), the processes of an organization that make use of resources - in particular, the processes in order to integrate the resources, reconfigure, and the gain and release of resources- in order to adapt to market change, and even create market change. Teece, Pisano, & Shuen, (1997) cited by Barreto (2010) define dynamic capabilities as the ability of the organization to integrate internal and external competencies, and build and reconfigure them to address rapidly changing environments. More recently, Helfat et al. (2007) cited by Barreto (2010) have defined dynamic capabilities as the ability of an organization to purposeful create, expand or modify its resource base.

Barreto (2010) defines a dynamic capabilities as the firm’s potential to systematically solve problems, formed by its propensity to sense opportunities and threats, in order to take timely and market-based decisions, and to change the resource base.

Achtenhagen et al., (2013) appoint the identification of-, experimenting with- and exploiting of business opportunities dynamic capability and critical success factor for an organization in order to achieve sustained value creation and value capture.

Achtenhagen et al., (2013) also mention the use of resources in a balanced way as a critical success factor. This means to fully develop the entire resource base including various financial, human and organizational knowledge resource types.

Finally, Achtenhagen et al., (2013) appoint achieving coherence between active and clear leadership, strong organizational culture and employee engagement as a critical success factor to achieve sustained value creation and value capture.

2.4 Business model innovation

While business models are traditionally concerned with firm-level value creation and capture, business model innovation poses in addition questions about novelty in customer value proposition and about respective logical reframing and structural reconfigurations of firms (Spieth, 2014). In a changing environment an organization must be furnished so that it can adequately anticipate to changes in the environment.
The ability to change is expressed by Meyer & Stensaker (2006) as the idea that in addition to dealing with change, innovation and renewal, organizations should make the most of existing opportunities. In order to innovate the business model, capabilities are important.

Business model innovation can be defined as the discovery of a fundamentally different business model into an existing organization (Markides, 2006) or as the search for new business logic of the organization and new ways to create and capture value for its stakeholders (Casadesus-Masanell &; Zhu, 2013). Koen, et al. (2011) argue that business model innovation represents a new frontier in innovation beyond product or service innovation.

Chessbrough (2003) cited by Dahlander & Gann (2010) proposes further that organizations can and should make use of both internal and external ideas, and should walk internal and external paths to market; they express this as being open innovation. Chessbrough &; Crowther (2006) define open innovation as the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and to expand the markets for external use of innovation. Open innovation is usually contrasted with closed innovation, where companies generate their own innovation ideas, and then develop, build, market, distribute, service, finance, and support them on their own (Chesbrough, 2003 cited by Huizingh (2011).

Several capabilities that are closely related to the open innovation capability are the capabilities identified by Wallin (2000). Wallin (2000) has provided a framework to explain value creation within organizations as has been shown in figure 2.1.

Lawson &; Samson (2001) write about the capacity to innovate where the innovation capacity is defined as the ability to continuously convert knowledge and ideas into new products, processes and systems for the company and its stakeholders. The capacity to innovate is not just the ability to be successful at running a new stream business, or managing mainstream capabilities. The capacity to innovate is about synthesizing these two operational paradigms. The innovation capability is proposed as a higher-order integration capability, that is, the ability to mould and manage multiple capabilities. Organisations possessing this innovation capability have the ability to integrate key capabilities and resources of their firm to successfully stimulate innovation (Fuchs, Mifflin, Miller &; Whitney, 2000) cited by Lawson &; Samson (2001).
The successful development of their business model is important for organizations. In order for organizations to continue to create value over time, they have to be entrepreneurial. In order to be entrepreneurial, one must possess entrepreneurial abilities. These entrepreneurial capabilities defined by Phillips & Tracey (2007) as the ability to identify a new opportunity and the development of the resources that are necessary in order to pursue this possibility. This definition can be used both at the level of individual entrepreneurs as at the level of entrepreneurial teams or as organizations that act as business entrepreneurs.

Karra et al., (2008) state that the entrepreneurial capacity refers to the ability to identify and gain necessary resources and to act on the opportunities in the market, or to create new market opportunities. These entrepreneurial capacities have a lot in common with the absorption capacity of an organization in which it is about spotting innovation opportunities and the ability of an organization to convert them into products or services and to put them successfully in the market. One distinction between them is the focus on knowledge in the absorption capacity compared to the entrepreneurial capabilities. This search, acquisition and use of knowledge are the core of the absorption capacity of an organization.

Lewin et al., (2011) define the absorption capacity as a collection of routines that include the ability to initiate a change from the inside as well as to identify and assimilate ideas from the external environment.

The long-term success of an organization depends on its ability to exploit its existing potential and to discover fundamentally new skills (Levinthal & March, 1993 cited by Raisch, Birkinshaw, Probst & Tushman, 2009). Organizations that are able to simultaneously exploit existing skills and explore new skills are called ambidextrous organisations (Raisch et al., 2009). One of the tensions that can be found in an ambidextrous organization is the tension between differentiation and integration. Differentiation refers in this split to the separation of operating and exploratory activities in different units. Integration refers to the mechanisms by which exploitation and exploration units are in the same place. Another tension is related to the distinction between a static- and a dynamic- perspective on ambidexterity. The majority of studies on organizational ambidexterity give some solutions that enable organizations to simultaneously achieve these two perspectives / activities. Given the dynamics of markets and organizations, it is important to combine static elements with more dynamic perceptions of ambidexterity (Raisch et al., 2009).
These findings have similarities with the theory of dynamic capabilities where it is important for an organization to move along in the dynamic environment while continuing to create and retain value as well. Ambidexterity can, in accordance with O’Reilly & Tushman (2008) cited by Raisch et al., (2009) only become a dynamic capacity if management repeatedly and intentionally arranges the resources of the organization. Thus, dynamic capabilities are heavily related to time. Therefore, a longitudinal study is the only way to fully understand the dynamic capabilities of an organization.

Dynamic capabilities include and integrate both static and dynamic components - the interaction of exploitation and exploration is expected to become a full-fledged dynamic capacity over time, and can be seen as a critical success factor in order to achieve sustained value creation and value capture. Managing organizations through the simultaneous pursuit of the exploitation and exploration is thus a function of a dynamic-rather than static alignment (Raisch et al., 2009).

2.4.1. What are the critical capabilities or critical success factors in creating value and capturing value?

For organizations to be successful in achieving sustained value creation and value capture an organization must have certain critical success factors and capacities. These critical success factors are subdivided into specific characteristics or abilities. This research will be focused on identifying critical success factors that ensure that sustained value creation and value capture can be realized.

In the literature several organizational capabilities already have been identified. By defining these organizational capabilities, critical success factors are distilled that can be important for understanding what can support sustained value creation and value capture in organizations. The critical success factors that have been obtained from the literature are translated into organizational characteristics that make them measurable in practice. In this way, a link is established between the theoretical concepts and practically measurable units. This will be further discussed in chapter 3.

Table 2.1 gives a clear view of the different organizational capabilities and capacities of organizations that could ensure that sustained value creation and value capture can be realized. These organizational capabilities are defined by Winter (2003) as a
high-level routine or collection of routines for which the management of an organization, together with the implementing input flows provides a range of possibilities for producing large outputs of a particular type.

Critical capabilities can be conceptualized as those dynamic capabilities that enable a company to shape, adapt and renew business models to create value in a sustainable way. Critical capabilities are formed by strategic and organizational activities Achtenhagenet al., (2013). Such ability, or critical capability, emerges from complex strategic choices on how to manage organizational activities, such as the choice of market segments, or of growth modes. These critical capabilities and their activities mutually reinforce each other as complementarities according to Achtenhagenet al., (2013)— similar to a virtuous circle, which means that in combination these components fuel more sustained value creation through business model change. The next figure 2.2 shows how critical capabilities and subsequent activities are linked to strategizing for value creation (Achtenhagen et al., 2013).

![Critical Capabilities Diagram](image)

**Figure 2.2** Critical capabilities for successful value creation

Source: Achtenhagen et al., (2013)

However, as been said, more theories provide capabilities. Comparing these capabilities enables to identify critical success factors; factors that not only relate to value creation, but also to value capture. The critical success factors for creating
and capturing value can be found in table 2.1. Each organizational capability is defined and translated into a critical success factor that an organization should possess in order to realize sustained value creation and value capture.

Table 2.1 From organizational capability to critical success factor

<table>
<thead>
<tr>
<th>Organizational capability</th>
<th>Definition</th>
<th>Critical success factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial capabilities</td>
<td>The ability to identify and acquire the necessary resources in order to respond to new chances in the market, or to create new chances Karra et al., (2008).</td>
<td>Identifying and acquiring resources. Anticipate and / or creating new opportunities.</td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>The ability to continuously convert knowledge and ideas into new products, processes and systems Lawson &amp; Samson (2001).</td>
<td>Converting knowledge and ideas into products, processes and systems. Developing products, systems and processes.</td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>The ability of the organization to integrate, build and reconfigure internal and external competencies to address rapidly changing environments Achtenhagen et al., (2013).</td>
<td>Identifying, experimenting with and exploiting business opportunities. Use of resources in a balanced way. Achieving coherence between active and clear leadership, strong organizational culture and employee involvement.</td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>The ability of an organization to use both internal and external ideas, and take internal and external paths to the market Chessbrough (2003).</td>
<td>Participate both internal and external. Work in networks Collaborate</td>
</tr>
</tbody>
</table>
2.5 Critical success factors and value creation/value capture

Now that the relationship between the organizational capabilities and the critical success factors has been explained in the previous table 2.1. The relationship between the critical success factors and value creation/value capture will be explained hereafter. Critical success factors are the activities that enable the organizational capability to create and capture value on a continuous base. They can be seen as the building blocks of the organizational capability. In order for an organizational capability to achieve sustained value creation and/or value capture, certain critical success factors have to be present.

How the transition from the critical success factors to value creation and/or value capture is being realized from a literary point of view will be explained hereafter. For each organizational capability it will be made clear how this capability and its critical success factors support value creation and/or value capture. The critical success factors that belong to the specific organizational capabilities have already been identified in the previous table 2.1 and will not be explicitly stated again in the next part.

2.5.1. Entrepreneurial capabilities

The appropriate combination of the identification and acquisition of resources decreases the firms’ liability of newness and makes it easier for them to deal with
complexity and uncertainty. Moreover, these critical capabilities allow firms to develop the bundles of resources that can provide sustained competitive advantage Karra et al.,(2008). This can be seen as the creation of sustainable value. Identifying opportunities for value creation lies at the heart of entrepreneurship and is done in several ways, by identifying opportunities through -active search, -passive search or fortuitous discovery or through - creativity and imagination Karra et al.,(2008).

2.5.2. Innovative capabilities

The high performing innovators who posses the necessary innovative capabilities are able to constantly develop new high quality products more frequently, faster and at a lower cost than competitors. Knowledge is being transformed into processes and systems. The process and system innovations are being used by the firm as a way of further improve their products and add value Lawson & Samson (2001).

2.5.3. Dynamic capabilities

Identifying, experimenting with and exploiting new business opportunities are a way to create value by continuously innovating and thinking outside the box in order to increase sales and profitability. To make sure expansion does not outstrip the resource base of a business, it is of importance to develop the resource base comprehensively and use the resources in a balanced way to control expansion and be able to continuously create value.

The coherence and co-existence of a strong organizational culture, active and clear leadership, as well as commitment to and by the workforce has been identified as a critical success factor for fuelling the strategizing actions for value creation Achtenhagen et al., (2013)

2.5.4. Open innovation capabilities

Value is being created through not only being focused on in-house expertise, but being able to participate both internally and externally. This external part is the participation in networks by which through collaboration value is created. This value network is created around a given business and shapes the role that suppliers, customers and third parties play in influencing the value captured from the commercialization of an innovation according to Chesbrough & Rosenbloom (2002).
2.5.5. Absorption capacity

The absorption capacity enables firms to innovate and learn. This learning is done through the identification and assimilation of ideas from the external environment therefore creating new knowledge through exploitive learning. This knowledge can then be applied to commercial ends in order to create value (Lewin et al., 2011).

2.5.6. Change capacity

Change is needed to be able to create value on a continuous base. In order to be able to change, an organization needs to be able break routines. For change to be successful it should not be regarded as a unguided process but as a managed process Meyer & Stensaker (2006).

2.5.7. Transformative capabilities

Combining bundles of product traits can create additional value that can ultimately be captured. These capabilities enable a community to intentionally instigate transformative action and/or to navigate their way through an active or forced transformation (Wallin, 2000).

It is important to notice that just possessing these critical success factors is not enough, they have to be used in practice in order for organizations to actually realize sustainable value creation and value capture.

2.6 Conceptual model

By combining various capability related literature, a model to examine value creation and value capture in practice can be made. In figure 2.1 the conceptual framework is displayed. This model shows which critical success factors influence either value creation or value capture. This conceptual framework is based on the organizational capabilities and their underlying success factors supporting sustained value creation and value capture. The transition from organizational capabilities to critical success factors has been made in table 2.1. Paragraph 2.5 has already explained the relationships between the critical success factors and value creation or value capture.
Value creation is primarily concerned with the subjective value in monetary terms that the user is willing to pay in exchange for the received value (Lepak, 2008). Simply put, value creation is concerned with the capabilities that create value for the organization.

As mentioned before, value capture goes one step further than value creation. It is concerned with the actual capture or extraction of the benefits from the innovation. The many different critical success factors that are at the base of successful value capture and value creation can all be subdivided under the greater common capacity, namely the innovation capacity.

The innovation capacity is, according to Lawson & Samson (2001), primarily concerned with the ability to continuously convert knowledge and ideas into new products, processes and systems for the company and its stakeholders. This part is primarily linked to the value capture part of innovation, but the capacity to innovate...
is also of paramount importance in order to create value. Prajogo & Pervai (2006) define the innovation capacity as the organizational potential to innovate, which is determined by the skills and strengths in basic R&D and technology. The characteristics of the innovation capacity can be subdivided, as mentioned before, into different organizational capabilities. Although these organizational capabilities have their own specific characteristics, there is some overlap among them.

One of the commonalities that stand out is the critical success factor ‘identification’. The critical success factor identification is of great importance for the entrepreneurial and dynamic capabilities and the absorption capacity. This critical success factor is found in several different organizational capabilities and has some differences based on the organizational capability it is found in. Meaning that in this case identifying resources or identifying business opportunities are very different critical success factors, even though they both concern the identification of something. It is important to be able to measure the correct critical success factors supporting a specific organizational capability.

By doing a cross theory study a more holistic understanding is created of how value creation and value capture is affected. Ambiguity about how value is realized can be reduced.
Chapter 3: Research Design

In this chapter the research design is presented. In this research design the most important clusters of actions are formulated to answer the research questions and achieve the objectives of this research.

The aim of this thesis is first and foremost to establish the critical success factors that support sustained value creation and value capture in SMEs. With this knowledge it is possible to develop an audit tool measuring different capabilities and their critical success factors in one framework. The idea for creating this audit tool or framework came from the absence of a useful audit tool to measure all the different capabilities in one framework.

To substantiate this, this design will contain the following elements.

- Research methodology.
- Data collection.
- Operationalization.

3.1 Research methodology

The designed conceptual model has been tested by both quantitative research and qualitative research; more specifically by secondary research measuring the business model components in practice. This research has been using the existing reports from past primary research by the students of Fontys Hogeschool/Business management SME as the main data input. These reports have been analysed by encoding them in an Excel file. This file has been included in the appendix of this paper and can be found in appendix 3. This form of encoding is called pattern matching. Pattern matching involves predicting a pattern of outcomes based on theoretical propositions to explain what you find from analysing the data. This is being established by developing a conceptual framework whereafter the adequacy of this framework is being tested to explain the findings (Saunders, Lewis & Thornhill, 2012).

The Excel file has been designed in a way that the conceptual model is being tested. The various components of the conceptual model, the many different critical success factors, have all been displayed in a column. Every column after this can be filled with the critical success factors that belong to the specific SME that is being reviewed. In this way an overview is created showing which critical success factors in the reviewed organizations match with the critical success factors found in the
literature. The critical success factors from the literature are all merged within the organizational capability that they belong to. This way it is also easier to observe which critical success factors are more or less commonly found across all the SMEs.

The results from the analysis of the reports have been processed by taking key words from the statements and categorize them under the organizational capability, or more specifically the critical success factor that they belong to. This is a form of concept drive categorization as mentioned by Saunders et al., (2012).

Statements that have been observed at least 7 times in the 21 reports have been taken into account in this study. Statements that have been observed in more than half of the organizations were seen as statements with a strong relation to one another. The decision to not include statements that have been found in less than 7 out of 21 reports has been made in order to focus on the success factors that are commonly found in the SMEs. If an organizational capability and its critical success factors are not found in at least 7 organizations, it is not regarded as an organizational capability supporting value creation or value capture.

In addition, several fitness tests have been analysed in order to gather a more quantitative view on the innovation capacities of the researched SMEs. These fitness tests where related to the reports.

By combining these results, is it possible to make statements about which critical success factors are of importance for sustained value creation and value capture. The findings from the literature will be validated or invalidated, and perhaps new findings will be made.

Finally, audit frameworks will be compared to show the overlap and differences between them. The audit frameworks that will be compared are mainly the fitness test from Tidd & Bessant (2014) and the dynamic capabilities test from Janssen et al., (2012). A new audit tool will be developed. The development of an audit tool, measuring the organizational capabilities and their critical success factors for SMEs in order to realize sustained value creation and value capture, has not been done before. No further actions will be made in this paper with regard to the newly developed audit tool. The audit tool can be found in appendix 1 and contains the different critical capabilities and their success factors as shown in figure 4.1

The data for this study has been collected through the study of reports measuring the innovation capacity of SMEs and questionnaires on the innovation capabilities of
SMEs. There are several different other ways by which data can be collected, for example by using a questionnaire, doing an experiment or doing a case study. The use of an experiment has the disadvantage that the organisation is put in an unusual situation while we want to measure the organizational capabilities in its natural form. A questionnaire may give a lot of information about several subjects, but this information will lack profundity. And this profound information is exactly what is most valuable as data for this research. The use of secondary research has the advantage that the data from the past primary research is already available and suitable to be used for this thesis.

This research will focus on SME organizations; is it therefore a clear choice not to involve large organizations in this study. This has already been discussed in the introduction, in the scientific and practical relevance to be precise. The aim of this study is to look at best practices for SMEs, and focus on critical success factors that provide sustained value creation and value capture.

### 3.2 Data collection

The first part of the data collection is the analysis of reports from fourth year bachelor students of the Fontys Hogeschool/ Business Management SME. In total 42 reports have been analysed. This data used in the reports haves been collected from SMEs in the manufacturing industry. Only 21 out of 42 organizations had enough or substantial innovation capacities to be taken into account in this research. The support for this claim is first of all found in the lack of innovative activities within the specific SME. Many of the SMEs that have not been taken into account did not employ any innovative activities. Therefore, they have not been included in the results as this paper focuses on the success factors in innovation, not the lack of success in innovation. Other SMEs that have not been taken into account claimed that they were not innovative in any way, after reviewing these reports nonetheless, most of these reports could not be used to identify critical success factors.

Some SMEs that showed the potential to employ innovative activities have been taken into account, this has been the case in organizations where many ideas were being proposed, but implementation was lacking.

All SMEs that have been selected have been in existence for several years and have been profitable over the past years. Other SMEs have not been taken into
account for this research. This because of the fact that this study wants to identify the critical success factors supporting value creation and/or value capture, success is therefore needed to identify these success factors. This success is measured if some of the critical success factors that have been derived from the literature are present in the researched SMEs and supports value creation and/or capture. Organizational activities or capabilities that support the creation or capture of value are seen as the success factors in creating and capturing value on a continuous base. This paper wants to establish the relationship between the critical success factors derived from the literature and the creation and/or capture of value. Therefore, the conceptual model is the key element of this paper. Its components are being tested through secondary research as discussed before, after which relations will be established or not found at all.

The reviewed reports have been produced in the past two years; their main goal was to measure the innovation capacities of SME’s. This has been realised by examining the organization and how it performs on several fields. This examination has been done using the Syntens Innovation scan (Kamer van Koophandel). In some cases, the fitness test from Tidd & Bessant (2014) has also been conducted.

The Syntens Innovation scan examines the ambition, surroundings and internal organisation of a company, the innovation capacity and innovation action plan of the organization. All of the reports that have been produced had to maintain the same format as indicated by the scan. This format can be found in appendix 4 of this thesis. The fitness test or innovation audit provides a framework and a brief checklist that enables the assessment of innovation management. In auditing of this kind there is no such thing as an absolute score. It gives some indicators that give some underpinning to what will otherwise be rather subjective judgements about the innovation management capability of a company (Tidd & Bessant, 2014). The content of these reports has been established by conducting interviews and questionnaires.

The reports have been analysed from a more holistic perspective to gain a more abstract view of how and if innovation is managed in SME’s.
These reports measure not only the current capacities of SMEs with regard to innovation, but also their ambitions and fields of improvement. In order to get a good understanding of the capabilities of SMEs, it is important to get a full view of both their strengths and weaknesses. By looking and understanding what the ambitions
and weaknesses of the SMEs are, it is possible to identify their sustainable capabilities. This is realized by measuring the sustainable critical capabilities, as will be discussed hereafter. The data from the reports and the fitness tests provide the necessary input in order to identify the sustainable critical capabilities supporting value creation and value capture.

The results have been obtained through secondary research. This secondary data has been gathered from past primary research performed by students from Fontys Hogeschool/ Business Management SME. Several steps have been taken leading to the final use of secondary research as the research method.

At first a questionnaire has been designed that could be used to conduct qualitative research. The topics of this questionnaire have been used to analyse the internal secondary data. The decision was made not to conduct a qualitative research, but to conduct a secondary research instead. The topics from the past primary research performed by the students had a lot of overlap in comparison with the designed questionnaire. The focus of this paper is sustained value creation and value capture within SMEs. The underlying capabilities and their critical success factors are therefore the research domain.

The next step was to normalize the data. This data is normalized by creating components under which the data from the past primary research could be categorized or subdivided. This has also been done by one single person, me, a master degree student. No other person has done this, neither has this been verified by anyone else.

The final step was analysing the data. In this step it is important to seek actionable findings to move the project forward. It is important to look back at the list of research questions from the first step and ask if they have all been answered and if there is any new question been raised. The most important goal is to come up with future actions for the project (Thuy Linh Do, 2009). A specific chapter from the reports has been analysed. This chapter, the organisational innovation capacity to be precise, provided the necessary input that matched the research topic.

Secondly, fitness tests about the innovation capabilities of SMEs have been analysed. In addition to the qualitative data from the interviews conducted by the
Fontys Hogeschool/Business Management SME students, several fitness tests have been conducted since 2014. The audit framework that has been used for these tests has been designed by Tidd & Bessant (2014). This audit framework has been designed to help organizations reflect on how well they deal with the challenges of managing innovation. This is done by measuring the innovation capacity of organizations on five different dimensions: strategy, processes, organization, linkages and learning. In total, information has been gathered from 17 different organizations and 39 different persons within these organizations. This has been realized by merging several bundles of results that have been gathered. The average results of the 39 different persons have been calculated creating a number between one and seven. One as the lowest possible score and seven as the highest possible score for the dimensions mentioned.

The results from the fitness tests can be seen as a support for the results of the innovation scan. The average scores of the specific dimensions of the fitness tests serve as an additional source of results to confirm or refute the importance of certain critical capabilities. If an average score of a minimum of 4 out of possible 7 points on the Likert scale is scored, it means that this dimension is slightly favourable. This average score is the average of 39 different scores.

In this thesis the dimensions that are of primary importance are the dimensions linkages, organization and learning. The dimension 'linkages' is closely related to the open innovation capabilities of the organization, the dimension 'learning' is closely related to the absorption capacity and the dimension 'organization' is closely related to the dynamic capabilities theory. The other dimensions 'strategy' and 'processes' are not as closely linked to one of the organizational capabilities and are therefore not included in this paper.

In addition to the organizational capabilities that have been derived from the literature and their critical success factors that have been the variables for this study, a new and unexpected factor has been noticed while analysing the reports. The influence of the owner and his/hers openness towards innovations was mentioned in multiple reports as an important factor in whether or not an organization is innovative. Therefore this factor has been included in this study.
3.3 Operationalization

The following variables that can be found in table 3.1 are of importance in this study; all variables have been derived from the literature as being the critical success factors supporting value creation and value capture. This table shows the link between the organizational capabilities, the critical success factors and the measurement of these concepts in this study.

Table 3.1 The variables regarding organizational capabilities

<table>
<thead>
<tr>
<th>Organizational capability</th>
<th>Critical success factors</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial capabilities</td>
<td>Identifying and acquiring resources. Anticipate and / or creating new opportunities.</td>
<td>Keywords in reports: Identifying, creating and anticipating on chances</td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying, experimenting with and exploiting business opportunities. Use of resources in a balanced way. Achieving coherence between active and clear leadership, strong organizational culture and employee involvement.</td>
<td>Fitness test questions: 3,8,13,18,23,28,33,38. Keywords in reports: Identifying and experimenting, achieving coherence and engagement</td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>Participate both internal and external. Work in networks Collaborate</td>
<td>Fitness test questions: 4,9,14,19,24,29,34,39. Keywords in reports: Participate in innovation projects, work in networks, collaborate</td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Learn Initiating change. Identify and assimilate ideas from external environment.</td>
<td>Fitness test questions: 5,10,15,20,25,30,35,40 Keywords in reports: Identifying ideas and initiating change</td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines. Managing change.</td>
<td>Keywords in reports: Breaking routines,</td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>Converting knowledge and ideas into products, processes and systems. Developing products, systems and processes.</td>
<td>Keywords in reports: Developing and transforming knowledge into products and services.</td>
</tr>
</tbody>
</table>

**3.4 Research Quality: Validity and reliability**

Research quality can be seen as having systematic research processes that are described in the methods chapter, as well as providing a clear description of the used research method (Easterby-Smith et al., 2008). To test this research quality, Yin (2009) proposes four tests, which are construct validity, external validity, internal validity and reliability. This will be used to analyse the research quality.

**3.4.1 Yin’s validity tests**

Construct validity refers to identifying the correct operational measures for the concepts being studied. This means being objective in the observation and analysis of the results (Yin, 2009). For this study, several research methods have been used resulting in data triangulation. Literature, secondary data and quantitative data have been used as input for this study. The appropriate operational variables have been selected; this has already been described in the operationalization.

Internal validity refers to the ability of the author to show the logical reasoning behind linking events and creating causalities (Yin, 2009). Before conducting the analysis, potential outcomes have been considered as shown in the conceptual framework. The research framework has been derived from the literature; this has been previously mentioned in the scientific relevance chapter. A link has been established between the critical success factors that an organization should have to realize sustained value creation and value capture.

External validity refers to the research’s ability to generalize findings outside of the studied case(s) (Yin, 2009). This study focuses on SMEs, the results are therefore not generalizable to all organizations.
3.4.2. Research reliability

Yin’s (2009) reliability test measures whether someone else would be able to reach the same results if the same study were to be done once again. The procedures and protocols regarding this research are transparent to ensure the research reliability. The research process has been described in the methodology chapter. The triangulation of research results enables a researcher to verify findings (Yin, 2009). Transparency is maintained as the research process is described in detail in the methodology chapter, and because of the fact that the case data material will be made available for further studying and analysis.
Chapter 4: Results

In this chapter the results from the analysis of the innovation capacity reports and the fitness tests will be described and explained. From the various topics in the reports, an analysis has been made to give insight in the capabilities supporting value creation and value capture. This chapter will contain the most striking results from the analysis that has been done.

4.1 Value creation

Table 4.1 provides additional information about the number of times a specific organizational capability has been described in the reports that have been reviewed. First, the number of times that an organizational capability is described is displayed. Hereafter, the most commonly found variable is displayed. This table also shows the link between the organizational capabilities and the dimensions from the fitness tests and their corresponding score. 21 out of 42 reports had enough/substantial innovation capacities to be taken into account in this research.

Table 4.1 Overview of the results

<table>
<thead>
<tr>
<th>Organizational capability</th>
<th>Critical success factors</th>
<th>Total count of variables</th>
<th>Most commonly found variable + (number of times found)</th>
<th>Link to fitness test dimension</th>
<th>Fitness test score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial capabilities</td>
<td>Identifying, creating and anticipating on chances</td>
<td>14</td>
<td>Identify and anticipate on chances (9)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Identifying ideas and initiating change</td>
<td>12</td>
<td>Identifying ideas and initiating change (12)</td>
<td>Learning</td>
<td>4 out of 7</td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying and experimenting, achieving coherence and engagement</td>
<td>9</td>
<td>Employees generate ideas through identification (7)</td>
<td>Organization</td>
<td>4.7 out of 7</td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>Developing and transforming knowledge into products and services</td>
<td>7</td>
<td>Transforming knowledge (4)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines, willingness and desire to learn</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
4.1.1 Open innovation capabilities

The role and importance of participating in networks and working with other partners is acknowledged in both the open innovation theory and the ‘linkages’ dimension in the audit framework of Tidd & Bessant (2014).

The dimension ‘linkages’ scores 4.6 out of possible 7 points in the fitness test. And open innovation capabilities are the strongest observed capabilities in the qualitative analysis, they are found in 18 of the 21 researched organizations.

This dimension has been measured in the fitness test using some of the following statements; ‘We work well with universities and other research centres to help us develop our knowledge’, ‘We collaborate with other firms to develop new products or processes’ and ‘We try to develop external networks of people who can help us – for example, with specialist knowledge’. The combination of the results from the fitness test and the innovation scan indicate that the SMEs consider themselves to possess many capabilities supporting the generation of linkages. This relatively high score indicates that the researched organizations manage innovation on this dimension quite well. Open innovation is perceived as the most commonly found organizational capability in the innovation scan.

The average score on the dimension ‘linkages’ can be further explained by taking a look at the results from the innovation scan. The critical success factor for the realization of sustained value creation that is most common is the capability to work in networks. 11 out of 21 organizations value this as a critical success factor for them in order to achieve sustained value creation. This critical success factor can be categorized under the concept of open innovation capabilities, and linked to the dimension ‘linkages’. Networks provide organizations, and SMEs in particular in this study, with valuable insights, therefore creating value. The knowledge that is generated through the collaborations with other parties in networks can be used by the organizations within that network.

Another critical success factor that is closely related to working and participating in networks is the collaboration with educational institutes. This critical success factor is also categorized under the concept of open innovation. 7 out of 21 organizations acknowledge the importance to working together with- and having good contacts with educational institutes. This partnership as you could call it encompasses several activities. For example bringing interns into the organizations from universities to apply their skills and knowledge to the existing way of production and doing
business. Because of their relatively small size and workforce, SMEs seem open to help and expertise from other parties such as universities in this case, or even from other organizations in networks as mentioned before. SMEs can benefit from the gains of acquiring external knowledge and know-how from these third parties.

The critical success factors ‘working and participating in networks’ and ‘working together with educational institutes’ are connected to the next critical capability ‘collaboration’. To be successful at working in a network or together with educational institutes one has to possess the capability to collaborate with these parties. This is one of the critical success factors that can be placed under the greater denominator of open innovation capabilities. This capability to collaborate with other parties can be found throughout all aspects in organizations that are successful at creating value through partnerships with other parties.

The critical success factors that thus belong to the open innovation capabilities are:
- Anticipate and / or creating new opportunities.
- Achieving coherence, participate internally and externally, collaborate, work in networks and create an open culture.

4.1.2. Entrepreneurial capabilities

Entrepreneurial capabilities have been observed in large numbers, 14 out of 21 organizations possesses some form of entrepreneurial capabilities supporting the creation of value. 9 out of 21 of the researched SMEs show the capacity to identify chances and anticipate on chances. This is being established by several different factors, such as looking/benchmarking at other organizations and finding opportunities through collaborations with other parties. Organizations that are successful at these success factors are able to create value through their innovations.

Furthermore, a link between two capabilities is established as they are closely related. The collaboration with other parties is one of the most important critical success factors of the open innovation capability and can be observed in several different forms.

The critical success factors related to entrepreneurial capabilities that affect value creation are:
- Identifying and acquiring resources.
- Anticipate and / or creating new opportunities.
4.1.3 Absorption capacity

The absorption capacity can be linked to the dimension 'learning' from the conducted fitness test. Learning is one of the primary components of the absorption capacity as indicated by Lewin et al., (2008). If we look at this dimension 'learning', we can see that dimension scores an average of 4 out of 7 possible points, therefore scoring just above average. Many of the organizations acknowledge the importance to learn, but fail to employ the capabilities to do so. This dimensions is closely related to the absorption capacity of an organization, as learning is one of the key components of the absorption capacity.

Statements that have been measured among this dimension are statements like ‘We are good at learning from other organizations' and ‘We meet and share experiences with other firms to help us learn'. A lot of the researched organizations still do not employ the capabilities to learn and therefore fail to create opportunities to create value.

As mentioned before in the theoretical framework, the absorption capacity and the entrepreneurial capabilities have some similarities. The absorption capacity focuses more on the acquisition and use of knowledge, this capacity has also been spotted in the researched SMEs. 12 out of 21 researched organizations show some form of critical success factor supporting the absorption capacity. Ideas are being generated through constant innovation and search for new innovations. Not only from within the organizations itself, but also through the use of knowledge and technologies from other fields and applying this to their own field of expertise.

The critical success factors that thus belong to the absorption capacity are:
- Identify and assimilate ideas from the external environment.
- Converting knowledge and ideas into products, processes and systems.

*This critical success factor (also) supports value creation.*

4.1.4 Dynamic capabilities

The dimension ‘organization’ from the fitness test can be linked to the dynamic capabilities theory. Dynamic capabilities are concerned with the dynamics of the organization, more specifically the integration and reconfiguration to the rapidly
changing environment, as is the organizational dimension with its focus on improvement and innovation.

The researched SMEs perceive themselves to be well equipped in order to handle the needs in de rapidly changing environment. The dimension 'organization' scores an average of 4.7 out of 7 possible points. Statements that have been used to measure this dimension are statements like 'People are involved in suggesting ideas for improvements to products or processes' and 'We systematically search for new product ideas'. These statements measure the innovativeness of the organization and the ability to adjust to the continuous changing environment.

New ideas and opportunities are being generated primarily through the knowledge and experience of the employees. 7 out of the 21 researched organizations confirm this. Because of their hands-on experience in their organizations, employees are able to spot opportunities and improvements that can support further growth. This is also partially due to the sector of work, the manufacturing industry. In these relatively small organizations where relatively few people are working, the employees are being exposed to various aspect of everyday business and production. Therefore they are often the ones who spot ways to improve these processes. This potentially valuable asset however, it not always used.

The critical success factors related to dynamic capabilities that affect value creation are:
- Use of resources in a balanced way.
- Converting knowledge and ideas into products, processes and systems. This critical success factor (also) supports value creation.

4.1.5. Change capacity

The capacity to break routines and willingness to learn has hardly been observed in the reviewed reports. Although the willingness to learn can in some form also be observed in the absorption capacity and the open innovation capabilities. The primary component of the change capacity, the ability to break routines has hardly been seen in the reports. This is partially due to the sector and the more incremental changes, therefore not challenging organizations to fully employ their change capacity.
4.1.6. The role of owner/managing director

A new factor that influences value creation, as well as value capture has been noticed while analysing the reports. This factor is mentioned to be an important factor as to whether or not innovation activities are performed within the organization. Many of the researched organizations acknowledged that this factor is an important factor in whether or not an organization is innovative. Therefore this factor has been taken into account in this results chapter eventhough it is not considered in the conceptual model. This influence of the owner/managing director can be seen as an influence on innovation in SMEs.

Although there are many ideas being generated that are potentially valuable to the organization, many will never even be considered or further developed. This has everything to do with the role and power of the owner/managing director who is in charge of practically everything within the SME. This one person has the power to make or break potential innovations, as has been seen in many of the reports of the researched organizations. Many of these organizations just aren't innovative in any way because the owner/managing director doesn't value these opportunities. The owner/managing director in most cases just wants the organization to keep doing what they have always been doing, since this has proven to be a successful formula for him/her. This has proven to be the single most important factor as to whether or not organizations are innovative, and ultimately able to create value or capture value from their innovations.

This factor has been an unforeseen factor. It was mentioned that Aral & Walker (2012) state that influential individuals catalyse the diffusion of opinions, behaviours and innovations. However the cross theory study did not reveal that the capabilities of the owner were of such importance in SMEs. Therefore it has not been taken into account in the conceptual model as one of the critical success factor for sustained value creation and/or value capture.

The claim for the importance of the factor of the owner/managing director is supported by the results that show that the most successful innovations in SMEs are generated through ideas from within the organization itself. These often-incremental continuous changes are what make SMEs in the manufacturing industry successful. And this process can be disturbed by the influence of the owner/managing director. The power and influence of the owner/managing director seems to be greater as the size of the organization decreases.
One important point has to be made, although SMEs may not be regarded as innovative organizations due to the nature of their innovations, which are incremental in most cases. They are innovative in their field of expertise making them innovative organizations nonetheless.

4.2 Value capture

One of the most striking results is the absence of value capturing capabilities and their underlying critical success factors in almost all of the observed organizations. Especially the dynamic capability to exploit business opportunities, which have not been observed in any of the organizations that have been studied with regard to their innovation capacities. The only critical success factor that has been observed and can be categorized under one of the organizational capabilities is the capacity to develop and transform knowledge into products and services. 7 out of 21 organizations acknowledge the importance and claim to possess this capability to work together with clients in order to capture value from their innovations. This high-level co-creation capability is the only capability that has been found supporting value capture. It has become clear when taking all the results into consideration, that the focus of SMEs is predominately on the value creation part of innovation, and that the actual capture from innovation is lacking. Further results will confirm this claim, as most results can be categorized under the value creation part of innovation.

Apparently SMEs find it harder to capture the actual benefits from their innovation as opposed to creating value with their innovations. It has not been made clear if and how most organizations capture value from their innovations.

4.3.1. Role of owner/managing director

In addition to the role of the owner/managing director in the value creation process as previously mentioned, the role of the owner/managing director in the value capture process is also of great importance. The owner/managing director is not only the one who can make or break the creation of value but also the one who can make or break the capture of value. An example of this can be found in a situation where knowledge is not being used to capture value. Many ideas are being generated through the knowledge from within the organization, as has also been observed in the researched organizations, but this knowledge is not being
developed and transformed into products and services. The owner/managing director is the one within a SME who can influence this process in a great way. It is therefore of importance to distinguish the role of the owner/managing director in the creation of value and the capture of value.

4.3 Engaging in Innovation

As mentioned before in the theoretical framework it is important for organizations to be innovative and to have an innovative business model in order to create and capture value on a continuous base. Although almost all of the researched organizations acknowledge the importance of innovation in their sector or organization, it seems that only half of them is really engaged in some kind of innovation activity. With the wide acknowledgement of the importance for organizations and SMEs is particular to innovate, the question is raised why a lot of SMEs apparently don’t engage in innovation activities.

One answer can be found in shortage of time. In most cases shortage of time to come up with- and carry out innovative activities seems to be the main reason why innovation is lacking. This claim has not been measured using specific variables, but has been frequently seen in the reports as the main reason why organizations do not engage in any innovation activities. Furthermore, a second reason can be observed with regard to the lack of innovation activities. This can be attributed to/is due to the sector at which this study focuses. The sector of this study is the manufacturing industry, and in this sector on the level of SMEs, most innovations, if there are any to be observed, are incremental in nature.

4.4 Critical success factors for SMEs

These results from the analysis in the previous paragraphs create a new conceptual model, which is the updated version of the previous conceptual model. This conceptual model takes the influence of the owner/managing director into account with regard to whether or not an organization is able to create and/or capture value. The openness of the owner/managing director towards innovations is a critical success factor not only to create value, but to capture value as well. This new conceptual model can be found in figure 4.1.

This model shows the critical success factors that have proven to be of importance for SMEs in order to achieve sustained value creation and/or value capture. How
these critical success factors support value creation and value capture has been previously explained in paragraph 2.5. This paragraph explains the arrows connecting the critical success factors to the value creation component or the value capture component of the business model.

In addition to this, a new factor has been found. The role of the owner/managing director is of importance for the creation of value in a way that the owner/managing director has to be open to allow innovation to happen within the SME. This can vary from deciding whether or not to participate in networks or to use the workforce as a means to generate new ideas.

If the owner/managing director does not allow these activities or critical success factors in its organization, it is not possible to capture value through these activities. The openness of the owner/managing director is also of importance with regard to ability of an SME to capture value. First of all, value has to be created in order for it to be captured. So if no value is created through any reason whatsoever, no value can be captured. But even if value is created, the role of the owner/managing director is a crucial factor in whether or not the benefits from the innovation are being captured. Innovations have to be implemented in order for them to be able to capture value. These two explanations address the new critical success factors in both the value creation component and the value capture component.

Knowing this and being able to account for this in new research can be valuable for practitioners and the science of management. After reviewing various audit frameworks, none of the frameworks accounted for the influence of the owner/managing director.

After reviewing some of the findings in this research, a more holistic framework for practitioners can be designed that takes a broad range of capabilities into consideration. Furthermore, not just the aspects that have already been included in several previously designed frameworks, but also the influence of the owner on the innovation process is included in this framework. This combination provides therefore a more complete image of the factors that influence innovation in SMEs. This framework combines the questions from various previously designed audit frameworks with the knowledge and findings from this study. Therefore including
those aspects that are of importance to achieve sustained value creation and value capture in SMEs. This newly developed framework can be found in appendix 1. The statements that have been added to measure the influence of the owner/managing director are:
- Our boss supports the generation of ideas within the organization.
- There is room to develop ideas into innovations.
- Ideas that are being generated by employees are being implemented frequently.
- We have an open mind towards innovation.
- The owner/managing director is the one who decides whether or not innovations are being considered.

The statements are developed based on statements that have been observed in the reviewed reports from the past primary research. These statements have been made by either employees or owners/managing directors.

This new conceptual model also (partially) explains the third and last sub-question ‘How do SMEs realize sustained value creation and value capture?’.

The critical success factors that are shown in this conceptual model are the success factors for organizations in general. These critical success factors have been derived from the literature that was not specifically focused on SMEs but on organizations in general. The results of this research explain the importance of these critical success factors for SMEs specifically.
Figure 4.1 Critical success factors for SMEs.

<table>
<thead>
<tr>
<th>Critical success factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying, creating and anticipating on chances</td>
</tr>
<tr>
<td>Identifying and experimenting, achieving coherence and engagement</td>
</tr>
<tr>
<td>Participate in innovation projects, work in networks, collaborate</td>
</tr>
<tr>
<td>Learn, Initiate change, identify and assimilate ideas from external environment.</td>
</tr>
<tr>
<td>Identifying ideas and initiating change</td>
</tr>
<tr>
<td>Openness of owner/managing director towards innovation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical success factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing and transforming knowledge into products and services</td>
</tr>
<tr>
<td>Openness of owner/managing director towards innovation</td>
</tr>
</tbody>
</table>
Chapter 5: Discussion, conclusion & recommendations

5.1 Discussion

5.1.1. Critical success factors

In an ever-changing environment, organizations have to be able to adapt to this continuous change in order to maintain their level of success. This study has explored the necessary capabilities of an organization not only to be successful in the present, but also in the future where it will be faced with unknown challenges. The primary focus and goal of this study is to identify the critical success factors supporting sustained value creation and value capture. In order to achieve this, this thesis has been written to answer the following research question:

*Which critical success factors affect the realization of sustained value creation and value capture within SMEs?*

This research question has been answered in this paper through a combination of a literature review and secondary research. The results from this research show that in order to achieve sustained value creation and value capture within an SME, an organization has to possess several organizational capabilities as have been previously found in the literature. These findings from secondary research confirm therefore established theories around business model innovation.

By taking the results from this research into consideration, it is now possible to develop a table showing the critical success factors that have proven to be of importance. This table shows several critical success factors that belong to various organizational capabilities, these critical success factors have proven to be of importance for SMEs in order to achieve sustained value creation and value capture. This claim has been established based on the results of this research. The critical success factors breaking routines, managing change and experimenting with business opportunities have been removed in comparison to the previous table 3.1 and a new critical success factor has been added, the willingness of the entrepreneur to innovate. Although literature states that all critical success factors are of importance to achieve sustained value creation and value capture, not all factors have actually proven to be of importance in practice. All this can be found in table 5.1.
Table 5.1 Critical success factors

<table>
<thead>
<tr>
<th>Critical success factor</th>
<th></th>
</tr>
</thead>
</table>
| Value creation          | Identifying and acquiring resources. *(Entrepreneurial capabilities)*  
                          | Anticipating and / or creating new opportunities. *(Entrepreneurial capabilities)*  
                          | Willingness of entrepreneur to innovate. *(Role of owner/managing director)*  
                          | Developing products, systems and processes. *(Innovative capabilities)*  
                          | Achieving coherence, participate internally and externally, collaborate, work in networks and create an open culture. *(Dynamic capabilities)*  
                          | Identify and assimilate ideas from the external environment. *(Absorption capacity)*  
                          | Use of resources in a balanced way. *(Dynamic capabilities)* |
| Value capture           | Converting knowledge and ideas into products, processes and systems. *(Innovative capabilities)* |

5.1.2 Sustainable Value creation

A business model can be divided into two different components, a value creation component and a value capture component. Casadesus-Masarell (2011) describes a business model as the logic of the business, how it works and how it creates value for its stakeholders. The value creation component is the first part in which the organization performs its business activities. In order to create value on a continuous base, the organization has to possess certain capabilities to realize this. Several organizational capabilities have been identified in this thesis and their underlying critical success factors have been identified with them. This theoretical framework has been the base for the secondary research, which is the core of this thesis.

The findings from the secondary research indicate that the open innovation capabilities are among the most commonly found organizational capabilities. Open innovation can be identified as the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and to expand the markets for external
use of innovation (Chessbrough et al., 2006). These inflows and outflows of knowledge have been observed in the researched SMEs therefore supporting this theory. Because of their relatively small size, SMEs often work together with partners in order to acquire knowledge that is not available within the organization itself. This can vary from partnerships with educational institutes like universities and networks consisting of different organizations. Many of the organizations acknowledged this importance even if they weren’t successful at it themselves. Value can be created if this knowledge obtained through open innovation is transformed into products or services.

This connects to the next organizational capability that has been frequently observed in the researched organizations, the absorption capacity. Lewin et al., (2011) define the absorption capacity as a collection of routines that includes the ability to initiate change from the inside as well as to identify and assimilate ideas from the external environment. This organizational capability is of great importance for SMEs in order to achieve sustained value creation. Their relatively small size give them the advantage over larger organizations when it comes to being dynamic, this has also been observed by Spithoven et al.(2013). Especially for SMEs it is important to be able to change with the needs of the environment as has been indicated by both the literature and the secondary research. This means that SMEs have to possess certain capabilities to be able to do this, such as being flexible, transformative and keen on learning continuously.

A third organizational capability that has been frequently observed is the entrepreneurial capabilities. This might not come as a surprise as the influence of the owner/managing director is relatively large in many organizations because of their smaller size compared to larger organizations. Karra et al., (2008) define entrepreneurial capabilities as the ability to identify and acquire the necessary resources in order to respond to new chances in the market, or to create new chances. Possessing these abilities or capabilities is of great importance if an SME wants to be successful at creating value on a continuous base and being able to cope with the ever-changing environment. The results from the fitness tests indicate that the dimensions ‘organization’ and ‘linkages’ are regarded as best scoring dimensions by the researched SMEs. Especially the result for the dimension ‘linkages’ comes as no surprise, as this dimension is closely related to the open innovation capability theory that has been
frequently observed (in 18 out of 21 organizations) in the reports of the Fontys Hogeschool students.

Although from both the literature and the secondary research several critical success factors have been identified that support sustained value creation, only a longitudinal study can really confirm this. But possessing them now is promising for organizations for the future, given their existence over the past period.

5.1.3. stainable Value capture

The second component of a business model, the value capture component, goes a step further, as it is concerned with the actual capturing of the benefits from the innovation. Although both components can be found in the literature, there seems to be a focus on value creation of value as opposed to value capture. This ‘focus’ or result can also be observed in the researched organizations. Many of the SMEs are clear about how they create value, but are not when it comes to how they capture value. In many cases, the ability to capture the benefits from innovations and therefore capturing the actual value seems to be lacking. The absence of value capture capabilities in the researched SMEs is one of the most striking results of this thesis.

One of the often-heard reasons for lacking innovations within SMEs is shortage of time. This is an explanation for the lack of value capture capabilities in the researched SMEs.

5.1.4. le of the owner/managing director

The role and influence of the owner/managing director is a great factor of influence according to this research. As mentioned before, many organizations acknowledged the importance of innovation in their organizations, but didn’t pursue any actions despite this knowledge. In many organizations potential valuable opportunities weren’t used therefore. This has been the case in several organizations were potential valuable ideas have not been implemented or even considered due to the power of the owner/managing director. This is a major factor that needs to be taken into consideration when evaluating the innovation capabilities of an organization.
Although there is literature to be found about the influence of the owner/managing director within organizations and SMEs specifically, it has not been included in the theoretical framework as one of the critical success factors supporting value creation and/or value capture since this relation was not mentioned in capability literature. In the literature mentions Krake (2005) the often all-controlling and all-deciding role of the owner/managing director of the company. Krake (2005) also states that creativity must first and foremost come from the owner/managing director. He or she should make everyone within the organization aware of the need for innovation and support innovative activities. This supports the claim for the importance of the role of the owner/managing director.

None of the reviewed audit frameworks measuring the capabilities of an organization to innovate accounted for the variable of the owner/managing director. But being of the great importance that it is, the role of the owner/managing director should definitely be taken into account in these audit frameworks. This has been seen in the researched organizations; many of the organizations have enough potential to be successful on fields like idea generation by employees. These ideas are a potential source of value for the organization. An audit framework might acknowledge a high score on this field, but if none of the ideas is being implemented or even considered because the owner/managing director doesn’t want to, this score does not provide a decent representation of the current situation.

5.2 Conclusion

Concluding this thesis several key findings have been made. The first key finding of this thesis is the acknowledgement of the importance of several organizational capabilities, especially the absorption capacity, open innovation capacity and entrepreneurial capabilities.

Knowledge has proven to be a key factor in whether or not SMEs are successful at creating and capturing value through innovations. This process starts with gathering knowledge through networks and partnerships, and assimilating these ideas into products and services. Therefore one conclusion from this thesis is the importance of capabilities supporting the acquisition, transfer and use of knowledge.

The second key finding is the absence of value capture capabilities in the researched organizations. As mentioned before, many of the researched organizations scored
relatively well on the possession of capabilities supporting value creation but lacked capabilities supporting the capture of value. This is partially due to a lack of time as is indicated from the results of the secondary research. It is important to note that not possessing these capabilities implicates that these SMEs cannot capture the benefits from their innovations, at least not in a way that is desirable.

The third key finding, is the importance of one variable that can make or break an innovation, namely the power of the owner/managing director. This variable has proven to be a key factor in whether or not SMEs are innovative or able to be innovative.

5.3 Limitations & implications for future research
This study has included a lot of different organizational skills that are on their own big concepts to study. Combining them makes an interesting subject to study, but to be able to do this, not all concepts and their components could be included. So, decisions had to been made as to which concepts have been included and which have not. The theoretical framework has been designed and written in such a way that there has also been attention to several concepts that have not been included in the analysis or the conceptual framework but are of importance nonetheless.

Time has also been a limitation in this study. Given the large concepts that embody this field of study, it is hard to combine them all in one study. Several innovation theories have been studied and compared to one another, but there are many more which have not been included in this study. This study has focused on the more general theories, but many smaller theories have not been taken into account due to lack of time and the need for a clear focus.

Furthermore, in this paper a more holistic framework for SMEs specifically has been developed, but this framework has not been validated. This is something that can be done in future research. This more holistic framework contains 30 questions on six different topics/organizational capabilities. These questions about these organizational capabilities have all been derived from pre-existing audit frameworks and bundled into one new framework. Future research could refine this new framework.
Further research could include the role of the owner/managing director as one of the critical success factors to achieve sustained value creation and/or value capture. The discovery of this factor has been made during the analysis, and has therefore not been taken into account in the conceptual framework that served as a means to explore the different critical success factors supporting value creation and/or value capture. Pattern matching has been used to analyse the data, and the role of the owner/managing director has not been a theoretical proposition at the time of the analysis. Future research could include this critical success factor.

Finally, an important statement from Professor Suarez has not been further researched. He stated in an interview (date 10/03/2011) that it is not the organization itself that innovates but the people within the organization that are the ones who are the innovative force. An organization is merely an institute not able to change without its people. This implicates that the organizational capabilities that have been identified on an organizational level have to be explained on an individual level for further clarification. But, to do so properly, many psychological components have to be taken into account as well aside from the many components that already have been taken into account for this study. This is one of the recommendations for further research, to explore this specific subject.
References


## Appendix

### Appendix 1: Framework to measure organizational capabilities

<table>
<thead>
<tr>
<th>Statement</th>
<th>Score 1=Not true at all to 7=Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We work well with universities and other research centres to help us develop our knowledge.</td>
<td></td>
</tr>
<tr>
<td>2. We work closely with our customers in exploring and developing new concepts.</td>
<td></td>
</tr>
<tr>
<td>3. We collaborate with others to develop new products and processes.</td>
<td></td>
</tr>
<tr>
<td>4. We meet and share experiences with other firms to help us learn.</td>
<td></td>
</tr>
<tr>
<td>5. We try to develop external networks of people who can help us – for example, with specialist knowledge.</td>
<td></td>
</tr>
<tr>
<td>6. Our organization is well equipped to assess new opportunities.</td>
<td></td>
</tr>
<tr>
<td>7. We have specialised knowledge which we know how to exploit to create a competitive edge.</td>
<td></td>
</tr>
<tr>
<td>8. Our management is skilled at exploiting new knowledge to meet business goals.</td>
<td></td>
</tr>
<tr>
<td>9. We’re good at translating our customer’s knowledge into something we can use in our business.</td>
<td></td>
</tr>
<tr>
<td>10. We work with universities and other research institutes to support our development activities.</td>
<td></td>
</tr>
<tr>
<td>11. People are involved in suggesting ideas for improvements to products of processes.</td>
<td></td>
</tr>
<tr>
<td>12. We systematically search for new product ideas.</td>
<td></td>
</tr>
<tr>
<td>13. We have a supportive climate for new ideas – people don’t have to leave the organization to make them happen.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>14.</td>
<td>We systematically observe and evaluate the needs of our customers.</td>
</tr>
<tr>
<td>15.</td>
<td>We collaborate with other organisations to help us with improving or introducing new services.</td>
</tr>
<tr>
<td>16.</td>
<td>We are very resourceful and imaginative in finding ways to access resources.</td>
</tr>
<tr>
<td>17.</td>
<td>We have excellent skills, we network frequently, follow up and find ways to develop business relationships.</td>
</tr>
<tr>
<td>18.</td>
<td>We have a broad and diverse network that we proactively build and manage.</td>
</tr>
<tr>
<td>19.</td>
<td>We love to learn and continuously seek to find new ways and things to learn about.</td>
</tr>
<tr>
<td>20.</td>
<td>We are always finding new opportunities and maintain a large opportunity register of new ideas.</td>
</tr>
<tr>
<td>21.</td>
<td>People have a clear idea of how innovation can help us compete.</td>
</tr>
<tr>
<td>22.</td>
<td>Our organization structure does not stifle innovation but helps it to happen.</td>
</tr>
<tr>
<td>23.</td>
<td>People work well together across departmental boundaries.</td>
</tr>
<tr>
<td>24.</td>
<td>We are able to capture the benefits from our innovations.</td>
</tr>
<tr>
<td>25.</td>
<td>There is a clear link between the innovation projects we carry out and the overall strategy of the business.</td>
</tr>
<tr>
<td>26.</td>
<td>Our boss supports the generation of ideas within the organization.</td>
</tr>
<tr>
<td>27.</td>
<td>There is room to develop ideas into innovations.</td>
</tr>
<tr>
<td>28.</td>
<td>Ideas that are being generated by employees are being implemented frequently.</td>
</tr>
<tr>
<td>29.</td>
<td>We have an open mind towards innovation.</td>
</tr>
<tr>
<td>30.</td>
<td>The owner/managing director is the one who decides whether or not innovations are being considered.</td>
</tr>
<tr>
<td>Questions</td>
<td>Topic</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>1,2,3,4,5</td>
<td>Open innovation capacity=</td>
</tr>
<tr>
<td>6,7,8,9,10</td>
<td>Absorption capacity=</td>
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<td>11,12,13,14,15</td>
<td>Dynamic capabilities=</td>
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<td>16,17,18,19,20</td>
<td>Entrepreneurial capabilities=</td>
</tr>
<tr>
<td>21,22,23,24,25</td>
<td>Innovation capabilities=</td>
</tr>
<tr>
<td>26,27,28,29,30</td>
<td>Role of owner=</td>
</tr>
</tbody>
</table>
Appendix 2: Fitness test

How well do we manage innovation?

This simple self-assessment tool focuses attention on some of the important areas of innovation management. Below you will find statements which describe 'the way we do things around here' - the pattern of behaviour which describes how the organization handles the question of innovation. For each statement simply put a score between 1 (= not true at all) to 7 (=very true).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Score 1= Not true at all to 7 = Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 People have a clear idea of how innovation can help us compete</td>
<td></td>
</tr>
<tr>
<td>2 We have processes in place to help us manage new product development effectively from idea to launch</td>
<td></td>
</tr>
<tr>
<td>3 Our organization structure does not stifle innovation but helps it to happen</td>
<td></td>
</tr>
<tr>
<td>4 We have good 'win-win' relationships with our suppliers</td>
<td></td>
</tr>
<tr>
<td>5 There is a strong commitment to training and development of people</td>
<td></td>
</tr>
<tr>
<td>6 Our innovation strategy is clearly communicated so everyone knows the targets for improvement</td>
<td></td>
</tr>
<tr>
<td>7 Our innovation projects are usually completed on time and within budget</td>
<td></td>
</tr>
<tr>
<td>8 People work well together across departmental boundaries</td>
<td></td>
</tr>
<tr>
<td>9 We are good at understanding the needs of our customers/end-users</td>
<td></td>
</tr>
<tr>
<td>10 We take time to review our projects to improve our performance next time</td>
<td></td>
</tr>
<tr>
<td>11 People know what our distinctive competence is - what gives us a competitive edge</td>
<td></td>
</tr>
</tbody>
</table>
12 We have effective mechanisms to make sure everyone (not just Marketing) understands customer needs

13 People are involved in suggesting ideas for improvements to products or processes

14 We work well with universities and other research centres to help us develop our knowledge

15 We learn from our mistakes

16 We look ahead in a structured way (using forecasting tools and techniques) to try and imagine future threats and opportunities

17 We have effective mechanisms for managing process change from idea through to successful implementation

18 Our structure helps us to take decisions rapidly

19 We work closely with our customers in exploring and developing new concepts

20 We systematically compare our products and processes with other firms

21 Our top team have a shared vision of how the company will develop through innovation

22 We systematically search for new product ideas

23 Communication is effective and works top down, bottom up and across the organization

24 We collaborate with other firms to develop new products or processes

25 We meet and share experiences with other firms to help us learn

26 There is top management commitment and support for innovation

27 We have mechanisms in place to ensure early involvement of all departments in developing new
products/processes

28 Our reward and recognition system supports innovation

29 We try to develop external networks of people who can help us - for example, with specialist knowledge

30 We are good at capturing what we have learned so that others in the organization can make use of it

31 We have processes in place to review new technological or market developments and what they mean for our firm's strategy

32 We have a clear system for choosing innovation projects

33 We have a supportive climate for new ideas - people don't have to leave the organization to make them happen

34 We work closely with the local and national education system to communicate our needs for skills

35 We are good at learning from other organisations

36 There is a clear link between the innovation projects we carry out and the overall strategy of the business

37 There is sufficient flexibility in our system for product development to allow small 'fast track' projects to happen

38 We work well in teams

39 We work closely with 'lead users' to develop innovative new products and services

40 We use measurement to help identify where and when we can improve our innovation management
When you have finished, add the totals for the questions in the following way:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Total</th>
<th>Score (= Total divided by 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6,11,16,21,26,31,36</td>
<td></td>
<td>Strategy =</td>
</tr>
<tr>
<td>2,7,12,17,22,27,32,37</td>
<td></td>
<td>Processes =</td>
</tr>
<tr>
<td>3,8,13,18,23,28,33,38</td>
<td></td>
<td>Organization =</td>
</tr>
<tr>
<td>4,9,14,19,24,29,34,39</td>
<td></td>
<td>Linkages =</td>
</tr>
<tr>
<td>5,10,15,20,25,30,35,40</td>
<td></td>
<td>Learning =</td>
</tr>
</tbody>
</table>

Now plot a profile for the five dimensions.
### Appendix 3: Encoding table

<table>
<thead>
<tr>
<th>Organizational capability</th>
<th>Critical success factor</th>
<th>Organization 1</th>
<th>Organization 2</th>
<th>Organization 3</th>
<th>Organization 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial capabilities</td>
<td>Identifying, creating and anticipating on chances</td>
<td>Looking at competition</td>
<td></td>
<td>Member of industry organization</td>
<td>Ideas are primarily generated within the organization</td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying and experimenting, achieving coherence and engagement</td>
<td>Employees generate ideas</td>
<td>Able to develop superior products, gain insight in new products</td>
<td>Employees generate ideas, ideas are implemented if valuable</td>
<td></td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>Participate in innovation projects, work in networks, collaborate</td>
<td>Thinking and working together with client, trying to expand working with partners (network)</td>
<td>Collaboration with other organizations to finish products or make products</td>
<td>Good contacts with universities and suppliers</td>
<td></td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Identifying ideas and initiating change</td>
<td>The knowledge of clients to create innovations</td>
<td>Working together with and using the knowledge of clients to improve the final product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines, willingness and desire to learn</td>
<td>Member of industry organization that provides education and generates information and knowledge transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>Developing and transforming knowledge into products and services</td>
<td>Working together with and using the knowledge of clients to create innovations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization capability</th>
<th>Critical success factor</th>
<th>Organization 5</th>
<th>Organization 6</th>
<th>Organization 7</th>
<th>Organization 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial capabilities</td>
<td>Identifying, creating and anticipating on chances</td>
<td>Operational ideas are generated in every organizational level, strategic ideas come from the top and middle level</td>
<td>Working with clients to generate new products and solutions</td>
<td>Identificeren van kansen door luisteren naar klanten en markt</td>
<td></td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying and experimenting, achieving coherence and engagement</td>
<td>Employees generate ideas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>Participate in innovation projects, work in networks, collaborate</td>
<td>Good relationships with customers and suppliers</td>
<td>Co-creation with clients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Identifying ideas and initiating change</td>
<td>Working with clients to generate new products and solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines, willingness and desire to learn</td>
<td>Listening to clients and the market and adjusting to these preferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>Developing and transforming knowledge into products and services</td>
<td>Listening to employees and external resources</td>
<td>Intensive relations with customers and suppliers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational capability</td>
<td>Critical success factor</td>
<td>Organization</td>
<td>Organization</td>
<td>Organization</td>
<td>Organization</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Entrepreneurial capabilities</strong></td>
<td>Identifying, creating and anticipating on chances</td>
<td>9</td>
<td>Identifying and creating chances in products, processes and markets. Looking towards future in order to create ideas and solutions</td>
<td>10</td>
<td>Looking for new knowledge and technologies</td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying and experimenting, achieving coherence and engagement</td>
<td>11</td>
<td>Employees of all levels generate ideas and are rewarded for their input</td>
<td>12</td>
<td>Collaborations with universities in order to continuously improve products</td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>Participate in innovation projects, work in networks, collaborate</td>
<td>13</td>
<td>Collaborate with external organizations, business units and other universities</td>
<td>14</td>
<td>Participation in networks and projects in order to find solutions</td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Identifying ideas and initiating change</td>
<td>15</td>
<td>Identification of ideas from CEO and external parties</td>
<td>16</td>
<td>Looking for new knowledge and technologies</td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines, willingness and desire to learn</td>
<td>17</td>
<td>Transformation of knowledge from existing products in new products</td>
<td>18</td>
<td>Continuous product innovation</td>
</tr>
<tr>
<td><strong>Innovative capabilities</strong></td>
<td>Developing and transforming knowledge into products and services</td>
<td>19</td>
<td>Experimenting with ideas in order to improve products</td>
<td>20</td>
<td>Co-creation with clients in order to develop new products</td>
</tr>
<tr>
<td><strong>Innovative capabilities</strong></td>
<td>Developing and transforming knowledge into products and services</td>
<td>17</td>
<td>Identifying ideas by experimenting with product development</td>
<td>18</td>
<td>A lot of ideas are generated from within the organization and knowledge comes from external parties</td>
</tr>
<tr>
<td>Organizational capability</td>
<td>Critical success factor</td>
<td>Organization</td>
<td>Word count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------------------------</td>
<td>--------------</td>
<td>------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial capabilities</td>
<td>Identifying, creating and anticipating on chances</td>
<td>21</td>
<td>Total: 14x Top: Identify and anticipate on chances x 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic capabilities</td>
<td>Identifying and experimenting, achieving coherence and engagement</td>
<td></td>
<td>Total: 9x Top: Employees generate ideas (through identification) x 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open innovation capabilities</td>
<td>Participate in innovation projects, work in networks, collaborate</td>
<td></td>
<td>Total: 18x Top: Working in networks x 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorption capacity</td>
<td>Identifying ideas and initiating change</td>
<td></td>
<td>Total: 12x Identifying ideas and initiating change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change capacity</td>
<td>Breaking routines, willingness and desire to learn</td>
<td></td>
<td>Total: 3x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative capabilities</td>
<td>Developing and transforming knowledge into products and services</td>
<td></td>
<td>Total: 7x Top: Transforming knowledge 4x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Explanation innovation scan

Toelichting Innovatiescan Innovatiegroeimodel/Innovatiescan

1.1 Doel van dit voorblad

Het model op dit blad is bedoeld om het Innovatietraject en de stappen die de ondernemer daarin met jou gaat zetten, toe te lichten. Ook wordt hiermee de samenhang tussen het Innovatiegroeimodel, de Innovatiescan en het Innovatieactieplan aangegeven.

Het Innovatiegroeimodel is een vertaling van de Syntens missie. Voor het genereren van een Innovatieactieplan wordt het proces, middels de Innovatiescan, van bovenaf doorlopen door achtereenvolgens – op de verschillende werkbladen – te praten over:

<table>
<thead>
<tr>
<th>Onderwerp</th>
<th>Nu (huidige situatie)</th>
<th>Ambitie (gewenste situatie)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duurzame groei</td>
<td>Waar ben je goed in?</td>
<td>Wat wil je bereiken?</td>
</tr>
<tr>
<td>Innovaties</td>
<td>Wat gebeurt er?</td>
<td>Welke kansen levert dat?</td>
</tr>
<tr>
<td>Innovatievermogen</td>
<td>Wat heb je nodig?</td>
<td>Wat moet er verbeteren?</td>
</tr>
<tr>
<td>Innovatie Actieplan</td>
<td>Wat ga je doen?</td>
<td>Wat moet dat opleveren?</td>
</tr>
</tbody>
</table>

Ieder deelaspect van het innovatiegroeimodel wordt daarbij uitgedrukt in een pictogram op de werkbladen, om de herkenbaarheid te vergroten.
1.2 Toelichting

1.2.1 Bedrijfsgegevens, adviseur, verwachtingen en datum

**Bedrijfsgegevens**

Vul hier de naam van het bedrijf en van de contactpersoon en eventuele andere nuttige gegevens in.

---

**Adviseur**

Vul hier je naam in.

---

**Verwachtingen**

Door vooraf met de ondernemer de verwachtingen door te spreken (‘wat moet dit traject opleveren? Wat verwachten we van elkaar? Wanneer ben je tevreden over dit traject?’) en (globaal) vast te leggen, schep je duidelijkheid voor jezelf en de klant.

Het maakt het gemakkelijker om achteraf met elkaar de resultaten te evalueren aan de hand van deze vastgelegde verwachtingen.

**Datum**

Vul hier de datum in.
2 Werkblad A: Duurzame groei
Waar ben je goed in? Wat wil je bereiken?

2.1 Doel van dit werkblad

Het doel van dit werkblad is om:

- de huidige situatie en de kerncompetenties van het bedrijf globaal in kaart te brengen (Waar ben je goed in?), in algemene termen en op de genoemde specifieke gebieden (product & dienst, markt & marketing, technologie & ICT, organisatie & processen);
- te komen tot een globaal inzicht in de ambities van de ondernemer, zijn plannen, zijn wensen, zijn ideeën en wellicht de (innovatie)kansen die hij voor zichzelf al formuleert, in algemene zin (ambitie, visie, missie en strategie) en op de genoemde specifieke gebieden;
- de huidige en de gewenste situatie te vertalen in cijfers.

Deze ambities, wensen en wellicht door de ondernemer zelf al geformuleerde kansen worden straks aangevuld met inzichten en ideeën uit de omgevingsverkenning (werkblad 2, innovaties) en uit de beoordeling van het innovatievermogen (werkblad 3).
2.2 Toelichting, hulpvragen en behulpzame modellen en instrumenten

2.2.1 Ambitie, visie, missie en strategie

Toelichting

Omschrijf hier de ambitie, visie, missie en strategie. Bij ambitie gaat het om dat wat de ondernemer voor zichzelf en voor het bedrijf wil bereiken.

De visie is het beeld dat de ondernemer heeft van zijn bedrijf en haar omgeving in de toekomst.

De missie gaat over datgene wat het bedrijf nu doet en waarom.

De strategie is de manier waarop het bedrijf haar doelen wil realiseren.

Denk hierbij ook aan:

Toegevoegde waarde/bestaansrecht/behoeftevervulling (huidig en gewenst)
Onderscheidend vermogen/uniciteit (huidig en gewenst)

Bescherming van Intellectueel Eigendom

2.2.1.1 Hulpvragen

- Waarom is de ondernemer dit bedrijf gestart, wat waren/ zijn de drijfveren?
- Wat wil de ondernemer bereiken (met het bedrijf) ? Wat zijn zijn/ haar idealen?
- Welke kant moet het op met het bedrijf, en waarom?
- Waar wil hij/ zij staan over vijf jaar?
- Hoe wil het bedrijf daar komen?
- Wat is ‘de succesformule’ / het concept van het bedrijf?
- Hoe wordt het intellectueel eigendom beschermd en benut?

Behulpzame modellen en instrumenten

Niveau 1

ambitie

- Module 'Logische niveaus (Dilts)'

visie

- Module ‘Lemniscaat Visieontwikkeling’

missie

- Module ‘Ontwikkeling missie’

strategie

- Module 'Klantwaardeoriëntatie (Treacy en Wiersema)'
- Module ‘SWOT analyse’
3  **Niveau 2**

strategie

- Verkennende roadmap
- IAP in één dag
3.1.1 Product & Dienst

3.1.1.1 Toelichting
Beschrijf hier de producten en diensten die het bedrijf nu levert en wat daaraan onderscheidend is. Bespreek ook de ambitie van het bedrijf op dit gebied.

Welke elementen zijn onderscheidend aan de toekomstige producten en diensten?

3.1.1.2 Hulpvragen
- Welke producten en diensten levert het bedrijf?
- Wat is de omzetverdeling? Welk product levert de hoogste marge en rendement?
- Wat is onderscheidend aan het product?
- Waarom koopt de klant bij dit bedrijf?
- Welke producten wil het bedrijf in de toekomst leveren?
- Waarom gaat de klant deze producten kopen?
- Zijn er mogelijkheden voor octrooi-, merk- of modelbescherming?

Behulpzame modellen en instrumenten
Niveau 1
- Module 'Productenpakket (BCG)'
- Module ‘Groeistrategieën (Ansoff/PMC)’
4 **Niveau 2**

- KoPI (Kijk op Product Innovatie) kaarten
- Product Development Assessment (PDA)
- Ansoff technologische bedrijven
- Verkennende roadmap
4.1.1 Markt & Marketing

4.1.1.1 Toelichting
Beschrijf hier welke markten het bedrijf nu bedient en waarom de marktbenadering succesvol is. Bespreek tevens de ambitie van het bedrijf op dit gebied.

4.1.1.2 Hulpvragen
- Wat is de huidige markt? Wie zijn de klanten?
- Welke marktsegmentatie is zinnig? Geografisch, sectoren, technologieën etc.
- Wat is onderscheidend aan de klantbenadering?
- Wat is het imago van het bedrijf?
- Wordt er gebruik gemaakt van merken? Zijn deze beschermd?
- Op welk niveau wordt er gecommuniceerd met de klant? Directie, inkoop, technische dienst etc.
- Internationalisering?

Behulpzame modellen en instrumenten
Niveau 1
- Module ‘Groeistrategieën (Ansoff/PMC)’
- Module ‘Propositiehuis’
5 Niveau 2
   • ICT werkboek 1: www voor het MKB
   • Ansoff technologische bedrijven
5.1.1 Technologie & ICT

5.1.1.1 Toelichting
Beschrijf hier welke technologieën het bedrijf in huis heeft en welke onderscheidend zijn. Bespreek ook de ambitie op dit gebied. Welke technologie is in de toekomst van essentieel belang?

Welke kennis moet absoluut in huis blijven?

5.1.1.2 Hulpvragen
- Welke technologieën heeft het bedrijf in huis?
- Wordt er gebruik gemaakt van ICT in de producten?
- In hoeverre is de keten waar het bedrijf deel van uitmaakt gedigitaliseerd?
- Welke technologie moet het bedrijf in de toekomst beslist in huis hebben om te kunnen concurreren?
- Wordt kennis beschermd in de vorm van octrooien of modellen?
- Is geheimhouding geregeld in arbeidscontracten of contracten met partners?

Behulpzame modellen en instrumenten
Niveau 1
- Module ‘Technologie’
- Module ‘ICT praatplaten (per sector)’
6 **Niveau 2**
- Verkennende roadmap
6.1.1 Organisatie & Processen

6.1.1.1 Toelichting
Beschrijf hier de belangrijkste kenmerken van de organisatie en haar processen. Welke processen zijn onderscheidend?

Bespreek ook de ambitie op dit gebied. Hoe ziet de organisatie er in de toekomst uit?

6.1.1.2 Hulpvragen

- Hoe ziet de organisatie er nu uit? Welke afdelingen zijn er? Hoeveel mensen werken daar?
- Zijn er vestigingen in het buitenland?
- Hoe zit het met logistiek en levertijden? Hoe groot is de voorraad?
- Welke processen beheerst het bedrijf goed? Op welke manier heeft de klant daar voordeel van?
- Hoe ziet de organisatie er in de toekomst uit? Hoeveel medewerkers zijn er dan?
- Zijn er mogelijkheden om zaken uit te besteden, bijvoorbeeld in het buitenland?

Behulpzame modellen en instrumenten
Niveau 1

- Module ‘Bedrijfsactiviteiten’
- Module ‘Bedrijfsprocessen’
- Module ‘Organisatievormen’
- Module ‘Groeimodel’
- Module ‘Samenwerken met ICT’
7 **Niveau 2**
- Scan NGD: Elektronisch Zakendoen op basis van Porter Model
- Kansenscan ICT in de industrie
- ICT Werkboek 2: Klaar voor digitaal ondernemen
- ICT Werkboek 3: Op weg naar slimmer samenwerken
7.1.1 Cijfers

7.1.1.1 Toelichting
Vul hier de cijfers in van het jaar waarvan de meest recente gegevens beschikbaar zijn.
Probeer samen met de ondernemer de ambitie ook in toekomstige cijfers te vertalen. Neem daarvoor een moment in de toekomst naar keuze, bijvoorbeeld drie jaar, vijf jaar of een willekeurig moment in de toekomst waarop het bedrijf haar 'ideale' vorm heeft aangenomen.

Omzet

Omzet is de in het betreffende jaar gefactureerde verkoopwaarde van goederen en diensten (exclusief BTW), ook wel netto omzet genoemd.

TW (bruto winst)

Toegevoegde waarde, ook wel bruto winst of bruto marge genoemd, is de omzet min inkoop. De toegevoegde waarde geeft aan wat het bedrijf overhoudt voor het dekken van gemaakte kosten na aftrek van zijn inkopen. In de term toegevoegde waarde vind je terug wat de betekenis van het getal eigenlijk is.

Om te bepalen of het bedrijf een hoge of lage toegevoegde waarde heeft kun je de toegevoegde waarde delen door het aantal medewerkers of door de personeelskosten.

Je krijgt dan een waarde die beter geschikt is om te vergelijken met branchegenoten.

Resultaat (netto winst)

Winst is opbrengst min kosten. Hier is bedoeld winst voor belasting.

Export (%)

Percentage van de omzet dat geëxporteerd wordt.

Aantal medewerkers (fte)

Aantal werkzame personen (= het aantal werknemers op de loonlijst, inclusief directeuren NV of BV en ingeleenden, medewerkende eigenaren en gezinsleden en uitzendkrachten, omgerekend naar fulltime equivalenten).

Behulpzame modellen en instrumenten
Niveau 1
• Module ‘Financiële landkaart’
8 Werkblad B: Innovaties
Wat gebeurt er? Welke innovatiekansen levert dat?

8.1 Doel van dit werkblad

Doel van dit werkblad is om nieuwe innovatiekansen te ontdekken door te kijken naar de ontwikkelingen die zich voordoen in de omgeving van het bedrijf.

In het werkblad zitten de DESTEP analyse en het Porter vijf krachtenmodel verwerkt.

Voorafgaand aan het werken met dit blad is het mogelijk om voor dit bedrijf relevante cijfers en trends via de voorbereidingsmodule op te vragen en desgewenst uit te printen. De voorbereidingsmodule kan benaderd worden via de daarvoor bestemde knop op de klantenkaart in e-synergy.

8.2 Toelichting en hulpvragen

8.2.1 Innovatiekansen

In de vakjes met de titel ‘innovatiekansen’ schrijf je de kansen die je hebt gevonden tijdens het invullen van werkblad A: Duurzame groei en tijdens het verkennen van de omgeving van het bedrijf met werkblad B: Innovatiekansen.


Dit geeft je de mogelijkheid om de innovatiekansen volgens deze vier thema’s te rubriceren. (De plaats van deze 4 vakjes op het werkblad is willekeurig en heeft geen link met de plaats van de verschillende vakjes van het Porter-model.)
8.2.2 Krachtenmodel

8.2.2.1 Toelichting
Het krachtenmodel (competitive-forces model) is een model ontwikkeld door Michael Porter. Het model heeft als doel het winstpotentieel van een markt of bedrijfstak te bepalen.

In elke bedrijfstak wordt, volgens Porter, dit potentieel beïnvloed door vijf factoren die hij 'krachten' noemt. De gezamenlijke kracht van deze vijf krachten bepaalt het uiteindelijke winstpotentieel van de bedrijfstak. De krachten en daarmee de kans op winst lopen per bedrijfstak sterk uiteen.

De vijf krachten zijn:

- De macht van leveranciers;
- De macht van afnemers;
- De mate waarin substituten en complementaire goederen verkrijgbaar zijn;
- De dreiging van nieuwe toetreders tot de markt;
- De interne concurrentie van spelers op de markt.

In onze innovatiescan zijn de interne concurrentie en de dreiging van nieuwe toetreders samengevoegd onder 'concurrentie'.
Hulpvragen

**Leveranciers**

- Hoeveel leveranciers zijn er?
- Gaat het om standaard producten?
- Is het bedrijf een belangrijke klant voor de leveranciers?
- Bestaat het gevaar dat leveranciers de producten van het bedrijf gaan maken?
- Zijn er mogelijkheden om meer ICT te gebruiken bij transacties en bijvoorbeeld voorraadbeheer?
- Zijn er mogelijkheden om centraal in te kopen?
- Zijn er mogelijk alternatieve producten of materialen?

**Klanten**

- Hoeveel klanten heeft het bedrijf?
- Is het bedrijf afhankelijk van één of enkele grote klanten?
- Is het geleverde product of dienst belangrijk voor de klant?
- Zijn er zaken waar klanten steeds vaker om vragen?
- Welke nieuwe producten of diensten zouden hier op in kunnen spelen?

**Concurrenten**

- Zijn er veel gelijkwaardige concurrenten?
- Hoe hoog is de drempel voor klanten om over te stappen naar de concurrent?
- Is het voor nieuwkomers gemakkelijk om de markt te betreden?
- Welke ontwikkelingen zijn bij de concurrenten te verwachten, bijvoorbeeld op grond van hun meest recente octrooiaanvragen?
- Waarop wordt vooral geconcurreerd? Bijvoorbeeld op prijs, kwaliteit, levertijd?
- Waarmee zou het bedrijf zich nog meer kunnen onderscheiden van de concurrentie?

**Substituten**

- Zijn er producten in opkomst die als (beter) alternatief dienen voor de producten van het bedrijf? (bijvoorbeeld de mp3 speler is een substituut voor de discman wat weer een substituut was voor de walkman (wie kent hem nog?)
- Zijn er technologieën in opkomst die de huidige technologie gaan vervangen?
- Welke mogelijkheden zijn er om te profiteren van deze substituten?
DESTEP

8.2.2.2 Toelichting
Het gaat hierbij om omgevingsfactoren die veelal niet beïnvloedbaar zijn.

In businessplannen worden deze beschreven in de externe analyse onder de afkorting DESTEP: demografie, economie, sociologie, technologie, ecologie en politiek.

De ontwikkelingen in deze factoren kunnen leiden tot gebeurtenissen in de meer directe omgeving van het bedrijf (zie krachtenmodel), en kunnen vertaald worden in innovatiekansen voor het bedrijf.

In het powerpoint-sjabloon van de Innovatiescan is geen apart vak beschikbaar om de besproken trends in te zetten. Als het wel van belang is om ze te presenteren dan kun je zelf hiervoor een tekstvak toevoegen.

8.2.2.3 Hulpvragen
Bij de demografische factoren gaat het om de kenmerken van de bevolking.

Voorbeelden van demografische gegevens zijn:

- De bevolkingsdichtheid in een bepaald gebied
- De leeftijdsoorzaak van de bevolking
- Het aantal en de grootte van huishoudingen
- De samenstelling van de bevolking

Economische factoren zijn voor veel ondernemingen van belang, omdat deze variabelen van invloed zijn op de behoeften van klanten om bepaalde producten wel/niet te kopen:

- De conjunctuur
- De koopkracht van consumenten

De sociaal–culturele factoren betreft de omgeving die de waarden, tradities en maatschappelijke trends omvat. Enkele variabelen zijn:

- Sociale veranderingen binnen het gezinshuishouden
- Toename van vrije tijd
- Individualisering
- Veranderingen in mediagebruik Technische ontwikkelingen kunnen ingrijpende gevolgen hebben bijvoorbeeld:
  - Op afstand monitoren van apparaten
  - Ketensmaling als gevolg van internet
  - RFID en GPS
  - nanotechnologie
9 **Tot de ecologische factoren behoren**

- het weer
- de beschikbaarheid van natuurlijke hulpbronnen

Ook de politiek en de overheid kunnen invloed uitoefenen op een markt met bijvoorbeeld regels. Factoren die hierbij van belang zijn:

- Milieubeleid
- Mediabeleid
- Subsidieregelingen
- Werkgelegenheidsbeleid

**Behulpzame modellen en instrumenten**

**Niveau 1**

- Presentatie 'Nieuwe verbindingen'
10 Werkblad C: Innovatievermogen
   Wat heb je nodig? Wat moet er verbeteren?

10.1 Doel van dit werkblad

Het doel van dit werkblad is om te onderzoeken welke voorwaarden voor innovatie bij dit bedrijf belemmerend c.q. versnellend werken bij het realiseren van de geïdentificeerde en geselecteerde innovatiekansen en om hierbij verbeterdoelen en acties te benoemen.

Op dit werkblad zijn 10 voorwaarden van het innovatievermogen benoemd.

De zes voorwaarden in het bovenste deel van het werkblad hebben betrekking op de manier waarop het bedrijf als geheel gericht is op en ingericht is voor innovatie. Deze zes voorwaarden zijn ook al in de vorige ‘basisscan’ gebruikt en vinden hun oorsprong in een onderzoek van EIM uit 2001, Determinants of innovative ability, de Jong, Kemp, Snel.

De vier voorwaarden onderaan beschrijven de vaardigheden van het bedrijf om individuele innovatietrajecten, van idee tot en met geld verdienen, succesvol te kunnen doorlopen.

Deze zijn toegevoegd naar aanleiding van een Europees project (Impactscan) waarvan Syntens heeft deelgenomen en dat ten doel had om de impact van innovatiestimulerend beleid te meten en te vergelijken tussen regio’s in Europa.

De pijlen die deze vier voorwaarden verbinden geven weer dat het hier om een proces gaat, met verschillende fases (waarbij we ons wel dienen te realiseren dat de meeste innovatieprocessen niet strikt lineair verlopen en alle vier de voorwaarden gedurende het hele traject van belang kunnen zijn)

Op dit werkblad kan voor elke voorwaarde een oordeel (goed/moet beter) worden aangegeven. Daarnaast kan er een korte toelichting worden opgenomen in de blokken.

Laat het oordeel ontstaan in overleg met het bedrijf, het is geen eenzijdige oordeelsvorming door de adviseur.

Het verdient aanbeveling om de vragen over het innovatievermogen zoveel mogelijk toe te spitsen op de innovatiekansen die eerder zijn geïdentificeerd (‘wat heb je specifiek nodig om deze kansen op te pakken?’)

Dit om te voorkomen dat de aanbevelingen op het vlak van innovatievermogen te algemeen worden (‘de organisatiestructuur moet beter’) en om te voorkomen dat je in herhalingen valt, omdat je een aantal van deze zaken wellicht al in algemene termen hebt besproken bij werkblad A (duurzame groei, waar ben je goed in/wat wil je bereiken).
10.2 Toelichting, hulpvragen en behulpzame modellen en instrumenten

10.2.1 Strategie

Toelichting

10.3 De vaardigheid om de business van de toekomst te plannen.

Vaardigheid van een bedrijf om missie, doelen en strategie voor de toekomst te bepalen gebaseerd op haar visie en ambitie. En deze strategie zo te formuleren dat het belang van innovatie duidelijk wordt.

De vaardigheid om deze zaken te communiceren binnen het bedrijf.

Innovatieve bedrijven definiëren ook innovatie doelen en hebben een innovatie strategie.

10.3.1.1 Hulpvragen

- Hoe wordt de strategie van het bedrijf bepaald? Wie is daarbij betrokken?
- Wanneer is voor het laatst de strategie bepaald?
- Is er een expliciete missie?
- Is er een businessplan?
- Wordt het businessplan regelmatig herzien?
- Heeft het bedrijf innovatiedoelstellingen?
- Heeft het bedrijf doelstellingen voor het ontwikkelen van kennis en technologie?
- Wat is de strategie voor wat betreft intellectueel eigendom?
- Op welke manier wordt de strategie naar de medewerkers gecommuniceerd?
- Kunnen medewerkers de missie in eigen woorden vertellen?
- Zijn de doelstellingen in de organisatie bekend?

Behulpzame modellen en instrumenten

Niveau 1

- Syntens Innovatiescan
- Module ‘SWOT analyse’
11 **Niveau 2**

- MEK-loep
- Resultaatgericht ondernemen
- Verkennende roadmap
- IAP in één dag
11.1.1 Organisatie en processen

Toelichting

11.2 *De mate waarin de organisatie en haar processen ingericht zijn op innovatie.*

De manier waarop in een bedrijf taken worden toegewezen (organogram), hoe mensen samenwerken (processen), hoe besluiten worden genomen (beslissingstructuur), hoe zaken worden gecoördineerd (overlegstructuur) en hoe deze processen en structuren worden ondersteund door methoden, tools en infrastructuur. Innovatieve bedrijven kunnen specifieke processen en structuren voor innovatie management hebben.

11.2.1.1 *Hulpvragen*

- Hoe is een innovatietaject georganiseerd?
- Worden innovatietajecten projectmatig aangepakt?
- Zijn activiteiten of projecten om te komen tot innovaties anders georganiseerd dan andere activiteiten?
- Is er een proces beschreven/vastgelegd dat bepaalt hoe nieuwe ideeën in het bedrijf tot stand komen en hoe ze leiden tot uitgewerkte innovaties?
- Hoe wordt omgegaan met het ontwikkelen van Intellectueel Eigendom?
- Welke personen nemen deel aan de innovatietajecten?
- In welke mate is de directie betrokken bij innovatietajecten?
- Is er een managementteam?
- Hoeveel managementlagen heeft de organisatie?
- Wordt er samengewerkt met andere bedrijven? Op welk gebied?
- Is het intellectueel eigendom daarin goed geregeld?

Behulpzame modellen en instrumenten
Niveau 1

- Module ‘Organisatie en processen voor innovatie’
12 Niveau 2
   • Innovatieboek Paul Vervoort deel 3
   • MEK–Loep
   • KoPI (Kijk op Product Innovatie) kaarten
   • Product Development Assessment (PDA)
12.1.1 Cultuur

12.2 Toelichting

12.3 De mate waarin de bedrijfscultuur gericht is op innovatie.
De bedrijfscultuur is het systeem van ongeschreven regels en overtuigingen die het gedrag van medewerkers bepalen.

Cultuurelementen die sterk gerelateerd zijn aan innovatievermogen:
- Focus op de toekomst (nieuwsgierigheid naar nieuwe ontwikkelingen en mogelijkheden, externe oriëntatie)
- Openheid en samenwerking (informele contacten, delen van informatie, gedeelde doelen, vertrouwen, reflectie, synergie)
- Tolerantie ten aanzien van fouten (voorwaarde voor leren, accepteren van risico's)

12.3.1.1 Hulpvragen
- Hoe wordt kennis gedeeld binnen het bedrijf?
- Zijn medewerkers kritisch ten opzichte van elkaar ten aanzien van het werk?
- Wordt er gebruik gemaakt van de kennis en vaardigheden van de verschillende medewerkers?
- Hoe resultaatgericht zijn de ondernemer en de medewerkers?
- Hoe is het vertrouwen binnen het team en/of tussen medewerkers in het bedrijf?
- Nemen de medewerkers zelfstandig beslissingen?
- In welke mate vormt het begrip innovatie een onderdeel van de (ongeschreven) missie?
- In welke mate wordt er met de medewerkers nagedacht over de toekomst van het bedrijf?

Behulpzame modellen en instrumenten
Niveau 1
- Module ‘Logische niveaus (Dilts)’
- Module ‘Cultuursmodel (Quinn)’
- Module ‘Bouwstenenmodel’
13 **Niveau 2**
  - MEK–Loep
13.1.1 Financiering

Toelichting

13.2 **De vaardigheid om geld te verwerven voor innovaties.**
De vaardigheid van een bedrijf om geld te verwerven voor innovatie activiteiten of voor het verhogen van het innovatievermogen.

Bronnen waar geld voor innovatie verkregen kan worden zijn: Leningen bij banken en financiële instellingen, subsidies of belastingaf trek van regionale, nationale of Europese overheden, geld van vrienden en familie, informele investeerders, economische ontwikkelingsmaatschappijen, venture kapitalisten, of door naar de beurs te gaan.

13.2.1.1 Hulpvragen

- Is er een apart budget voor de financiering van innovaties?
- Hoe is de vermogenspositie (solvabiliteit=Eigen vermogen/Vreemd vermogen)?
- Wordt er veel gebruik gemaakt van innovatie subsidies of innovatievouchers?
- Is de organisatie SenterNovem bekend? Is de WBSO regeling bekend?
- Wordt gebruik gemaakt van reductie van vennootschapsbelasting door middel van octrooibox?
- Is de regionale ontwikkelingsmaatschappij bekend?
- Zijn de mogelijkheden voor het verkrijgen van starterkapitaal en leningen bekend?
- Is bekend welke financiële ondersteuning bij het verhogen van het innovatievermogen Syntens biedt?
- Wordt er gebruik gemaakt van webgebaseerde administratieve systemen (SAAS) om gegevens uit te wisselen met de accountant/bank?

Behulpzame modellen en instrumenten

Niveau 1

- Module ‘Financiering van innovaties’
- Module ‘Financiële landkaart’
13.2.2 Vaardigheden

Toelichting

13.3 *De mate waarin de mensen in staat zijn debenodigde vaardigheden te ontwikkelen.*

De vaardigheid van het bedrijf om de juiste medewerkers aan te trekken en hun competenties te vergroten.

De vaardigheid van ondernemer/leidinggevenden om medewerkers te stimuleren tot innovatief denken en de competenties op dit terrein te vergroten.

De vaardigheid van de ondernemer en/of de bedrijfsleiding om hun eigen competenties ten aanzien van innovatie en innovatiemanagement te ontwikkelen. Enkele van deze competenties en vaardigheden zijn:

- Strategisch denken en handelen (focus)
- Uitoefenen van het juiste leiderschap
- Kunnen delegeren (overdragen competenties van ondernemer naar organisatie)
- Maximaal benutten van de competenties van de medewerkers
- Medewerkers helpen en stimuleren in de ontwikkeling van hun eigen competenties
- Ontwikkelen en stimuleren van creativiteit/kansgericht denken bij de medewerkers
- Balans kunnen aanbrengen tussen resultaatgerichtheid op korte en langere termijn
- In staat zijn om keuzes te maken en deze te communiceren
- Het kunnen samenstellen van een goed team van medewerkers (werving/selectie personeel, beoordeling/beloning, binden en boeien van personeel)
- Deze competenties bij zichzelf kunnen ontwikkelen
13.3.1.1 Hulpvragen

- Waarop ligt uw focus als leidinggevende:
  - Omzetgroei, winstgroei, kostenbesparing, productiviteit, nieuwe technologieën, productontwikkeling, marketing, ontwikkeling van organisatie/medewerkers, innovatierollen?
- Hoe omschrijft u zichzelf als leider? Wat voor leider bent u?
- Welke van de volgende rollen passen het best bij u:
  - visionair leider (charismatisch)
  - manager
  - coach
- Welke ervaring hebt u als leidinggevende?
- Welke opleidingen heeft u gevolgd of volgt u momenteel m.b.t. leidinggeven? Welke daarvan waren/zijn gericht op innovatie?
- Hoe zorgt u ervoor dat uw medewerkers bijdragen aan vernieuwing in uw bedrijf?
- Hoe worden deze competenties bij de medewerkers ontwikkeld/versterkt?
- Hoe beoordeelt u uw medewerkers op hun bijdrage aan vernieuwing in het bedrijf?
- Hoeveel procent van uw tijd besteedt u aan innovatie?
- Wat heeft uw bedrijf het afgelopen jaar uitgegeven aan training en opleiding? Waar zijn deze trainingen en opleidingen op gericht?
- Worden er functionerings- en beoordelingsgesprekken gevoerd?
- Is er een opleidingsplan?
- Welke kwaliteiten mist u bij uzelf of bij uw medewerkers om succesvol te kunnen vernieuwen?
- Welke belemmeringen ervaart u om uw toekomstbeeld te verwezenlijken?

Behulpzame modellen en instrumenten

Niveau 1

- Module ‘Weten, Kunnen, Willen’
- Module ‘Logische niveaus (Dilts)’
14 **Niveau 2**

- Resultaat Gericht Ondernemen
14.1.1 Verkrijgen van kennis & technologie

Toelichting

14.2 De vaardigheid om de juiste informatie, kennis en technologie te verwerven.

De vaardigheid van een bedrijf om informatie te verzamelen en toegang te hebben tot kennis buiten het bedrijf gebruik makend van diverse bronnen zoals universiteiten, instituten, andere bedrijven, symposia, workshops en trainingen, beurzen, geschreven bronnen zoals vakliteratuur en octrooliteratuur, (internationale) netwerken en commerciële adviseurs en specialisten.

14.2.1.1 Hulpvragen

- Hoe komt het bedrijf aan nieuwe kennis/informatie m.b.t.:  
  - producten/diensten?  
  - klanten/markten/marketing?  
  - technologie & ICT?  
  - organisatie & processen?
- Werkt het bedrijf samen met universiteiten, hogescholen of kennisinstituten voor het verkrijgen van kennis?
- Is er wel eens een klantenonderzoek uitgevoerd?
- Wordt gebruik gemaakt van octrooliteratuur?
- Worden beurzen en seminars bezocht?
- Wordt gebruik gemaakt van adviseurs op het gebied van marketing- en strategie?
- Wordt gebruik gemaakt van adviseurs op het gebied van organisatieontwikkeling?
- Wordt gebruik gemaakt van specialisten op het gebied van product- of productieontwikkeling?
- Is het bedrijf lid een brancheorganisatie of een belangenvereniging?
- Welk deel van uw omzet wordt uitgegeven voor het binnenhalen van externe kennis?

Behulpzame modellen en instrumenten

Niveau 1  

- Module 'Kenniskijker'
14.2.2 Genereren van ideeën

Toelichting

14.3 *De vaardigheid om nieuwe ideeën te bedenken.*
De vaardigheid van een bedrijf om nieuwe ideeën voor innovatieve producten, processen en markten te genereren en te selecteren.

**14.3.1.1 Hulpvragen**
- Hebben medewerkers ruimte en tijd om te experimenteren?
- In hoeverre wordt het aandragen van nieuwe ideeën gestimuleerd, bijvoorbeeld met een beloningsysteem?
- Wordt gebruik gemaakt van systematische methodes voor het bedenken van en selecteren van oplossingen, zoals CPS (Creative Problem Solving) en TRIZ?
- Wordt wel eens samen met klanten nagedacht over nieuwe producten of diensten?
- Zijn steeds voldoende ideeën voor innovaties beschikbaar?
- Wordt gebruik gemaakt van octrooiliteratuur voor het opdoen van inspiratie of het identificeren van trends?

Behulpzame modellen en instrumenten
Niveau 1
- Module ‘Creativiteitsprocessen’
- Module ‘Marktgericht communiceren; de klant als inspiratiebron’
- Product innoveren (Kopi D)
- Module ‘Intellectueel eigendom’
Niveau 2
- Toolkaarten productontwikkeling
- Ideeselectie
15.1.1 Concretiseren van ideeën

Toelichting

15.2 De vaardigheid om innovatieve ideeën om te zetten in concrete resultaten.

Vaardigheid van een bedrijf om activiteiten te ontwikkelen om een innovatief idee om te zetten in een volwassen product, dienst of proces.

Hierbij moet afstemming plaatsvinden tussen verschillende disciplines zoals design, engineering, marketing, verkoop, inkoop, productie (productie engineering) en klanten.

15.2.1.1 Hulpvragen

- In welke mate leiden innovatietrajecten in het bedrijf tot succesvolle realisaties?
- Wordt er in multidisciplinaire teams gewerkt aan innovatietrajecten?
- In hoeverre wordt gebruik gemaakt van systematische methodes voor productontwikkeling, bijvoorbeeld waardeanalyse technieken, TRIZ, FMEA, Taguchi, QFD, design of experiments?
- Wordt gebruik gemaakt van bureaus voor ondersteuning bij het omzetten van ideeën in concrete producten/diensten bijvoorbeeld op het gebied van design, engineering en software?
- In hoeverre zijn klanten bij het ontwikkelproces betrokken?
- Welk percentage van de omzet besteedt het bedrijf aan onderzoek en ontwikkeling?
- Wordt hierbij alles zelf ontwikkeld of wordt soms gekozen voor het uitbesteden van ontwikkeling of het nemen van licenties?
- Wordt er gekeken naar de mogelijkheden om producten, modellen of merken te beschermen?

Behulpzame modellen en instrumenten

Niveau 1

- Module ‘Producten ontwikkelen (Kopi E)’
- Module ‘Intellectueel eigendom’
16 **Niveau 2**
- Product Development Assessment (PDA)
- Toolkaarten productontwikkeling
16.1.1 Vermarkten van nieuwe producten

Toelichting

16.2 *De vaardigheid om nieuwe klanten te vinden en markten open te breken.*

Dit is kop en staart van het innovatieproces, en sluit de innovatiecirkel.

Het bestaat uit de vaardigheid van een bedrijf om:

- innovatieve producten te verkopen (marketing en verkoop)
- marktbehoeften te bepalen (marktonderzoek en klantanalyse) voor toekomstige producten en diensten.

16.2.1.1 Hulpvragen

- Is er een marketingplan?
- Hoe is de verkooporganisatie opgezet?
- Hoeveel marketing en verkoop medewerkers telt het bedrijf?
- Worden de huidige internettechnieken ingezet bij de marketing?
- Hoe belangrijk is de website van het bedrijf bij het verkopen van producten?
- Welk deel van de omzet wordt uitgegeven aan marketing?
- Hoe ziet de voortbrengingsketen eruit?
- Zijn er mogelijkheden voor het verlenen van licenties?
- Wie heeft er in het bedrijf contact met klanten?
- Op welk niveau praat het bedrijf met klanten? (inkoop, directie)
- Heeft het bedrijf wel eens een klantonderzoek laten uitvoeren?
- Gebruikt het bedrijf de website voor het inventariseren van klantenwensen?
- Wordt er wel eens een marktonderzoek uitgevoerd?
- Wordt er internationaal marktonderzoek gedaan?
- Zijn er contacten met potentiële nieuwe klanten?

Behulpzame modellen en instrumenten

Niveau 1

- Module ‘Klantenpiramide (Curry)’
- Module ‘Marktgericht communiceren; de klant als inspiratiebron’
- Module ‘Propositiehuis’
17 Niveau 2

- Toolkaarten productontwikkeling
- ICT werkboek 1: www voor het MKB
17.1.1 Exploiteren van nieuwe producten

Toelichting

17.2 *De vaardigheid om maximale winst uit nieuwe producten/diensten te halen.*

Als het innovatieve product of de dienst eenmaal gelanceerd is behoort het tot de normale activiteiten van het bedrijf. Deze categorie definieert de vaardigheid van een bedrijf om de ‘normale’ bedrijfsvoering uit te oefenen door producten en diensten te verkopen, ze te produceren, op tijd te leveren, service te verlenen en tenslotte geld te verdienen met de innovatie.

17.2.1.1 *Hulpvragen*

- Wordt er gebruik gemaakt van prestatie–indicatoren?
- Heeft het bedrijf een kwaliteitszorgsysteem?
- Welk percentage van de leveringen is op tijd?
- Welk niveau heeft de administratieve automatisering? (eiland, ERP, keten)
- Wat is het voorraadpercentage?
- Wordt er gebruik gemaakt van technieken voor productieverbetering (lean manufacturing, 6–sigma, SMED, Kanban, OEE.)
- Hoe wordt de kostprijs gecalculeerd?
- Wordt er een voor en nacalculatie gedaan?
- Hoe zijn de leverings- en betalingsvoorwaarden opgezet?
- Hoe wordt van eventuele eigen Intellectuele Eigendomsrechten gecontroleerd of er inbreuk wordt gemaakt?
- Is er een budget gereserveerd om actie te kunnen ondernemen bij inbreuk?

Behulpzame modellen en instrumenten

Niveau 1

- Module ‘Efficiënt produceren’
- Module 'Financiële landkaart'
- Module 'Sturingssystemen'
18 **Niveau 2**

- Toolkaarten productontwikkeling
19 Werkblad D: Innovatie Actieplan
Wat ga je doen? Wat moet dat opleveren?

19.1 Doel van dit werkblad

Dit blad vormt het Innovatieactieplan voor de komende periode. De geïdentificeerde innovatiekansen worden hier geprioriteerd, er worden doelstellingen aan gekoppeld en de kansen worden uitgewerkt naar acties, die worden toegewezen aan personen en in de tijd worden uitgezet. Dit geldt ook voor de voorwaarden voor het realiseren van deze innovaties: de acties die zijn gericht op het versterken van het innovatievermogen worden hier geprioriteerd, toegewezen en gepland.

Bij het prioriteren van de innovatiekansen kan een koppeling worden gemaakt met werkblad 1. De kansen kunnen worden getoetst aan de ambities van de ondernemer, de koers die het bedrijf wil varen en de (kern)competenties van de organisatie.

Behulpzame modellen en instrumenten
Niveau 1
  • Module ‘SWOT analyse’

19.2 Toelichting

19.2.1 Realiseren van innovaties

In dit deel van het werkblad heb je de ruimte om de innovatiekansen uit werkblad 2 te prioriteren, over te nemen en eventueel te herformuleren. Aan elke kans wordt een doelstelling gekoppeld. Deze doelstelling wordt vertaald in acties. Bij de acties wordt vastgelegd wie wat doet (wie doet wat) en wanneer (planning).

19.2.2 Versterken van het innovatievermogen

In dit deel van het werkblad heb je de ruimte om de innovatievoorwaarden die voorzien zijn van een ‘moet beter’ op werkblad 2 te prioriteren, over te nemen en eventueel te herformuleren. Aan elke voorwaarde wordt een doelstelling gekoppeld. Deze doelstelling wordt vertaald in acties. Bij de acties wordt vastgelegd wie wat doet (wie doet wat) en wanneer (planning).