INDENTY

# Which way to follow?

**Developing an innovation strategy for Indenty**

University of Twente

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June 19, 2009

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Developing an innovation strategy for Indenty


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## Abstract

This research is conducted on request of the management of Indenty. Indenty is an organization with around twenty employees and is operating in the business of search engine optimization (SEO). The research is aiming at the development of a proper innovation strategy for the organization of Indenty. For the realization of this a research model of Roozenburg & Eekels (1998) is used. To guarantee the validity of the research the methodology of the research is focused on multiple data-gathering methods.

A literature study makes clear that an organization needs to have an innovation focusing on both sustaining as well as disruptive developments. For the developments the use of a firm's network is important. Network theories advocate a close relationship with important players in a network. An organization needs to be in a position in which it can create information benefits. An open innovation strategy is advisable in order to enhance the organizational resources.

The external analysis shows that the current SEO market will rapidly change, because of new influences of social media, universal search and personalized search. This will make sustaining developments much more difficult, although the outcomes makes clear that there are still possibilities to earn revenues with current SEO techniques. Long-term developments will focus on the development of products which support a firm's management with information about the visibility of its website on the internet. This is confirmed by the experts, although Web 3.0 developments can disturb these forecasts.

An internal analysis makes clear that Indenty's current social network does not deliver Indenty enough possibilities for the development of both incremental innovations (based on sustaining developments) as well as radical innovations (based on disruptive developments). For disruptive developments the diversity within Indenty's network is too low. Indenty needs to establish a direct information line with end customers to be more effective in its future development process. This will improve the access to more unique information. The monopoly position of Google, Google's closed innovation process and the high dependency of Indenty on Google is seen as dangerous for Indenty's continuity. An open innovation strategy in which companies cooperate will make it easier to anticipate on updates from Google, because this is a common objective. The use of virtual teams combined with frequently organized physical meetings between the technical employees of the cooperating companies is found as possibility for this.
Internally Indenty needs to restructure its R&D department. Through a lack of formal procedures the R&D department is too separated from the market. The Marketing department needs to be involved within the different innovation projects. More precise project plans must be developed which can be discussed with lead users, partners and end customers. A new supply chain has been developed for Indenty which will improve its innovation process. Further the management can enlarge its control of the innovation process by formulating clear objectives in the project plans. The introduction of a performance based incentive system will improve the motivation of the R&D employees.

The outcomes of the research confirm the hypothesis that social networking can enhance Indenty's innovation process. For short-term developments as well as for long-term developments. Besides innovation purposes, open innovation is also used as marketing instrument within this market.

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## Abbreviations

M&S Marketing and Sales

Q&S Quality and Service

R&D Research and Development

SEA Search Engine Advertising

SEM Search Engine Marketing

SEO Search Engine Optimization

## Acknowledgments

Approximately one year ago I started my search for an interesting assignment in the field of Innovation Management. When I came in contact with the organization of Indenty I was interested in the business of it. I saw the paid advertisements (Search Engine Advertising) given together with the search results in Google, but that one can also influence the natural search was new to me.
Also for my first supervisor the specific business was new. I still remember my first conversation with him in which I had to explain the precise business of Indenty. It was difficult for me because I hardly understood it myself at that time. Also the name of Indenty caused problems. Many times I had to explain to my relatives and friends that the name of the company is Indenty, instead of 'Indentity'.

The research took me a lot of effort, but I am satisfied with the result. I learned a lot of the market of search engine marketing and more specifically search engine optimization. What started as a problem within Indenty has led to sophisticated report which improves Indenty's innovation process.

For me this is the moment to thank the people who helped me with this research. First of all I want to thank all the employees of Indenty. Everybody wanted to help my when I had questions for them. It was a pleasure to come to the office everyday. I Especially want to thank Peter Schinkel for reading and giving comments on my research. As a young entrepreneur he is very motivated in his business and this resulted in a positive influence on my work. Also Tom Visser and Dennis Sievers spent a lot of time in helping me to understand the processes within Indenty.
I also want to thank my supervisors Jann van Benthem and Efthymios Constantinides to help me write this thesis. The discussions with them were not always easy for me, however their support and guidance were very important to me. They gave me much new ideas for conducting this research.

Last but not least I want to thank my family and girlfriend for supporting me. Especially my sister Véronique helped me a lot with reading this report and improving the English.

Haaksbergen, June 2009

Alexander Horvàth

# Chapter 1. Introduction of Indenty

## *1.1 Introduction*

This research is done within the organization of Indenty. This company is doing business in a specific part of marketing. This chapter will introduce this market and it will give practical background information. It will explain the organizational structure and the products and services of Indenty.

## *1.2 Position of the SEO market*

The search engine market is a fast growing market. More and more companies are convinced of the importance of search engine optimization (SEO) for their firm. Indenty is a company focusing on search engine optimization, which can be described as a dynamic process which highly depends on technological developments. For Indenty it is important to know what the market wants and to gather relevant information to meet the requirements of the market. It has developed different tools to do this. Also services to analyze the optimization results are part of the business concept of Indenty.

In this thesis search engine optimization is considered to be a specific part of search engine marketing (SEM). SEO is a process of improving the volume and quality of traffic to a website from search engines through natural search results for targeted keywords (Wikipedia). Search engine marketing has the goal to improve the visibility of a website on the internet.

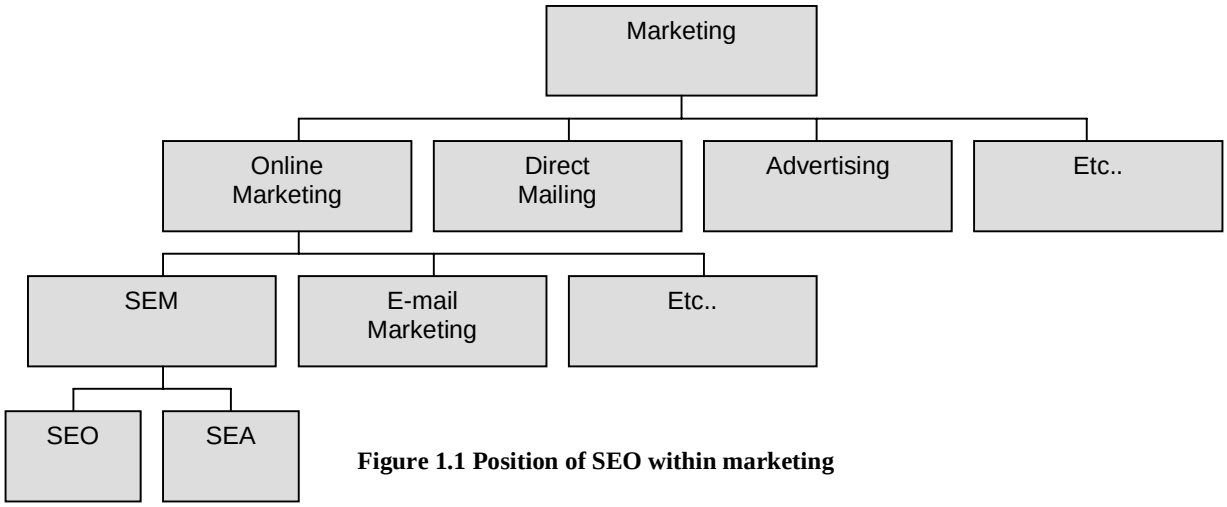


**Figure 1.1 Position of SEO within marketing**

As is graphed above it is not only SEO which belongs to SEM, but also search engine advertising (SEA). SEA is a very important business for search engines because it generates a lot of revenues for them. When people search for a specific word in a search engine, for example Google, they see sponsored search results on their screen. Within Appendix A an example is given about the difference between SEO and SEA. The reason for making this distinction is that this research is done within a case specifically focusing on search engine optimization. The market of SEO will be described further on this thesis.

## *1.3 Practical background of research*

### 1.3.1 Introduction of the case

Indenty is a company which operates in a market with a high technological change. It is important to understand the market developments. It is a new market in which the research will be done which makes that specific theory about innovation in online marketing may not always be applicable. More and more organizations explore and discover the opportunity to optimize their website. This in order to make sure that their target group will find their website at the right moment. Indenty is specialized in developing and delivering effective search engine optimization (SEO). Systems which give business partners the opportunity to advice, investigate and make conclusions about websites for their customers.
The company was founded at the end of 2007 and is still developing its internal and external business processes. The network with all its partners is very important for Indenty because it offers them lots of new chances.

Search marketing is focusing on promoting websites by improving the search results in search engines. The overall objective is to increase the number of sales and to improve the image of a company. Indenty offers standardized systems to optimize the search results for its partners. With these standardized systems partners can develop a specific campaign for their customers. The position of Indenty in its network will be described later on in this report.
There is a high need for innovation for Indenty because of the rapidly changing technology in search engine marketing. There is a continuously search for new information to be the first to develop new solutions.
Indenty employs over twenty employees with each employee carrying his own expertise. With the combination of both technical and commercial disciplines Indenty can develop offers for its partners. These partners can be divided into co-branded partners and private label partners. Co-branded partners attach search engine optimization to their own service concept, using the name of Indenty. Private label partners offer search engine optimization under their own business name.

### 1.3.2 Structure of Indenty

Indenty is an independent company but is working quite intensively together with the firms in which Indenty found its existence. There are four firms which all belong to the same holding named Innovadis Groep (see Appendix B). All of them have a different business perspective, but there is a shared supporting staff for finance, human resources, administration and system administration. They are situated in the same building and there is quite a lot of formal and informal contact between them.

The organizational structure of Indenty is divided into three layers, but because of the small size of the company it can be considered as a flat structure. The Managing Director is primarily responsible for the continuity of the firm and gives the employees freedom and responsibility in its work. The educational level of the employees can be considered as high, because most of them are having a bachelor or master degree in technological science.
Since the foundation of Indenty the Managing Director is investing a lot of time in the cooperation between employees and the formalization of procedures, without making it a bureaucratic organization. There are three departments which all have specific objectives.

- Quality & Service (K&S): the department of K&S (in Dutch: Kwaliteit & Service) is building the optimization campaigns for the partners, monitoring that campaigns and

delivering additional services to the partners. The department operates as the primary contact person for the partners.

- Research & Development (R&D): this department is responsible for monitoring general trends in search engine marketing and the development of new usable technology. The department designs new products/tools which can be exploited by Indenty. Because of the continuously changing technology these findings are essentially for Indenty in increasing competitive advantage.
- Sales & Marketing (S&M): the task of Sales & Marketing is focused on the relation with the partners. The objective on the one hand is ensuring a sustainable relationship with current partners. But on the other hand also acquiring new partners/customers. The department uses different marketing tools like organizing seminars and trainings, advertising and publishing whitepapers to improve Indenty's reputation.

### 1.3.3 Products of Indenty

Indenty offers different products and services to its partners. To guarantee the working of its products/services the company Indenty needs to update it often. When Google is updating its search engine it may also be necessary for Indenty to make changes in the products. The main products of Indenty are shown below and they are all aiming at facilitating high rankings in search engines.

- Landing pages: landing pages are web pages which are made for both visitors and search engines. The landing page is constructed in a way that it contains key words which characterize the content of the website. It increases the position in the Google search results and leads to more visitors.
- SEO Advisor: the SEO advisor is an innovative tool which gives web designers information about improvements for the structure of their website, which will lead to higher rankings in Google.
- Linkbuilding: linkbuilding creates higher rankings for websites by applying them to a lot of directories. The popularity of a website is measured by the amount of links connected to the website. This increases the chance of higher rankings.
- Search Quality Check: the SQC is an investigation by Indenty about the search engine usability of the website. Partners can get twice a year an up-to-date report by signing a contract with Indenty. The SQC contains information about the technical accessibility, the popularity and content of the website.

## *1.4 Conclusion*

The company of Indenty is doing business in the marketing of search engine optimization (SEO). SEO is a process of improving the volume and quality of traffic to a website from search engines through natural search results for targeted keywords. This is seen as a part of the market of search engine marketing, which is a part of online marketing. Indenty was split up from a company named Gladior. The organization of Indenty is divided into three layers in which employees are mostly technical educated. There are three departments from which two are fully technologically oriented.

# Chapter 2. Research issues

## 2.1 Introduction

The research is conducted according to a clear structure which will be introduced within this chapter. The research problem is formulated based on information gathered in short explorative interviews with the Managing Director of Indenty and some employees. The research problem has resulted in a research objective and research questions. Within this chapter a scheme is included which gives an overview of the different parts of this thesis.

## 2.2 Research problem

Indenty does not exist for a long period and has no formal procedures yet for new product development. Indenty is operating in the market of search engine optimization which is by the company characterized as a dynamical market. The core business of Indenty, generating high positions in search engines, is highly dependant on Google. This is in The Netherlands the most used search engine. In case Google introduces an update in its search engine Indenty must understand these changes as soon as possible and adapt its services to that update. This happens quite often. This risky environment is one part of the problems Indenty has to deal with. The continuous changes in search engines make that optimization and monitoring activities require a lot of time. This is an important issue for online marketing companies to outsource these activities. So Indenty benefits from this.

Besides the changes in search engines Indenty also has problems to understand the market. It is difficult for them to get insight in the demand for new services and products. Its partner network is very important for them, but these partners are not much involved in the innovation process. For example, information from partners obtained in regularly meetings is not effectively used in the innovation process. A new product which was developed in last few months, was tested by partners when it was almost brought to the market. The underlying reason for this is that only the R&D department is responsible for product development. There is a kind of barrier between the R&D department and the market, including the marketing division inside Indenty.

To remain competitive Indenty has the feeling it should more involve the market in the innovation process. There are competitors of Indenty which have the same purpose of discovering Google's changes in the search engine. Because these competitors also need to update their existing products and services as soon as possible some kind of collaboration with them might be useful. For new services it is important to know what the needs in the market are. Therefore the partner network of Indenty can probably deliver new ideas. The research will therefore explore the opportunities in the market for Indenty to improve itsr innovation process. On the one hand innovations are necessary through updates of Google, and on the other hand innovations for new products and services are necessary. Now the innovation process is mostly done inside Indenty. In the future a more open strategy maybe necessary.

## 2.3 Research objective

The problem of the innovation process above is translated into a research objective. The research question is stated as:

**What is the proper innovation strategy for Indenty?**

The focus of the research will be on the network of Indenty. That the research objective is based on Indenty's situation does not mean the research will be done only inside Indenty. The situation of Indenty will be compared with scientific literature and other organizations in the same market.

## 2.4 Research approach

For developing a research design the method of Yin (2003) will be used. Yin defines five components of a research design which are important:

1. the research questions,
2. its propositions,
3. its units of analysis,
4. the logic linking of the data to the propositions, and
5. the criteria for interpreting the findings.

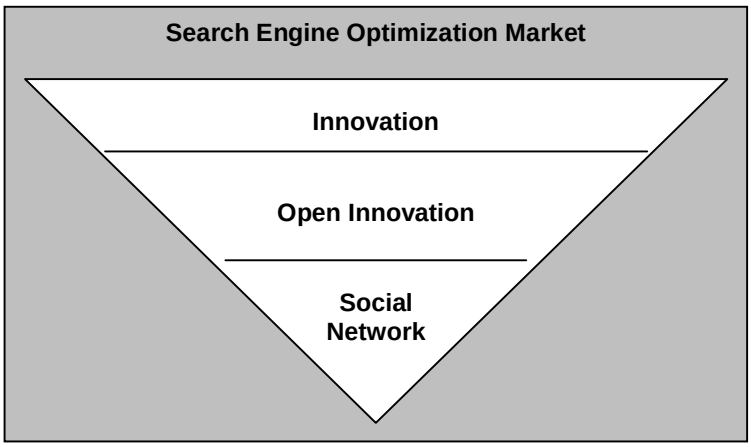


**Figure 2.1 Research context**

In order to develop research questions it is necessary to look at the research objective formulated. The objective of this research has been stated as: "Developing an effective innovation model for Indenty". This is very broad objective and therefore a focus is needed. Based on the problems within Indenty the focus will be on its social network.

### 2.4.1 Research Questions

For achieving this objective questions need to be answered. These questions are divided into knowledge questions and research questions. The knowledge questions are related to scientific literature about innovation and network relations. The research questions are focused on Indenty's performance in innovation.

Knowledge questions

1. According to scientific literature, how can innovation be improved with the use of social network?
2. How can the search engine optimization market be described?

Research questions

3. What kind of developments in search engine optimization market can be expected?
4. How can Indenty's current innovation process be characterized?
5. How can Indenty's innovation process be improved?

The first question is based on the outcomes of the development of the literature study. A literature study will be done to examine the opportunities firms have to support and structure their innovation process. These questions is analyzed within chapter four.
The second question aims to get insight in the market of search engine optimization. The market has a specific position in online marketing. Some firms have chosen for a strategy to specialize in optimization, like Indenty. Others integrate optimization together with search engine advertising. The answer of this question will describe which companies in The Netherlands focus on optimization. Also the relation of them with Google will be explained. In the third question the developments of this search engine optimization market will be determined. It as important to understand the market because it can gain useful information about the need for innovation. It also makes clear the precise position of Indenty in the market. The latter is important to say something about the scope of the innovation model which will be designed. Whether or not it is applicable in other contexts than Indenty only. Within chapter five research question three and four are answered.

The last questions (research question four and five) will link existing knowledge with the case of Indenty. Within this research the existing knowledge will be applied on Indenty. It will analyze whether or not adjustments to the existing theories are necessary for the specific search engine optimization market. Models of effective innovation strategy will be designed for Indenty. These will be implemented within Indenty which will result in an advice for them.

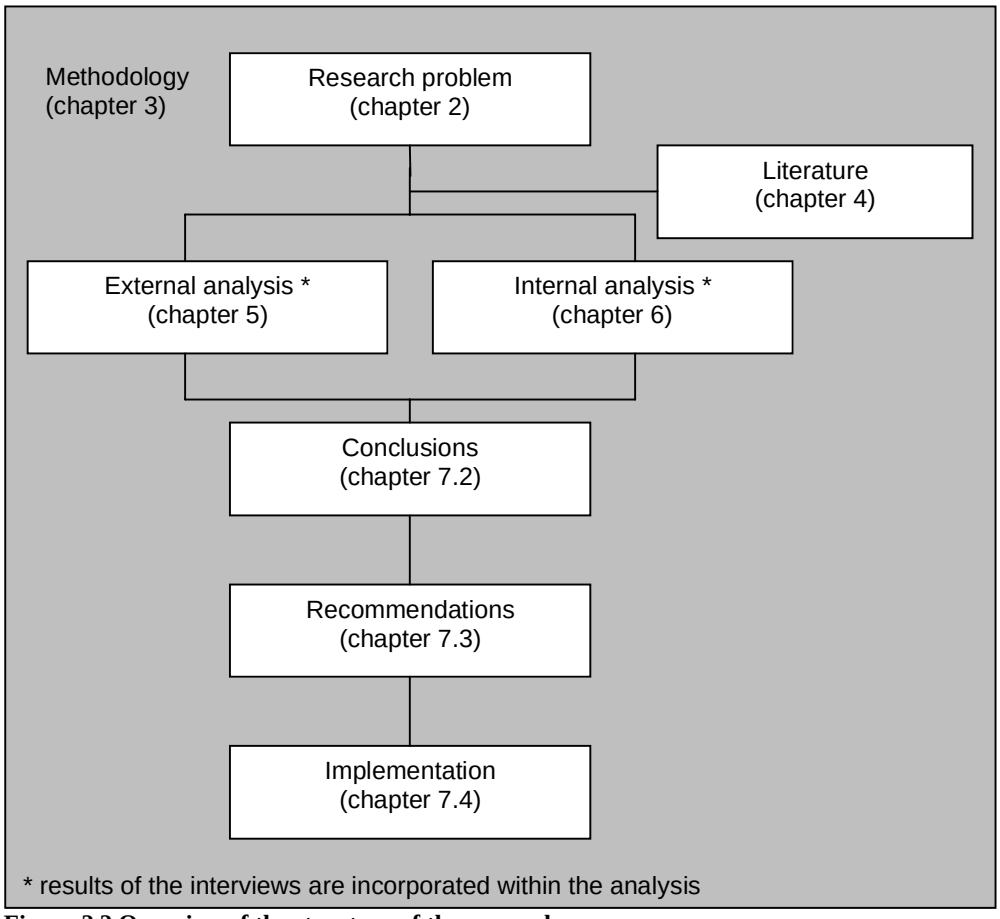


**Figure 2.2 Overview of the structure of the research**

### 2.4.2 Proposition

In literature al lot is written about the need for innovation. "The continuous development and market introduction of new products is an important determinant of sustained company performance" (Ernst, 2002, p. 1). During explorative interviews with the management of the company the role of Indenty's network is discussed. Maybe, with the use of its partner network Indenty can improve its innovation process. This research will find out which contribution a business network can have on innovation in search engine optimization market. The next proposition will therefore be tested.

*"**Social networking can enhance innovation in search engine optimization market**"*

To describe social networking a definition of Burt (2000) is used. He defines social networking as the kind of relations a player has within and beyond the firm. This is considered by him as the social capital of a firm. An entrepreneur receives opportunities from friends, colleagues, and other contacts.

Three theoretical disciplines are chosen as main direction for the research. These are effectiveness of innovation, B2B (business to business) marketing and knowledge sharing. The B2B relationship is considered as important there are specific differences between B2B

and B2C (business to customer). Indenty does only deal with (business) partners and not with consumers.

#### 2.4.3 Unit of analysis

The unit of analysis in this case is the company of Indenty. The research is conducted as a design focused study. The implications of this study and its contributions to the science are described later on. At least, it will be necessary to do a sophisticated in-depth study of this case to make sure the outcomes are not likely to be biased. Therefore different ways of data-gathering are used.

#### 2.4.4 Linking data to propositions

Processing data to propositions is a difficult process in this research because the data gathered is mostly qualitative. To make sure that this qualitative data can be examined multiple collection methods will be used. This creates the opportunity to verify and compare information from multiple sources. Three sources of data are used within this research. These sources are a scientific literature, interviews and own experiences within the market. The answer on the proposition will be well-founded with these kinds of information.

#### 2.4.5 Criteria for interpreting study findings

When all the information is gathered the objective is to define a pattern for an effective innovation process for Indenty. Such a pattern is not easy to understand because data will be collected from different firms which are of course not exactly the same as Indenty. There are two important criteria for analyzing the data. These are the organization's effectiveness on innovation and its context. The question if an organization performs well on innovation will be examined by the literature study, the market and other own findings.

### *2.5 Conclusion*

The reason for this research is that Indenty has problems with the implementation of new products into the market. A first explorative research makes clear that these problems are mainly caused by problems within the development stage of the products. The research must find out which opportunities Indenty has to improve its innovation process. The management of Indenty wants to know which possibilities there are to benefit more from its social network. Therefore the research context incorporated innovation, open innovation and social network theories. Five research questions are formulated in order to develop a proper innovation strategy for Indenty.
The research consists of three types of analysis. A literature study, an external analysis and an internal analysis. As unit of analysis the company of Indenty is described, because the information and results are applicable on Indenty. That does not mean that all the data gathered will be within Indenty. Also other organizations are involved in the research.

# Chapter 3. Methodology

## *3.1 Introduction*

There are many ways of doing research in social science, like experiments, surveys, case studies etc. This research aims at the development of an innovation strategy for Indenty. The research will lead to a document which contains clear strengths, weaknesses, opportunities and threats. It is necessary to make an in-depth analysis of Indenty and restructure its innovation process in an effective way. This research is a design focused research. According to Roozenburg & Eekels (1998) the design methodology aims at the support of tools for designers to efficiently and effectively organize the design process.

## *3.2 Method and implications*

This research contains two kinds of design methodology. The descriptive methodology and the prescriptive methodology. The descriptive methodology studies the design methods of Indenty and the need for scientific methodological support. This study is based on empirical information and scientific research. Within this research the chapters about the internal analysis and external analysis are mostly descriptive. The prescriptive part gives a judgment about processes within Indenty and advices the use of specific methods. This prescriptive part of the research is given within chapter seven.

It is important to mention the difference between the methodology of the most scientific methodologies and the design methodologies. The difference between both is that scientific research is a systematical way of gathering knowledge. The design methodology is a systematical way of handling. This means that the main objective of both approaches is different (Roozenburg & Eekels, 1998). Within this research an innovation strategy for Indenty needs to be developed. This results in a strategic document in which prescriptions are given about the improvement of its innovation process. Roozenburg & Eekels developed a method for design researchers. This method consists of five stages which are necessary for a design focused research. This model is used as a starting point for the structure of this research. Within the previous chapter a figure of this was already given.

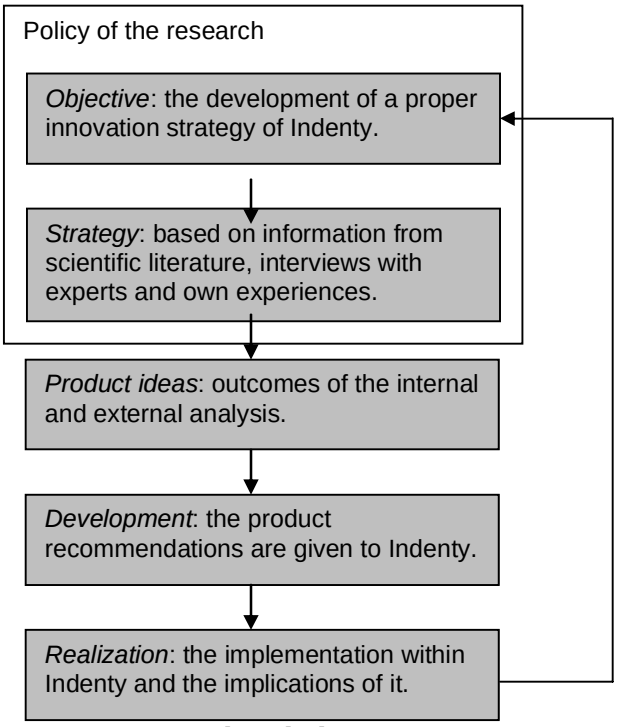


**Figure 3.1 Research method**

Roozenburg & Eekels stated the difficulties of design studies. According to these studies these kinds of researches are based on weak kinds of knowledge. These kinds of knowledge do not ensure well outcomes, but do enlarge the chance on it. A lot depends on the way the research is conducted. Design methods need to be used with knowledge about the case. That means in this case that the researcher need to have knowledge about the company, market, scientific literature, interviewing techniques etcetera. According to the existing literature this kind of research is different than normal scientific research. Product development is a historically process. This means that it is practically not possible to prove that other methods than this one, would have resulted in a better result. Another implication is that the success of the final report is dependant on much more aspects than these outcomes only. When the final conclusions about the improvements of the innovation process are given to the management of Indenty, it does not ensure success, but it will enlarge the chance of success. There can happen unforeseen circumstances, which hurt the organization and harm the innovation process. These events make that the methodology may include some limitations, though the objective is to reduce these to a minimum. This leads already to the main implication. The main implication is that it remains difficult to scientifically state if these outcomes really improve Indenty's innovation process. This makes it also difficult to make generalizations about the outcomes (Kennedy, 1979). This is an important question for designing a model which can be applied on a broader context than within one company, which is in this research Indenty. Another implication of this research is that it takes a lot of time and effort to process the enormous amount of information. To give a well-founded advice to Indenty comprehensive ways of data collection and specific approaches for data analysis are needed. This is done with the purpose to guarantee that the outcomes are not likely to be biased. The way this will be done is described further on.

Roozenburg & Eekels state that design studies cannot be considered as researches without scientific foundation. Design studies are not ad hoc prescriptions from individuals, but based on collective experiences and insights (p. 52). Conclusions within this research need to be based on logical considerations. The outcomes can therefore deliver the scientific world useful information about the need for innovation within this market and the implications of some existing knowledge. The outcomes cannot be used as certain information about effects which will also occur in other settings than this research.

### *3.3 Data gathering*

The process of data gathering will be based on an in-depth analysis that combines a real-time and a retrospective view. This allows for a more focused data gathering process. To gather the needed information, some theory about the case study design is used. A case study is different than a design study, but it both requires sophisticated ways of data collection. A case study is a history of a past or current phenomenon, drawn from multiple sources of evidence. It will include data from direct observation and systematic interviewing as well as from public and private archives (Leonard-Barton, 1990). A retrospective looks back in time which describes in this research the developments of the case in the past. A problem with a retrospective study can be that some of the information needed is hard to get. For example, decisions about the creation and selection of ideas in the past can be difficult to understand when there are no reports of these meetings available.

This research will be conducted based on two main methods:

1. a literature study, and

2. other multiple data collection techniques like conducting in-depth interviews, desktop research and attending seminars.

Ad 1.
The literature study is based on the outcomes of scientific articles within the disciplines of innovation, B2B relations and social networking. These disciplines are used as search words within the online search engine of the library of the University of Twente. This resulted in tens of records found. A selection about the relevancy of the articles is based on the abstracts of the articles. The technique of snowball sampling is used to elaborate on references given in articles. Besides that, books from graduating innovation courses are used for better understanding of the research disciplines. Some literature of these courses is used to analyze specific parts of Indenty's innovation process. When this is done it is mentioned within the research.

Ad 2.
The other data collection part consists mainly of conducting structured interviews. In order to understand all the interacting factors within this case it is necessary to slice vertically through the organization of Indenty, obtaining data from multiple levels and perspectives. A lot of information about processes is not yet reported in written guides, which makes the structuring of the interviews more important. Therefore many internal interviews are conducted. Employees from al layers of the organization are included within the research. Within Appendix C an overview of the employees involved in this research is included.

Information will not only be collected within Indenty, but also externally. This because the opportunities of resources outside the company will also be explored. The management of Indenty is interested in an innovation strategy focused on open innovation. Besides that external experts can give information which is not biased by internal processes. For example, employees of Indenty can be afraid of harming their own work opportunities when they would say that some processes need to be outsourced. External experts can give information about their forecasts about market developments. This is due the fact that some firms which handle with search engine optimization integrate it together with search engine advertising or with online marketing. This makes it necessary to look clearly at their business. Some firms will probably have other interests than Indenty. The experts for this research need to have extensive knowledge about the search engine optimization market. They need to be in a position in which they can give objective input about a proper innovation strategy for Indenty. Based on information from the IAB (Interactive Advertising Bureau Nederland) and the Managing Director of Indenty the 'experts' are selected. The experts are not chosen randomly. A randomly chosen method was not useful because the number of possible experts was very small. All these experts are employed within a company, although some of these companies are one-man-businesses. There are around ten companies specialized in search engine optimization. Al these companies are asked by email (addressed to the management) to participate in this research. Finally eight companies reacted and were willing to participate. Not participating companies mentioned the lack of time and the privacy of corporate information as reason for non-participation. To examine also the opportunities of Indenty's current network two partners participated. They did not have much knowledge about search engine optimization, because they fully outsourced it to Indenty. These partners did not deliver much information about SEO, but they did have knowledge about innovation strategies and the possibilities for open innovation.

A problem with the experts is that none of them is fully independent. They are all linked to companies which offer the same kind of services as Indenty does. A difference is that they offer a broader service than Indenty does. The reasons for this are clarified in the external analysis. Beside the described experts one more expert is added to the sample. He is interviewed as a blogger about SEO, and he can be seen as more independent than other experts. He is chosen based on advice of the Managing Director of Indenty. All experts had the choice to participate anonymous. None of them had problems with mentioning their whole name, therefore the list below is publicized.

| Respondent/Expert | Company | Function | Core Business |
|---|---|---|---|
| Eduard Blacquière | Edwords | One-man-business | Weblog/Consultant |
| Erik-Jan Bulthuis | Netters.nl (Weblog) | Blogger | Weblog |
| Jan Beekwilder | Tribal Internet Marketing | Manager New Business Projects | Internet applications |
| Jurgen van Kreij | Innovadis | Managing Director | Web Concepts |
| Nico Maessen | Search Factory | Managing Director | Search Engine Optimization |
| Otto Munsters | Bloosem Media | Managing Director | Search Engine Marketing |
| Paul Aelen | Checkit | Managing Director | Search Engine Marketing |
| Peter van der Graaf | Search Specialist | One-man-business | Consultant |
| Remon Scheepmaker | Gladior | Manager | Search Engine Marketing |
| Roy Huiskes | Onetomarket | SEO Consultant | Online Marketing |
| Wolter Tjeenk Willink | Traffic Builders | Managing Director | Search Engine Marketing |

**Table 3.1 Overview of the external experts included within the research**

### *3.4 Validity of research*

In conventional usage, validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie, 2007). The main foundation of the research is based on the literature study. A lot of scientific outcomes will be studied and analyzed on the applicability for this case. It is necessary to look clearly at the units of analysis, setting, treatment and outcomes of these studies which will enhance the construct validity (Shadish et al, 2002). There is no research done about innovation within the specific SEO market yet, which makes the implementation of different literature within one comprehensive framework the biggest challenge. Therefore the interviews with employees within Indenty and with experts in the market are necessary to test the usability of the scientific literature. The literature study will result in a design of how Indenty can improve its innovation process. The analysis of the (qualitative) data gathered through interviewing the experts will assess the literature study.

Indenty operates as most involved case. This could lead to biased results when the researcher becomes too involved with this firm. Therefore the researcher tried to avoid too much involvement with the company. However, this was not the case because the researcher felt

free to analyze and conclude about internal process, without restrictions of the management. Al firms operating in SEO market are involved in the research. This, because the market is at this moment still very small. Some might not be willing to cooperate. If possible, the reason for not collaborating will be analyzed to reduce biased results.

### 3.5 Conclusion

The research is aiming at the development of an innovation strategy for Indenty. Therefore theories are used focusing on design methods. According to the theory of Rozenburg and Eekels (1998) the research consist of five stages. First the objective need to be formulated and as second a strategy for conducting the research need to be described. The third stage contains the product ideas. These are the conclusions of the literature study, external analysis, and the internal analysis. The fourth stage is the development stage. Within this the recommendations are given to Indenty. The final stage contains the implementation of the recommendations within Indenty.

The data for this research is gathered through the selection of scientific literature and through conducting in-depth interviews. The researcher also studied internal documents and attended internal meetings and seminars. The interviews are divided into internal interviews with employees and with external experts in the market. In total eleven experts are chosen based on a non-randomly selection. The validity of the research is discussed in the chapter.

# Chapter 4. Literature study

## *4.1 Introduction*

In order to improve the innovation of Indenty three main subjects are chosen. In the methodology section these are already mentioned A first analysis makes clear that the main problem of Indenty is situated in its relation with its environment. The literature study will start with general innovation literature. After that open innovation will be explained. As third social networking will be discussed. To measure the theories an operationalization is given about a few theories. As last the conclusions are given which will answer the first research question.

## *4.2 Design of innovation*

### 4.2.1 Adoption of market

In literature a lot is written about the need and structure of innovation. Christensen (2002) makes clear that the failure of companies to stay on top of their industries is situated in the fact that they are not capable of handling a changing environment. A firm needs to have a clear design for its innovation process. Walsh (1996) suggested that design and technological change are related to each other. A firm's design is interacting with a firm's environment. The development of innovation is a process which does not happen at one moment, but is a continuously process which requires a coordinated method.

When a new product or service is delivered to the market the main requirement is that the market needs that new product or service. Like Ali (2000) suggested 'a new product should be acceptable to customers if it is to be successful in the marketplace' (p. 152). Bringing an innovative product too early to the marketplace will result in a poor response. So the moment of bringing it to the market is important. Problems which need to be overcome in the market are customer's fear for economic loss, physical danger, and reliability due to inexperience with the product. These problems arise the strongest when technology is changing increasingly. The reason for this is that customers are inexperienced with that new technology. This can be seen as radical innovation. The opposite of radical innovation is incremental innovation. Incremental innovation is a new product, service, or technology that modifies an existing one (Christensen 2002).
Customers at a later stage of a product life will be knowledgeable and experienced with the product category. In this last situation, bringing less innovative products too late to the marketplace. It will result in poor responses from experienced customers. So the time to market is dependant on the kind of innovation. It makes the time to market an important but difficult decision as well. For companies, especially in dynamic technological environments as the search engine market, it is an important factor.

The choice of entering the market is dependant on the moment of completion of the development process. Only when a product is completed it can be brought to the market. According to Ali (2000) both incremental and radical innovations have their own risks. By taking too much time for the development of an incremental product, competitors may already have introduced similar improvements. By taking too less time for the development of a radical innovative product a firm may face a market in which there is no need for that product (yet). This will be a costly mistake in the development process due to over-speeding. The findings of the study of Ali are based on innovations from smaller firms. The results makes

clear that the effect of development time on initial market performance depends on product innovativeness. Product innovativeness is related to the degree of impact of the innovation. Incremental innovations can be seen as low impact and radical can be seen as high impact. When developing a radical innovation extra time will help to improve the chance of meeting revenue and profit targets.
For incremental innovations extra time will lower the chance of meeting revenues and profit goals. So it is important to analyze the new product development process and bring incremental innovations to the market at the early stages of the product life cycle. For radical innovations extra time need to be taken into account. Timing is important in an innovation process because timing is becoming a new source of competitive advantage (Ali 2000).

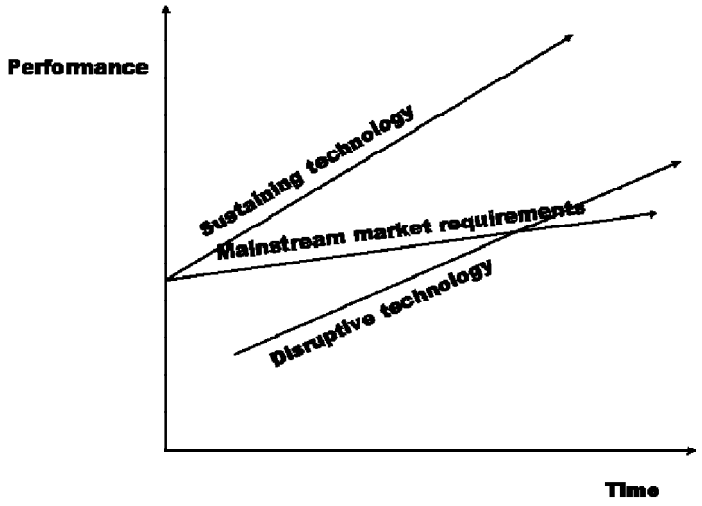


**Figure 4.1 The adoption of a new technology**

Bower and Christensen (1995) show that the development of radical innovations, based on a disruptive technology, bring no value to existing mainstream market requirements. This is why today's leading companies sometimes fail to invest in radical innovation, because there current business generates lots of revenues. Sustaining technology is focused on keeping that revenue stream in position, but does not take new technology into account. Christensen states that a crucial decision in the management of innovation is whether it is important to be a leader or acceptable to be a follower. For sustaining technologies leadership may not be essential but for disruptive technologies it is (Christensen, 2002). Leadership can create a competitive advantage. For Indenty it is important to understand with which technology it has to deal. This is not only there own technology but also the technology of the search engines, for example Google and Yahoo.

### 4.2.2 Short-term objectives

Innovation has two kinds of objectives. One focusing on a short period of time and one on a longer period. Operational effectiveness refers to the degree of the effectiveness of today's work: the degree to which new product development processes contribute to realizing the innovation goals set by the organization (De Weerd-Nederhof et al, 2008). De Weerd-Nederhof et al sees operational effectiveness as a dimension in which a distinction between product concept effectiveness and process performance can be made. Further on in this chapter this is more elaborated.
Chesbrough (2004) describes the application of existing technology to an existing market as a clear process of planning several moves ahead. The company's resources are well defined and

that of their competitor's are also well understood. There will be no new information entering the market. Of course, new updates and improvements can be made but these do not mark a new radical innovation.

### 4.2.3 Long-term objectives

Innovation strategy focused on long-term objectives requires an organization capable to organize this. Strategic flexibility refers to the readiness of a firm to anticipate or create future NPD (New Product Development) performance requirements (De Weerd-Nederhof, 1998). It refers to 'out of the box' ideas which guarantees the continuity of a firm when the environment of it is changing. Because existing knowledge cannot be competitive anymore. Strategic flexibility requires the use of new technologies.

Strategic flexibility can be divided into future product concept effectiveness and future development process effectiveness. Future product concept effectiveness contains activities to anticipate on future market demands and building competencies. Future development process effectiveness contains activities to anticipate on time constraints, productivity constraints and on the need for NPD process flexibility.

The need for a long-term innovation strategy is also stated by Bower and Christensen (1995). They conclude that one of the most consistent patterns in business is the failure of leading companies to stay at the top of their industries when technologies or markets change. The pattern of failure is especially striking in the computer industry, where technology is changing very rapidly. A common mistake made by companies is that the focus is too much on their main customers. These relations work so well that they ignore new technologies in emerging markets. The technology that damages established companies has two characteristics. First, the new technology is not always valued by existing customers. This means that new product development is based on existing customers who do not represent the new market for the new technology. Second, the performance attributes that existing customers do value improve at such a rapid rate that the new technology can later destroy those established markets.
According to Bower and Christensen disruptive technologies introduce a very different package of attributes from the mainstream customers historically value. They often perform far worse along one or two dimensions that are particularly important to those customers. As a rule mainstream customers are unwilling to use a disruptive technology.

A problem for the development of disruptive innovations is the understanding of it. They support long-term objectives and these do not always correspond with management's short-term objectives. Especially marketing and financial managers will rarely support a disruptive technology because of their managerial and financial incentives (Bower & Christensen, 1995). Managers compare the anticipated rate of performance improvement of the new technology with that of the established technology. This creates an innovation strategy which is only focused on short-term developments. In dynamical environments this increases the chance of missing the 'wave of technology'.

Bower and Christensen highlight an important mistake a lot of companies make in formulating their long-term objectives. Companies think they have an adequate strategy but this is based on wrong information. Established companies have regular processes to gather information about market demands and testing new products. Generally they involve their main customers to assess the value of these new products. These customers are important for the innovating company and are likely to ask the highest performance from their suppliers.

But the problem is that they are only reliable to assess potential sustaining technologies, for short-term objectives. For potential disruptive technologies, for long-term objectives, they are the wrong people to ask information from.

### 4.2.4 Balance short and long-term objectives

Within scientific literature the need for a short-term and long-term focus is discussed a lot (Dougherty, 1996; Benner and Tushman, 2003). The strategy of an organization need to be focused on both dimensions which enhances also the continuity on short-term objectives and long-term objectives. This can create contradictory demands within organizations because some organizations only focus on short-term objective. Because this creates money soonest. De Weerd-Nederhof et al concludes: "Given the importance of balancing these two dimensions for sustained innovation, and the complexity of this balancing, which is related to the tensions that result from the contradictory demands on the NPD system, it is very important to be able to assess operational effectiveness and strategic flexibility performance adequately" (De Weerd-Nederhof et al, 2008, p. 3).

### 4.2.5 Open innovation

The use of a company's own network in the innovation process is considered to be important by Chesbrough (2004). Innovation of new products or process is a process which requires enough sources of information. In scientific literature two main approaches of innovation are discussed, namely closed innovation process and open innovation.

A closed kind of innovation refers to the traditional approach of innovation. Chesbrough describes closed innovation as a view that says successful innovation requires control. Companies must generate their own ideas and then develop, build, market, distribute, service, finance, and support them on their own. It means if companies want to profit from research & development they must do this all themselves. And if they discover new opportunities they will win if they bring it to the market first. Everything is based on the idea that companies must control their own innovation process. So that others cannot profit from their ideas. According to Chesbrough the closed innovation approach is no longer sustainable.

As an opposite to the traditional approach of closed innovation nowadays a new approach has emerged. The open innovation approach assumes that firms can and should use external as well as internal ideas, and internal and external paths to market, as they look to advance their technology. Open innovation assumes that internal ideas can be taken to

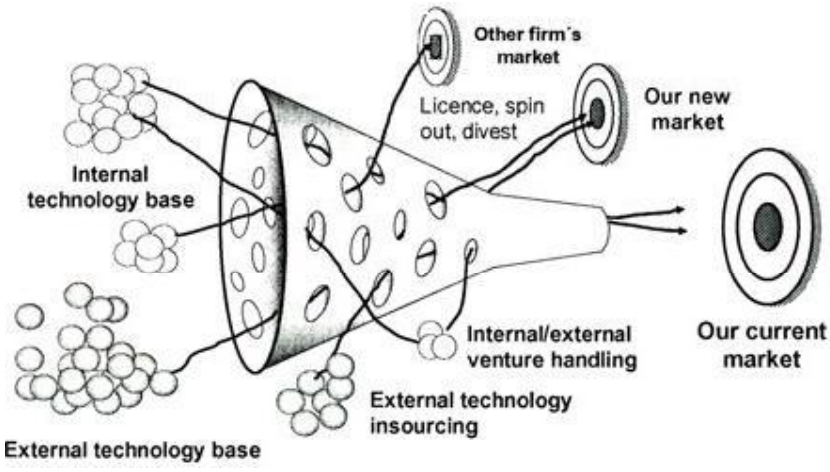


**Figure 4.2 Chesbrough's (2003) open innovation model**

market through external channels, outside a firm's current business, to generate additional value (Chesbrough, 2004). For companies it is difficult to enter new markets and apply promising technologies outside the current market. An open innovation strategy can make this process easier. With the knowledge and business network of other organizations they increase their own knowledge. This gives them a better entrance into new markets.
Within an open innovation strategy companies accept that not all the smart people work for them. Therefore they need to collaborate with smart people outside their company. External R&D can create significant value, while internal R&D is needed to claim some portion of that value. Companies will have success if they make the best use of internal and external ideas. The open innovation model is based on the idea that companies should profit from others' innovation process. With the use of an open innovation model they can benefit from ideas which are outside their current market. Within the analysis, further on in this thesis, the current openness of the market is analyzed.

Prahalad and Ramaswamy (2004) advocate that companies need to collaborate with their consumers in all stages of the development process. The future of competition is based on individual-centered co-creation of value between consumers and companies. Consumers want to interact and co-create value. Not just with one firm but with whole communities of professionals, service providers, and other consumers. According to Prahalad a firm cannot create anything of value without the engagement of individuals. Co-creation supports the exchange process.

## *4.3 Social networking*

### 4.3.1 Investing in relations

Burt advocates that the relationships of a player with other players can be defined as social capital (Burt, 2000). An entrepreneur receives opportunities from friends, colleagues, and other contacts.

The social capital of an organization can be distinct from other capitals in the way that it is not the property of individuals, but that it is owned by the parties of the relationship. Through relations with colleagues, friends, and clients opportunities can be created to transform the other capitals into profit. The entrepreneur hast to build relations to get entrance to new information sources. Burt states that social capital is the final arbiter of competitive success.
Under perfect competition, social capital is a constant factor in the product equation. This means that there is a single rate of return. In this situation capital moves freely and rates of return are homogeneous across investments. Where competition is imperfect, capital is less mobile and plays a more complex role in the production equation (Burt, 2000). In practice business is not as predictable as in this description. Therefore social capital is as important as competition is imperfect and investment capital is not infinite. So the rate of return depends on the relations in which capital is invested.

### 4.3.2 Creation of structural holes

The benefits of a network are dependant on the richness of one's network. Burt (2000) defines contacts in two categories, namely redundant contacts and non-redundant contacts. Non-redundant contacts are connected through a structural hole. "A structural hole is a relationship of non-redundancy between two contacts" (Burt, 2000, p.291). Non-redundant contacts are disconnected in some way, either directly in the sense that there is no direct contact between them or indirectly in the sense that one has contacts that exclude the others. Redundant contacts do not have this characteristic which means that information is also available for other players in one's network. In that case there is no structural hole. A structural hole means that one has an exclusive opportunity to use that structural hole by combining information that is not available for others.

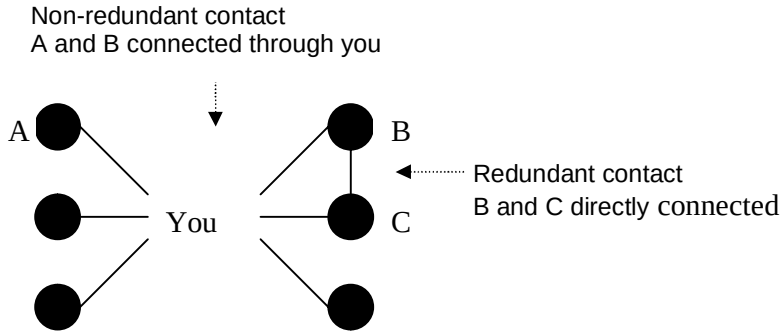


**Figure 4.3 Creation of structural holes necessary for network benefits**

The main point Burt wants to make is that one's network is very important for developing new business opportunities. A company needs to optimize its network by creating many structural holes through nonredundant contacts. This puts a company in a position in which it can use the 'tertius gaudens' strategy. This means that a company is the 'third who benefits'.

### 4.3.3 Information benefits

The use of the network is important in order to find new opportunities. According to Burt (2000) information benefits occur in three forms:

- access,
- timing, and
- referrals.

These three forms are important to assess the opportunities a business network creates for an organization. Access refers to receiving a valuable piece of information and knowing who can use it. Information does not spread evenly through the competitive arena. Burt states that players are unevenly connected with each other and that not all the information is necessary. A company needs to get the right information because it cannot handle everything.
Timing is dealing with the fact that a company needs to get the right information at the right moment. Entrepreneurs need to be the first to get the information in order to stay ahead of competitors. Personal contacts give significant information. A company can act on the information themselves or invest it back into the network by passing it on to a friend who could benefit from it.
The problem to get information in time, can be reduced by creating referrals. Actually the timing is no more than a logistic problem. A person can only be in a limited number of places at a limited amount of time. So one needs to create contacts that get one's name mentioned at

the right moment in the right place. This to make sure that opportunities are presented in favor of the party involved.

The three information factors: access, timing and referrals are important in order to create business opportunities from the network. An important success factor for getting information is to create a diverse business network. Like Burt states: “A large, diverse network is the best guarantee of having a contact present where useful information is aired” (Burt, 2000, p. 289).

Bringing an innovation to the market is not only a decision of choosing the right moment, but also of creating a demand in the market. Bower and Christensen (1995) state that before launching a new technology product managers must look at their customers first. Do their customers want the new product and what will exactly be the market? So the involvement of the market is essential for enhancing the chance of making an innovation successful in the market. As Bower and Christensen stated: “a company needs to develop a process to identify customers’ needs, forecast technological trends, access profitability, allocate resources across competing proposals for investments, and take new products to the market” (Bower and Christensen, 1995, p. 44). The objective of this process is to find out customers needs which are not fulfilled at this moment. Because these constraints in customers needs deliver a firm opportunities for successful new product development (NPD). The understanding of customer’s needs can give a firm important information about updates for existing products and information about existing needs. These needs are commonly used to get insight into needs for incremental innovation, based on short-term objectives. Innovations for long-term objectives, radical innovations, deliver a very different technology to the market. This asks also for a different approach in getting information from the market. According to Bower and Christensen existing customers are unwilling to use a disruptive technology (radical innovation), because they do not know and understand it. Therefore Bower and Christensen suggest that disruptive technologies tend to be used and valued only in new markets or new applications. They generally support the emergence of new markets.

Business development starts with opportunity recognition. To recognize an opportunity information from the market needs to be gathered. Firms need to ‘catch the wave’ to compete in the market, not only nowadays but also in future. Bower and Christensen advocate that to avoid pioneering companies to dominate the market, companies must monitor available intelligence on the progress of pioneering companies through monthly meetings with technologists, academics, venture capitalists, and other non-traditional sources of information. So information benefits can occur for short-term as well as for long-term objectives.

### 4.3.4 Effectiveness of social networking

The use of a network is important to create new opportunities for innovations. The way the social network is used is dependant on the innovation strategy of a firm.
For organizations the need for new products is essential to adapt to changing environments. Like mentioned before the market of search engine optimization is continuously changing. Organizing and managing new product development pro-actively requires the continuous balancing of both short-term and long-term objectives.

The use of the market is in this case very important as Von Hippel and Katz (2004) also admit. According to them the lead-user method is a useful managerial solution to determine effectively user needs. Marketing techniques such as multi-attribute mapping of product perceptions and preferences typically frame user information and responses in terms of known

attributes. They do not offer reliable and valid outcomes of developments beyond the current technology. So for opportunity recognition for incremental innovations questionnaires and interviews with current partners can be useful but for long-term radical innovation these methods are not effective.
Von Hippel and Katz state two reason for this. “First, most users are not well positioned to accurately evaluate novel product concepts or accurately quantify unfamiliar product attributes. Secondly, there is no mechanism in traditional market research to induce users to identify all product attributes potentially relevant to a product category, especially attributes that lie outside the range of their real world experiences” (p. 629).

Lead-users have two characteristics:

1. they face needs that will be general in a marketplace, but they face them months or years before the bulk of that marketplace encounters them, and
2. they are in a position to benefit significantly by obtaining a solution to those needs.

So lead users are users whose present strong needs will become general in a market place months or years in the future. So for long-term objectives these are quite essential in a business network. For example, Von Hippel found out that lead users were the actual developers of 82% of all commercialized scientific instruments studied and 63% of all semiconductor and electron innovations studied. Also for other dynamic technological environments lead users can deliver useful information for future. Indenty wants to be a product leader and wants to be the first with new SEO services. For this company the lead user method could be useful in the development process.
To use lead users a firm needs to carry out four steps, namely:

1. identifying an important market or technical trend,
2. identifying lead users,
3. analyze lead user data, and
4. test lead user data on ordinary users.

Ad.1. To identify important trends information need to be gathered from experts within the specific market the firm is competing in. It is not easy to determine whether a person is an expert or not, but these are commonly R&D employees who follow markets by reading weblogs, papers, scientific articles etc. Also people who write these papers or books can be seen as experts. Internet can also give useful information for future trends.

Ad. 2. Lead users need to be found in relation to the trend(s) found at the first step. Von Hippel and Katz give as example the use of a formal telephone-screening questionnaire to find out if the responder can be considered as a lead user. Companies can use their partner network in this. The questions need to contain short questions which are based on ability of the responder to use new technology in future. Lead users have very high demands from the technology and they have insights in the construction of the technology. They judge themselves to be more innovative than others.

Ad. 3. When the lead users are known they need to be involved within the innovation process. A few of them need to be selected to participate in a group discussion to develop one or more concepts in relation to that market trends. The needs of the lead users are in this process very important. The lead user group provides full functional and environmental simulation of the concept.

Ad. 4. By using lead users in early stages of the innovation process the lead users will often also be interested in the new product. But these lead users are just a very small piece of the total market, therefore the concept need to be tested on ordinary users. A questionnaire compared with open-ended interviews can be used to find out if the new product/technology is preferred above the current technology. The use of lead users is critical for the development and adoption of complex products (Tidd, 2005).

### 4.3.5 Brokering knowledge

The use of external information is considered to be important by Chesbrough (2004), but therefore information needs to be transferred through a network and through a firm. Hargadon (2002) explains how organizations are able to routinely innovate themselves by recombining their past knowledge in new ways. The recombination of existing resources is an act of innovation. The network is seen as social which is fragmented into many small domains. It is difficult to disentangle and recombine the resources from one domain into another (DiMaggio, 1997; Hargadon & Fanelli, 2002). So it is important to determine domains and then try to link that information between these domains in order to create new information.

Hargadon has developed a model to transfer knowledge between domains. This is divided into five steps, namely access, bridging, learning, linking and building.

1. Access describes the structural preconditions that create the potential for innovation. Two aspects are essential for the process of knowledge brokering: the recombinant nature of innovation and the fragmented nature of the social landscape. The recombinant nature is explained in many research (Hargadon, 2002) and can result in different kinds of innovations. Some focused on short-term development and others on long-term development. The fragmented nature describes sets of resources that are densely connected within, but loosely across domains. The small worlds can also exist inside a firm at multidivisional organizations.

2. Bridging means that small worlds must be exploited by sharing ideas between domains. Resources in new combinations often appear innovative in those other domains. According to Hargadon transferring knowledge has to overcome some cognitive constraints. When persons or groups switch from one domain to the other, their perspectives, attitudes, preferences, and dispositions may change radically.

3. Learning describes the set of activities that individuals and groups in organizations engage. This to extend their ability to comprehend and act within their environment. The learning activities bring knowledge of resources into organizations. Hargadon suggest four distinct activities:
   1. learning about the existing resources of each new domain
   2. learning the related problems in that domain
   3. learning what others in their own firm know, and
   4. learning how to learn.

4. Linking describes those activities of individuals and groups that lead them to recognize how past learning can apply to the current situation. Getting some of the right knowledge into the right hands at the right time.

5. Building is a sequential step after access, bridging, learning, and linking expose organizations brought valuable ideas into the organization. Building describes actions that individuals or teams have to undertake to construct new networks to ensure new success. New communities need to be formed around new technologies which creates shared meanings, goals and standards. These should guide further development.

Hargadon found out three barriers for successful knowledge brokering. First, employee turnover and the loss of individually held knowledge. Second organizational size and the increasing difficulty of interpersonal communication. As third, the increasing demand for efficiency that threatens the uncertain returns of many learning and linking activities.

Employee turnover is considered as a significant threat of a business network since some employees are essential in a network. When important employees leave an organization it can have huge impact on the network and therefore also on the innovation input. The other threat is the involvement of too many people in a network. Hargadon found out that employees find it difficult to tap knowledge held by others in large networks.
The last barrier for successful knowledge brokering is the pressure toward efficiency and results. Employees feel that they do not have enough time to help other persons in a firm and create new ideas. Lack of incentives and rewards could be a reason for this according to Hargadon. The problem of brokering knowledge may be responsible for some of the innovation problems Indenty currently has.

### 4.3.6 Supporting creativity in a network

More research is done about the need for sharing knowledge in a network to support innovation. According to Shapero (1985) the foundation of innovation is creativity which can be systematically enhanced in an organization or network through hiring, motivation, organization, and management actions.

- Hiring: The more recent and continuous past creative performance, the more likely there will be future creative performance. The number of highly creative people in an organization can be increased by hiring people.

- Motivation: According to Shapero creative behavior can be maintained and enhanced through incentives that reward creative output. It encourages risk-taking behavior with the use of new methods, processes, and materials.

- Organization: Organization mechanisms are important to assure that new ideas do not get turned down for the wrong reasons. Shapero advocates an innovation group to which each employee can send ideas. The innovation group investigates and discusses the ideas and states why the idea is accepted, rejected or recommended for more research. This supports a positive and encouraging attitude within the firm, which lead to a flow of ideas.

- Management: The management should provide resources for preliminary explorations of ideas without requiring exhaustive justification. Project groups need to be formed but without clear operating deadlines. So employees need to feel free for creating innovative ideas. Both productivity and creativity can be

enhanced by assigning more than one project to a professional. Each professional assignment should provide diversity for a individual. Besides that, highly productive groups of five or more years duration need to be made more diverse through the addition of new people. This makes sure that the individuals in the group get occasional assignments to work with other groups.
An important issue for supporting creativity is that too many compulsory administrative procedures and forms result in too much time and decrease the creative output. Procedures ask for conformity and the more there are, the less space and time are left for creative thought and effort.

**Creativity support between Marketing and R&D**
Souder (1998) concluded that the relation between R&D and Marketing is a critical success factor of new product development. One will do less work together when knowledge is not shared appropriately between both departments. According to Souder managers are often dealing with problems between both departments within a firm. The findings of his research show that within organizations which perform well on innovation there is harmony between marketing department and R&D. This means that the skills of the team members are complementary to each other. Within these teams the relation between technical and more marketing focused people is important.

**Sharing information through virtual teams**
The use of virtual teams has increased since the developments in information and communication technology have increased. Virtual teams are groups of geographically and organizationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task (Townsend, DeMarie & Hendrickson, 1998). They also can be used to address evolving interorganizational challenges that occur when organizations outsource some of their key processes to more specialized firms. A group of technologies, like video conferencing, collaborative software, and internet/intranet systems are examples of the foundation of virtual teams. According to the researchers virtual teams serve five objectives:

- the increasing prevalence of flat or horizontal organizational structures,
- the emerging of environments that require interorganizational cooperation as well as competition,
- changes in workers expectations of organizational participation,
- a continued shift from production to service/knowledge, and
- the increasing globalization of trade and corporate activity.

The use of virtual teams require a different management approach. These teams are structural different from traditional teams, because of its ability to transform quickly according to changing task requirements and responsibilities. By far the greatest difference in the working environment of virtual team members is the process of virtual interaction. Townsend et al found that the biggest challenges are situated in technophobia, trust and cohesion issues, burnout and stress problems and structural resistance issues.

### *4.4 Operationalization*

The literature study has given an insight for supporting innovation with the use of social network. For this research these findings need to be tested in search engine optimization

market. Below the main approaches discussed in the literature study are operationalized to measure them.

**Innovation process**

First the technology will be studied. It is important to understand whether or not the technology is sustaining or disruptive. It is not always clear when a technology can be considered as sustaining or disruptive. Bower and Christensen (1995) suggest an approach of identifying disruptive technologies by examining internal disagreements about the development of new products or technologies. As stated before looking at specific disagreements between marketing and financial managers and R&D personnel on the topic of NPD can indicate a disruptive technology. Marketing and financial managers are often more focused on revenues and profits than technical employees. Mainly when incentives are given based on short-term results. For top-level management disagreements between both sides within a firm need to be the starting point for further exploration of new ideas. The management needs to find out whether this technology can be disruptive, so focusing on new markets for long-term continuity.

| **Operational effectiveness** | | |
|---|---|---|
| Product concept effectiveness | *Fit with market demands* | Customer satisfaction, Timeliness, Product price, Quality<br>Sales and profit impact |
| | *Fit with firm competencies* | R&D/Manufacturing Integration<br>R&D/Marketing Integration |
| Development process effectiveness | *Speed* | Speed relative to schedule<br>Development Time (DT), Concept to Customer Time (CTC), Total Time (TT)<br>The speed and commitment of the NPD decision-making process |
| | *Productivity/ cost* | Possibility for lower development budget<br>Cost relative to budget, competitors<br>Engineering hours, cost of materials, cost of tooling |
| | *NPD Process Flexibility* | Average time and cost of redesign, enhancement<br>The ability to change specs late |

**Table 4.1 Operationalization of operational effectiveness (De Weerd-Nederhof et al, 2008)**

More precise in determining the state of an organization is to look at operational effectiveness and strategic flexibility. To measure the operational effectiveness and strategic flexibility an operationalization of De Weerd (2008) et al is used. She defines operational effectiveness into product concept effectiveness and development process effectiveness. An organization can be successful on sustaining technology when it is performing well on operational effectiveness. For the performance on disruptive technology strategic flexibility is important.

| Strategic flexibility | | |
|---|---|---|
| Future product concept effectiveness | *Anticipating market demands* | Product-market options<br>Windows of opportunity<br>Proactive market orientation |
| | *Building competencies* | Acquisition of resources<br>Deployment of resources (integrate, apply knowledge) |
| Future development process effectiveness | *Anticipating time constraints* | Anticipating Total Time (TT)<br>Anticipating the speed and commitment of the NPD decision-making process |
| | *Anticipating productivity constraints* | Anticipating cost relative to budget, competitors<br>Anticipating engineering hours, cost of materials, cost of tooling |
| | *Anticipating on the need for NPD process flexibility* | Anticipating average time and cost of redesign<br>Anticipating on changes in specs |

**Table 4.2 Operationalization of Strategic Flexibility (De Weerd-Nederhof et al, 2008)**

Like Chesbrough (2004) suggested an organization cannot do innovation by itself. Within this research, SEO companies will be studied to found out their degree of openness. So in what degree do firms share their knowledge with other. It is important to find out whether or not a firm is capable in the search engine market to apply a traditional closed innovation strategy or an open strategy. An open strategy means that companies are capable of bringing internal ideas into the market through external channels, outside the current business, to generate additional value.

It could be that firms are successful in innovation while they are not sharing knowledge with other firms. Therefore the R&D effectiveness need to be studied. For measuring the current R&D process of firms a study of Szakonyi (1994) about the effectiveness of innovation is used. It is difficult to create a clear method for measuring R&D effectiveness because of the difficulties in measuring R&D output. Szakonyi advocates that measuring R&D output in terms of how many patents, publications, or citations to publications are produced is not very useful. Formally R&D output and R&D effectiveness are not the same thing. The model is divided into ten activities which are operationalized to measure effectiveness.

| Activity | Outcomes of activities |
|---|---|
| Selecting R&D | 1) Issue not recognized<br>2) Initial efforts are made toward addressing issue<br>3) Right skills are in place<br>4) Appropriate methods are used<br>5) Responsibilities are clarified<br>6) Continuous improvement is underway |
| Planning and managing projects | |
| Generating new product ideas | |
| Maintaining quality of R&D process/methods | |
| Motivating technical people | |
| Establishing cross-disciplinary teams | |
| Coordinating R&D and Marketing | |
| Transferring technology to manufacturing | |
| Fostering collaboration between R&D and finance | |
| Linking R&D to business planning | |

**Table 4.3 Effectiveness of R&D department Szakonyi (1994)**

**Effectiveness of social networking**
The position of Indenty in its network is important for measuring the effectiveness of social networking. The network entrepreneur is considered to be in a position to create information benefits. According to the theory of Burt (2000) the benefits of a network can be in three ways. Access, timing and referrals. An entrepreneur does perform well when he is capable of creating structural holes, which places him in a position as the 'third who benefits'.

**Knowledge transfer**
To measure the effectiveness of knowledge brokering it is important to look at the recombination opportunities of existing knowledge. The creation of domains inside and outside the organization deliver these opportunities to recombine knowledge. In this the relation between technical and marketing employees is considered as essential. These relations will be studied according to Hargadon's (2002) five step model, mentioned in the literature study.

Souder (1988) highlights the states of collaboration between R&D and marketing and advocates processes to improve these relations. The use of cross-functional teams is considered to be important in this (Shapero, 1985; Katzenbach & Smith, 1993). Assumed in this research is that network oriented teams with technical R&D employees and marketing employees will face the same problems. So that these problems do not only exist within a multi-divisional organization but also within a network when sharing knowledge. Beneath an operationalization about the collaboration of R&D and Marketing is given. Also a model to determine the objective of (cross-functional)teams is given.

| States of co-operation between R&D and Marketing | Description | How to improve the co-operation between R&D and Marketing? |
|---|---|---|
| Lack of interaction | No meetings between both and no use of each other's information | 1. Break large projects into smaller projects<br>2. take a proactive stance toward interface problems<br>3. eliminate mild problems before they grow into severe problems<br>4. involve both parties early in the life of the project<br>5. promote and maintain dyadic relationships<br>6. make open communication an explicit responsibility of everyone<br>7. use interlocking task forces<br>8. clarify the decision authorities |
| Lack of communication | Verbal, attitudinal, and physical distances from each other | |
| Too-good friends | R&D and marketing does not give challenging or critical feedback to each other | |
| Lack of appreciation | Marketing feels R&D is too sophisticated and R&D feels Marketing too simplistic | |
| Distrust | Marketing feels R&D could not be trusted to follow instructions and R&D feels that it will be blamed for failures and Marketing gets credits for success | |
| Equal partner | Only possible when marketers are also technically trained | |
| Dominant partner | Mostly R&D is dominant but Marketing makes sure information from the market reaches R&D | |

**Table 4.4 Prescriptions of successful collaboration between R&D and Marketing (Souder, 1988)**

| | | |
|---|---|---|
| Teams that recommend things | *Objective:* | Solve particular problems |
| | | Getting off to a fast and constructive start and dealing with the ultimatum to get recommendations implemented |
| | | Predetermined completion dates |
| Teams that make or do things | *Objective:* | Value-adding activities |
| | | No completion dates, only for specific NPD goals |
| | | Multiple skills, perspectives and judgments required |
| | | Management must pay attention to linking different teams and availability of resources |
| Teams that run things | *Objective:* | Performance results |
| | | Many teams can be more effectively run as group |
| | | Higher risk of members to overcome a reluctance to trust their fate in others |

**Table 4.5 Different kinds of teams in organizations (Katzenbach & Smith, 1993)**

## *4.5 Results and conclusion*

The literature study has given insight in the aspects of an innovation strategy and the required resources for it. The position of the social network is described and with this information the first research question can be answered. This is stated as: "**According to scientific literature, how can innovation be improved with the use of social network?**".

The characteristics of the market are important in order to determine a clear innovation strategy. This because a firm's design is interacting with a firm's environment (Walsh, 1996). According to Bower and Christensen (1995) an innovation strategy needs to handle sustaining and disruptive developments. Sustaining development focuses on short-term developments and keeps an existing revenue stream going. According to the literature it is important that a company balances both sustaining as well as disruptive developments. The failure of some leading companies in the world is the ignorance of building a long-term strategy. An organization need to be operational effective (for sustaining developments) as well as strategic flexible (for long-term developments) (De Weerd-Nederhof et al, 2008).
For aiming at this strategy two kinds of innovation approaches are discussed in the literature study. Closed innovation and open innovation. Chesbrough (2003) describes closed innovation as a view that says successful innovation requires control. Companies must generate their own ideas and then develop, build, market, distribute, service, finance, and support them on their own. The open innovation approach assumes that firms can and should use external as well as internal ideas, and internal and external paths to market, as they look to advance their technology. For gathering external ideas Prahalad and Ramaswamy (2004) advocate that a company needs to collaborate with their consumers in all stages of the development process. So a company needs to get information benefits in order to become competitive.

Social network theories study the information benefits a company can absorb from its network. The relationships a company has with other others can be seen as the social capital of a firm (Burt, 2000). The entrepreneur has to build relations to get entrance to new information sources. Especially unique information is necessary for competitive advantage. This means that a company should be in a position that it can benefit from the knowledge. That puts a company in the position of 'the third who benefits'. Information benefits are all based on access, timing and referrals. For gathering information a company can use lead users

(Von Hippel and Katz, 2004). According to them the lead-user method is a useful managerial solution to determine effectively user needs.
At least a firm must gather creative people within the network (Shapero, 1985). Creativity can be enhanced by hiring creative people, motivation improving actions, organizational mechanisms, and managerial actions.

It is also very important to adequately transfer knowledge from the social network to the new product development process. The network is seen as social which is fragmented into many small domains. It is difficult to disentangle and recombine the resources from one domain into another (DiMaggio, 1997; Hargadon & Fanelli, 2002). So it is important to determine domains and then try to link that information between these domains in order to create new information. Linking that knowledge is not always easy and can give problems. Mainly the link between technical employees and marketing employees is an important but difficult issue (Souder, 1998).
The use of virtual teams can be a method to cooperate when time or distance constraints exist. Virtual teams are groups of geographically and organizationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task (Townsend, DeMarie & Hendrickson, 1998).
Within the next chapters these theories are analyzed to the case of Indenty.

# Chapter 5. External analysis

## 5.1 Introduction

The market in which Indenty operates is a new market. Internet gives people opportunities to enter an enormous amount of information. This almost infinite flow of information requires a method to make this information accessible. Search engines offer a solution for this problem and provide information on a structured way. People are navigated through the internet with the use of a search engine. The function of search engines is well illustrated by Google's mission statement: "Organizing the world's information and make it universally accessible and useful" (Google Inc., 2008).

The search engine market can be described as a dynamic market in which developments follow each other soon. The market is dominated by Google, though this does not mean that other search engines have no chance in this market. The search engines are very important in this research. This because all the organizations active in search engine optimization are dependent on these search engines. The services and products developed by Indenty are based on the technology in search engines. This chapter will discuss the importance of the search engine market in order to determine the possibilities for Indenty in the future. At the end of this chapter the second and third research question is answered.

## 5.2 The Dutch SEO market

The market of search engine optimization is a quite new market in which not many companies are active. It is interesting to see that the number of companies offering SEO is very large. Hundreds of organizations offer SEO. For customers it is not visible that most of these companies have outsourced SEO. Formally it is a service which is marketing related, but in practice it is a technical internet related business. Companies which offer SEO offer their customers the opportunity to sell SEO under their own name. This makes it difficult to define the precise market. Based on information from the IAB (industry association) and the Managing Director of Indenty, only 10 companies do actually offer SEO. These companies have an own R&D department or at least employees who are responsible for monitoring the search engines and developing optimization techniques. Most of them do also offer SEA and are therefore categorized as SEM.

| Organizations doing search engine optimization (SEO) | |
|---|---|
| **Organizations** | **Business** |
| Bloosem Media | SEM |
| CheckIT | SEM |
| Easy | SEM |
| Indenty | SEO |
| Onetomarket | Online Marketing |
| ProSEO | SEM |
| Search Factory | SEM |
| Traffic Builders | SEM |
| Traffic4u | SEM |
| Tribal Internet Marketing | Internet applications |

**Table 5.1 Organizations in the SEO market**

Besides these ten companies a few experts deliver SEO as a consultant. They give trainings and seminars to companies, but do not have tools or products to offer.
As last there is a group of web designers who offer SEO based on public knowledge. They design a website according to the guidelines of Google and books about SEO. These web

designers are not seen as competitors, because SEO is a process which requires a long period. Results of a SEO campaign are visible after a at least some months. Moreover SEO is much more than designing a website. For example, a process of SEO is link building. This requires the registration of a website (URL) with many directories on the internet. Web designers simply lack of knowledge about new developments in SEO, because only a little information is published on the internet on weblogs and forums.

## *5.3 Dependency on search engines*

### 5.3.1 SEO technology

Internet is very important in the world nowadays. The development of internet started more than twenty years ago and has grown rapidly the last ten years. Since these last ten years search engines have really started to develop, because the number of websites and information have increased. Within the search engine of Google the number of indexed web pages increased from four billion in 2004 till almost 40 billion in 2008 (Google Inc., 2008). The more websites there are within a specific business the more difficult it is to optimize a website for Indenty.

Another problem is that the market is continuously changing overtime. Walsh (1996) suggests that an innovation design and technological change are related to each other. A firm's innovation design is interacting with a firm's environment. The innovation design of Indenty is interacting with many players in the environment. First the interaction with the search engines is analyzed. Later on other players in the environment are investigated. The services of Indenty require a high knowledge of the technology used in search engines. All products are based on the algorithm of the search engines. To examine a direction for an effective innovation process this dependency need to be further explored. The dependency of SEO on the search engines include a huge risk for Indenty and other companies in this market.

Within the Netherlands the search engine Ilse was most commonly used for a long period. Together with 'Startpagina.nl' and its Startpagina's daughters it controlled the market. In all countries of the world different search engines were active. The search engine was at the start of its product life cycle. The use of search engines increased together with the growth of internet. The number of companies which offered search engine marketing (remember that SEA did not existed that moment) was very low. Actually Gladior was in 2000 the first company in this business in the Netherlands.
Gladior had a good position in the market because it anticipated early on needs in the market for high positions in the search engine rankings. The problem at that moment was to create more demand for search engine marketing. According to Bower and Christensen (1995) a company needs to capture the market mainstream. Search engine marketing was seen as a disruptive technology, because it did not bring value to existing streams. It was a complete new way of marketing.

The moment of entering the market was chosen well, because the use of internet and the use of search engines increased very soon. Another advantage for Gladior was the relatively low amount of resources needed. The current Managing Director had the knowledge to optimize websites himself. He only needed financial resources to exploit his knowledge.
At the year 2000 the search engine market was not controlled by one search engine. This meant that a website needed to be optimized for more than one search engine. Gladior developed one method for optimizing a website for all the different search engines. This was possible because all search engines used the same kind of technology at that time.

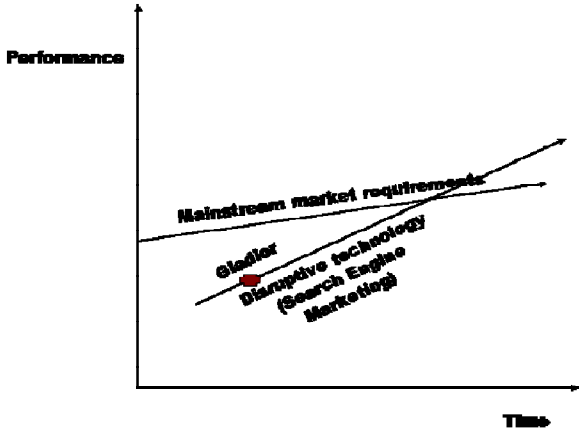


**Figure 5.1 The position of Gladior (now Indenty) at the year 2000**

**Growth of Google**

The market of search engine marketing did change significantly after the introduction of Google. This search engine created such a high market share that the whole SEM market became dependant on them. The growth of Google was quite unique because it did not have a specific advertising campaign, but grew mainly by face-to-face communication and positive comments on internet (Brand & Van den Trommelen, 2008).

Looking at the results of the most popular search engines within the Netherlands (figure 5.2), it becomes clear that Google has 93% percent of the search engine market in its hands. Some experts estimate Google's current market share already at 97%. In 2002 its market share was only 32% (Search Engine Monitor, 2002) so it had increased its position strongly in the last years. The development of Google was interesting and includes a danger for the business of Indenty. The respondents of this research stated that growth of Google happened so suddenly, that companies could hardly anticipate on it.
Within this research the growth of Google is not investigated sophisticated, but the interviews make some points clear.

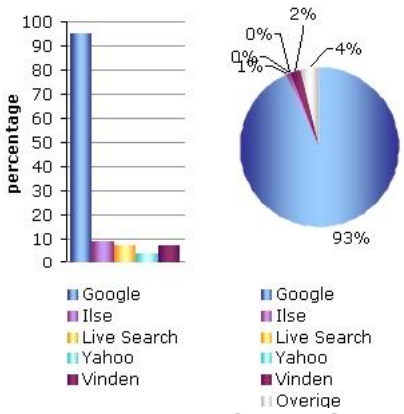


**Figure 5.2 Most Popular Search Engines 2008 Source: Nationale Search Engine Monitor**

Expert Blacquière said: "*The reason why Google grew so fast was because that the technology used in the search engine was simply the best. The founders of Google, Larry Page and Sergey Brin, developed the PageRank. With this PageRank technology websites could be ranked. This created much better search results than other search engines did at the*

*beginning of this century. The search results fit much better with the search task of the user. Another advantage was that search engines were relatively new for people in the world. It was at that moment a quite knew market. Google launched its search engine at the right moment".*

Timing is important in an innovation process because timing is becoming a new source of competitive advantage (Ali 2000). This was obviously the case for Google's technology. The emergence of Google had much influence on the companies active in search engine marketing. Gladior started in the period that Google grew soon. This was for Gladior an opportunity to grow alongside Google. The different methods for optimizing websites were not only applicable on Google's search engine, but also on other search engines at that moment. This last point was essential for Gladior. It only had to optimize on one way to create high rankings in many search engines. Gladior was supported by the lack of competition that time. Many websites were not optimized. That makes it possible to create high rankings with relatively low efforts. In case many websites would already have been optimized, it would have caused problems. In that case the optimization process would have cost much efforts. A general rule is: the more websites are optimized, the more sophisticated techniques are required to create high rankings. At the start of Gladior the resources were limited, especially the financial and human resources. So for them it was an advantage that the competition was small and that websites could be optimized for multiple search engines with one method.

### 5.3.2 Innovation at Google

Google can be considered as a monopolist in the market within The Netherlands. This monopoly includes a high degree of dependency on Google. In the rest of the world its market share is lower, namely around 60%. Particularly Yahoo is in the United States a challenger of Google (Brand & Van den Trommelen, 2008). In this research the Dutch SEO market is analyzed and therefore the innovation process of Google is most important.

Since the start of search engine advertising (SEA) the market was slowly separated into SEA and SEO. Many new firms entered the market offering SEA. The dependency on Google is for both SEA and SEO the same. Both services are based on Google's technology, but there is one huge difference in the dependency of both.

*Peter van der Graaf: The monopoly position of Google has also one huge advantage. Now companies do only have to monitor one search engine. When more search engines gather market share SEO will become very difficult and much more expensive. It is questionable if SEO would than still be possible.*

SEA is a service which generates Google billions of revenues each year. It is its core business for creating revenues. Every time someone clicks at one of the advertisements in the search engine, Google gets money. All the organizations offering SEA can be seen as resellers of the advertisements. The more companies offer SEA, the more revenues Google generates. People can also put these advertisements in the search engine themselves, but most companies do not do this. They simply lack of knowledge. Companies which offer SEA can follow courses and get a Google certificate. So Google shares a lot of knowledge about SEA, because it is in its benefit.

Looking at the market of SEO the opposite is the case. Google does not support the market of search engine optimization. The objective of Google is to create the best search results

according to the preferences of the user. Previously is described that companies in the SEO market are punished for using manipulating techniques. Optimization of websites is not something which is prohibited by Google. It has also advantages for them. Therefore Google published guidelines for a search engine friendly webpage. These guidelines are in Google's benefit, because these guidelines make a webpage better findable for their search engine. Companies offering SEO must comply to these guidelines. The guidelines can be seen as standard requirements for a website. Designing a website according to these guidelines does not guarantee a high ranking in Google. There are much more things important, which Google does not share with others. These invisible things are included in the Google algorithm.

| | |
|---|---|
| • SEA | Google supports companies offering SEA. The more advertisements, the more revenues for them. |
| • SEO | Google does only give guidelines for SEO. The Google algorithm determines the ranking in the search engine. Companies offering SEO go beyond these guidelines, which is less in Google's benefit. |

**Table 5.2 The difference in the openness of Google between SEA and SEO**

The current market would not cause problems for Indenty in case Google would not change its search engine. This is definitely not the case. Google can be characterized as an innovative company. Google invests hundred of millions dollars in innovation every year. An essential characteristic of its innovation process is that it is a closed process. The experts stated that Google does only publishes general SEO information on its Google Blog. The experts in this research predict new developments which could change the SEO market. For Indenty these developments can have a major effect. For Indenty it is therefore necessary to monitor the market and forecast future developments.

*Expert Erik-Jan Bulthuis mentioned: "Google wants to create a situation in which all the websites indexed by them are build according to the standard guidelines. When this is done, their algorithm determines the ranking. Firms within the SEO market need to discover these invisible things in order to offer sophisticated SEO. So they go further than Google appreciates. In this the difference between SEA and SEO is situated".*

Google wants to remain its dominant position in the market. To achieve this it will focus more on a better fit with the needs of the searchers. Google wants to make search results more personalized. The personalized search results are an important development for companies which deal with SEO. When search results are based on personal characteristics, it is more difficult to optimize websites for a broad group. For example, Google is capable of monitoring the search history of users with a Google account (Gmail) when they log in. This kind of information can make the Google algorithm much more difficult to understand. Another development is the use of human evaluators by Google (Google Blog, 2008). Worldwide more than 10.000 people are checking search results on relevancy. Websites which do not contain the right content in relation to the search task are removed out of Google's index.

The search results become more complicated and broader oriented. The influence of movies, illustrations and maps make the search results more comprehensive. Beside this the experts are afraid of the influence of social media in search results. Websites like Hyves, Facebook, Wikipedia and GeenStijl will become important next year already. These websites can have significant influence on the results of a campaign from Indenty. Especially when negative

news results are given together with a company's website in the search results. An example is found when looking at Gladior. This company has now outsourced SEO to Indenty, but the company is still hampered by a penalty of Google four years ago. When searching for Gladior news about the penalty is still dominating the search results. The Managing Director has therefore put up a financial reward for the employee who can delete these search results. For SEO this kind of websites are very difficult to handle. It will make SEO in future more complicated.

**Implications for Google**

The interviews make also clear that the position of Google on the search engine market is not inviolable. Three experts (27% of the experts) think Google will not be the market leader within search in the future. The objective of Google is to develop a personalized search engine. Therefore Google needs to store and gather a lot of user information. According to the experts this may harm the privacy of the users. Another point of view is that the business of Google is too much focused on revenues. Besides SEA, Google also places advertisements on websites outside its search engine. These advertisements are related to the content of the website. This service is named Google AdSense. According to expert Eduard Blacquière this could lead to an aversion of Google in the future. When users associate Google too much with earning money, Google may lose its friendly identity. AdSense is a much more obtrusive way of advertising than AdWords.

The experts expect that Google's monopoly on the search engine market will maintain the next years, but will decrease in the future. Google understands this and is therefore extending its service by developing new products. It developed not only a search engine but lots of more tools like Google Chrome (web browser), Google Earth, Google Maps, Google Video, Google Mobile etc.

| |
|---|
| Three important characteristics of Google can be distinguished, based on the interviews with the experts in the market.<br><br>1. The closed innovation process of Google<br>2. The continuously changing technology of Google's search engine<br>3. The high dependency of that technology for companies offering SEO |

**Table 5.3 Characteristics of Google's business**

The technology in the market of search engines is continuously changing. The position of Google in the market makes search engine optimization a difficult process. For Indenty the difficulty of SEO is important. Many organizations in The Netherlands offer search engine marketing, but focus only on SEA. This business is also dependant on the innovation process of Google, but the risks are much lower than for the SEO business. The worst case scenario for Indenty is that on one day the Google algorithm is completely changed. This situation is not very likely, but it is possible. The problem is that Indenty is almost fully dependant on an organization (Google) which does not appreciate companies offering SEO.

**Web 3.0**

Also new developments in internet technologies can influence future search engine optimization. The most items on internet are just publications (Mangold, 2008). It includes news items, research reports, video's etcetera. These digital publications are considered as the first stage of the internet (Web 1.0). The period that internet was just used for this kind of

information ended around 2001, when the internet business had problems (O'Reilly, 2005). After this period the internet began to change which had consequences for search engines. According to O'Reilly the new period of internet, Web 2.0, sees internet as a platform in which parties control their own data. It is focused on communication instead of publication. Web 2.0 is a set of principles and practices that tie together a veritable solar system of sites that demonstrate some or all of those principles, at a varying distance from that core. Google, by contrast, began its life as a native web application, never sold or packaged, but delivered as a service, with customers paying, directly or indirectly, for the use of that service (O'Reilly, 2005). Google requires database management. Without the data, Google's search engines is useless.

What the experts make clear was that there is a continuously need for Indenty to monitor the changes in Google's technology. They mentioned the difficulties for Indenty to monitor and understand the technology of Google, but Google has to handle the same difficulty. Database management is necessary for the search engine. Web 2.0 is understandable for Google, but will this also be for Web 3.0? This is the latest web approach and is something different than Web 2.0 (Constantinides, 2009). Web 3.0 is focused on digital intelligence which creates a situation in which information will be completely personalized. Google has already implemented technologies which resulted in personal search results (interview Erik-Jan Bulthuis), but Web 3.0 can go much further. According to Mangold (2008) an example of future search can be: "you walk in a street and you receive a message on your mobile phone that the camera you ordered has still not been delivered. As a solution you get a message that you can find the same camera at a store 100 meters ahead. The original order has already been cancelled automatically by the system."
What does this mean for Google and SEO? It can lead to a situation in which people do not use search engines anymore. Current search engines still require a search task given by a user. In future this may not be necessary anymore. This means that also high positions in search engines are not important. Also analytical reports about the search engine rankings are not useful anymore. The experts in the market and the company of Indenty did mention the risk of the situation in which Google is not the dominant player anymore. However they did not consider a situation in which search engines do not exist anymore. This is probably much more dangerous for Indenty.

### 5.3.3 Consequences for SEO

The technology of SEO was considered to be disruptive around the year 2000 (interview Eduard Blacquière). A new market was created and new business changes were created for companies. The technology for optimizing websites evolved over time and became more complicated. The most innovations of Indenty are based on innovations of Google. When Google changed the search engine, Indenty changed its products too. According to Burt (2000) Indenty creates value by linking the technology of Google with its own SEO technology. The relation with Google is therefore very important. For Indenty this is a kind of social capital. According to Burt Indenty should invest in a relation with Google by cooperating with them. The problem is that Google does not support this relation.
Currently there are some developments visible which harm the link between Google's technology and Indenty's technology. The most important developments seem to be universal search and the influence of social media. These developments can be seen as sustaining technologies, because they are based on already existing technologies. Bower and Christensen (1995) have shown that some leading companies fail to invest in radical innovations based on disruptive technologies. The market analysis makes clear the problems of Indenty's current

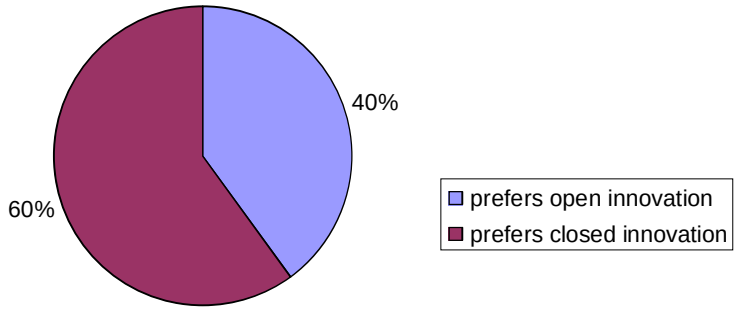


**Figure 5.3 Preferences for an open or closed innovation approach for sustaining developments**

business, but also of its future business. To give direction for future product development the future market needs to be forecasted. Methods for Indenty to do this are examined later on in this research.
According to the experts who offer SEO with their company, the market will change significantly in the next years. The experts expect a market in which search engine marketing will no longer be a separated business in SEA and SEO. SEO is becoming much more complex. For companies offering SEO the monitoring of the changes in the Google algorithm asks for more time. The amount of resources are limited within the market. Especially the growth of social media, affiliate marketing and online advertising will change search engine marketing (SEM).

| Respondent | Sustaining Technology |
|---|---|
| Eduard Blacquière | No possibilities anymore |
| Erik-Jan Bulthuis | No possibilities anymore |
| Jan Beekwilder | No possibilities anymore |
| Nico Maessen | still possibilities |
| Otto Munsters | still possibilities |
| Paul Aelen | still possibilities |
| Peter van der Graaf | still possibilities |
| Roy Huiskes | still possibilities |
| Wolter Tjeenk Willink | No possibilities anymore |

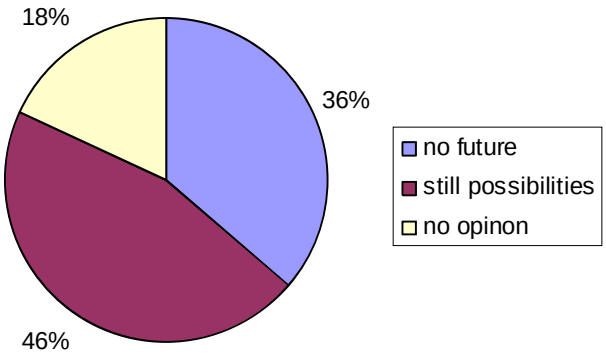


**Table 5.4 Possibilities of the sustaining technology**

As given in the table the experts do not agree on the opportunities of the sustaining technology. The use of the sustaining technology is still possible because the market does not fully understand the possibilities of SEO. Therefore SEO companies need to invest in research in order to understand the influence of social media and universal search within the Google algorithm. Not all the companies can make these investments, because their knowledge is too small. Therefore cooperating with competitors is seen as a method to improve knowledge. According to 40% of the experts, who still see possibilities for sustaining technologies, open innovation will enhance the chance of understanding future Google updates. This will decrease the high dependency on Google for the SEO companies.

Open innovation is not seen as a method for sharing knowledge only. The experts see open innovation also as a way to get publicity. When a company cooperates with others it will improve the amount of knowledge. This knowledge (or at least a part of it) can be put on its website, which will lead to more visitors and referrals to its website. These referrals are a very successful method in order to create high rankings in the search engines.

The experts who prefer closed innovation are all afraid that other organizations will profit from their knowledge. They think they have the resources to compete the next years and will see after that years if cooperation with other companies is necessary. Most of the companies which prefer closed innovation are larger than the companies which prefer open innovation. One expert is Managing Director of a small company and prefers closed innovation, because of the risk for a take-over purchase of his company. When his company cooperates with larger organizations he is afraid that this organization wants to purchase his company.

Companies which offer SEM will now change their business to online marketing. The experts who offer SEM see a development in which their customers want a broad online marketing advice. The customer does not only want to invest in SEA or SEO, but also in banners and advertisements on the internet. These developments can also have influence on a company such as Indenty. Its innovation process must anticipate on future developments. For future developments (disruptive developments) only one expert sees advantages of open innovation. More sophisticated outcomes of the interviews with the experts are given in Appendix E.

### *5.4 Results and conclusion*

The external analysis gives a well overview of the developments in the market of search engines. Now the second research question will be answered: "***How can the search engine optimization market be described?***". The literature study earlier in this research emphasizes the importance of the technology in the market. The interviews with the experts give insights in the opportunities of the technologies in this market. Most companies which offer SEO have outsourced this. There are around ten companies within The Netherlands capable of optimizing websites for search engines. They have insourced the necessary resources for this, which are mainly human resources. The companies which offer SEO do all offer more marketing services. Some offer online marketing and have a specific SEO department. Others offer search engine marketing (SEM), which contains also search engine advertising (SEA).

The position of Google is very important in this market, because there is a huge dependency on them. Google can be considered as a monopolist with a market share of 93% (Search Engine Monitor, 2008). Therefore all the SEO companies must focus there new product development on Google's search engine technology. This counts for all the companies, which are active within this market, though it counts the most for Indenty. Indenty does not offer other services than SEO. Companies which offer SEM can focus more on SEA in case SEO does not deliver them enough opportunities anymore. All the respondents see the dependency on Google as a danger, while one expert also stated an advantage of Google's dependency. In the current situation SEO companies have to study and anticipate only on Google's updates. In case there would be more search engines on the market with a significant market share; it would cause more effort to study the updates from the other search engines also. The current techniques of SEO (in example, creating web links and building land pages) are considered as sustaining technology. Sustaining technology is focused on keeping the current revenue stream in position (Bower & Christensen, 1995). The research found out three main risks of Indenty's current business:

1. the closed innovation process of Google,
2. the continuously changing technology of Google's search engine, and
3. the high dependency on that technology for companies offering SEO.

Google does not support the activities of SEO. For Google it is important to have a search engine which is fully reliable for the user. Google sees some SEO techniques as a way to manipulate its search engine. Past developments have caused problems in the market when SEO companies were punished by Google. They used techniques which were not in line with Google's purposes. To give direction for search engines optimization Google published guidelines for search engine optimization. Indenty must comply to these guidelines.

As third research question is stated: "***What kind of developments in search engine optimization market can be expected?***". The sustaining (current) technology of companies within the market is becoming more sophisticated. New influences from social media, universal search, and personalized search have caused this. The lack of support of Google will make it for about half of the market too difficult to offer SEO in the next years (36% of the experts see no possibilities in current techniques anymore). The interviews make clear that the SEO market will be separated within companies which still focus on search engine optimization (SEO), and in companies which will focus on online marketing.

For companies which cannot compete anymore on the sustaining technology it does not cause many problems to change their innovation process to online marketing. For them SEO is just a part of their total online marketing business. Indenty is a company which focuses only on SEO. This specific market still has opportunities, even though current technologies cannot be used (46% of the experts still see possibilities). The only objective for Indenty is to gather more sophisticated resources than it has now. This will be necessary for the development of new sustaining products/services.
In the future the market will change. According to all the experts in the market the focus of SEO will be on the development of consulting/advising tools. This new technology can be seen as a disruptive technology. A few companies, including Indenty, have already started with the development of this kind of technology. This includes a kind of risk because it is never sure what the future market will do. Web 3.0 developments can make the use of search engines unnecessary. This situation is not forecasted by the experts in the market, but is found in articles on the internet.

# Chapter 6. Internal analysis

# Chapter 7. Conclusions and implications

## *7.1 Introduction*

The development of an effective innovation model for the organization of Indenty requires extensive research. A literature study has given insight in the strategy and success factors of an effective innovation model. The analysis of the case is done with the use of empirical information conducted via in-depth interviews. The outcomes have resulted in the answer on the proposition that social networking supports the innovation process within the search engine optimization market. Within this chapter the outcomes are given and the model for Indenty is given. Also the implications of the research are explained and the possibilities for further research are given.

## *7.2 Conclusions*

The research has led to findings for an innovation strategy for Indenty. The external analysis and internal analysis have given insight in the development of an innovation strategy for Indenty. The future of the search engine optimization technology is explored and below the conclusions are given.

### 7.2.1 Technology of SEO

The market is characterized as a market with a high degree of dependency on search engines (source: interviews). The dependency is found as the main implication of the search engine optimization (SEO) technology. An analysis of the supply chain of Indenty gives insight in the position of Google and other search engines. The technology is based on knowledge which is gathered on internet and through reading books. 100% of the experts mentioned these sources as input. There are also (international) meetings with specialists about search engine optimization but these are not frequently visited by Indenty. The information on internet is useful but also has limitations. The research resulted in the following outcomes. These are given in the table below.

| | |
|---|---|
| **Strengths** | Lot of information available on internet.<br>Information is useful worldwide. |
| **Weaknesses** | Available information on internet is often not sophisticated enough.<br>Difficult to explain in-depth problems on internet, because additional explanation may be necessary. |
| **Opportunities** | Websites with limited access can provide more sophisticated information. |
| **Threats** | Information on internet may be biased, because companies publicize it for own benefits.<br>Google also reads information published.<br>Other companies can provide from the same knowledge internet. |

**Table 7.1 SWOT analysis of the input of information for SEO technology**

The literature study makes clear that the technological developments can be divided into two categories. Sustaining and disruptive developments (Bower and Christensen, 1995). New products based on disruptive technology, radical innovations, bring no value to existing mainstream market requirements. Sustaining developments are focused on keeping the mainstream requirements in position. These developments do not take new technological developments into account. According to the theory (Christensen, 2002) product leadership is important for creating a competitive advantage. With the use of empirical information the developments of SEO can be divided into sustaining and disruptive developments. The

current technology of SEO is focused on creating high rankings within search engines. To aim at this Indenty has developed techniques (services) which support this. Examples of these techniques are creating web links to a website, changing the content of a website, building 'landing pages' etc. Also competitors of Indenty deliver these services (source: interviews). New products/services focused on creating high rankings are considered by the experts as sustaining developments.
For the sustaining technology the biggest danger is the dependency on Google (100% of the experts mentioned this). Google does not share information with others because the search results must be fully objective. When Google changes the technique of its search engine it can harm the effectiveness of current SEO techniques. 36% of the experts think this will make search engine optimization in its current shape not applicable anymore. They mention especially the complexity of social media, personalized search and universal search as risks. Another risk for current SEO technology is the decrease of Google's monopoly position. Leading to a market in which techniques need to be effective in multiple search engines. This could make some optimization techniques less useful because these are primarily focused on Google.

For a long-term innovation strategy a company needs to adapt on disruptive technologies (Christensen, 2002). The research found out that these developments will cause significant changes in the market of SEO. According to 27% of the experts future innovations will focus on advising related products (based on analytic data). In quantitative numbers this are only three experts, but eight other experts are at least convinced that SEO will become more integrated within online marketing. This means that the SEO business will no longer be such a specific business as it is now. So disruptive SEO developments need to focus on online marketing. One respondent thinks that no disruptive technology is necessary because current SEO technology will be effective for a very long period. On internet also the risks of a complete new internet approach are explored. The so called Web 3.0 can create a situation in which people do no longer use search engines anymore. The experts did not think of this situation, though the change from SEO towards online marketing may decrease the risks of this situation.

Indenty creates all its current revenues with products which are inline with the sustaining developments. To become also competitive in the future the company has already developed an advising related tool, the so called 'SEO advisor'. Indenty is one of the first companies on the market with this kind product, which can be categorized as a disruptive development. The product is not focused anymore on creating high rankings in search engines. As it was found in the literature study this could deliver Indenty a competitive advantage. A problem with its long-term strategy (focused on advising related products) can be that it is based on wrong information (Bower and Christensen, 1998). This is what happened within Indenty and will be explained later on in this conclusion more precisely. The strategy of an organization needs to be focused on both short sustaining and disruptive technologies (Benner & Tushman, 2003). Indenty is now focusing fully on disruptive developments with its innovation strategy and not anymore on sustaining developments. Concluding about the technology of SEO Indenty makes the mistake not to balance both short-term and long-term objectives. Most companies fail in dealing with long-term developments (Bower and Christensen, 1998), but Indenty do the opposite. This is moreover a risk because the experts in the market stated that current technology still offers possibilities for new revenues.

| | |
|---|---|
| **Strengths** | Still possibilities for creating revenues.<br>Less competitors, because not everyone has the right resources. |
| **Weaknesses** | Remaining dependency on Google.<br>More efforts needed for developing new SEO techniques. |
| **Opportunities** | Cooperation with competitors. |
| **Threats** | New search engines require multiple SEO techniques.<br>Being not capable of developing new techniques.<br>Development of social media, personalized search and universal search. |

**Table 7.2 SWOT analysis of the current technology**

### 7.2.2 Effectiveness of internal innovation process

The research which is conducted gives insight in the internal innovation process of Indenty. Because this research is focused on the organization of Indenty these outcomes are quite specific for this organization. Past developments of Indenty have shown that after the split up of Indenty from Gladior problems occurred. These problems are one of the reasons for the start of this research. A literature study about an effective internal innovation process compared with Indenty's situation resulted in clear differences. A model of De Weerd-Nederhof et al (2008) about the firm's effectiveness has been applied on Indenty. Indenty does not score well on its effectiveness (both operational and strategic) because it lacks of a clear innovation strategy. According to the theory an organization need to be both operational effective and strategic flexible. On both items Indenty does not perform well. Main problem is the lack of clear project plans. These project plans are quite general and the R&D employees are loosely supervised in their work. Besides that not all the internal resources are used, because the Marketing & Sales department are involved in the innovation process.

The effectiveness of the R&D department is studied with a model of Szakonyi (1994). This resulted in the table below. As main problem the lack of structure within the R&D department is found. The current situation within Indenty lacks of the existence of formal procedures for new product development. When Indenty has procedures, its problem is that they are not sophisticated enough. This makes it difficult for the management to control these procedures.

| | |
|---|---|
| **Strengths** | Short communication lines because of the small size of the organization.<br>All employees have ideas and thoughts about R&D projects.<br>Employees have time for elaborating own ideas.<br>R&D employees see advantages of cooperating with others outside their department.<br>A coordinator is already linking the R&D department and the Quality & Service department.<br>A few employees have both technical and marketing knowledge and are in the position to transfer knowledge between multiple departments. |
| **Weaknesses** | No clear procedures for selecting R&D projects.<br>Developments do not conform with time schedules.<br>Product plans are not sophisticated and are focused on technical requirements.<br>Only information conducted by R&D employees is used, no information from the market is used.<br>Performances of R&D employees are not measured through the lack of objectives for them.<br>No procedures available to measure the financial payoffs of the R&D department. |

| | |
|---|---|
| **Opportunities** | Involve employees from the Marketing department and establish cross-disciplinary teams.<br>Use incentives and rewards for motivating R&D employees. |
| **Threats** | Products are developed which do not fit with demands of the market.<br>Management has less control because of the lack of specific objectives.<br>R&D department becomes too much independent. |

**Table 7.3 SWOT analysis of the performance of Indenty's R&D department**

### 7.2.3 Information benefits

**Sustaining developments**

The R&D department operates quite on its own within Indenty. This means that others outside the department are not much involved in the development process for new products. Linking the outcomes about the technology developments and Indenty's effectiveness an important conclusion can be made. According to the experts in the market Indenty will need more sophisticated information about the technique of existing search engines, especially Google. This because Google will dominate the search engine at least in the next few years (100% mentioned by the experts). With more sophisticated information sustaining developments can still become a success. Current information streams will probably not be enough for this. Only one experts (9% of total number of experts) thinks that current information is enough for future sustaining developments. To gather more sophisticated knowledge it was found that Indenty cannot use its current partners for this, because they lack of the knowledge about SEO techniques. This was already expected but is also confirmed by two partners who are included in the sample. They have knowledge about the market, but not about specific SEO techniques.
The research found that cooperation with competitors in the market can give more in-depth information (40% of the experts admits this). A remark on this is that the experts who prefer an open kind of innovation are employed at smaller organizations than those who prefer closed innovation. Probably larger organizations in this market are more capable of gathering the required resources than smaller organizations. According to the experts who prefer open innovation the use of virtual teams combined with frequently organized meentings will improve the information for sustaining developments.

The experts who prefer open innovation (for sustaining developments) separate two types of innovation openness which will enhance the information benefits. Full openness and less openness.

- Within a less open innovation process firms cooperate with one or two companies and keep all the information themselves. So only the competitors who cooperate can profit from the information.
- Within a full open innovation process firms cooperate with others by sharing information gathered by them on their website. Everyone on can use the information gathered. Two experts see this as the best opportunity because it supports also a firm's marketing objectives and not only innovation purposes.
  Three experts see open innovation as a way to get publicity. When a company cooperate with others it will improve the amount of knowledge within the organization. This knowledge (or at leas a part of it) can be put on its website, which will lead to more visitors and referrals to the website. These referrals are a very successful method in order to create high rankings in the search engines. Within figure 7.1 a graphical explanation of this is given.

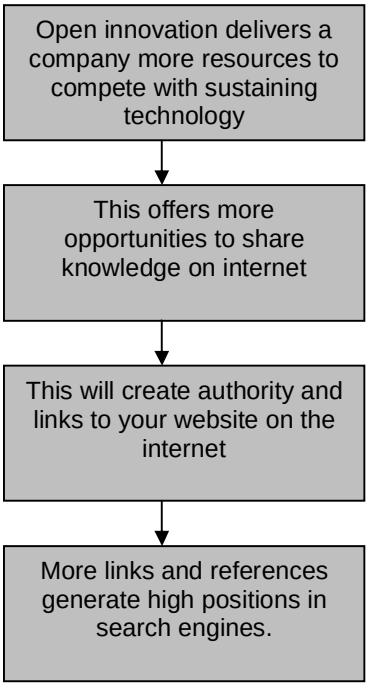


**Figure 7.1 Open innovation used as marketing instrument within SEO market**

| | Less openness | Full openness |
|---|---|---|
| **Strengths** | More resources available.<br>Better understanding of search engine's techniques. | More resources available.<br>Better understanding of search engine's techniques.<br>Supports marketing objectives. |
| **Weaknesses** | Information not exclusively for a company's own benefit. | Information not exclusively for your own. |
| **Opportunities** | Higher chance of understanding search engine's updates next years. | Higher chance of understanding search engine's updates next years.<br>A company can profit from knowledge from other organizations. |
| **Threats** | A few other firms can profit from your information.<br>Low possibility of a take-over purchase by a larger company. | Everybody can profit from your knowledge.<br>Higher risk of a take-over purchase by a larger company. |

**Table 7.4 SWOT analysis about the openness of firms within SEO market**

### Disruptive developments

For disruptive developments the focus of the SEO market will change to more analytic/advising related products. Therefore a different information stream is necessary. According to the outcomes of the literature study a company needs to have a diverse network which creates many non-redundant contacts (Burt, 2000). Indenty does only maintain direct contacts with its partners which are only in the internet and marketing business. Radical innovations of Indenty (inline with the forecasted disruptive developments) are not designed

only for these markets, but also for much more markets. Radical innovations are directly focused on end customers, but these do not have influence on Indenty's innovation process. Indenty's current business is focused on business to business (B2B), while disruptive technologies require information of customers. The cooperation with customers is also stated in the literature study by Prahalad and Ramaswamy (2004). Customers need to be involved in all stages of the development process. To complete this also a direct link with the end customers need to be created. This is in the current situation only possible for Indenty when there is a co-branded relationship with its partner. In this case the end customer knows about the cooperation between the partner and Indenty. Indenty also has the opportunity to approach end customers in its innovation process which are not customers yet. Though, this will change Indenty's business more to a business to customer business (B2C).

### 7.2.4 Hypothesis confirmation

The research tested the following hypothesis: "Social networking can enhance innovation in search engine optimization market". This hypothesis is confirmed by the analysis made in this research, though there are some implications. Especially the companies which are small (approximately less than 20 employees) can improve their resources by cooperating with competitors.
For sustaining developments a social network can deliver mainly opportunities when cooperating with competitors. For disruptive developments the focus must be on partners and end customers. In the table below the outcomes are given.

| | | |
|---|---|---|
| 1) | Involve current partners | For sustaining as well as disruptive developments |
| 2) | Involve potential partners (prospects) | For sustaining as well as disruptive developments |
| 3) | Involve current end customers (only possible when co-branded partnership has been agreed) | For disruptive developments |
| 4) | Involve new end customers and sell directly to them (B2C) | For disruptive developments |
| 5) | Involve new end customers and sell indirectly to them via sister company Gladior (strategy remains B2B) | For disruptive developments |
| 6) | Involve competitors | For sustaining developments |
| 7) | Knowledge institutes (scientific studies) | For disruptive developments |

**Table 7.5 Options for Indenty to improve the innovation process with the use of its social network**

## *7.3 Recommendations for Indenty*

The outcomes of this research have led to the design of an effective innovation strategy for Indenty. According to the methodology of this research it should at least give a reasonable chance for success. There are always aspects which could disturb the outcomes, however it is tried to reduce these to a minimum. In paragraph 7.5 the limitations of the research will be given, but first the recommendations are given.

**Advices about the technology**
The search engine optimization market has evolved during the last years, but is now approaching an important point. The research makes clear that the market is moving from a focus on search engine optimization (SEO) towards online marketing. Many companies do not longer see possibilities in what can be characterized as 'traditional' techniques of search engine optimization. More sophisticated research found out that there are still possibilities for future developments of these traditional techniques. New product development of these traditional techniques of SEO are described within this research as sustaining developments. Disruptive technologies are based on a complete different way of technology.

Indenty needs to invest in both sustaining and disruptive technologies. The latest developments of Indenty have only been focused on disruptive developments. For example the SEO-advisor. Investments in the traditional SEO techniques have not been made, though these are responsible for the most revenues of Indenty. Indenty needs to invest in both sustaining technology as well as disruptive technology simultaneously. Sustaining technology for the continuity of short-term revenues, and disruptive technology for the continuity of long-term revenues.

- *Sustaining developments*. Invest for short-term revenues (at least two till three years) in the traditional techniques of SEO. Important research need to be focused on the influence of social media, universal search and personalized search on SEO.
- *Disruptive developments*. In the future current SEO techniques will not be effective anymore, because SEO becomes too complicated. According to the experts Indenty needs to develop reports which give only advice about SEO and customer's website. These advices will support a Marketing manager in his or her work. It is also important to study the influence of Web 3.0 and think of a situation in which search engines are not used anymore. Although the experts do not think about this situation it is an important issue according to some other studies.

**Advices about the internal design of innovation**
Internal innovation processes of Indenty do not work appropriately. A lack of structure within the organization is the main important factor. The R&D employees work too much on their own within Indenty. The coordination on the R&D projects is too little. The next recommendations can be given, based on the outcomes of this research.

- Involve the Marketing department within all stages of the development process. It will provide more information about the market. Establish cross-disciplinary teams containing not only technical knowledge.
- Remain the current short communication lines, but make one person responsible for gathering all the information for new product development. This person needs to have technical knowledge as well as marketing knowledge. This will make it easier to link both kinds of information.
- The management needs to have more control on R&D project groups. Therefore more precise project plans need to be formulated. These must contain clear objectives which are measurable (sometimes only qualitative measurements are possible). All the product requirements need to be formulated.
- The employees of the R&D department need to be motivated better in their work. The use of more precise project plans support the introduction of performance

management. Individual objectives combined with group objectives need to be linked with (financial) rewards.

**Advices about improving the information benefits**

The research focuses on the information benefits Indenty can gather from its social network. Indenty does not have the right information sources for short-term (sustaining) as well as long-term (disruptive) developments at this moment. Indenty's network is not divers enough for delivering them the required new product development information. Indenty does have possibilities to enhance this and to aim at competitive advantage. Within table 7.5 an overview of the options for Indenty has already been given. The underneath mentioned participants are important, though not all of these are already part of Indenty's current network.

- *Resellers.* These are Indenty's current partners. Information from them is already conducted, but needs to be transferred internally better. Indenty needs to involve (some) resellers already when the requirements for new products are formulated. The current resellers are all in the same business (Marketing or Internet) and that makes the information not divers enough. Especially for future developments Indenty needs more information than only from its resellers.
- *Prospects.* Prospects can deliver Indenty more revenues and they might be able to deliver more new ideas than current partners do. They can deliver information for both sustaining as well as disruptive developments.
- *End customers*. Especially for disruptive developments their involvement is essential. A product as the SEO-advisor (in this research categorized as being a disruptive development) has been developed for end customers, though only the resellers have given feedback.
- *Lead users*. The application of lead users is useful for disruptive developments. Lead users are users whose present strong needs will become general in a market place months or years in the future (Von Hippel & Katz, 2004). This method is used in this market by other SEO companies. It is advisable for Indenty to use this method and let the lead users test all new products focused on disruptive technologies. The selection of the lead users need to be done precisely, in order to reduce the chance of making the same mistake a competitor of Indenty made. Not all the current partners of Indenty can be considered as lead users. The method is described in this report. A group of five lead users will be sufficient for Indenty. Through an expected lack of capable lead users in this market Indenty can choose for two types of lead users, one focusing on technical aspects and one focusing on managerial aspects.
- *Competitors.* A cooperation with competitors will deliver Indenty more sophisticated knowledge than that it has now. It will make it easier to adapt on future updates in Google (sustaining developments). This because there is more knowledge available to understand the update. On current public internet pages the information is not in time or often too superficial. Current 'traditional' techniques can be further exploited with a cooperation between companies. Without cooperation the technique of search engines will become too complex to understand for Indenty on its own. Also for disruptive developments it can deliver advantages, but the willingness of companies in the SEO market to cooperate for disruptive developments is very low. Starting with open innovation aiming at the exploitation of current techniques is the easiest way for Indenty at this moment.

The introduction of a virtual team is advisable. Therefore a website can be created with access only for R&D employees from the cooperating companies. This can be combined with a frequently face-to-face meeting.

- *Knowledge institutes.* A lot of research is done about the future of internet. For example the development of Web 3.0. Indenty already has contacts with the University of Twente, but the company needs to make sure that it is informed about new developments in time. This is especially the case for disruptive developments.

**Overall advices**

Indenty is an organization which do not exist for a long period yet (since the end of 2007). The management invests in the development of formal procedures now. This explains why there is no clear structure in all process yet. The transfer and gathering of knowledge needs to improve in order to develop products the market asks for. This will make it easier to implement new products into the market, which has been one of the main problems of Indenty in the past. Therefore Indenty needs to have more information from the market and the establishment of cross-disciplinary teams is important. Especially for long-term development more employees with a marketing background need to be involved. Two strongly committed companies with Indenty are capable and willing to support Indenty. They should be involved in the new product development process, because they can deliver Indenty unique information about their preferences. The market needs to be involved through out the whole innovation process. Product requirements need to be checked at least by resellers and end customers before entering the next development stage. Also when a product is distributed to the market there need to be an information stream going back to the starting point of the innovation process. In the current situation the distribution stage is separated from the development stage. Indenty must involve the market in its innovation process, which will lead to the following new supply chain.

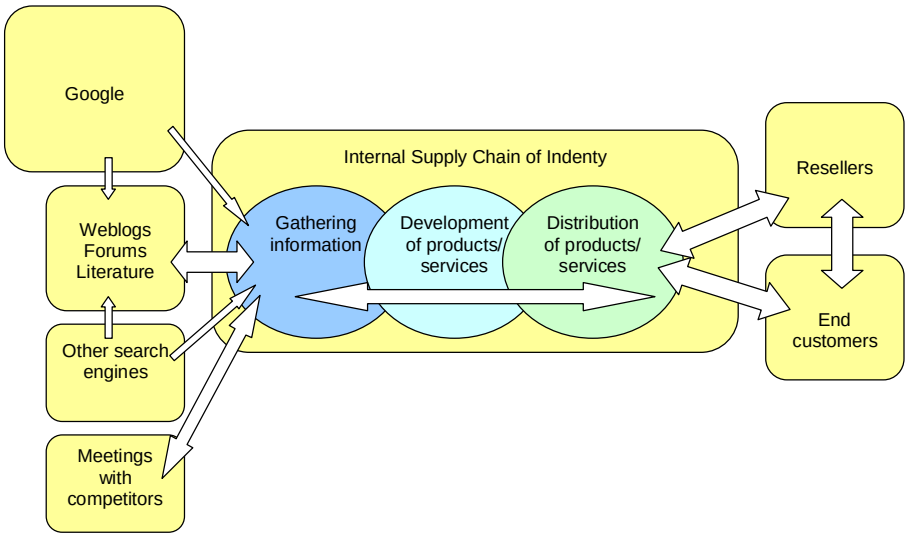


**Figure 7.2 Indenty's recommendable supply chain for a competitive innovation strategy**

The use of open innovation is new in this market but can deliver much opportunities. It will not directly decrease the dependency on Google, but it will make it easier to adapt on Google's updates. It is advisable for Indenty not to cooperate by full openness, because other companies will use Indenty's information (or the information from companies included within

the open innovation group) without sharing their own information. Therefore not all the companies are appropriate to cooperate with. Indenty does also have the possibility to cooperate with SEO companies in other countries. This because technical employees of Indenty mentioned that Google's technique in other countries does not distinct much from Google's technique within the Netherlands. Especially companies in Belgium can be interesting because there is no language barrier.
It is important not to keep all the information for one's own interest, because putting this kind of information on the website will create a lot of referrals on the internet. This will improve the ranking within the search engines. So gathering much unique information can deliver Indenty and the companies it is cooperating with a clear advantage.

## *7.4 Implementation*

**Immediately necessary changes**
It is important that Indenty applies some of the changes immediately in order to overcome the current problems. The internal problems need to be solved immediately in order to reduce the chance of lost information. All the advices given about the technology and about the internal design of innovation need to be applied immediately.

The current projects need to be analyzed in order to determine whether they can be categorized as sustaining or disruptive. Within literature no clear description is given about the percentage of developments which must focus on sustaining and which on disruptive technology. Looking at the possibilities both technologies have, Indenty can choose for a fifty-fifty segmentation. Most of the current projects are based on disruptive technology which means that more projects need to aim at sustaining improvement.

The Product Manager within Indenty needs to build a system to register information from all departments within Indenty about new product developments. Therefore it is important that all employees of Indenty notice suggestions or complaints when they receive these from a customer. Besides that, the Marketing employees need to be informed about current projects and the project plans. They can probably give useful input about the plans which are already worked out without their involvement.
Before Indenty can introduce performance management for its R&D employees the company needs to formulate precise objectives for the projects. When the project plans contain specific objectives the performances of the R&D employees can be linked with it.

**Advises which require more time to implement**
The improvement of information benefits will be more difficult to implement. This because there are more external organizations and persons involved. Probably not everybody wants to cooperate with Indenty. An important issue for Indenty is that it cannot involve end customers when its reseller has a private label relationship with Indenty.
Also the cooperation with competitors will not be easy, because it is not introduced in the market yet. Therefore Indenty needs to be a forerunner in the market. On meetings (for example a meeting of the IAB) the Managing Director of Indenty can explore the willingness of competitors to cooperate. Some experts within this research have an own company and mentioned already their willingness. This can be a starting point for Indenty.

## *7.5 Implications and limitations of research*

The research has been conducted as stated in the chapter about the methodology. Within this chapter the validity of the research has already been stated. The research has let to a proper

innovation strategy for Indenty. This means that the outcomes of the research are quite exclusively applicable on the setting of Indenty's organization. This makes generalizations about the outcomes difficult though that has already been explained in the methodology chapter.

The research is done in a sophisticated way using multiple data-gathering methods, like internal documents, literature (scientific as well as some non-scientific articles) and interviews with experts in the market. Some data gathered is qualitative. To examine this the researcher had to give his own qualification for the outcomes to qualify and compare the information. In case the information is too difficult to compare it is mentioned within this report and clear conclusions are not drawn from it.
The outcomes of this research are partly based on clear forecasts of market developments. These developments contain a kind of uncertainty because unforeseen events can always happen. The complete independency of the experts is difficult to determine. Some experts are allied to a competitor of Indenty which can reduce the objectivity. The number of experts used in this research should be sufficient to give an objective answer on the research questions. Besides that, the organization the experts work for are active in a broader field than search engine optimization only. So for them the risks of harming their own organizations is low. In practice, most experts are interested in the outcomes of the research in order to see if it can have advantages for their own organization.

The implications of the research are acknowledged but they do not detract the significance of the findings. Within the next paragraph possibilities for future research are given.

### *7.6 Further research*

As the research is focused on the development of an innovation strategy for Indenty, it is advisable for future research to have a broader focus. The outcomes of this research state the development of social media, universal search, personalized search and Web 3.0 as the biggest challenges for Indenty and the SEO market. What will be the effect of these new search engine developments on online marketing? Indenty only had an innovation strategy for long-term development, but failed in its short-term strategy. This contradicts the findings of Bower and Christensen (1995) in their research. They see the lack of a long-term strategy as the most important strategy failure of organizations. Besides that, the position of knowledge sharing is interesting to invest further. Companies share information on their website to make sure that they become an authority in the market. This is very important in order to achieve a number one ranking in Google's search engine. For them open innovation is seen as a marketing instrument. It will deliver them more unique and relevant information than they can gather on their own.

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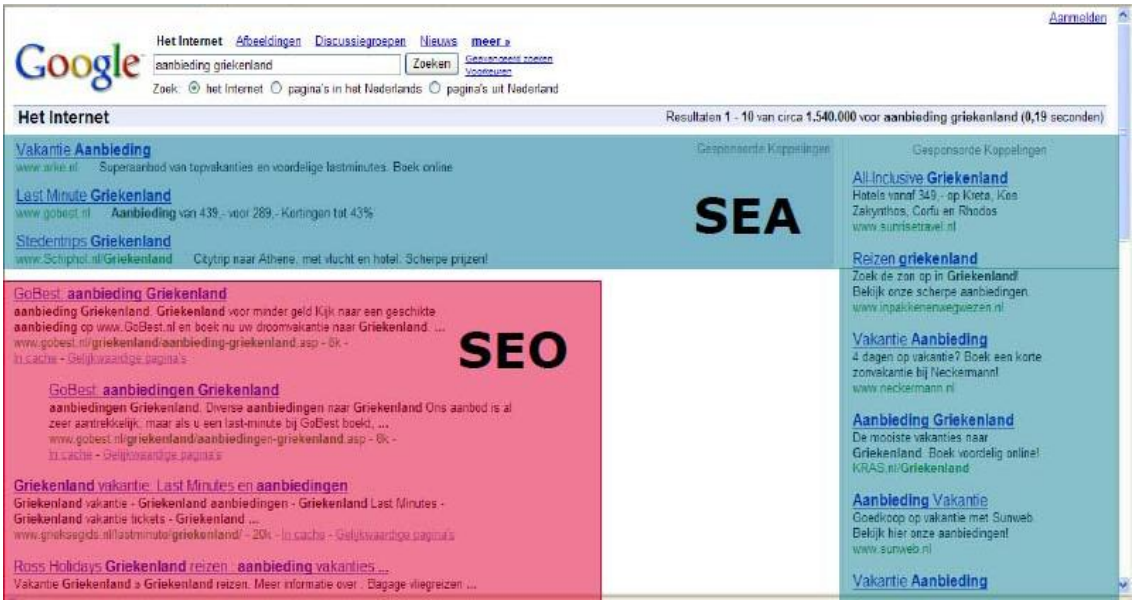
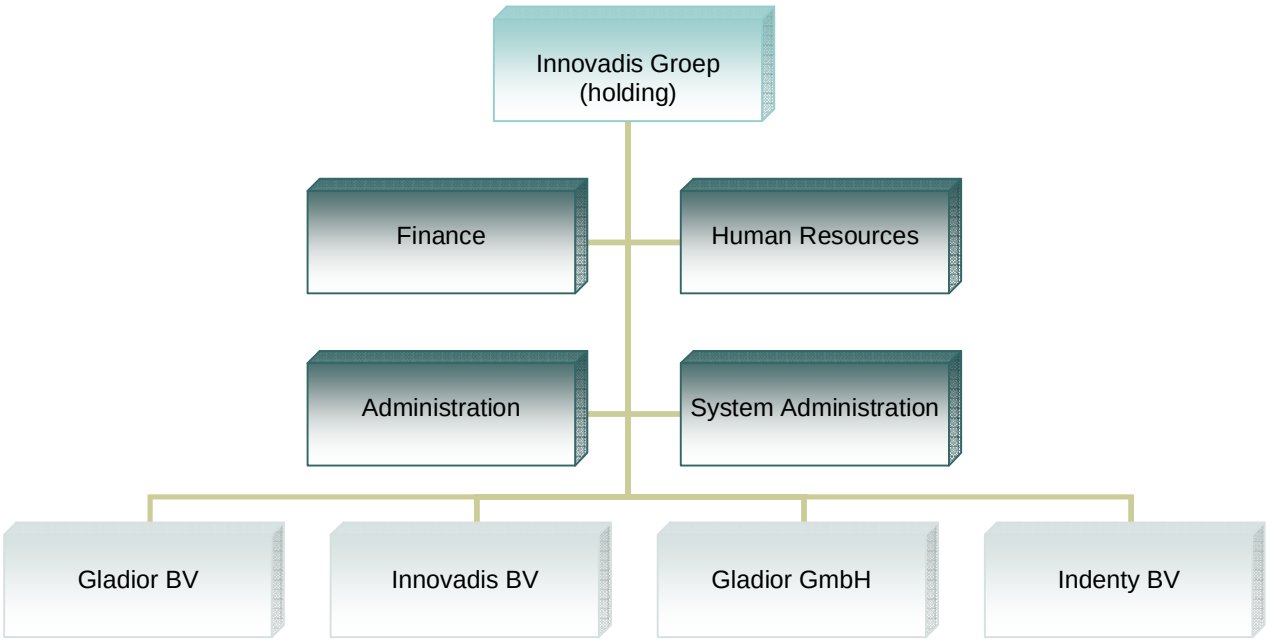
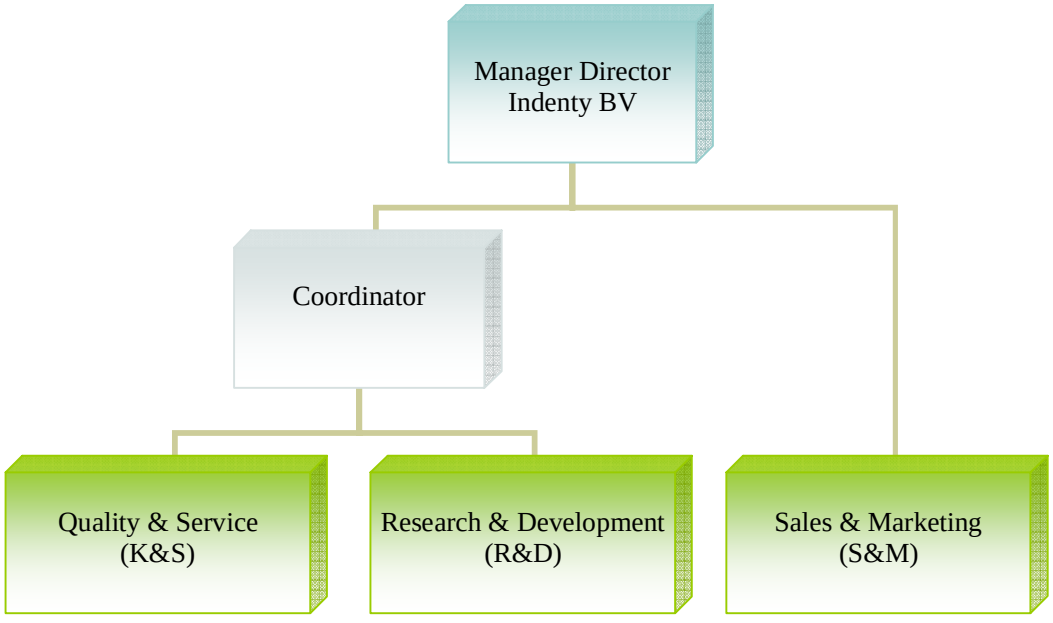
# Appendix A. Difference between SEO and SEA




| | |
|---|---|
| SEA: | sponsored links |
| SEO: | natural search results |

## Appendix B. Organizational chart



## Appendix C. Respondents within the research

| Respondent/Expert | Internal/ External | Company | Function | Business | Position in relation to Indenty |
|---|---|---|---|---|---|
| Daniël Bos | Internal | Indenty | Software Engineer | Search Engine Optimization | Employee |
| Dennis Sievers | Internal | Indenty | Product Manager | Search Engine Optimization | Employee |
| Marvin Rigot | Internal | Indenty | SEM Consultant | Search Engine Optimization | Employee |
| Matthijs Voskuil | Internal | Student Saxion Hogeschool | former researcher about communication within Indenty | Search Engine Optimization | Former employee |
| Michel Bieze | Internal | Student Universiteit Twente | former researcher about business processes within Gladior | Search Engine Marketing | Former employee |
| Michel Bonvanie | Internal | Indenty | Search Engine Specialist | Search Engine Optimization | Employee |
| Peter Schinkel | Internal | Indenty | Managing Director | Search Engine Optimization | Employee |
| Tom Visser | Internal | Indenty | Operations Manager | Search Engine Optimization | Employee |
| Eduard Blacquière | External | Edwords | One-man business | Weblog/Consultant | Information source |
| Erik-Jan Bulthuis | External | Netters.nl (Weblog) | Blogger | Weblog | Information source |
| Jan Beekwilder | External | Tribal Internet Marketing | Manager New Business Projects | Internet applications | Competitor |
| Jurgen van Kreij | External | Innovadis | Managing Director | Web Concepts | Partner |
| Nico Maessen | External | Search Factory | Managing Director | Search Engine Optimization | Competitor |
| Otto Munsters | External | Bloosem Media | Managing Director | Search Engine Marketing | Competitor |
| Paul Aelen | External | Checkit | Managing Director | Search Engine Marketing | Competitor |
| Peter van der Graaf | External | Search Specialist | One-man business | Consultant | Information source |
| Remon Scheepmaker | External | Gladior | Manager | Search Engine Marketing | Partner |
| Roy Huiskes | External | Onetomarket | SEO Consultant | Online Marketing | Competitor |
| Wolter Tjeenk Willink | External | Traffic Builders | Managing Director | Search Engine Marketing | Competitor |

# Appendix D. Indenty's R&D effectiveness

| Activity | | Indenty's outcomes of activities according to Szakonyi (1994)* | | | | | |
|---|---|---|---|---|---|---|---|
| | | 7) Issue not recognized | 8) Initial efforts are made toward addressing issue | 9) Right skills are in place | 10) Appropriate methods are used | 11) Responsibilities are clarified | 12) Continuous improvement is underway |
| 1) | Selecting R&D | | X | | | | |
| 2) | Planning and managing projects | | X | | | | |
| 3) | Generating new product ideas | | X | | | | |
| 4) | Maintaining quality of R&D process/methods | | X | | | | |
| 5) | Motivating technical people | | X | | | | |
| 6) | Establishing cross-disciplinary teams | | X | | | | |
| 7) | Coordinating R&D and Marketing | | X | | | | |
| 8) | Transferring technology to manufacturing | | | | | X | |
| 9) | Fostering collaboration between R&D and finance | X | | | | | |
| 10) | Linking R&D to business planning | | X | | | | |

* The score of Indenty is given in the table. The explanation is given in the report. The cells with a double line mark the average score on this specific activity found by Szakonyi. He used a sample of 300 companies in 27 different industries.

# Appendix E. Outcomes of the interviews (summarized)

| Respondent/Expert | Eduard Blacquière | Erik-Jan Bulthuis | Jan Beekwilder | Jurgen van Kreij | Nico Maessen | Otto Munsters |
|---|---|---|---|---|---|---|
| **Company** | Edwords | Netters.nl (Weblog) | Tribal Internet Marketing | Innovadis | Search Factory | Bloosem Media |
| **Function** | One-man business | Blogger | Manager New Business Projects | Managing Director | Managing Director | Managing Director |
| **Business** | Weblog/Consultant | Weblog | Internet applications | Web Concepts | Search Engine Optimization | Search Engine Marketing |
| **Position in relation to Indenty** | Information source | Information source | Competitor | Partner | Competitor | Competitor |
| **Sustaining Technology** | Current technology is understandable. Within a few years social media will make technology much more difficult to understand. | SEM will grow in future. SEO must focus on Google next years. Optimization techniques will have success next year, but not for a long period. | Tribal is not only dependant from Google's technology. For them SEO is just a part of their business. The sustaining technology is becoming more difficult because of Universal Search. Although Universal Search and also Personalized Search are not a real disruptive technology, they probably will become this in future. Especially when SEO becomes too complex to understand. | Innovadis is a partner of Indenty and is outsourcing SEO to Indenty. According to him the trend in online marketing is the principle 'no cure, no pay'. SEO should conform to this. | SEO will also be necessary in future. The sustaining SEO technology will also have success in future, but need to be combined with other kinds of online marketing. | Otto sees enough possibilities in the current technology of SEO. Google will determine the market and current SEO techniques will have result in the next years. Therefore it is necessary to capture the influence of social media websites in the search engines. |
| **Disruptive Technology** | In future Google will lose its market leadership. This because of privacy infringement. Search engine technology will not be complete different, but SEO will be very difficult. | Personalized search will change the market. SEO will not be feasible anymore in its current form. SEO will become a consultancy business. | Not easy to determine what the disruptive technology could be, but they think they are prepared for future. Even when SEO will not exist anymore as a specific business, it will not be a big problem for them. | not applicable on this company, because it is outsourcing SEO | Nico sees as a disruptive technology the move to a broader kind of marketing. Companies will only ask for one online marketing advice. SEO will exist, but the role of it will be smaller than it is now. A website need to be organized according to standard descriptions. Current SEO techniques will be less applicable. | A fusion between Goudengids and De Telefoongids can become a competitor of Google. Also social media websites will make SEO difficult. Search engines itself will exist also in future. That market is still quite new, with much opportunities the next decades. A new disruptive technology need to be focused on the contribution of SEO for online marketing. |
| **Operational Effectiveness** | Customer satisfaction is most important. The customer wants to see the return of an investment (ROI) in SEM | Current SEO companies perform well. They conform to the current market demands. | The fit with the market is most important for them. To create a high return for their customers, current processes are continuously improved. The speed of the innovation process is crucial for SEO. The first who understands Universal Search can survive in future. | not applicable on this company, because it is outsourcing SEO | Nico Meassen does not want to corporate much with this research, because Indenty could profit from it. According to the model of De Weerd et al (forthcoming) the organization does work together with the market. Also costs and budgets are related to each other. This is also what there customers expect from Search Factory. | Customer satisfaction and involvement of customers is important. He does have the resources for SEO, but he admits that these could be more. Bloosem can fulfill customer's demands. Beside that they try to have a short product development process. This generates competitive advantage. |
| **Strategic Flexibility** | SEO will be difficult in future. Technology of search engine should be bought by search engines to survive, which is not possible. Therefore competences need to be bought to move business to online marketing | The trend is that search engine marketing will no longer be a separate business. Customers prefer a company which can offer them one online marketing advice. Not all the companies see this. I do not think all the SEM or SEO organizations have the right resources for this development. | Long term developments are analyzed within the company. It is difficult to organize the organization for future SEO developments. Jan Beekwilder expects less possibilities with SEO in future. Therefore more is invested in short term developments. | not applicable on this company, because it is outsourcing SEO | Based on the information he gave the company does not score well on Strategic Flexibility. They offer SEA and SEO but do not like ready for future SEO developments. | The market is continuously analyzed and Bloosem knows what is necessary for future. They develop not only short term SEO techniques, but also long term SEO consultancy techniques. |
| **Open and closed innovation** | Open innovation will make dependency of Google easier to handle. There is no open innovation now. It looks if knowledge is shared on blogs on the internet, but this knowledge is not accurate. After an update of Google it takes mostly weeks before articles are published about the update. Besides this, the shared information is too general for most SEO companies | Having the right knowledge is essential to perform in the business of SEO. His blog is giving quite specific information about SEO. This information comes from experts in the market. Sharing information on blogs is useful in this market. Companies in the business of SEO are working a lot with internet. This is an ideal place to share information. The risk is that some companies try to profit form information without sharing their own knowledge. | Tribal can be considered as closed. Beekwilder thinks Tribal is capable of anticipating on Google Updates themselves, which will create competitive advantage for them. | not applicable on this company, because it is outsourcing SEO | He prefers closed innovation. The only reason is that he thinks a competitor could profit from his knowledge. He thinks they can do SEO themselves and he is not afraid of Google Updates. | Otto prefers closed innovation in this market. He has worked in pharmaceutical industry which was a closed industry. He is afraid of acquisitions in the market. Bloosem has a lot of knowledge inside their company. Competitors will be interested in Bloosem when they get information of the resources inside Bloosem. Bloosem Media has some large organizations as customer. To stay independent you need to develop inside the company. As long as this is possible they will do this. They only share knowledge of SEO with their large customers. These prefer to do SEO themselves. This includes some risks, but this is necessary to bring such customers in. Closed innovation does also support creativity and motivation for the R&D department. For Bloosem's employees the continuously process of capturing the Google Updates themselves is a challenge. |

| Respondent/Expert | Eduard Blacquière | Erik-Jan Bulthuis | Jan Beekwilder | Jurgen van Kreij | Nico Maessen | Otto Munsters |
|---|---|---|---|---|---|---|
| **Co-creation** | It is necessary to design according to the demands of the market. Some companies do not know for whom they are developing. | An innovation process cannot be done without the customer. In future new products need to be consultancy related. These products are less technical oriented than current SEO tools. SEO companies are technical oriented and need to co-create to understand what customer's management wants. | Tribal wants to deliver custom-made services. Co-creation is essential in this. It will also improve the adoption of new products in the market. | He sees advantages of helping Indenty in the development stage. | The innovation process is done internally. Adaptations in SEO techniques are made by their own employees, who follow information on the internet. The services of them are quite standardized. For SEO they do not develop tools like Indenty does. | Co-creation with customers is necessary to make sure they buy your product. The disruptive technology is focusing on consultancy related SEO products. Consultancy asks more information from customers than current SEO technologies do. A problem is that you need to be more open within your innovation process. Competitors will know earlier of your services. |
| **Investing in relations** | Is focusing on existing relations. He writes books and papers for educational purposes. He has no strategy for future relations. | The relations in a network are important because the number of competitors in SEM is increasing. They need to invest in a good relationship. SEO companies need to prepare for future. This will change their social network. | Tribal is a big player in the market. The company has a very large network. For them the relation with the customers remains future revenues. | not applicable on this company, because it is outsourcing SEO | Search Factory does invest in relations. SEO requires a long period to show results. They hope for positive reactions, which creates new customers. So according to the model of Burt (2000), the referrals are considered as important. | A close relation is essential. There innovation process is currently closed. They have resources to stay also competitive in future, but therefore current customers cannot quite the cooperation. Therefore they invest a lot in the relation management. This will hopefully create access and referral with new large customers. |
| **Effectiveness of social network** | He considers a network as very important. The authority of a company/consultant is essential in order to be effective. | Effectiveness of a network means a link between Google's search engine and a customer. This position is essential for Indenty. | Tribal has a diverse network. They have customers in many kinds of businesses. The way these customers are involved in the innovation process is not shared with the researcher. | not applicable on this company, because it is outsourcing SEO | The network looks not fully effective. Nico does not give much information, but there are not clear methods for using the network. | Bloosem has a unique position, because they have a relatively high degree of large customers within their portfolio. This is possible because they found new structural holes soon. Large companies wanted to buy only SEO consultancy. Most companies could only deliver this when this was outsourced to the SEO company. The jumped in this market and solved this 'hole'. |
| **Sharing knowledge** | Is sharing knowledge on his weblog to become an authority in the market. Not specifically for open innovation purposes. | Sharing knowledge is difficult, because there is a lot of skepticism in the market. Trust is an important issue in that. | Tribal does not share information about SEO. They think they have enough resources inside their company. | not applicable on this company, because it is outsourcing SEO | Knowledge is not shared with others, but internally it is. Information from customers is monitored and taken into account in the innovation process. | Knowledge is shared inside their (customer) network, and not outside their (customer) network. Consultancy requires an efficient procedure for sharing information. They try to develop procedures for this. This should contribute new product development. |
| **Relation between Marketing and R&D** | Is doing own research and has no different departments. He has a close contact with his customers. | He has no company and does not deal with the relation between Marketing and R&D | The market determines the R&D process. New SEO services will focus on information about how a website performs in Google. | not applicable on this company, because it is outsourcing SEO | The relation between marketing and R&D is important. A problem is that marketing lacks technical knowledge about SEO. In practice the relation is thin. | In relation to the previous point this point is very important. Especially to remain competitive in future. The integration between both departments need to be improved. Marketing lacks knowledge of R&D and vice versa. |

| Respondent/Expert | Paul Aelen | Peter van der Graaf | Remon Scheepmaker | Roy Huiskes | Wolter Tjeenk Willink |
|---|---|---|---|---|---|
| **Company** | Checkit | Search Specialist | Gladior | Onetomarket | Traffic Builders |
| **Function** | Managing Director | One-man business | Manager | SEO Consultant | Managing Director |
| **Business** | Search Engine Marketing | Consultant | Search Engine Marketing | Online Marketing | Search Engine Marketing |
| **Position in relation to Indenty** | Competitor | Information source | Partner | Competitor | Competitor |
| **Sustaining Technology** | The current SEO market is developing soon. Especially social media makes SEO a more complex process. Current SEO technology is appropriate for the next years, because companies do not even have a strategy for online marketing. New developments like Universal search get more influence in the Google algorithm, but it will not be necessary to adapt current technology to it. It will take years before current tools and services will show no results anymore. | Google's technology remains dominant for the SEO market. New technologies from possible competitors are bought by Google in early stages. He thinks the influence of social media is not a disruptive technology. Websites like Wikipedia and Geenstijl.nl can be manipulated or removed out of the search results. It asks for techniques which are not known for many companies. | Gladior has outsourced SEO to Indenty. Most customers of Gladior want SEO together with SEA. Sustaining technologies should be focused on giving overviews of the Return on Investment (ROI) of a SEO campaign. | SEO need to focus only on Google. Especially technologies to handle the influence of Universal Search are important. | Current SEO technology will no longer be suitable within a few years. The influence of social media websites is responsible for this. |
| **Disruptive Technology** | The future of SEO will depend from the moment companies will focus their marketing strategy on online marketing. This will take probably many years. When they will invest more in online marketing the competition will increase soon and SEO will become very difficult. At that point a new disruptive technology must be ready to survive in the market of SEO. | A lot of opportunities still remain for SEO. Peter is focusing on consultancy and shares his knowledge with companies. While for some companies SEO becomes too difficult, he sees lots of opportunities with current techniques. Some are not appreciated by Google, but the so called 'black hat SEO techniques' remain possible. So for him no real disruptive technology is visible already. | On long term he thinks SEO should contribute to a broader kind of marketing, namely online marketing. Now SEO is serving search engine marketing. The trend will be that SEM will be integrated within online marketing. | SEO need to focus on other aspects. The actual realization of SEO is something companies cannot offer anymore in future. It is doubtfulness if the influence of social media is a disruptive technology, but it can be the final blow of SEO in its current state. The creation of links referring to your website remains important. In future the focus will be on analytic tools, on which Onetomarket is already focusing. | In future SEO techniques will focus on supporting information about rankings in the search engines. For the actual realization of high rankings a company must become an authority in the market. |
| **Operational Effectiveness** | Checkit scores well on product concept effectiveness. They work intensively together with their customers to create a fit with the market. The time to adapt their services after Google updates is quite low. They have in sourced a lot of knowledge. | He operates as a consultant. He has a lot of knowledge and visits seminars and conference all over the world. For the development of standardized tools he lacks the resources. | not applicable on this company, because it is outsourcing SEO. | Onetomarket offers a broader package of online marketing. Customer satisfaction is for them the most important issue. New developments are monitored by the R&D. On the process of SEO they mostly invest in link building. According to them many competitors use improper SEO techniques. Clear project plans support a low development time. | Wolter has clear innovation plans. He sees a connection with the market and competencies as a success factor for the development process. New innovation products are designed according to clear project plans. This enhanced the development time |
| **Strategic Flexibility** | The are continuously monitoring the market. A lot of research is done to capture a new disruptive technology. This is necessary because the SEO market is new and can deliver much opportunities in future. Therefore strategic flexibility is considered as very important. More than it would be in a conservative market in which developments do not follow each other so soon. | He is an authority in the SEO landscape. Search engine marketing will become more important in future and he thinks SEO will always generates business for him, because of his extensive knowledge. | not applicable on this company, because it is outsourcing SEO | Onetomarket has positioned itself for future developments by focusing on online marketing. They have resources for future SEO performance, but will study this more. | Wolter is anticipating on future developments. They are positioning themselves in a position in which they can fulfill future demands on SEO analytic tools. To gather the required resources for this they have chosen for an open innovation strategy, co-creation with their customers and the use of lead-users. The costs of developments are also monitored well. |
| **Open and closed innovation** | Checkit is open in there development process. They want to be an authority in the market. Therefore a lot of research is done and published on their website. They cooperate together with research institutes to conduct some studies. For them open innovation is not only a strategy to examine business opportunities, but also to build a reputation in the market. This creates a lot of web links referring to their homepage on the internet. This contributes a lot to the position of Checkit in Google. The effectively of SEO (results in a high ROI) makes that open innovation can deliver more revenues. | He sells his knowledge about SEO to company's. For some companies his knowledge could be very useful in order to develop new SEO services. Because he is working on his own open innovation can deliver him advantages. This generates more resources for him. | not applicable on this company, because it is outsourcing SEO | Currently Onetomarket develops internally, based on signals of the market. He thinks Onetomarket is capable of developing technologies themselves. As long as you have to resources this remains possible. | The organization from Traffic Builders moves from a closed innovation process to an open innovation process. Being successful in future market you must be an authority in the market. When cooperating with competitors the authority in the market can be improved for the involved companies. Research institutes contribute also to this authority and support a better access with possible customers. For him open innovation supports two goals: 1. taking advantage of each other's knowledge, and 2 creation of authority in the market. This last category will also lead to more links referring to their website. This is essential for their own SEO campaign, now and for future periods. To share knowledge on the internet a knowledge data base on their website is arranged. |

| Respondent/Expert | Paul Aelen | Peter van der Graaf | Remon Scheepmaker | Roy Huiskes | Wolter Tjeenk Willink |
|---|---|---|---|---|---|
| **Co-creation** | Co-creation is useful in the development process. Especially for long term developments, focusing on consultancy. | He has very specific knowledge for the optimization of websites. New SEO techniques are developed by himself. Companies who hire him as a consultant do often not have knowledge to support him with new techniques. They just want high rankings in Google. | He sees advantages of helping Indenty in the development stage. | They developed many products in a close relation with their customers. This supports the sale of the products. Co-creation is a crucial success factor in this. | Co-creation with customers have led to many new products/services which competitors do not have. Especially for long term developments the market is very important. The customers have the marketing knowledge, while most employees within Traffic Builders are technically educated. As lead users their most important customers are chosen. Probably these lead users are not chosen well. After the introduction of a new analytic tool a lot of critical reactions were placed by bloggers. These have a lot of knowledge and could probably be involved in the innovation process. At least the selection of lead users asks for appropriate procedures, which is not the case yet. |
| **Investing in relations** | The network of Checkit is diverse. They focus on end customers and offer a broader package than Indenty does. There customers are involved in the innovation process and the relations with the customers (especially the large customers) need to be maintained. | For him investing in relations is very important in this market. Much more than it was before. Not specifically for innovation purposes. The changing technology in search engines requires many important links to your websites. It is important that websites which are highly ranked by Google (high Page Rank) link to your website. Cooperation with other companies can ensure this. Especially when this links are in the same business (in this case SEO) they contribute a lot to the position in the Google search engine. Open innovation (cooperation with some competitors) can support high rankings when companies link also websites to each other. | not applicable on this company, because it is outsourcing SEO | Investing in relations is necessary. Products need to be tested within their customer network. They need a diverse network to examine the new products. Also for creating links referring to their customer's website and their own website it is very important. | Relations are important for Traffic Builders. Especially for long term developments the customers need to be involved. For short term developments cooperation with competitors could decrease the dependency of Google updates. There objective is to create more access points with customers through referrals on the internet. For them this should enlarge the number of structural holes in their network. Traffic Builders can fulfill these structural holes. |
| **Effectiveness of social network** | There network can be considered as effective. They have a network focusing on short term developments and on long term developments. Besides that they create a lot of referrals by sharing a lot of knowledge on the internet. | The effectiveness of his network could be higher when the network is more used for innovation purposes. Companies like Indenty could profit from his knowledge and he could profit from the resources of Indenty. Because of his authority in the market he has created a lot of referrals in the market. This created new access possibilities in the market. | not applicable on this company, because it is outsourcing SEO | They feel to be quite effective with their network. They have created international access to partners. This is quite unique in the market. Also the implementation of new products in the markets develops well. There network is diverse with many kind of customers, who can be involved in the innovation process. | They are working to build their network around current and future technologies. The change in direction to more a consultancy related business of SEO makes a more diverse network necessary. The products are made for a broader group. They are looking for potential new organizations and institutes to develop become more effective on social network. They want to be a trendsetter in the market on social networking and open innovation. |
| **Sharing knowledge** | Knowledge is transferred within the network by the consultants of Checkit. They have a close relation with the customers. For knowledge transfer outside the network their website is used. Also weblogs on the internet are used. For internal knowledge sharing it is essential that information from customers reach the R&D department. | He operates mainly on itself. The knowledge is shared with his customers in trainings. | not applicable on this company, because it is outsourcing SEO | They share information about SEO on their website and in a book written by them. Internally knowledge sharing is sometimes difficult, because Onetomarket has offices in more European countries. | Knowledge is shared according to standard procedures. Employees who have marketing and technical knowledge are responsible for the bridging of knowledge. |
| **Relation between Marketing and R&D** | The connection between Marketing and R&D is essential. For all new services there must be a need in the market. Signals from the marketing department are therefore monitored. | not applicable on his company, because he has a one-man business | not applicable on this company, because it is outsourcing SEO | The customer is central within the innovation process. The link between Marketing and R&D is important. Responsible R&D coordinators need to make sure information from the Marketing department is gathered. This process is continuously improved. | The relation between both is quite well organized. More sophisticated procedures have led to a situation in which almost all the R&D projects are based on information from the Marketing department or direct signals from their customers. Coordination of R&D projects is the main success factor. This because R&D employees lack marketing knowledge and vice versa. The HRM department is therefore looking for new employees who have experiences in both disciplines. |