

# **A HOLISTIC APPROACH TO NEW COMPETITIVE LANDSCAPE ANALYSIS FOR BETTER STRATEGY CREATION AND DECISION MAKING IN SMEs – A PROCESS MODEL**

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The internationalization of economy, technological revolution of the 21<sup>st</sup> century, frequent and uncertain changes, the greater competition among firms, the need for continuous innovation, and the growing use of information technologies have transformed the competitive landscape. The new and changing competitive landscape requires firms to exercise strategic leadership, use resources effectively, build core competences, focus and develop human capital, effectively use new manufacturing and information technologies, employ valuable strategies and implement new organization structures and cultures. These requirements can be achieved, if SMEs can identify their internal resources and capabilities, analyze their external environment, identify differences between themselves and their direct competitors and combine these to create strategies which they can choose from. There is a gap in the literature of competitive landscape analysis, where all the necessary steps in the competitive landscape analysis are scattered, and is hard for key decision makers to identify the necessary flow of steps for an effective analysis.

This paper addresses gaps in the literature on the new competitive landscape, the lack of synthesis between internal analysis, landscape analysis and strategy creation and aims to provide a practical and holistic 3-step process model that SMEs key decision makers and consultants can use to create flexible, effective and up-to-date strategies with the use of the results gained through internal analysis, environmental scanning and competitive analysis in order to gain competitive advantage and maintain their competitive position in their markets and industry.

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## **Keywords**

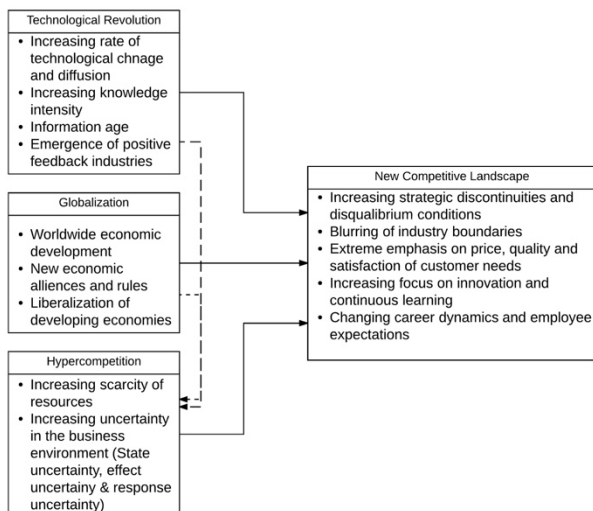
Competitive Landscape, Environmental Scanning, Competitive Analysis, Strategy Creation, SMEs, Resource based view

# 1. INTRODUCTION

The focus of the following research paper will be on competitive landscape analysis process that is suitable for established small and medium enterprises (SMEs). The research project will be developed in cooperation with *Leap – The Innovation Agency* which is a consultancy agency that helps technology driven SMEs to gain access to funding for their innovation ventures. So, the aim of this Thesis will be to be able to provide them and their clients with a holistic overview of available competitive analysis techniques that they can use when trying to find competitive advantage, assess their competitive performance and help them formulate a suitable competitive corporate strategy through a review of existing literature. At the end of the literature review, a process model is suggested for the SMEs and consultants alike, to take logical practical steps that lead to collection of data and complete analysis of this data of the business environment and, ultimately use the collected insights in strategy creation process.

## 1.1 New Competitive Landscape

Bettis and Hitt (1995) have coined the term ‘new competitive landscape’, which is the competitive landscape that has been changed through the technological revolution of the 21<sup>st</sup> century and the increase of globalization. Figure 1 includes the technological revolution and globalization and their effects on the new competitive landscape. To this model also hypercompetition was added, which is in the framework by Lahiri et. al. (2008).



**Figure 1. The New Competitive Landscape adopted from frameworks of Hitt et. al. (1998) and Lahiri et. al. (2008)**

Unlike other environmental changes, the effects of globalization are far more universal and effect nearly every business and industry (Lahiri et. al., 2008). Managers should assume a global mindset and revise older and more traditional methods of conducting business, taking into account various complex factors globalization causes. Globalization also blurs industry boundaries and increases the competitiveness of markets. Emphasis on price, quality and satisfaction of customer needs have been increased through the changes in the competitive landscape and the focus on innovation and continuous learning have increased with the increasing role of technology change and diffusion caused by the technological revolution (Hitt and Bettis, 1995). Hypercompetition is the extreme rivalry in which competing firms position themselves

against one another and try to disturb the competitive advantages of the industry leaders. Both technological revolution and globalization cause hypercompetition, which then affect the new competitive landscape. Hypercompetition is also a characteristic of the new landscape. Hypercompetition increases the scarcity of resources and uncertainty in the business environment. Decision makers’ ability to analyze the current state of affairs, forecast about the outcomes of their decisions and choice of their response to certain actions become hard to predict (Lahiri et. al., 2008). This causes decision makers major strategic discontinuities that are changing the nature of competition (Prastacos et. al., 2002) and firms have to navigate effectively in this ‘new competitive landscape’. Decision makers might not receive signals that effects the business until they are ‘blindsided’ by one or more competitors (Reed, 2000), so the new and changing competitive landscape requires firms to develop a new and flexible strategy, develop competitive advantage, exercise strategic leadership, use resources effectively, build core competences, focus and develop human capital, effectively use new manufacturing and information technologies, employ valuable strategies and implement new organization structures and cultures (Hitt et. al., 1998).

In order to overcome the mentioned consequences, it is valuable to conduct a complete analysis of competitive landscape analysis, to identify strengths and weaknesses, and use the strengths of the firm to find opportunities where firms can gain competitive advantage in their business environment and against their direct competitors.

## 1.2 SMEs

There is not a single agreed upon definition of SMEs. They are defined by several different factors and criteria such as location, size, age, structure, organization, number of employees, sales volume, worth of assets, ownership through innovation and technology (Baba et. al., 2006). Through globalization of markets, SMEs are getting internationally more active (Gary Knight, 2000) and thus they need to make qualitative developments. This is why they need key practices which analyze the environment and competitors (Garengo et. al., 2005). SMEs need to be able to grow, to track, change and adapt to the external factors and the way to this is to be able to improve their understanding of their operating environment (Heather, 2010).

Even though there are fundamental differences between SMEs and large business organizations such as structure, policy making, and utilization of resources (Baba et. al., 2006), competitive analysis in SMEs are not that different from larger organizations, but there are some features that could be limiting to SMEs whereas they are not to large business organizations. These barriers to SMEs lie internal and external to the organization and these barriers should be analyzed before venturing and allocating resources to a project (Bartlett and Bukvič, 2001). Flexibility, expertise shortage, limitation to market power, market partners and competitors are among these distinguishing features (Nwankwo and Gbadamosi, 2010). Also considering the resource constraints and limitations SMEs might face (Gilmore et al., 2001), it is obvious that they require support to improve their competitiveness (Rostek, 2015). These factors are important to keep in mind while discussing competitive landscape analysis as well, since assets and skills of firms are basis of competition and those provide foundation to competitive advantages (Man, 2009). The need for companies to align their strategy and performance with their environment and competitors have been increasing over the years. The essential aim of this research paper is to provide a

helpful guide to strategize efficiently to improve their capacity of locating themselves competitively within their business environment, and by doing so increase their chances of development (Salles, 2006).

Technology based SMEs are important drivers of innovation and growth, yet they often lack the entrepreneurial expertise to develop innovation ventures and should be supported with managerial tools (Wright et. al., 2008). In the literature that explore competitive analysis, and analysis of environmental factors that effect organizations in general, there is a serious literature gap of studies which offer different techniques that lead to a complete process of competitive landscape analysis. Thus, the aim of this paper is to categorize available analysis techniques into different purposes that they serve and make it easier for decision makers to find the techniques that would best provide solutions to their needs.

### 1.3 Strategy

Strategy is a relative term that can be perceived from different angles depending on the management and the situation. Essentially, strategy bridges the gap between policy and the means (Nickols, 2012). Mintzberg (1987) argues that human nature insists on a definition for every concept and introduced his 'five Ps', which are five ways strategy could be defined and used: plan, ploy, position, pattern and perspective. In fact, all these different definitions are needed to create a strategy. Strategy is not just about how to deal with competitors, it is about how to use instruments available to organizations for collective perception and action (Mintzberg, 1987).

Burke and Jaratt (2004) define strategy definition for SMEs as *"a fundamental pattern of present and planned objectives, resource deployments, and interactions of an organization with markets, competitors, and other environmental forces"*. This definition is particularly useful as it incorporates both the intended and apparent manifestations of strategy in a dynamic and responsive sense, and embraces a broad range of participants (Burke and Jaratt, 2004). Competitive landscape analysis is the part of strategy, where firms can identify their resources and capabilities and assess their current and future environment to create and select educated strategies while keeping the changes in the new competitive landscape in mind.

Early approaches to understanding the creation of strategy in the context of competitive landscape analysis came from George Steiner (1979), Kenneth Andrews (1980), Michael Porter (1986, 1996) and Henry Mintzberg (1994) (Nickols, 2012). Competitive strategy evolved from seen as a way of referring to what one did to counter a competitor's actual or predicted moves (Steiner, 1979) to finding what makes an organization 'different', meaning finding the competitive position in the industry so that the firm can add value through mix of activities that are different from their competitors (Porter, 1986; Porter, 1996).

With time, the different approaches became even more diverse and to find the right approach that meets a managers' needs has become even harder in todays available literature. This paper presents the main results of literature review which combines views from all angles of the competitive analysis, in order to create a holistic process of competitive landscape analysis optimized according to SME characteristics and limitations which managers of SMEs can use practically to analyze different factors affecting their business landscape.

Analysis can focus on business, competition, environment and market aspect of an organization. Purpose of performing landscape analysis is to better understand the industry, context, and competitors in order to advise SMEs to make better

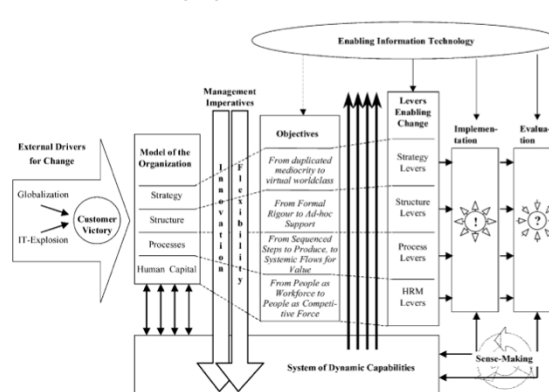
business decisions and achieve improved business results (Bensoussan and Fleisher, 2012). Competitor analysis then should provide an understanding of a combination of all of these aspects to predict the rivalry, or interactive market behavior, between firms and their quest for a competitive position in an industry (Chen,1996).

#### 1.3.1 Strategy as Planning and Strategy as Incubation

In this research paper, we acknowledge the two roles that strategy has, 1) in the context of planning and 2) in the context of incubation. While the process model leads to strategy creation, the results of the competitive landscape analysis helps incubation along.

Recently published evidence is now pointing to a reliance by entrepreneurs on a combination of inside and outside sources of information and advice capable of influencing the strategic definition of the firm (Burke and Jaratt, 2004). Even tough SMEs are a very important part of every economy, many SMEs fail each year. Veskaisri et. el. (2007) mention in their paper that *'Without a clearly defined strategy, a business has no sustainable basis for creating and maintaining a competitive edge in the marketplace.'* They also found out that this view is supported by other empirical studies as well. Strategic planning is concerned with the setting of long-term organizational goals, the development and implementation of plans to achieve these goals, and the allocation or diversion of resources necessary for realizing these goals. Strategic planning is positively correlated to growth performance (Veskaisri et. al., 2007) and thus SMEs who engage in strategic planning are more innovative, have more newly patented products, employ new processes and management technologies and achieve international growth (Wang et. al., 2007). This is why the information and analysis created is important for the setting of these long term goals and the strategy creation. Even though strategy as planning is an essential, what is more important is to see it also as an incubator.

Prastacos et. al. (2002) argue that strategy should regularly and dynamically absorb, reformulate in corporate language terms, and distribute throughout the organization, the temporary 'right' values enabling employees to take the parallel temporary 'right' decisions and commit the comparable temporary 'right' acts. This is why Prastacos et. al. (2002) use strategy as a factor of change in Figure 2. In this framework, strategy is a driver of change in the new competitive landscape. So through the flexibility of the strategy, the firm is able to adjust to the fast changing new environment.



**Image 1. Prastacos et. al. (2002)'s integrated framework for managing change in the new competitive landscape**

An important insight of this framework is that, strategy formulation is not a single step of a process but rather a

continuous one, where business plans that are made are revised at appropriate and flexible intervals. So its important to keep in mind that strategy is not a fixed idea, it should be a guide to employees but not a limitation to their decision making. In this sense, the communication of results of the competitive landscape analysis is imperative for employees to review the strategy correctly, keeping their decisions in line with the dynamic factors of the internal and external environment of the firm.

## 1.4 Resource Based View to Competitive Advantage

The most often seen question in the strategy literature is, *'Why do firm differ?'* (Jugdev, 2004) and following this question closely is, *'How firms achieve and maintain competitive advantage?'* (Teece et. al., 1997). Resource based view (RBV) is a concept that is getting adopted as the concept that answers such important questions by putting an important attention on to firm's unique capabilities and resources as the primary determinant of competitive success (Prastacos et. al., 2002).

*"A firm's resources at a given time could be defined as those (tangible and intangible) assets which are tied semi-permanently to the firm"* (Wernerfelt, 1984). Strategy formulation classically begins with an analysis of organizational competencies and resources and those resources and capabilities that are superior to those of your competitor would then become the basis of your competitive advantage (Peteraf, 1993). Resource based view builds on this basic idea, it aims to improve the understanding of how resources are applied and combined, their effect on competitive advantage with relation to the concepts of rents and heterogeneity (Peteraf, 1993).

According to the RBV by Peteraf (1993), competitive advantage can be only achieved under certain circumstances. These, he describes as cornerstones of competitive advantage. These are heterogeneity, imperfect mobility, ex post limits to competition and ex ante limits to competition. Simply summarized, resources and capabilities should be inimitable and non substitutable (imperfect mobility) and heterogeneous across firms (Barney, 1991). Ex post and ex ante limitations to competition are important to sustain rents and not to offset those rents by costs (Peteraf, 1993).

So, if these conditions are met and sustained, a firm can generate competitive advantage and enjoy occupying a resource position. Resource position barrier could be a potential barrier for entry to a market or industry, since if a company already has a certain resource, this effects the costs and/or revenues of later acquirers (Wernerfelt, 1984). Potential classes of resources for which resource barriers can be built are: Machine capacity, customer loyalty, production experience, technological leads (Wernerfelt, 1984). Barney (2001) argues that especially for SMEs, entrepreneurship is an important critical asset to develop a sustainable competitive advantage. Within entrepreneurship he identifies capabilities such as innovative capabilities, production capabilities, market management capabilities and human capital.

Identification of firms resources and capabilities are an important pre-step in the process proposed in this paper because the positioning in an industry and competition against direct competitors are mostly determined by the firm's resources base (Grant, 1991). Teece et al. (1997) highlight, that a company's competitive advantage is accredited to its ability to continuously innovate before its competitors, while simultaneously assuring that these resources and capabilities, which located in the firm's tacit collective knowledge (the more

personal, context-specific, hard to formalize and communicate knowledge) and dynamic processes, are ambiguous and 'path dependent', and therefore cannot be easily imitated by rivals. An analysis of internal strengths and weaknesses is thus a valuable input, and assists environmental scanning and competitive analysis.

## 2. PROBLEM BACKGROUND

A pre-literature review conducted for this research project showed that many authors offer different techniques for competitive intelligence analysis. These techniques are also labeled differently by many authors, making it difficult for managers, owners and strategy developers and/or consultants of SMEs to identify and use such intelligence techniques. Literature also fails to provide a holistic overview of the competitive landscape including the three layers of the environment: the macro-environment, industry (or sector) and the competitors or the micro-environment (Johnson and Whittington, 2011). There is also a lack of strategic analytical techniques reviewed relating to SMEs owing to the fact that most studies have been conducted by large organizations (Heather, 2010). The aim of the generic process introduced in this research paper is to provide solution to this literature gap, and answer the research and sub- questions in the following section. The process is aimed as a guide for managers to make better business decisions with this holistic approach, with techniques reviewed along success factors and change drivers of SMEs.

Managers, owners, analysts an/or strategy team of SMEs, any decision maker of the firm, regardless of the size of the organization, will not have the time to read through all the available literature. Even if the time is allocated to researching available literature, there is not a clear categorization of such techniques available for analysis. A holistic process of competitive landscape analysis will allow decision makers to identify which techniques to use for which purpose or need. This will decrease the time used for searching for appropriate technique in the vast amount of literature available. This approach will also provide the steps necessary to decrease the danger of omitting important information. This could happen for example if the SMEs only used a technique that focused on external environment or direct competitors, while ignoring the other factors that are important to consider while venturing into a new industry or new product development.

### 2.1 Research Question

The main research question this paper will try to answer will be *'How can SMEs improve their strategic decision making through the implementation of environmental landscape analysis?'*. In order to find out the implication of competitive landscape analysis on strategy, a number of questions were tailored to enable to assist the answering of the main research question:

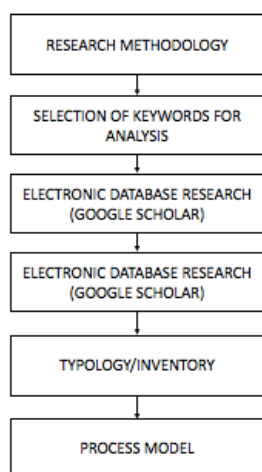
- i. *How can internal analysis help SMEs identify the important factors for competitive advantage?*
- ii. *How can SMEs find their competitive positioning through environmental scanning?*
- iii. *How can SMEs identify competitive advantages through competitive analysis?*
- iv. *How does the analysis of resources and capabilities, environmental scanning and competitive analysis contribute to strategy creation?*

### 3. METHODOLOGY

#### 3.1 Literature Review

A literature review should identify critical knowledge gaps and thus motivate researchers to close this breach (Webster and Watson, 2002). A systematic literature review is “*a means of evaluating and interpreting all available research relevant to a particular research question or topic area or phenomenon of interest*” (Kitchenham, 2004; Brereton et. al., 2007). A systematic review of ‘primary studies’ can offer new insights and identify exact aforementioned gaps in literature and and provide solutions to shorten the gap (Brereton et. al., 2007).

To create a high-quality literature review, the aim was to have a complete review that covers relevant literature on the topics and to include multiple set of journals (Webster and Watson, 2002). When looked at the citations mentioned, most of them are an accumulation of the most relevant articles that create a synthesis to the topic of the research project. This review does not only make an examination of past research but also creates room for future research. This review does not include all techniques that are available about the topic, its constructed as a collection of theories that are the most interesting to the readers. Brereton et. al. (2007), Shehab and Roy (2006) and many other authors have developed a scenario model in their paper, where they explain phases of the research methodology. In the following a scenario of the research methodology for this research paper has been developed.



**Figure 2. Scenario of research methodology**

In Figure 2, the scenario of research methodology is depicted in six steps. Firstly, research methodology was selected in the form of literature review. Next, a collection of keywords were selected. Most important keywords consist of ‘environmental scanning’, ‘competitive analysis’, resource based view, ‘competitive landscape analysis’, ‘characteristics of SMEs’, ‘innovation in SMEs’ and ‘requirements of competitive landscape analysis’. These keywords then researched on Google Scholar database for an extensive literature search. While Good Scholar was the main source of search, there are also some useful books that are written for the subject that was used during the research for this paper. From the found literature a typology/inventory of the techniques were created which are then put into a logical holistic process model for competitive landscape analysis.

In the following table 1, important literature for the main topics have been identified, in order for decision makers of SMEs and consultants of SMEs to have a frame of reference for further reading on certain topics.

**Table 1. Overview of important literature**

Topic:	Important literature:
New Competitive Landscape	Hitt and Bettis (1995), Hitt et. al. (1998), Lahiri et. al. (2008)
Strategy	Prastacos et. al. (2002), Burke and Jaratt (2004), Veskaisri et. al. (2007), Bensoussan and Fleisher (2012)
Resource Based View and Internal analysis	Wernerfelt (1984), Peteraf (1993), Teece et. al. (1997), Prastacos et. al. (2002),
Environmental Scanning	Hambrick (1982), Auster and Choo (1994), Saxby et. al. (2002), Albright (2004), Porter (1986, 1996, 2008), Johnson et. al. (2008), Porter et. al. (2010), Johnson et. al. (2008)
Competitive Analysis	Zahra and Caples (1993), Shetty (1993), Powell and Allgaier (1998), Bensoussan and Fleisher (2012), Johnson et. al. (2008)

#### 3.2 Process Model

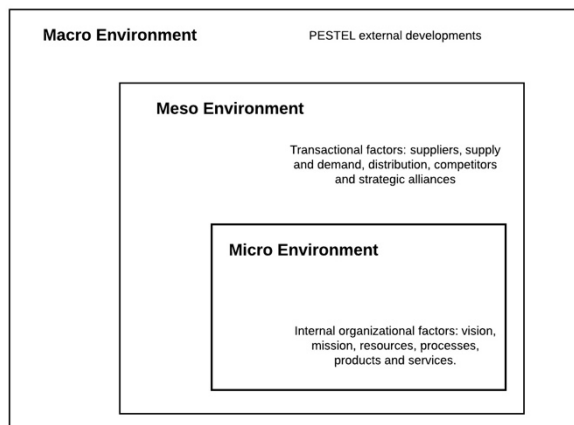
The competitive landscape analysis is a 3-step process model which consists of internal analysis, environmental scanning, competitive analysis and lead to the strategy creation process. Each step aims to answer the research question and the sub-questions that are described in section 2.1. A model serves as a logic chart to guide the process and not only allow organizational clarity but also conserve workload by focusing attention on the most important planning activities and processes. The model was created in a flowchart format because it’s been a representational technique that has been used and proven to be a good way to capture the essence of procedures and show step-by-step progression of important progression of processes (Crews, 2001). The reason why a process model has been chosen over other representational ways is because after the literature review, it has been found that competitive landscape process has 3 parts, which are interdependent with each other. In each step, valuable information and insight is collected for the next section. The success of each step is dependent on the success of the step before, so by using a process model, it is highlighted which steps that are needed and the correct order of these steps.

### 4. TYPOLOGY OF COMPETITIVE LANDSCAPE ANALYSIS

This research paper was inspired by the different levels of business environment that exists for firms. These different environments effect the firms in different ways, to different extends and firms deal with these environments in different ways. So if these environments are different, the information flow from them will also be different and the analysis of these information require different techniques. Essential differences between techniques will exist and its beneficial for firms to have techniques that correspond to these different dimensions.

There are 3 general levels of the business environment: macro, meso and micro level. The idea behind this research paper is to create an analysis that moves from macro to micro level, where is helps strategy creation at the microenvironment.





**Figure 3. Levels of business environment**

As seen also in figure 3, macroenvironment includes political, economical, social, technological, ecological, and legal developments that happen in the external environment that affect the meso- and microenvironment. Mesoenvironment includes those factors that are on the transactional level of the firm, those factors that are related to the industry of the firm. Finally, microenvironment contains the internal organizational factors such strategy and resources. In Image 2, another representation of the business environment can be seen. There, Johnson et. al. (2008) also depict the previously mentioned 3 layers, but in terms of competitor and markets, industry (or sector) and the macroenvironment.



**Image 2. Layers of the business environment by Johnson et. al. (2008) (p. 54)**

Albright (2004) describes the term 'environmental scanning' as *"the internal communication of external information about issues that may influence an organization's decision making process – can identify emerging issues, situations, and potential pitfalls that may affect an organization's future."* But in Albright (2004)'s paper, it includes only the macro level factors in the environmental scanning, while leaving factors of the mesoenvironment and microenvironment out, which means it leaves out the transactional factor that contain industry forces. Thus, taking inspiration from the 3 layers of environment, in this paper these factors were also included in the environmental scanning.

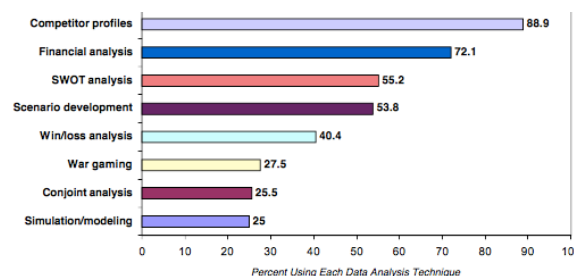
As also seen from Image 2, the business environment starts from the business itself and its microenvironment. After the outcome of the literature review, the interdependence of the different levels was found, and to first analyze the microenvironment was found to be the most beneficial for the

whole outcome of the competitive landscape analysis. Microenvironment analysis, which is called the 'internal analysis' is followed by the environmental scanning, which includes PESTEL analysis, industry/sector analysis, market analysis and TOWS analysis. The last step of the analysis is the competitive analysis, which is an analysis of the direct competitors in the specific market that the firm is in.

## 5. AN OVERVIEW OF COMPETITIVE LANDSCAPE TECHNIQUES

The Intelligence process has been by many authors described to have five general stages: planning and direction, collection, processing, analysis and production and dissemination (Bernhardt, 1994; Kahaner, 1997; Rauch and Santi, 2001). The main focus of this research paper will be on the analysis stage of the intelligence cycle and show how the raw information about the environment and competitors' can effectively be used by managers in their decision making processes. There are a range of analytical tools available for intelligence purposes but no one intelligence toolbox available (Bernhardt, 1994). Competitive landscape analysis requires several steps, each of which provide insight into competitors thinking, motives, skills, potential moves and examine factors that influence rivalry in the industry and the external environment of the SME (Zahra and Chaples, 1993).

In the following sections, different techniques will be introduced that are fit for SMEs, in the way that they are cost-efficient, fast, easy to implement and not resource intensive. The first part of the competitive landscape analysis is the environmental scanning, which aims to create an overall picture of the macro and industry environment of the firms. Powell and Allgaier (1998) in their study found out eight most widely used methods of intelligence analysis, as seen in Image 3.



**Image 3: Powell and Allgaier's (1998) 8 most widely used information analysis techniques.**

Although these techniques have been described as 'intelligence analysis techniques' by Powell and Allgaier (1998), These methods all belong to the second part of the holistic process, which is the competitive analysis. Top three and the fifth techniques mentioned by Powell and Allgaier (1998) all relate to development of competitor profiles, including financial analysis and win/loss analysis. Next most popular analysis techniques are future oriented which are scenario analysis, war gaming and simulation/modeling. From these techniques war gaming is not included in this research paper on the grounds of it being resource intensive and not fitting to SME characteristics. Instead of SWOT analysis, TOWS Analysis will be included in this research paper because it provides a better understanding of strengths, weaknesses, opportunities and threats in the context of strategy creation.

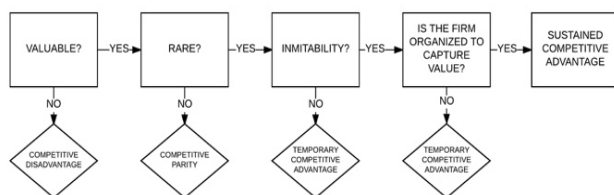
In the end, 10 intelligence analysis techniques will be reviewed in this paper, which will be beneficial to SMEs to categorize the data that they receive and systematically analyze this data

according to different purposes. The provided techniques are not the only techniques that are available for these type of analysis, they were chosen to provide the ones that are most useful and most widely used, and that they fit SME characteristics so the managers, the aim is to give an overview and an introduction to such techniques.

## 5.1 Internal Analysis

In the internal analysis, two techniques are suggested to develop resources that fit the characteristics of a sustainable competitive advantage. In the literature while authors agree on some of the characteristics, some of them may also differ. There are two important works written about these characteristics, Barney (1991) and Peteraf (1993), from which the VRION framework was adopted and derived from.

### 5.1.1 VRIO framework



**Figure 4. VRIO model adapted from Jugdev (2004), and Barney 1998**

If a resource is only valuable in the VRIO model, this means it leads to competitive parity. If they have also inimitability, this means they will have a temporary competitive advantage but will not be able to sustain it. If an organization is able to focus on developing these resources and capabilities, only then they can sustain the achieved competitive advantage (Barney, 1998).

### 5.1.2 VRIN framework

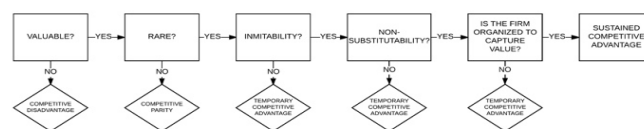
Peteraf (1993) identified four characteristics which can develop a resource or capability with competitive advantage. Firms should make sure they answer the following questions for the identified resources and capabilities in the internal analysis:

- Value: Do capabilities exist that are valued by customers and provide potential competitive advantage? → Yes
- Rarity: Do capabilities exist that no (or few) competitors possess? → No
- Inimitability: Are capabilities difficult for competitors to imitate? → Yes
- Non-substitutability: Is the risk of capability substitution low? → Yes

This framework is very similar to the VRIO framework, with only the addition of 'non-substitutability' characteristic. If the firm gets the favorable answers to the question, this means the resource/capability will generate competitive advantage for the firm.

### 5.1.3 VRION framework: A combination of VRIO and VRIN model

The VRION model was adopted from the VRIN and VRIO model. While these two frameworks give valuable insights, it is smart to combine them together to create an even better framework to develop resources and capabilities that sustain competitive advantage.



**Figure 5. VRION model, adopted from the VRIO and VRIN models by Jugdev (2004), Barney (1998) and Peteraf (1993)**

This model is the recommended way to conduct such an assessment for resources and capabilities. It simply combined the VRIO and VRIN model, in order to create a framework that constitutes all five characteristics identified by Barney (1998) and Peteraf (1993) for sustainable competitive advantages.

## 5.2 Environmental Scanning

Environmental scanning is a widely accepted concept and the first step towards the process of organizational adaptation to the environment (Hambrick, 1982). Environmental scanning is the internal communication of external information (Albright, 2004) that supplement and guide the decision making process within an organization (Saxby et. al., 2002). Environmental scanning includes all the external business layers in one sub process, which are the macroenvironment, industry/sector and market. Macroenvironment is the external PESTEL factors that act as key change drivers. An industry is a group of firms that produce the same products and services while a sector is a broad industry group or a group of markets and a market is a group of customers for specific products or services that are essentially the same (Johnson et. al., 2008).

Environmental scanning is vital to the strategic planning and decision making. Quality and success of these plans and decisions will depend on the quality of this scanning process (Auster and Choo, 1994). Scanning can be particularly important for monitoring broad trends and identifying new product-market opportunities (Boyd and Fulk, 1996). Typology for environmental scanning generally consists of customers, suppliers, competition, socioeconomic, technological, and governmental, which can also be divided into two categories of macroenvironment and task/industry environment (Auster and Choo, 1994). Environmental scanning methods gather information on these macro- and industry environments to decrease the environmental uncertainty (Downey et. al., 1975). With the insight of the layers of the business environment, market environment should also be part of the environment scanning. In the following an example technique to analyse each of the external business layers will be given to clarify the steps in the process model further.

### 5.2.1.1 PESTEL Analysis

PESTEL analysis is the starting point to any strategic analysis followed by industry analysis, since it thoroughly examines the environment the firm is operating. It evolved from its first form, created by Aguilar as ETPS (economic, technical, political, and social) over the years to PESTEL analysis. It allows SMEs to analyze their macro-environment along six dimensions: political, economic, socio-cultural, technological, environment and legal (Richardson, 2006).

PESTEL analysis has two basic functions: it allows identification of the environment within which the company operates and that it provides data and information that will enable the company to predict situations and circumstances that it might encounter in the future (Yüksel, 2012). These are the reasons why PESTEL analysis is a precondition analysis for competitive analysis.

PESTEL is a very simple, straight forward, cost efficient way for SMEs to analyze their macro-environment. While PESTEL needs analysis time, an advantage is that anyone in the SME can conduct this analysis, which means this will save the management and/or the strategy team time to conduct other tasks (Frue, 2016). There are some problems that might be encountered in the measurement and evaluation of PESTEL analysis. PESTEL analysis doesn't consider the inter-dependence of the factors (Yüksel, 2012). Another issue is the fact that all factors are seen of equal importance, while in reality some factors might have more importance to the SME activities than other factors.

### *Generic Process for PESTEL Analysis:*

Stage 1:

- Determine the objective of the PESTEL analysis
- Study primary and secondary data on the external environment
- Construct a PESTEL analysis table

Stage 2:

- Figure out the inter-relationship between all the PESTEL factors
- Construct a systematic PESTEL diagram

(Adapted from Ho (2014).)

Ho (2014) identified 4 contextual factors that effect the PEST Analysis and these factors would also be relevant to analyze during a PESTEL analysis:

- An organization's vision, mission and objectives
- Profile of strategy and strategy planning process adapted
- Profile of organizational capability
- Level of external environment turbulence

### *5.2.1.2 Porter's Five Forces Analysis*

This technique may not be the most trendy, but it's a must have in a research paper about competitive landscape analysis, as it is this technique that popularized the term 'competitive advantage' and its beneficial for firms to understand their operating environment (Magretta, 2011). In 1980, Michael Porter published 'Competitive Strategy' where he described 'five forces' that shape all industries and establish rules of competition and the root causes of profitability in the industry (Porter, 2008). Porter's 5 forces analysis helps managers to understand the strategic implications of a particular firm within an industry (Dobbs, 2014). Three main components of the operating/industry environment are the suppliers, customers and competitors and unlike the macro-environment, the industry can be influenced, and thus is valuable for SMEs to understand these forces within their direct operating environment (Bensoussan and Fleisher, 2012). The Five forces analysis measures the attractiveness of industries/sectors or even markets which a company wishes to enter or leave. Through this analysis also the impact of certain factors in the industry can be measured and how they will effect that specific firm since these factors effect each firm differently.

Porter's 5 Forces:

- Threats of New Entrants
- Bargaining Power of Suppliers
- Bargaining Power of Buyers
- Threat of Substitute Products or Services
- Rivalry Among Existing Competitors

These five forces create an industry's/sector's structure. The barriers to entry can include economies of scale, high fixed costs, experience and learning, access to supply and distribution channels, differentiation and market penetration

costs, government restrictions (Johnson et. al., 2008). Substitutes are similar products or services that customers could switch to if the price is lower and/or performance is better. Buyers are a firms immediate buyers, if not the ultimate customers but if these buyers are powerful, this would mean that they can demand lower prices for products or services. Buyer power is likely to be high if buyers are concentrated, if the switching costs are low and if the buyers can supply their own inputs (Johnson et. al., 2008). Similarly, powerful suppliers are powerful because there are a few of them, they are a specialist and if its expensive to switch to another supplier. And finally the rivalry occurs between companies that provide to the same customer group, in the same industry/sector.

Porter (2008) argues that these five factors will influence an industry's profit potential. So, identifying these potential will provide foundation for managers to build their strategy and bridge the gap between their external environment and resources. Porter (2008) himself also offers criticism to his own technique, where he admits to the lack of quantitative measures used in typical applications of the five forces framework. Improved templates for five forces analysis by Dobbs (2014) are a good way to implement this technique, as these templates have been improved over time with collaboration with SMEs, consultants, analysts, students and professional industry analysts. The impact of complementary products and services is not included in Porter's 5 forces but they should be considered as a 6<sup>th</sup> force and kept in mind during this analysis (Johnson et. al., 2008).

### *Generic process for Porter's 5 Forces:*

- 1) Threats to entry
  - a. Identify the barriers to entry:
    - i. Economies of scale
    - ii. Product differentiation
    - iii. Capital requirements
    - iv. Cost disadvantages independent of size
    - v. Access to distribution channels
    - vi. Government policy
  - b. Analyze the experience curve of the firm
- 2) Powerful suppliers and buyers
  - a. Identify the characteristics of important buyers and suppliers to assess their power:
    - i. Suppliers:
      1. Domination of the industry
      2. Uniqueness and/or differentiation of the products
      3. Switching costs
      4. Investment in the facilities of the suppliers
    - ii. Buyers:
      1. Price sensitivity of the buyers
      2. Self-manufacturing threat form the buyers
- 3) Substitute products
  - a. Identify substitutes to your own product/service
- 4) Rivalry among existing competitors
  - a. Identify the size and power of competitors
  - b. Identify the market share that is acquirable
  - c. Identify the capacity of the industry, exit if overcapacitated

(Adapted from Porter et. al. 2010)



### 5.2.2 TOWS Analysis

TOWS analysis is used by firms of any size to identify the external opportunities and threats and internal weaknesses and strengths of the firm before they advance to the formulation of strategy (Bernroider, 2002). The results of PESTEL Analysis can be used as an input to identify external opportunities and threats. Internal weaknesses and strengths can be found through an audit of strengths and weakness, focused on the internal resources, capabilities and core competencies of the SME. The audit should try to look into all aspects of the enterprise: management and organization, operations, finance, marketing and others.

#### Generic process for TOWS Analysis:

Step 1: Strategy formulation

Step 2: PESTEL Analysis

Step 3: Strengths and Weaknesses Audit

Step 4: Develop alternatives

Step 5: Make strategic choices

Step 1 to 6: Test for consistency and prepare contingency plans

**Table 2. TOWS matrix adopted from Weihrich (1982)**

	Internal Factors	
	Strengths:	Weaknesses:
External Factors		
Opportunities:	SO: Maxi-Maxi	WO: Mini-Maxi
Threats:	ST: Maxi-Mini	WT: Mini-Mini

At the end of the TOWS analysis, a firm can identify itself as one of the quadrants in the TOWS matrix.

*SO: taking strengths and turning them into opportunities.* Depicted as ‘maxi-maxi’, this quadrant is the most desirable outcome where SMEs maximize both strengths and weaknesses and utilize resources to take advantage of the market for its products and services.

*ST: employing strengths to avoid/escape threats.*

Depicted as ‘maxi-mini’ it means to maximize the strengths while minimizing threats in the environment, while keeping in mind that strengths should be used with great restraint and discretion as sometimes charging at threats head-on might create more problems.

*WO: attempting to take advantage of opportunities by overcoming weaknesses*

Depicted as ‘mini-maxi’, means to minimize weaknesses while maximizing opportunities. Here, the firm can develop several tactics to overcome the weaknesses so that they can utilize the opportunities.

*WT: acting to minimize weaknesses and avoid threats*

Depicted as ‘mini-mini’, this is the least desirable quadrant of the matrix. An SME that fits this quadrant most likely is in a troubled situation and is fighting for its survival.

(Weihrich, 1982; Trainer, 2006)

TOWS analysis synthesizes the internal and external factors, which is the fundamental purpose of the environmental scanning. This is the reason this technique was chosen to be introduced in the overview of techniques.

### 5.2.3 Critical Success Factors Analysis

Critical success factors are those factors that are either valued by customers or which provide advantage to firms in terms of cost (Johnson et. al., 2008). Critical success factors are

important key aspects that management can influence through decisions, and if satisfactory, effect the competitive performance of the firms in an industry and in a particular market thus increasing the chances of business success (Rockart, 1978; Hofer and Schendel, 1980). There are several components to a CSF analysis. While more obvious success factors may be identified through an elasticity and/or sensitivity analysis, they do not provide all of the CSFs and also do not provide a way to determine the relative importance of these CSFs (Leidecker and Bruno, 1984). Thus performing CSF analysis in each step of the competitive landscape analysis will give firms a better identification of CSFs and make it easier for them to determine the relative importance. CSFs analysis can help SMEs identify factors which they can also monitor before during and after the competitive landscape analysis. In general, the variables that influence the long-term business success were categorized by Bernroider (2002) into six areas: Resources, Capabilities, Quality, Efficiency, Customer responsiveness and Innovation. Ghosh et. al. (2001) identifies some more specific CSFs, evidence exists in their paper that many other authors came to the same conclusion that these are some of the most important key success factors, for SMEs as:

- Ability to identify market well
- Satisfy customers needs most of the time
- Constantly developing new ideas and capabilities
- Able to identify niche most of the time
- Always ahead of competitors
- Employees always get necessary resource and support
- Close working relationship between top management
- A good customer and & client relationship is important
- Regionalization is a must for survival
- Government plays an important role in firm success
- Easy access to capital to achieve company goals
- Luck plays an important role in success of business

For technology driven SMEs intellectual capital in R&D, technological innovation, managerial and worker training, work-place organization and market knowledge are crucial for business success in knowledge intense industries (Bernroider, 2002). Thus, CSF analysis can be an important analysis tool to understand the market and find opportunities to satisfy the needs of customers for a specific product or service.

## 5.3 Competitive Analysis

Competitive Analysis is the process of the SMEs attempting to define, understand and identify its competitors, determine strengths and weaknesses of its rivals and anticipate their moves (Zahra and Chaples, 1993). Variety of competitive analysis techniques to analyze competitive intelligence are available to managers and this makes it difficult to decide on a method to use for a specific need. In order to organize the methods that are available, they will be grouped in two different categories: competitor profile analysis techniques and future-oriented techniques. Regardless of which technique is chosen, one main requirement of these techniques is that each method should be integrated with the setting of objectives, operating plans and overall management for them to produce maximum and sustainable benefits and results (Shetty, 1993).

### 5.3.1 Competition Profiling Analysis Techniques

Unlike future-oriented analysis techniques, literature on present-oriented techniques are scattered and there is a gap in literature, where there is no unified framework where the underlying approach to such techniques can be understood. Each researcher found their own way of analyzing the current stage of the present competitive situation of the landscape. Thus two most commonly used competitive profiling

techniques will be introduced in this chapter. While competitive benchmarking analyses the competitors from a practices of the competitor, win/loss analysis uses financial matters as a comparison. For this techniques and important step to keep in mind is the identification of performance measurements.

### 5.3.1.1 Competitive Benchmarking Analysis

Shetty (1993) describes benchmarking as '*the continuous process of measuring products, services, and practices against the toughest competitors or those companies recognized as industry leaders*'. SMEs potentially have the most to gain from competitive benchmarking, because in theory they have a wealth of examples of well resourced, successful companies using leading-edge techniques and which may be prepared to be more open with relatively small companies (Monkhouse, 1995). Monkhouse (1995) concludes from a review of existing literature and case study history of performance related benchmarking that with all its weaknesses and limitations considered, it still provides inspiration for management vision and strategic goals.

Benchmarking is cost-intensive (Bensoussan and Fleisher, 2012) but would be suitable for established SMEs who would want to share new product development costs and efforts, and want to improve their current processes. Benchmarking is a valuable technique for organizational learning but as true to any method, it is important to be aware of this methods potential limitations, effective uses and outcomes (Drew, 1997).

Competitive benchmarking allows SMEs to identify possible sources of improvement in order to increase its performance and its competitiveness (St-Pierre and Delisle, 2006). Competitive benchmarking helps SMEs to improve cost efficiency and quality (Monkhouse, 1995). Benchmarking can increase quality for customers by establishing standards for customer requirements and encourage employees to think competitively (Shetty, 1993). So, benchmarking can be a motivational tool for the personal of SMEs as well, and considering the size of SMEs compared to larger organizations, it can be considered as an even better advantage for SMEs (Monkhouse, 1995). One weakness of benchmarking is its resource intensive nature that makes managers of SMEs hesitant to use this method, but benchmarking can help break entrepreneurs 'isolation' and break from 'not invented here' syndrome by providing them information on current and future rivals (Monkhouse, 1995; St-Pierre and Delisle, 2006) in result also providing information to improve existing processes of the firm and share costs and efforts in new product innovation (Drew, 1997). Supporters of the theory of competitive advantage through choice of market position show stronger resistance to information-sharing since it could endanger unique product-market position of the company (Porter, 1996). One other criticism benchmarking receives is that it is not a strategy for achieving competitive advantage in product or resource market, its only a set of activities that help the imitation or collaboration leading to advantages to firms (Drew, 1997).

### Generic process of competitive benchmarking:

Generic process of competitive benchmarking changes from literature to literature, but there are some main steps to be taken if competitive benchmarking is to work for an SME. In the following is a 9-step process for competitive benchmarking:

1. Identify the process that need to be benchmarked.
2. Identify performance measurements.
3. Evaluate your own firm's capabilities.
  - a. Cost aspects of benchmarking

- b. Duration of benchmarking practice
    - c. Human resources in benchmarking activities.
  4. Identify firms to be benchmarked.
  5. Conduct research from selected firms.
  6. Analyze the collected data.
  7. Pinpoint gaps in performance, processes and practices
  8. Create an action plan to improving and surpassing the 'best-in-class'.
  9. Implement plans to bridge the gap and monitor results.
- (Adopted from Shetty, 1993; Dattakumar and Jagadeesh, 2003; Bensoussan and Fleisher, 2012)

### 5.3.2 Future-oriented Analysis Techniques

Rohrbeck et. al. (2015) have defined 'corporate foresight' as a foundation to competitive advantage creation and emphasized the importance of perception and interpretation to the value creation of foresight methods. Foresight is the foundation to future-oriented techniques which are mainly grouped under the term 'forecasting'. Foresight is very active in fields of technology and it continuously monitors emerging technologies and potential opportunities for developing new products and processes, which is also often called technology foresight (Vecchiato and Roveda, 2010). The concept of foresight is built on the assumptions that 1) multiple futures are possible (i.e. that future developments are uncertain and unpredictable), 2) change (drivers) can be identified and studied, and 3) the future can be influenced (Rohrbeck et. al., 2015).

Foresight is human attribute managers should master before using forecasting techniques since foresight allows managers to weigh up pros and cons, to evaluate different courses of action and to invest possible futures on every level with enough reality and meaning to use them as decision making aids (Major and Cordey-Hayes, 2000). While foresight is based on intuition and insight, forecasting s the prediction of an objective knowledge or information (Foresighttr, 2016)

Forecasting techniques try to answer the 'what if' question (Powell and Allgaier, 1998). There are 4 types of forecasting methodology: judgmental or intuitive methods, extrapolation and trend analysis, models, and scenarios and simulations (National Research Council, 2010).

Van der Duin (2016) divides the most important forecasting techniques on the continuum of explorative, predicting or normative towards either one of these two dimensions. In order to give SMEs a good overview of each type of technique, for each type, a technique will be introduced. War game analysis will be also introduced to give an example to new forecasting techniques.

### 5.3.2.1 Scenario Planning

To guarantee competitiveness, SMEs must identify upcoming opportunities and threats and integrate them into strategy on time, and scenarios allow a way to cope with growing uncertainties and help managers acquire multiple views that describe a 'window of opportunity' (Fink and Schlake, 2000).

Scenarios are detailed and possible perspectives on how the environment of an organisation might develop in the future based on the key drivers of change (Johnson et. al., 2008). This is why primarily scenarios are build on the outcome of the PESTEL analysis. Scenarios do not offer a single forecast on how the environment will change, rather it is important for the firms to develop a few alternative scenarios to analyse future strategic options (Johnson et. al., 2008).

Scenarios are an important technique for technology driven established SMEs since they provide sustainability by thinking of integrated scenarios as coherent and plausible stories, told in words and numbers, about the possible co-evolutionary

pathways of combined human and environmental systems (Swart et. al., 2004).

To let scenarios be accepted by organizations, managers participate in the construction process of scenarios and translate them to their decision situations in order to be understandable, feasible and internally consistent (Postma and Liebl, 2005). Scenarios also aim to stretching managers' mental models, and triggering and accelerating processes of organizational learning (Bood and Postma, 1999).

The use of scenarios is very beneficial to SMEs, because it can help them reduce costs, create awareness to environmental uncertainty, generate new opportunities and in the while increasing their overall quality of strategic thinking (Schoemaker, 1993). Better than any other future oriented technique, scenarios offer the possibility to integrate various kinds of data consistently (Bood and Postma, 1999). A concerted, collective scenario building effort will give the firm's managers a head start, as well as a conceptual framework within which to scan, encode, update and understand the future as it unfolds (Schoemaker, 1995). Some individuals in the enterprises might find scenarios childish and disregard their value, so it has great importance for SMEs managers to explain the benefits of scenario planning to the rest of the organization (Coates, 2000). It is also necessary to involve outsiders besides the managers themselves to eliminate organizational convictions and cognitive biases during scenario planning (Bood and Postma, 1999).

#### *Generic process of Scenario Development:*

There are many ways to conduct scenarios, and each author in literature word the steps in the generic process differently. In the following, Fink and Schlake (2000)'s 5 phases of scenario management were combined with Postma and Liebl (2005)'s 13 steps of scenario development to give a complete overview of scenario development and implementation.

##### Phase 1: Scenario-Preparation

1. Identify focal issue or decision

##### Phase 2: Scenario-Field-Analysis

2. Key forces in the local environment
3. Driving forces
4. Rank by importance and uncertainty

##### Phase 3: Scenario-Prognostic

5. Select the scenario logics
6. Up to 3 possible developments for every key factor

##### Phase 4: Scenario-Development

7. Fleshing out the scenarios
8. Implications for strategy
9. Selection of leading indicators and signposts

##### Phase 5: Scenario-Transfer

10. Feed the scenarios back to those consulted
11. Discuss the strategic options
12. Agree the implementation plan
13. Publicize the scenarios

(Adapted from Postma and Liebl, 2005; Fink and Schlake, 2000)

An important factor that should be kept in mind about any scenario analysis is that scenario analysis should be combined with environmental scanning to describe the current situation and identify the relevant environmental factors because future originates from the present and takes shape through complex interactions between many decisions made and carried out and

some insight may be applicable from present to future (Bood and Postma, 1999).

#### *5.3.2.2 Technology Roadmapping*

Technology is important in delivering value and competitive advantage to SMEs (Phaal et. al., 2004). "*Technology roadmapping was originally developed by Motorola in the 1970s to develop better alignment between technology and product development, providing a structured visual depiction of strategy.*" (Phaal et. al., 2010). Roadmapping can be used to support different aims, including product planning, exploration of new opportunities, resource allocation and management and improved business strategy and planning (Phaal et. al., 2001).

The most frequently cited benefit of the roadmapping approach is communication across functional and organizational boundaries (Phaal et. al., 2010). Roadmapping also had the advantage of aligning technology to product and service developments, business strategy and market opportunities. Although roadmapping is a very powerful technique, the reason SMEs might struggle to apply this method is that there are many specific forms of roadmap, which often have to be tailored to the specific needs of the firm and its business context (Phaal et. al., 2001).

#### *Generic Process of Technology roadmapping:*

##### Phase 1: Planning

- Objectives
- Scope
- People
- Schedule

##### Phase 2: Workshop 1: Market

- Performance dimensions
- Market/ business drivers
- Grouping
- Prioritization
- SWOT
- Gaps

##### Phase 2: Workshop 2: Product

- Product feature concepts
- Grouping
- Impact ranking
- Product strategy
- Gaps

##### Phase 3: Workshop 3: Technology

- Technology solutions
- Grouping
- Impact ranking
- Gaps

##### Phase 4: Workshop 4: Charting

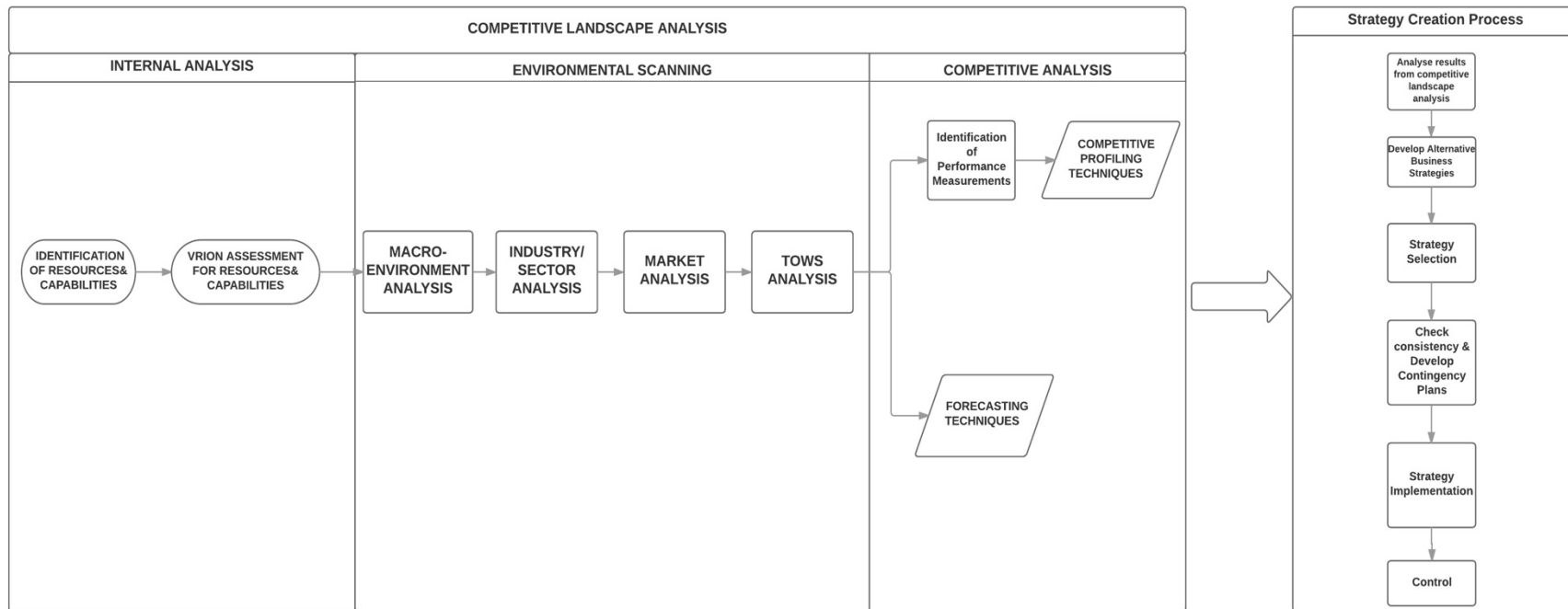
- Milestones
- Product charting
- Technology charting
- Resources
- Gaps
- Way forward

##### Phase 5: Implementation

- Implementation plan
- Tasks (gaps)
- Integration

(Adopted from Phaal et. al., 2001)

**Figure 6. Holistic process model to competitive landscape analysis**



## 6. COMPETITIVE LANDSCAPE ANALYSIS PROCESS MODEL

Employing only resource based view to make strategic decisions is wrong because there are also firm-specific factors that explain a part of the firm performance. This is why the competitive forces approach should also be exhausted. For this approach, each level of the business environment and direct competitors is taken into account for the process model.

Another important finding of the literature review was the interdependence of each business level to each other. Because of this interdependence, following a step-by-step process model was suggested. Reasoning behind the specific step in the process model comes from the fact that some analysis techniques require the results of an other technique. This is why the following set of steps were created.

### 6.1 Development of process requirements

Competitive landscape analysis is time intensive and expensive which is why it is important for businesses to identify factors that are critical to the success of the process. Some of the most important factors are:

- Clear understanding of strategic goals and objectives
- Commitment by management
- Excellent strategy/project team
- Data Accuracy
- Education and training of employees within strategy/project team

Following from these critical success factors, reasons why competitive landscape analysis might fail are:

- Poor planning or poor management
- Change in business goals during the project
- Strategic goals are not well defined
- Lack of business management support
- The organization underestimates the scope, size and complexity of the process
- Project team lack competencies to conduct competitive landscape analysis
- Data is incorrect or incomplete

SMEs should try to minimize factors which can lead to the failure of the process before deciding to conduct the process, in order to avoid misallocation of resources.

### 6.2 Interdependence of steps

One important finding of the literature review was the interdependence between different business levels and techniques to analyze them. As seen on Figure 3 and Image 2, the levels of business are interconnected and so is the necessary information to analyze them. PESTEL analysis is required specifically for TOWS analysis and scenario analysis, although it is a generally required step for many other techniques as it identifies the key change drivers which is necessary to know in any kind of competitive analysis. In the case of industry/sector analysis rather than being a pre-requisite, the market analysis is closely connected to the industry/sector analysis since market drives from the industry a firm operates in. Lastly, in the process model even though for clarity it is a decision of either to chose competitive profiling techniques or the forecasting techniques, these techniques can be used in combination or to support each other to create a better analysis of competition.

### 6.3 Step 1: Internal Analysis

Internal Analysis is based on the Resource Based View (RBV). While Peteraf (1993) laid the groundwork for RBV, a clearer method of assessing the resources and capabilities for

competitive advantage is needed, so that companies can more effectively identify the opportunities in the second part of the process model to generate rents. At the end of the internal analysis, the results should answer the first sub question that was identified in Section 2.1: *'How can internal analysis help SMEs identify the important factors for competitive advantage?'*. According to the RBV, identifying and securing unique resources and capabilities will help firms obtain competitive analysis, thus a successful internal analysis should lead to a successful identification of where firms can generate competitive advantages in their macro to micro environment.

In the internal analysis the first decisions that should be made are the identification and classification of unique tangible and intangible resources, decision on markets those resources can earn the highest rents and the decision as to whether the rents from those assets are most effectively utilized, identification of firm capabilities are under the most important decisions that decision makers have to make in internal analysis.

Since the resources are firm specific and scarce, RBV highlights the importance of the identification and development of relevant managerial and employee capabilities. 'Capability' underlines the the key role of strategic management in accordingly adapting, integrating and reconfiguring internal and external organizational skills, resources and functional competences to match the requirements of the changing landscape (Teece et. al. 1997). It is important for managers and employees to have the ability to be able to renew competences so as to achieve uniformity with the new competitive landscape.

SMEs should analyze the availability of their resources and rank these resources. The potential resources for SMEs are: machine capacity, customer loyalty, production experience, technological leads and 'the entrepreneur'. Additionally, there are capabilities SMEs should have and improve in order to ensure success of new entrepreneurial ventures, and these are: innovative capabilities, production capabilities, market management capabilities and human capital. An important capability is also recognizing 'entrepreneur' as a resource. It is important to integrate the role of the entrepreneur with other resources. Its important for SMEs to recognize the human capital as resource and a capability but its crucial to keep in mind that not all managers are at the same skill or knowledge level. This raises important issues relating to the extent to which entrepreneurs and managers are able to create greater sustainable competitive advantage. Do habitual entrepreneurs possess cognitive abilities that enable them to repeatedly identify threats and opportunities? Are they able to exploit these opportunities? These are important questions owners and entrepreneurs should find questions before continuing to environmental scanning. The important aspect of having a resource or capability is being able to generate competitive advantage from them and to sustain this advantage. There are 5 important questions that firms can ask in order to find this out. VRION model is easy to use and will let the firm decide if the available resources can be or are developed to a sustainable competitive advantage that will differentiate the firms from the other firms in their business environment.

### 6.4 Step 2: Environmental Scanning

The next step is to conduct an environmental scanning. Environmental scanning consists of 4 individual steps that were designed to include many levels of the external environment of the firm, and to create a synthesis between the internal analysis to help firms find out their internal and external strengths and figure out strategies from this information to position themselves in their industry/sector and markets.

Important decisions that has to be made in this section are the identification of PESTEL factors for macro-environment, to identify the implications of the macro- environment, to analyze the market and industry for potential new entries, product/service substitutes and capacity, to identify the opportunities and threats and to decide the CSFs which can be important for the market the firm is aiming for.

The first step in the environmental scanning is the macro-environment analysis. In this step the PESTEL factors should be analyzed and key drivers of change in external environment of the SME should be identified. PESTEL analysis is the best tool to do this. While it is the best, it does not mean it is the only technique to conduct this analysis. Different variations of this analysis are STEP and STEEP analysis. Through PESTEL Analysis, a cross functional team created to conduct the environmental scanning should be able to identify important information about the firms' macro-environment that they can break down to 6 categories: political, environmental, social, technological, economic and legal. This step is important for either the rest of the environmental scanning but also for the competitive analysis. Alternative scenarios about the future can be constructed only according to how the key drivers of change in the macro environment develop.

Next is the industry/sector analysis. Industries and sectors can be analyzed through Porter's 5 forces analysis: barriers to entry, substitutes, buyer power, supplier power and rivalry. These forces can help SMEs see whether an industry or sector is attractive or not.

The third step in the environment scanning is the market analysis. Here, it is recommended to conduct a CSF analysis for a certain market the firm wants to target. The CSF analysis can help find attractive 'strategic spaces' where they can satisfy the needs of customers for a product or service better than the competition, because CSFs can provide them with competitive advantage.

The most important reason for conducting an environmental scanning is to identify the opportunities and threats. This is why conducting a TOWS analysis is important. The results of the macro-environment analysis, industry/sector analysis and the market analysis are then can be combined to conduct a TOWS analysis. This analysis combined with the first three steps, allow firms to identify a type of strategy they can aim and position themselves in their external environment and find opportunities and threats and maximize and minimize them with internal strengths.

### 6.5 Step 3: Competitive Analysis

The final step in the process is the competitive analysis. This is the final step of the competitive landscape analysis.

There are critical decisions to be made before and during the competitive analysis. Firstly, the SME should identify its strategic customers which are for whole the strategy is primarily addressed to because they have the most influence over which goods or services are purchased (Johnson et. al., 2008). After these strategic customers are chosen, the next step should be to identify whether to use a competitive profiling or a forecasting technique. If competitive profiling is chosen, an extra step is to identify which performance measures will be used to profile the competition.

In competitive analysis, either competitive profiling or future oriented techniques can be employed. When the SMEs need to improve existing processes then a competitive profiling should be used to find best practices from their direct competitors and also try to gain competitive advantage over their competitors by improving the best practices. Before competitive profiling

techniques, a pre-step exists, which is the identification of performance measurements. This step is important to identify in which domain the competition will need to be analyzed. This identification will make the selection of the competitive profiling technique easier and also will make the analysis more focused, detailed and efficient. Taticchi et. al. (2010) observe after a general review of performance measurement literature, that SMEs use financial and quality measures as performance indicators. SMEs should identify which measurement indicator its to the characteristic of their firm and then continue to conduct a competitive profiling technique.

When the SMEs want to launch a new product/ service or a new business process, then a forecasting technique would be more appropriate. The basic purpose of employing any mode of futuristic forecasting is the identification of those trends, events and discontinuities which may exert significant impact on the firm's long-range plans (Fahey et. al., 1981). This is why it is essential to find the level of uncertainty in the key drivers of change before investing in a new development in the firm.

### 6.6 Strategy Creation

Strategic choices of a business are broad and complex. Every day they have to make choices about business positioning relative to competitors. They have to make choices about products or services, which industry is the most attractive, which market to pursue. In order to make the most informed choices with the least amount of mistake, it is important to have a complete picture of their business environment. With internal analysis, environmental scanning and competitive analysis, the process model hopes to produce an end result that will provide firms with a complete holistic information and analysis where they can drive multiple strategies from. After internal analysis the SME can identify the resources and capabilities which will provide them with sustainable competitive advantage, and with the information from macro-environment industry/sector and market analysis the firm can create alternative strategies from the TOWS analysis. These strategies can then be tested, changed and/or improved after analyzing the direct competition or after forecasting. Then the firm can evaluate the strategies along other criteria such as timing. Even the best product may fail if its introduced at an appropriate time (Wehrich, 1993) so it is important to keep such factors in mind as well. Later the firm can test for consistency and prepare for contingency plans. The firms should always check if the strategies they are producing and developing stay consistent with their mission and vision. With the fast changing new competitive environment, it is always important to develop contingency plans in case of deteriorations in the markets. Strategy should be flexible and updated constantly to match the dynamic and the fast paced new competitive landscape.

## 7. CONCLUSION

In conclusion, the holistic approach to competitive analysis combines several analysis tools under a logical step-by-step process model that consultants to SMEs and/or SMEs owners, managers or any other key decision maker can use themselves to identify their internal strengths and weaknesses, identify external opportunities and avoid or overcome threats in order to find competitive advantage in their market and industry and against their competitors. The step-by-step model aims to help decision makers make better business decisions when venturing into new business ventures, making effective use of their limited resources while aiming business growth and success. 3-step competitive landscape analysis leads to strategy planning and creation, which empirical evidence suggests that they have to improve to lower the ratio of SME failure. An



effective use of landscape analysis for strategy development can benefit the survival and success of SMEs.

## 7.1 Practical and Theoretical Implications

As a tool for consultants, owners, managers, key decision makers of SMEs, the process model can be used as a guide to maneuver in the extensive and complicated literature and techniques available for competitive landscape analysis and competitive advantage. The process model also gives the advantage to know the order of analysis steps necessary for successful landscape analysis, since the steps are sometimes dependent on each other.

As a theoretical implication, the research is a new perspective on how to combine different concepts and frameworks available in the literature and a new angle to the new competitive landscape. The research opens new ways to look at competitive landscape analysis and stimulates further research in this field of literature.

## 7.2 Limitations and Further Research

### *Literature tends to be old*

Competitive advantage is a term that got popular in 1980s and have been extensively research since then. While most of the earlier literature is still fully applicable and useful on theoretical side of this analysis, practically SMEs should be aware that some of this techniques or theories might have to be updated or improved in the future in light of new technological advancements and new innovations.

### *SMEs characteristics can be a limitation*

There are many limitations to competitive landscape analysis caused by some of the characteristic differences SMEs show from larger companies which utilize competitive landscape analysis more frequently and effectively. SMEs lack the codified or predetermined way of problem solving, and the coordinated and well established procedures that is usually in place in larger enterprises (Salles, 2006).

Training of the personnel and the knowledge levels of the managers not only in cross functional teams but throughout the firm should be up-to-date with the new competitive landscape, for them to accept the new process and use its results to the full extent. The training of personnel that will be involved in the competitive landscape is important because the analysis skills required for such a process is extensive, and appropriate knowledge is necessary to be able to use the process model to its fullest capacity.

### *Decreased forecastability*

As discussed above, the new competitive landscape analysis has also new consequences for firms, and these consequences increases risks and uncertainties. While the suggested process can help firms identify those risks and uncertainties, the fast pace of the technology innovation makes forecastability of these risks and uncertainties difficult (Bettis and Hitt, 1995), thus, development of contingency plans carries an important role for the firms.

### *Geographic implications*

Literature that focuses on only one geographic region is limited. Each SME has to follow the process if minding the regional implications. PESTEL analysis is crucial for this specific reason. Each country and region is different and might have different governmental, cultural, social factors that SMEs should be aware of before going into a new business venture. A literature review on competitive landscape analysis could not be narrowed down to one region or country.

### *Limited techniques*

Keeping the length of this research paper in mind, the number of suggested techniques per step in the process were kept to a minimum, only providing the most popular and/or applicable ones to SMEs. Only an overview was provided. But the fact is that there are a lot more analysis tools available to consultants and managers, that can provide them with information necessary for a certain step in the competitive landscape analysis.

Another important limitation is the extend to which the techniques that are given in the overview are explained. Each introduced technique has its own generic process. It is impossible to explain each process of each technique in detail, thus they are given in a practical format, where it shows the important steps of the process. If the firm decides to go through with this process, it is important to note that they should further research on this process from the literature that it was adapted from.

### *Different approaches to innovation might effect the process model*

There are different approaches to innovation and these different approaches create different knowledge interactions for firms. Approaches such as innovation milieu, network approach, clusters and knowledge spillovers argue different views on how relationship between companies and within a sector or industry can affect the innovation process (Tödtling et. al., 2009). Innovation process of the SME and the sector, industry and market they operate in should also be considered with care since knowledge gained through these processes might effect the SME and its competitiveness and performance.

### *Other factors effecting SMEs*

The steps included in this process model do not constitute a complete set of practices SMEs undertake to achieve competitive advantage. Due to the focus of this research paper and time constraints only techniques and steps relevant to competitive landscape analysis were included, but for example SMEs can consider M&A options or research open innovation (collaborations, partnerships, outsourcing, etc.) options further to improve their performance and strengthen their internal factors to gain competitive advantage over their competitors and settle a better competitive positioning in the market/industry they operate in.

For some innovation projects, be it for the difficulty to manage the project or to fund it, partnerships are essential for its success (Lhuillery and Pfister, 2009), so this should be kept in mind and added to the process model.

### *The process model is not tested*

The process model suggested in this research paper was created, with the insights gathered after the literature review. This process model is though not yet tested in real life and its applicability and usability still remains untested.

### *Further research*

Even though a full process model is created, not every technique could be added, and also not a full review of the mentioned techniques could be included. Thus it is important to further research on each selected technique the firm wishes to use for each step of the process model. Further research should also focus on testing the process model on SMEs. Another useful advancement on this research would be to create a suitable performance measurement system compatible to the competitive analysis, where companies can also monitor their day-to-day activities according to their strategies they created through this process model. Further steps could be added to the process model, considering other options that might improve

existing processes and products/services. Another valuable addition to the process of competitive landscape analysis would be to differentiate the process model further according to what type of generic strategy the SME is going for (i.e. cost leadership, differentiation, focus strategy), since then the strategic customer and key competitor for each type of strategy would be different (Johnson et. al., 2008) and each strategy might have different requirements.

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