Analysing Intranet Search Satisfaction and Findability

A Quantitative Study of Changes in Perception of Organisational Search Satisfaction and Intranet Findability

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Acknowledgements

Abstract

Aside from the fact that intra-organisational networks are centralised platforms and that information publishing is limited to selected employees, organisations find search satisfaction and findability to have reached an average level. As the purchase, development and the implementation of a search tool is an expensive investment for an organisation which strives to improve the organisational search satisfaction and intranet findability, improvement is desired. However, only a small amount of research has been done in the subject of intranets and academia appears to be more concerned with the public web rather than the intranets. This study has attempted to fill this void, by analysing how factors, correlated with organisational search satisfaction and intranet findability, vary over the time frame of three years. In this study we have analysed data provided by a company specialised in search solutions. The data were collected over three years in the form of annual surveys. Analysing this data we have formulated our research question to how specific factors impact the perceived organisational search satisfaction and intranet findability and how the impact changes over time. By limiting the research to the perception of search managers, a term including all roles who are in charge of maintaining the intranet search applications, this study was adapted to an organisational level. This means that the respondents in the surveys used in this study are not end-users but the manager of the search applications. In our conclusions, we present the number of employees, the use of taxonomy and key performance indicators as the three principal factors which create the most significant impact on organisational search satisfaction and intranet findability as well as how satisfaction and findability have varied over time.

Keywords: User Satisfaction, Organisational Size, Key Performance Indicators, Taxonomy, Search Managers, Survey, Search Tools.

Table of Content

1 Introduction

This chapter presents an introduction to our subject, our problem discussion, objective, research question, research scope and the limitations of this thesis along with the definition of the following important terms: search managers, organisational search satisfaction and intranet findability.

1.1 Introduction and Problem Discussion

The Internet is in a state of constant growth, this constant growth has led to an abundance of information available on the Internet. The abundance of information has in turn generated a need for search applications on the Internet, such as Google and Yahoo (Wu & Padgett, 2004). A less studied but very similar phenomenon is transpiring within most modern organisations today in their intra-organisational networks, namely their intranets (Stenmark, 2005a; 2005b). Gerstner (2002) stated that three out of four web servers installed were for intranet purposes. Organisational intranets use web technology within the organisation in order to create internal webs (Gerstner 2002). Stenmark (2005b) points out that the technology used to create organisational intranets is basically the same as the technology used on the Internet. However, according to Stenmark (2005b) the use of intranets by employees differ drastically from the use of the Internet by the general public. Like the Internet, intranets grow organically and are in a state of constant expansion and modification (Bargas-Avila, Lötscher, Orsini & Opwis, 2009).

The intranets solve the organisational problem of how to share information that is important to the employees and the organisation (Scott 1998). However, the Internet did reach a point where the need for search applications had become overwhelming, as pointed out by Wu and Padgett (2004). The organisational intranets reaches a point where search applications becomes a need of the organisation, as pointed out by Stenmark (2005b).

According to Stenmark (2005a) the search applications used in intranets are complex. Combined with the view of Hawking (2004) that implementing search tools within organisations is a costly endeavour, one can state that the search applications available online cannot be used on the intranets and the individual employees cannot buy and maintain search applications of their own. Considering the fact that a search application is an overly expensive purchase for an individual to make as well as integrating the search application to index not only local files on one specific device, but information available within the entire organisation. Therefore the organisational search application needs to be bought and maintained by the organisation.

In this study we explore the views of the **search managers**. A search manager is the employee of an organisation who is in charge of maintaining the intranet search applications. This role does not have a set title across all industries and organisations, therefore we assume the title search manager. Moreover, we also assume that the search manager most likely is a sub-role which stems from the role intranet manager who is the overall supervisor of the intranet.

Extensive studies has been performed in the field of user satisfaction and search patterns regarding search on the Internet (Stenmark, 2005b). However, as pointed out above, less research has been directed to user satisfaction and search patterns regarding search on the intranets. Due to the scarcity of research in intranets and organisational search satisfaction and intranet findability, this study will be of interest both scientifically and practically.

1.2   Objective and Problem Formulation

This study strives to address if and how certain factors impact the organisational search satisfaction and intranet findability in organisations and if and how these impacts vary over time. These factors will be further defined in Chapter 4.2 Definition of Factors. The data we used were from surveys that were distributed over three years, namely 2012, 2013 and 2014. The participants in the surveys consisted of search managers. The demographics of this study are further described in Chapter 4.1 Demographics. The analysis of the survey highlights how certain factors impact organisational search satisfaction and intranet findability as perceived by the search managers. Therefore, our research question is formulated as following.

"How have specific factors impacted the perceived organisational search satisfaction and intranet findability in intranets and how have this impact changed over time?"

As shown in the previous studies, Chapter 2 Literature Review, this area has not been explored to its full potential. In fact, there exists an insufficient amount of research related to this area. We argue that this area is of great interest not only to academia but also to employees associated with search and information management within organisations.

1.3   Research Scope and Limitations

The research scope of this study is defined to organisational use of intranets in the perspective of search managers, which is divided into organisational search satisfaction and intranet findability. Note that organisational search satisfaction will hereafter be referred to as satisfaction and intranet findability will hereafter be referred to as findability.

Our research scope is focused on the perception of the search managers due to the process the company uses to select their respondents. The company which distributed the surveys is active in the field of intranet search applications which narrows our field of study down to intranets within organisations. Our interest sprung from the **search satisfaction** of the search managers regarding search applications and then broadened to what critical factors create satisfaction and findability regarding search applications.

By cooperating with a company centralising in findability and specialising in search solutions, we gained access to a comprehensive contact network with leading vendors to study. Moreover we conducted research compassing the time frame of three years. Conducting a longitudinal study commencing from 2012 to current time of 2014 enables critical examination of changes and varying impact of factors over the past three years.

2 Literature Review

The Literature Review exhibit previous research made in fields related to this study. Previous research about intranet and search applications, findability and intranet and user satisfaction is presented along with a short summary in Chapter 2.4.

2.1 Intranet and Search Applications

The difference between the Internet and organisational intranets is created by the control practised on the organisational intranets (Stenmark, 2005b). The Internet is uncontrolled and anyone with an Internet connection can publish their own webpage whereas the intranets are controlled and, in most organisations, to the extent that only certain members of the organisation are allowed to publish information and create entries. As intranets are applied in a controlled environment it is therefore more difficult to generate an abundance of information. Studies have identified that employees who are not allowed to publish work-related information on the organisational intranet tend to publish this information elsewhere. The employees consult the Internet which allows access to share information. Therefore the employees publish the work-related information in specific forums located on the Internet (Stenmark, 2005b).

Although intranets should be considered as a category of their own as opposed to the Internet, Stenmark (2005b; 2010) points out that they should not be understood as homogeneous information environments, but instead should be observed as systems highly tailored and affected by the organisations that host them. Therefore, one intranet structure can differ immensely from another intranet structure which might create complications when different modules are implemented in an intranet, such as search applications.

2.2 Findability in Intranets

The Information Architecture Institute (2013) defines information architecture as
"*the art and science of organizing and labeling web sites, intranets, online communities and software to support usability and findability*" (n.d.). Furthermore, according to Shieh (2010) referring to Morville (2005a) states that findability precedes usability; people cannot use what they cannot find and that measuring the findability is typically evaluated by usability testing. Morville (2005b) further elaborates on the definition of findability and highlights three statements.

"a. The quality of being locatable or navigable.
b. The degree to which a particular object is easy to discover or locate.
c. The degree to which a system or environment supports navigation and retrieval."

(Morville, 2005b, cap. 1, p. 1)

Stenmark (2010) conducted a study in which a survey regarding intranet usage was distributed to three organisations. The research address findability and among the results three factors were identified. However, the second and third factor are not of interest to this thesis. The first factors indicate that information architecture in an intranet may prove to be an essential quality as a substantial correlation between perceived structure of the intranet and perceived ease of finding information existed. The second factors suggest that different professional groups may use technology differently. The third factor explains that the motive for selecting a particular information source may be gender-related.

Stenmark (2010) discusses the first factor and reveals that menus were identified to be repeatedly utilised in means of finding information on the intranet. Therefore it is suggested that it might prove to be beneficial to establish menus that the organisational employees comprehend. Similarly, encompassing the area of menus and navigation, Etches-Johnson and Baird (2010) studied a redesign project of an intranet. In conclusion, Etches-Johnson and Baird state that feedback and testing from the employees of the organisation after the redesign, proved that a vast improvement can be identified and that content is more findable. The research suggest that content is more findable because of good indexing, site search and consistent navigation.

Similarly to Stenmark (2010), Futterman (2001) also address the notion to make content readily accessible on the public web or enterprise intranet, including but not limited to site design, navigation, content categorisation and search functionality should be observed as the principal objectives of enabling users to find the requested information. Futterman (2001) also issue factors which obstruct the way of enabling content to be findable on intranets, the factors are as following.

- *"Growth in the sheer volume of content plays an important role.*
- *Many pages are not formatted correctly to ensure search accuracy, or they contain coding or plug-ins that are not search engine-friendly.*
- *Some search engines deliver poor results and are difficult to install and administer, or they work fine for a site with a few hundred documents, but simply do not scale to support thousands, hundreds of thousands, or millions of pages.*
- *The decentralized publishing practises of most intranets inherently increase the amount of information chaos."*

(Futterman, 2001, p.37)

2.3   Intranet and User Satisfaction

The term user satisfaction in connection with computers tends to be described as an affective attitude (Bargas-Avila et al., 2009). Bargas-Avila et al. continues to expand this definition by referring to other research authors. Research authors such as Bailey and Pearson (1983) define user satisfaction as the sum of the positive and negative reaction by one individual to a set of factors. Doll and Torkzadeh (1988, p. 261) explain user satisfaction as "*the affective attitude toward a specific computer application by someone who interacts with the application directly*". By referring to Igersheim (1976) and Lucas (1978), Delone and McLean (1992) explain that user satisfaction is associated with attitudes towards computer system and that user satisfaction might be biased by user computer attitudes.

More recent research also suggests user satisfaction as an affective reaction to the respective information system (Fisher & Howell, 2004). Huang, Yang, Jin and Chiu (2004) state that user satisfaction is the most commonly used method to measure the success of information systems such as intranets. Nevertheless, Bargas-Avila et al. (2009) describes research that identifies the factors which user satisfaction rises from as limited.

2.4 Synopsis

Intranets are access limited intra-organisational networks that are not regarded a homogeneous but tailored information environments making them unique in every organisation. Research reveals that findability in intranets is related to how well a system supports navigation and that information architecture may be an essential quality to improve it. However, as no longitudinal study has been performed, there is a defined gap in the earlier research regarding long-term effects or changes. User satisfaction is described as an affective attitude toward the application one is interacting with. However, with very little research it is difficult to expose from which factors user satisfaction rises. This study strives to fill this void, by analysing how factors, correlated with organisational search satisfaction and intranet findability vary over the time frame of three years.

3 Research Methodology

This chapter describes the chosen method, motivates it and conducts a critical examination of the advantages and disadvantages of the chosen method.

3.1 Chosen Method

In this thesis we used a quantitative method to explore our subject. We chose to work with a quantitative method because it provides greater precision as described by Holme and Solvang (1997). Quantitative methods are used when seeking maximum reflection of the quantitative variation. Furthermore, quantitative methods are used when a wide result is desired. In this case, surveys were used to investigate our research question. The surveys provided a high degree of standardisation and structure which is vital when large amounts of data is collected and analysed (Holme & Solvang, 1997).

According to Ejlertsson (2005), the most important aspects to take into consideration when distributing a survey is ethics. As the surveys were distributed by a company in Sweden to companies globally it would have been necessary to take Swedish, European and global rules and regulations into consideration. However, the surveys did not inquire about personal or private nature, nor were the surveys requesting the respondents for any classified information about their companies. Therefore, the surveys were not affected by any Swedish, European or global rules and regulation.

The surveys used to explore the research question were distributed and complied by a company and the data were made available to us for analysing. The first survey was published in 2012 and had been published annually since then. The surveys used in this study were anonymous to us but not to the company that distributed the surveys. This means that we did not have any knowledge of which organisations that participated, but we knew that the organisations partaking in the survey were reliable due to the screening process of the company. In this survey information about specific organisations was used to create a nonspecific notion of which factors that were perceived as vital by the search managers regarding the impact of the factors and how the impact of the factors changed over time.

In order to create a higher level of academic structure we had reformulated the survey used in 2014 which was based on the two previous surveys, namely the 2012 and 2013. This was conducted along with two other students and in close contact with the company. The result was available to us along with the data from the previous surveys published in 2012 and 2013. Furthermore, we had access to the questions from the surveys of 2012 and 2013. The factors defined in Chapter 4.2, Definition of the Factors, were extracted from the reoccurring questions across all three surveys.

The analysis of the surveys were constituted by comparing the differences for the mean, or average, between each group within each factor used in this study. This procedure was repeated for each survey. Furthermore, we compared the differences for the mean of each group between all three surveys. The mean was calculated by using analysis of variance (ANOVA) which revealed whether the changes in one variable were statistically relevant or not.

3.2 Ground for Chosen Method

Surveys are a quantitative method as opposed to qualitative methods, such as interviews or observations. According to Holme and Solvang (1997), quantitative methods reflects the reality through numbers and statistics which have to be analysed and put in context in order to create an understanding of the studied phenomenon. Holme and Solvang (1997) argue that qualitative methods are shaped according to the individual perspectives of the researcher and the appreciation of the studied area. In order to provide scientific ground for this study and retain it as correct as possible, surveys were chosen as our method. Quantitative methods create a cross section of the studied phenomenon, which allows one to implement precise comparisons (Holme & Solvang, 1997). This can be used to identify strong correlations and the extent of the studied phenomenon.

The surveys used in the study were distributed by a company in the industry of search solutions, which makes our impact on the selection of respondents minimal. This means that we did not choose a specific type of organisation to participate in the survey subconsciously and therefore, could not manipulate the respondents or their responses. The fact that a search solution-based company were in charge of the selection of respondents had the effect that the participants were not completely randomised, instead they were constituting a selection that was relevant to our research question (Patel & Davidson, 2011).

3.3 Critical Examination of the Chosen Method

According to Baruch (1999), the most important aspects of surveys used in studies is the **response rate** of the survey. By examining 175 different studies where surveys were used as the method to collect data, Baruch benchmarked the average response rate on 55.6% and the standard deviation on 19.7%. Furthermore, Baruch points out that there was a pattern pointing to a decline in response rates over time.

Baruch (1999) also makes the point that there was a noticeable distinction between surveys directed to individual participants and surveys directed to representatives of organisations. The surveys used in this bachelor thesis were directed to representatives of organisations which might create a lower response rate. According to Baruch, the possible reasons for why organisational representatives did not answer surveys were that (1) they were too busy to respond, (2) they did not consider the survey relevant, (3) the survey was unclear or (4) the policy of the company prevents them to complete surveys which request information about the organisation. Therefore it is of importance to design the survey accordingly.

In a study by Baruch and Holton (2008) it was identified that there was a major difference between the response rate from individuals and from organisations. In this study, which covered surveys with more than 400 000 individual respondents and 100 000 organisational respondents, Baruch and Holton pinpointed that the average response rate from **individuals** was 52.7% with a standard deviation of 20.4%. In contrast, the average response rate from **organisations** was 35.7% with a standard deviation of 18.8%. This proves the earlier theory by Baruch (1999), that organisations or organisational representatives have a lower response rate than surveys directed towards individuals.

Furthermore, Baruch (1999) points out that there was two possible reasons for the intended respondents not to partake in a survey, either they did not receive the survey or they declined to participate in the survey. These two reasons should be considered in order to create a higher

response rate. Therefore, Baruch argues that it is vital to make sure that the survey reaches all the intended respondents and that they realise why the survey is relevant. We could not control these factors because the surveys were distributed and collected by a company. However, the respondents to the three surveys causes such an extensive base of responses that the influence from the above mentioned reasons can be assumed to be low.

Ejlertsson (2005) points out that in order to create a higher response rate one should distribute reminders to the intended respondents who had not responded to the survey. However, Ejlertsson argues that sending more than two reminders will **decrease** the response rate rather than **increase** it. Baruch and Holton (2008) takes this further by stating that **using** reminders were linked to lower response rates when it comes to organisational respondents. The company that distributed the surveys used in this study utilised reminders which were limited to two per survey. This was within the limitation set by Ejlertsson (2005).

According to Baruch (1999), one also had to take into account that out of the responses received from a survey, a possibility of a number of **unusable responses** exists. An unusable response is a response where questions have been ignored without responding. These responses could therefore not be counted towards the response rate. However, Holme and Solvang (1997) argue that incomplete surveys could still be used. Holme and Solvang takes the approach that the questions with exceptionally low response rates could be formulated in a way that makes it difficult for the respondents to fully understand it. In this case, Holme and Solvang argue that it should be the question that should be removed rather than the incomplete responses. Furthermore, Holme and Solvang argues that before analysing the answers from a survey one needs to exclude any neutral replies such as 'Do not know' or 'Not applicable'. In this study we had taken this into consideration and when necessary taken all neutral responses out of the material before analysing it.

The surveys used in this bachelor thesis were provided by a company who distributed them via email and posted the link to the surveys in subject-related forums. Therefore, it was impossible for us to calculate any response rate. It was vital to the study that the number of respondents were high because a portion of the respondents located the surveys and responded voluntarily. Baruch and Holtom (2008) points out that no survey where responding is voluntary would receive a full response. However, one should always aim to create a response rate that is as high as possible. *"Higher response rates lead to larger data samples and statistical power as well as smaller confidence intervals around sample statistics"* (Baruch & Holtom 2008, p. 1141).

According to Holme and Solvang (1997), there was drawbacks to quantitative research methodology such as surveys. They argue that quantitative studies had to be extensive in order to be reliable and that they are too standardised to create any personalisation. However, our research question does not demand any personalisation from the answers and the surveys distributed had the extensive base of respondents as required in order to make it reliable. Even though we could not provide the response rates of the surveys we knew that the 2012 survey had 204 respondents, the 2013 survey had 102 respondents and the 2014 survey had 140 respondents. These numbers were high enough and provided a base that is extensive enough to make our study reliable.

4   Descriptive Results

This chapter presents the demographics of the respondents of the surveys used in this bachelor thesis along with a definition of the factors.

4.1   Demographics

The 2012 survey had 204 respondents, the 2013 survey had 102 respondents and the 2014 survey had 140 respondents, which makes the number of total respondents across all three years 446 respondents which is the number we have based our calculations on in the demographics. There is a possibility that the same respondents have answered recurringly over the three different surveys. Because of the fact that the surveys are anonymous, the same respondent might have been counted 2 or 3 times within the demographics.

71% of the respondents have their headquarters located in Europe, while 20% of the respondents were located in North America. These two continents sum up 91% of the respondents in total. Asia, Africa, Oceania and South America make up the remaining 9% of the respondents. Furthermore 63% of the respondents were employed in the private sector while only 37% of the respondents were employed within the public sector. The industries the respondents were employed in varied greatly as illustrated in diagram 1. Most of the respondents, namely 17%, were employed in the IT industry.
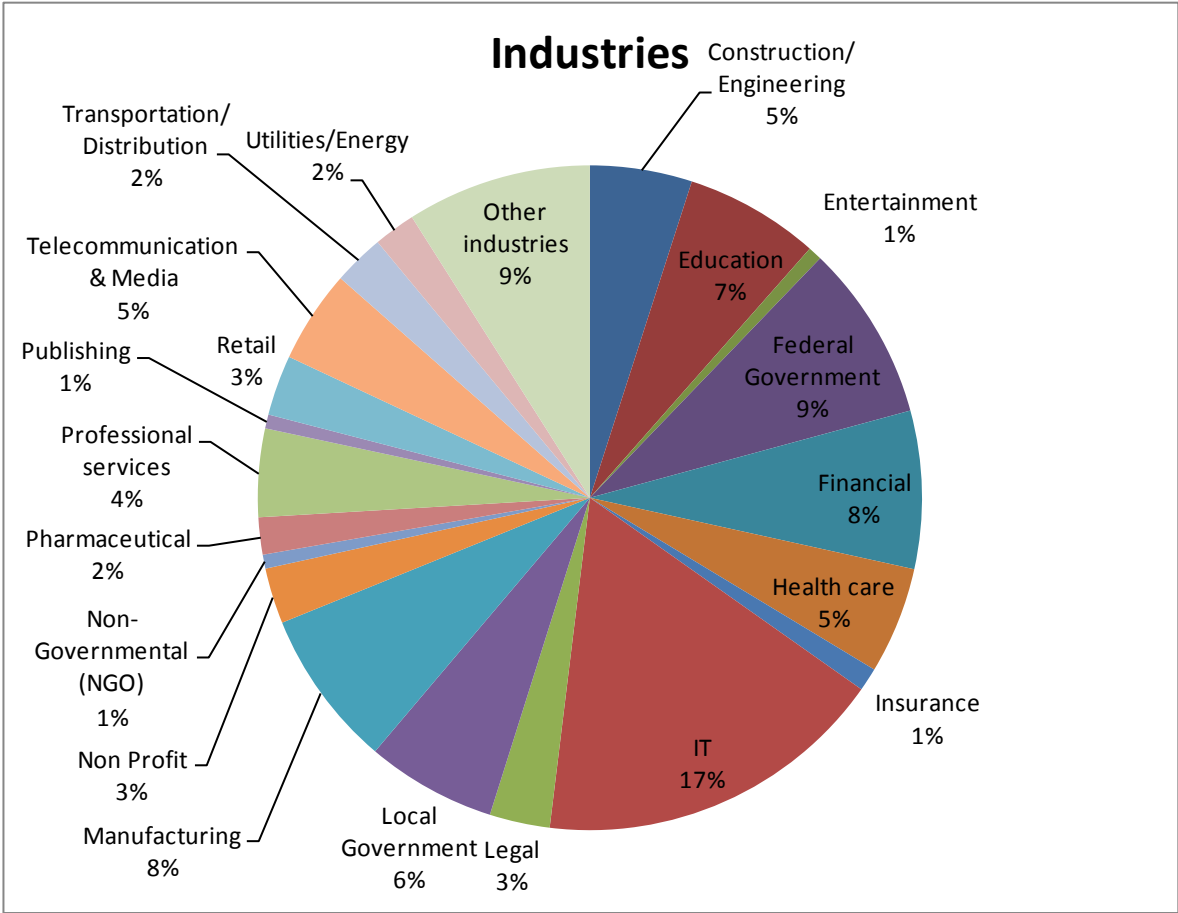

Diagram 1, the industries in which the respondents are employed.

The roles of the respondents were multiple and varied as illustrated in diagram 2. The IT Staff (13%), the IT Consultant or Project Manager (19%) and Communication (13%) make the biggest parts of the respondents.
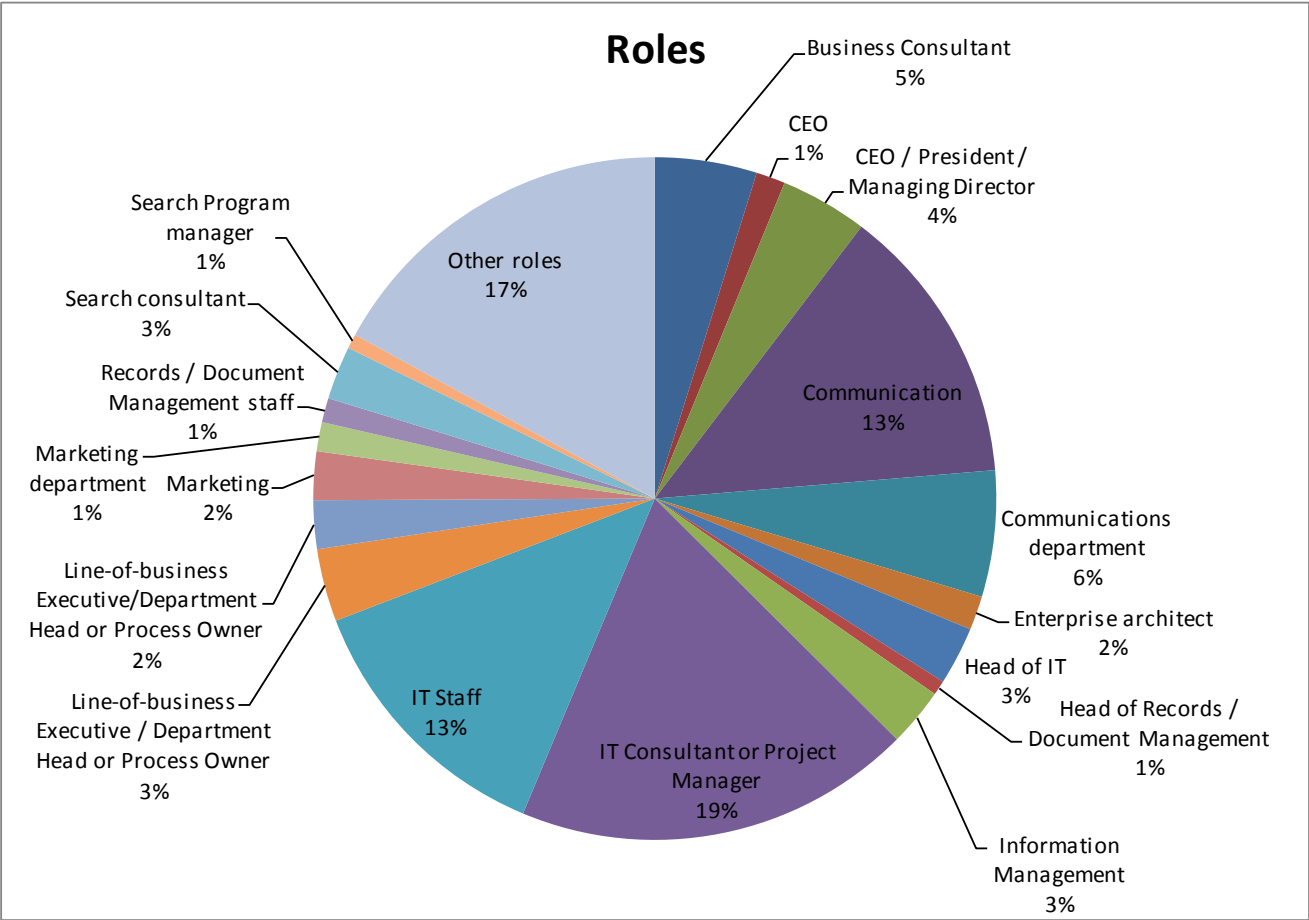

Diagram 2, the professional roles of the respondents.

4.2 Definition of the Factors

Satisfaction and findability were correlated with eight different factors; Budget for Search, Feedback, Full Time Employees (FTEs) working with search, Key Performance Indicators (KPI), Matched Search, Number of Employees, Search Strategy and Taxonomy. These factors are defined below. All factors were divided into multiple groups in order to create different responses which the respondents chose.

- The factor 'Budget for Search' was divided into the groups as following:
  - €0-€50 000
  - €50 001-€100 000
  - €100 001-€250 000
  - €250 001-€500 000
  - €500 001-€1 000 000
  - €1 000 001 or more
- 'Feedback' refers to the possibility for employees to provide feedback regarding search. In this factor the answers could be either 'yes' or 'no'.
- 'Full Time Employees (FTEs) Working with Search' refers to all the employees who work with search in the organisation. However, several people who work with search part-time could only add up to 1 FTE. The responses of the factor were divided into groups as following:
  - 1-2 FTEs
  - 2-5 FTEs
  - 5-10 FTEs
  - 10 or more FTEs
- 'Key Performance Indicators' (KPI) are a type of performance measurement which can be applied to search applications. In this factor the respondents answer if they are using KPI or not.
- 'Matched Search' regards whether the security settings of the search application(s) of the responding organisations match the information policy or not. If the security settings of the search application(s) of the organisations match the information policy the search results may differ between users depending on their access rights. This factor had the responses 'yes' or 'no'.
- The factor 'Number of Employees' regards how many employees are working within the entire organisation. This factor was divided into the following groups:
  - 0-1 000 employees
  - 1 001-5 000 employees
  - 5 001-10 000 employees
  - 10 001 or more employees
- 'Strategy for Search' investigates whether the respondents have a set strategy for search or not. The respondents could answer either 'yes' or 'no'.
- 'Taxonomy' refers to whether the respondents have a way to classify the data available in the organisational intranet or not. The respondents could answer either 'yes' or 'no'.

In this study the factors were correlated to satisfaction and findability for every survey in order to create a notion of whether there was any difference between the different years or not.

5   Analytical Results

We present the results of which factors impact organisational search satisfaction along with the results of which factors impact intranet findability. A Data Overview displaying all analysed data is available in appendix A. Black and white versions of the diagrams are available in appendix B.

5.1   Organisational Search Satisfaction

The data from the organisational search satisfaction did not indicate any substantial variations over time, which reveals that the level of organisational search satisfaction is constant as long as the factors are constant. The data does however present slight indications in some of the factors that would indicate the level of satisfaction is increasing or decreasing and statistically relevant differences between the groups.

In the Budget for Search, most of the groups are uniformed, meaning that the differences between them are very low. However, the group of organisations with the budget between '€100 001 - €250 000' stands out as it displays a different curve than the others as shown in diagram 3 below. The variations within the different groups and between the different groups are too small to be deemed statistically relevant (F= 0.55, p-value= 0.57, F_{CRIT}= 3.04). Note that there is no data available for the group '€ 500 001 - € 1 000 000' from the survey 2014.
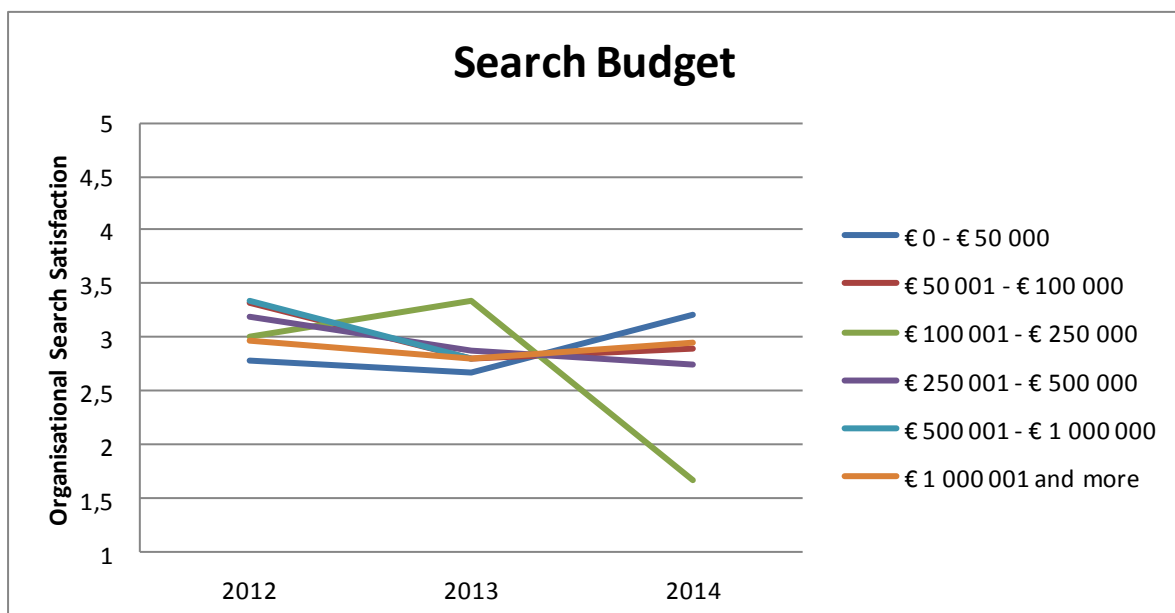

Diagram 3, Search Budget. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

The factor Feedback indicates that the organisations that have a process for users to provide feedback is receiving a lower satisfaction. At the same time the data shows that organisations that does not have any process for users to provide feedback has an increasing satisfaction. These indications are not statistically relevant (F= 0.8, p-value= 0.44, F_{CRIT}= 3.05). However, the indications point to a decrease in satisfaction for the organisations with feedback and an increase in the satisfaction for the organisations without feedback. The data also shows that organisations with feedback have a higher satisfaction than the organisations without feedback. This is illustrated in diagram 4 below.
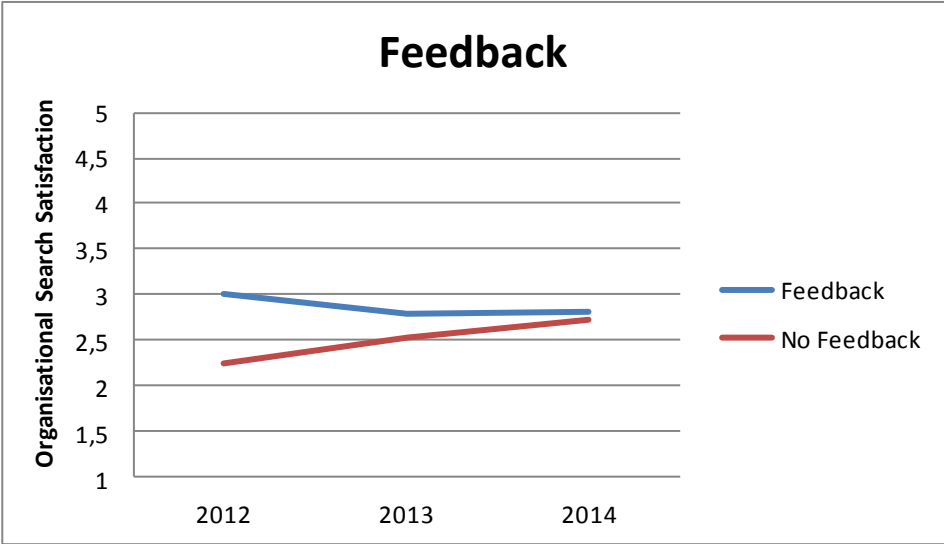

Diagram 4, Feedback. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction

In the factor FTEs Working with Search, the data shows how most of the groups within the factor seems to be developing in the same direction and have a level of satisfaction that remains around average. Although all groups show unstable indications, the group with 'more than 10 FTEs' has a highly unstable level of satisfaction. Even though diagram 5 shows drastic changes in the level of satisfaction in this group it is not deemed as statistically relevant (F= 1.73. p-value= 0.23. F_{CRIT}= 4.25). This might be because the group of organisations with 'more than 10 FTEs' working with search is considerably smaller than the others, which could explain this dramatic outcome.
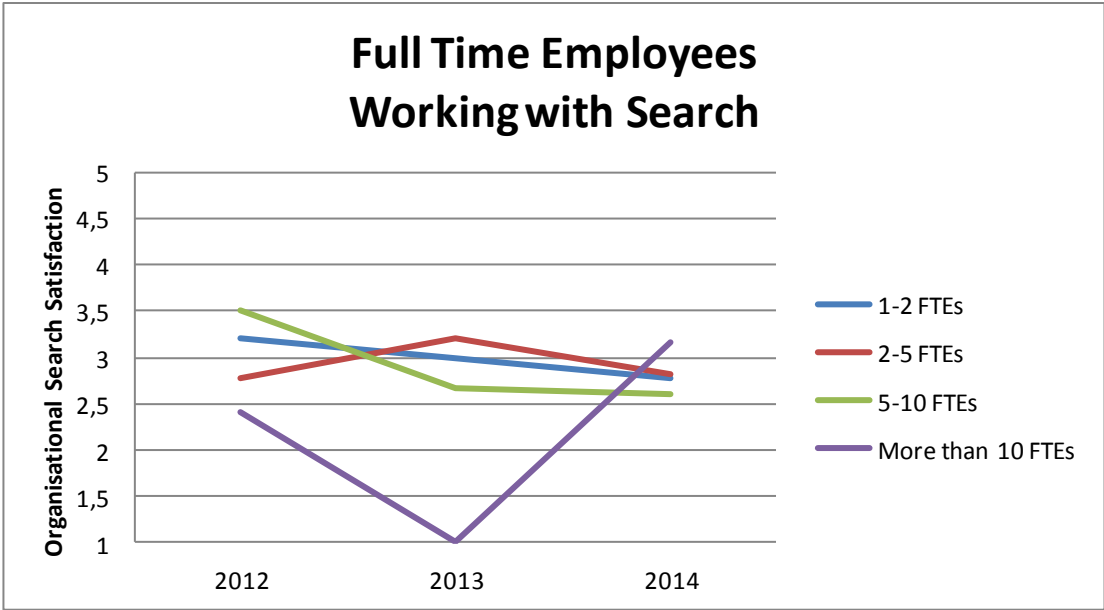

Diagram 5, Full Time Employees Working with Search. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

The factor KPI does not show any indications of increasing or decreasing. As opposed to the previous factors such as FTEs where the factor is unstable, the KPI seems to be showing a steady and stable level of satisfaction which is not increasing nor decreasing. As illustrated in diagram 6 below, the group of organisations with KPI have had a delapse in satisfaction but increased to the same level now as it had in 2012. However, there is a visible difference between the organisations which use KPI and the ones who do not. The organisations which do use KPI have a considerably higher satisfaction than the ones which do not use KPI. This difference is of statistical relevance (F= 14.86, p-value= 0.01, F_{CRIT}= 7.7).
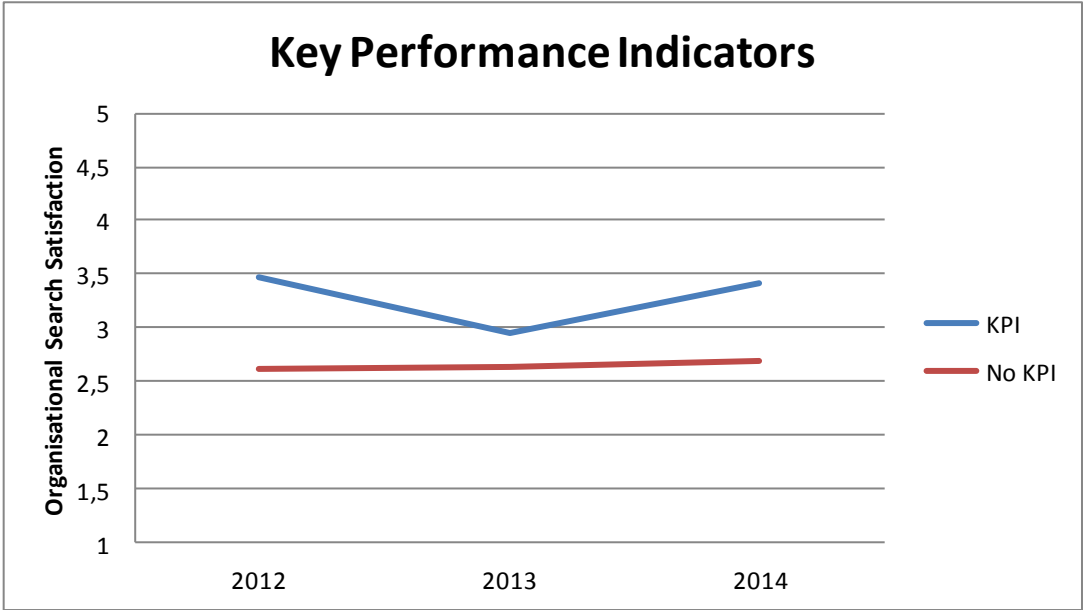

Diagram 6, Key Performance Indicators. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

As the KPI factor, the Matched Search factor displays a steady and stable level of satisfaction in the group of organisations that have matched search. The group of organisations that does not have matched search indicates a slight increase in satisfaction. This increase is too low to be deemed as statistically relevant (F= 2.57, p-value= 2.6, F_{CRIT}= 3.05). The increase has, however, resulted in the level of satisfaction being roughly the same in 2014 regardless of if the organisation has matched search or not. This is displayed in diagram 7 below.

Diagram 7, Matched Search. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

The factor Number of Employees shows a slight variance between the groups but an overall stable development. The '0 - 1 000' employees has a higher level of satisfaction than the other groups as shown in diagram 8 below. This difference is of statistical relevance (F= 21.0, p-value= 0.0003, F_{CRIT}= 4.06). The groups of '0 - 1 000' employees and '1 001 - 5 000' employees indicates that their level of satisfaction is increasing, the group of '5 001 - 10 000' employees indicates that the level of satisfaction is decreasing while the group of '10 001 or more' employees indicate a slightly unstable but an overall unchanged trend.

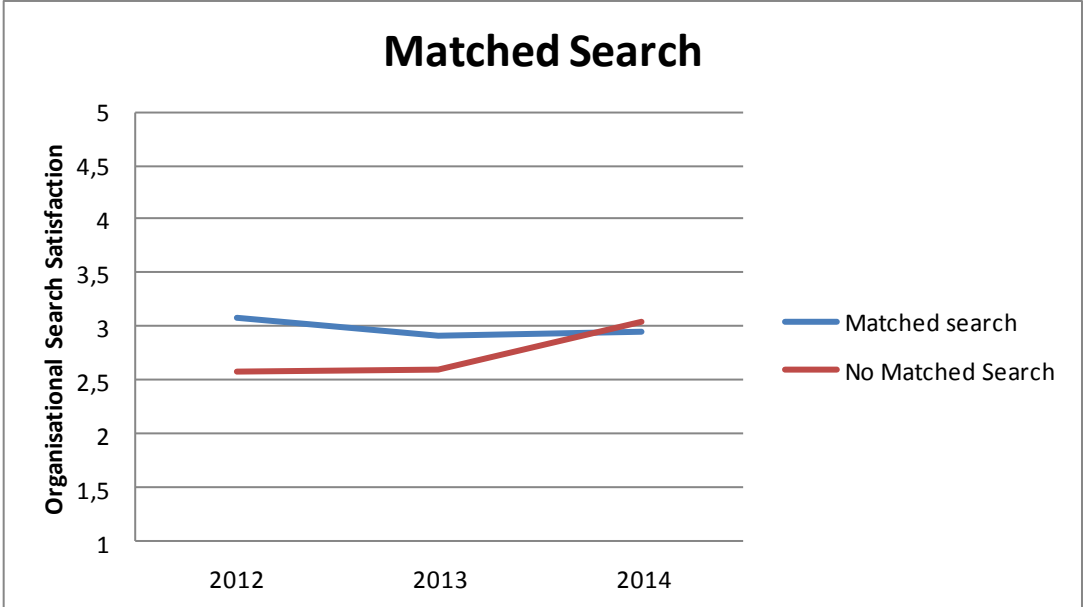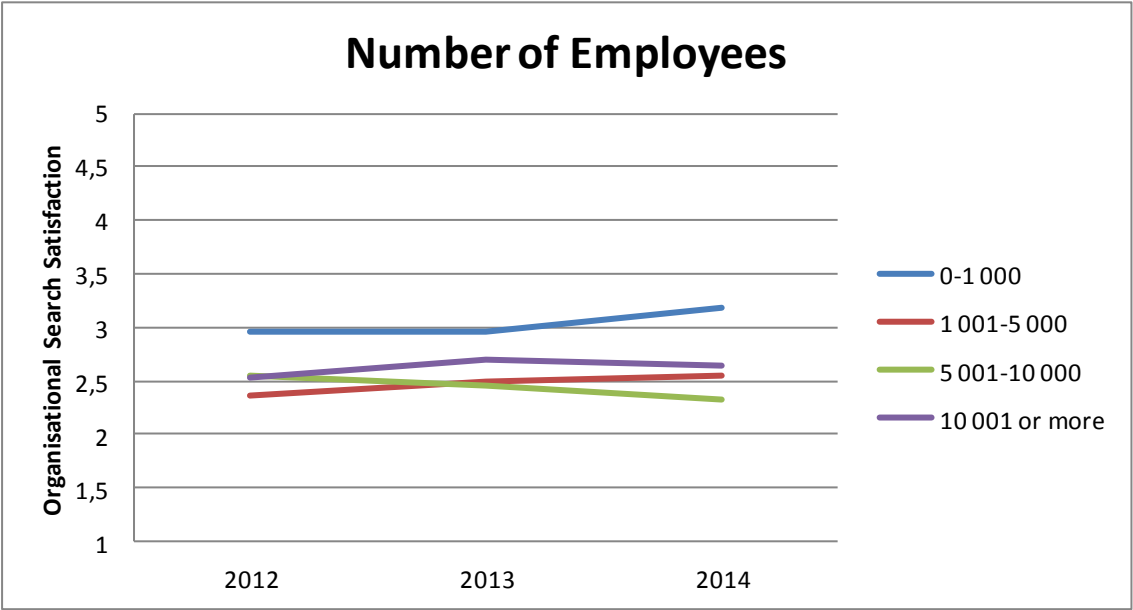**Diagram 8, Number of Employees. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.**

The factor Strategy for Search shows two stable values that do not indicate any increase or decrease in the level of satisfaction. However, there is a clear difference in satisfaction between the group of organisations which do have and the organisations which do not have a strategy for search, as shown in diagram 9 below. This difference is statistically relevant (F= 49.74, p-value= 0.002, F_{CRIT}= 7.7).

Diagram 9, Strategy for Search. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

The factor Taxonomy shows unique indications in this study. In 2012 and 2013 the satisfaction was higher in the organisations with taxonomy, but in 2014 the satisfaction was higher in the organisations that does not use taxonomy. This would indicate that taxonomy was an important factor for satisfaction in 2012 but that over the last two years this importance has faded. This is illustrated below in diagram 10 below.

Diagram 10, Taxonomy. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction.

Diagram 11 below illustrates the overall satisfaction for the three years that were investigated in the surveys used for this thesis. This shows that the overall satisfaction has not increased or decreased but has retained a constant level.

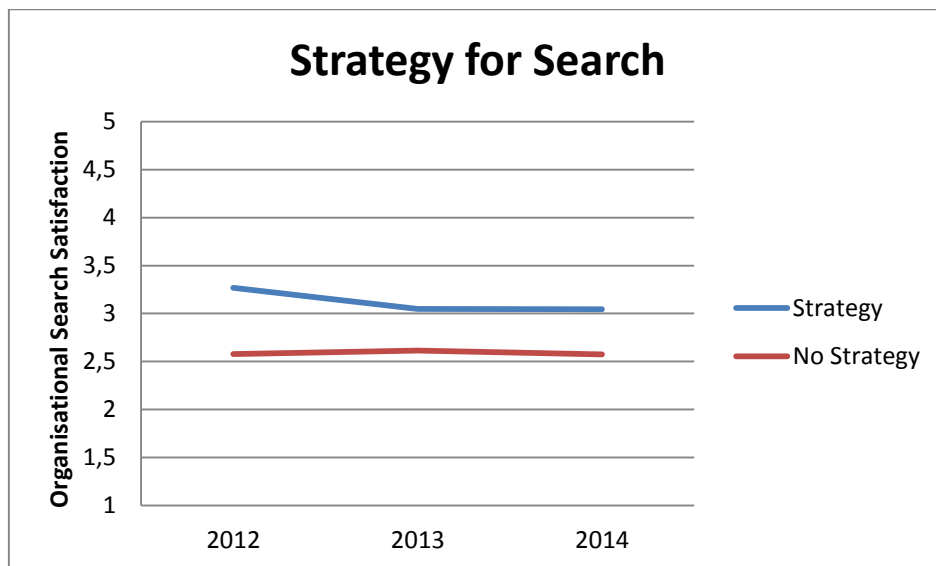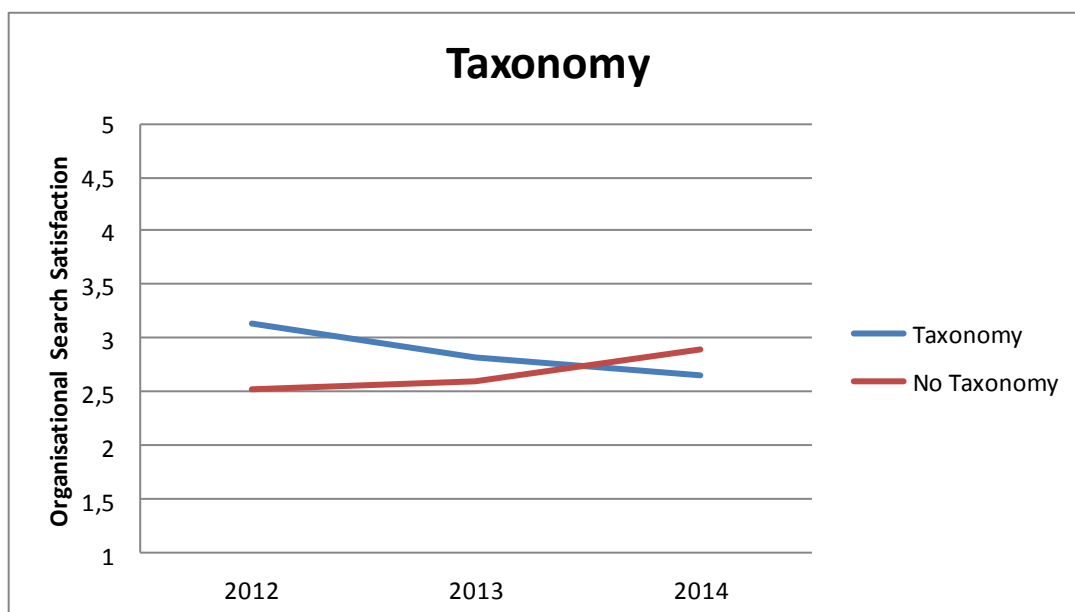**Diagram 11, Organisational Search Satisfaction illustrated across three years. The y-axis indicates the level of organisational search satisfaction where 5 refers to a high satisfaction and 1 refers to a low satisfaction**

5.2 Intranet Findability

The data shows that some of the factors and groups vary drastically when it comes to findability. This indicates that some of these factors are becoming increasingly or decreasingly important for a high findability.

The factor Search Budget shows indications of unstable values in most of the groups, with the exception of the group '€ 250 001 - € 500 000' which shows a stable result over the three surveys. However, the increase in the group '€ 0 - € 50 000' is one of statistical relevance (F= 5.36, p-value= 0.006, F_{CRIT}= 3.09). The other groups do not show any increase or decrease of statistical relevance although the groups of '€ 50 001 - € 100 000' and '€ 1 000 001 or more' show indications of an increasing level of findability. The group of '€ 100 001 - € 250' shows an indication of decreasing as shown in diagram 12 below. Note that there is no data available for the group '€ 500 001 - € 1 000 000' from the 2014 survey.
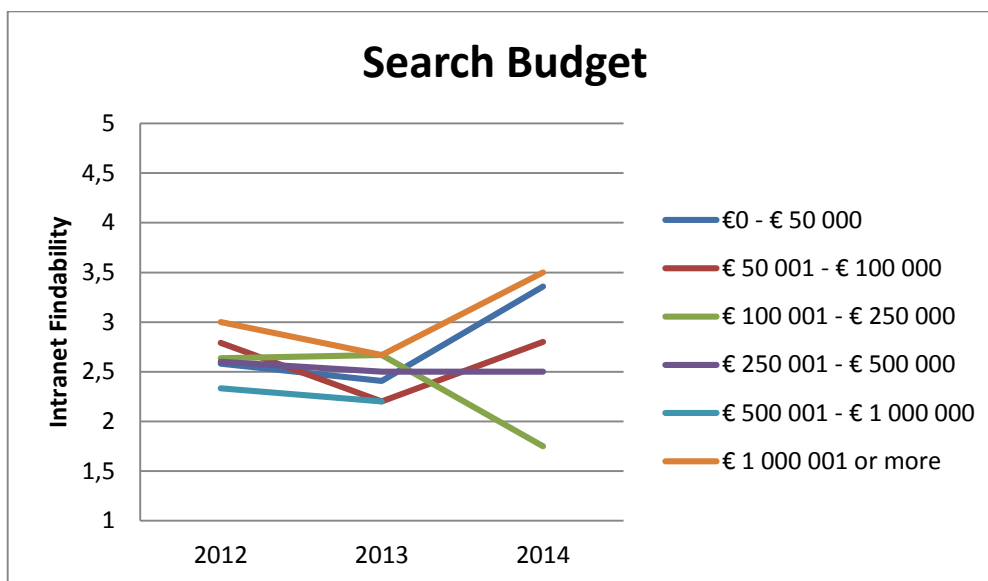

Diagram 12, Search Budget. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability

In the factor Feedback both groups show a statistically relevant increases in the findability as shown below in diagram 13 (Feedback ($F= 7.05$, p-value= 0.001, $F_{CRIT}= 3.18$), No feedback ($F= 6.35$, p-value= 0.002, $F_{CRIT}= 3.05$)). Although the two groups in the factor feedback are very close to each other in their level of findability the data shows that the group of organisations with feedback decreased in findability between 2012 and 2013 and then increased above the level of findability from the first survey in 2014. The group of organisations without feedback shows a steady increase in findability across all three surveys.

Diagram 13, Feedback. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.

The factor of FTEs Working with Search does not show any statistically relevant increase or decrease between the years within one group ('1-2 FTEs' ($F= 1.83$, p-value= 0.16, $F_{CRIT}= 3.06$), '2-5 FTEs' ($F= 1.13$, p-value= 0.32, $F_{CRIT}= 3.16$), '5-10 FTEs' ($F= 1.67$, p-value= 0.21, $F_{CRIT}= 3.59$) and 'more than 10 FTEs' ($F= 2.34$, p-value= 0.15, $F_{CRIT}= 4.25$)). Although the groups were not on the same level of findability in 2012, the groups seems to be on virtually the same level of findability in 2014. The group of 'more than 10 FTEs' indicates an increase in findability above the others. This is shown in diagram 14 below.

Diagram 14, Full Time Employees Working with Search. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.

In the factor of KPI the two groups seem to follow the same pattern, although the group of organisations which has KPI sustains a higher level of findability, as shown in diagram 15 below. The data shows that the increase in findability in the group of organisations which does not have KPI is statistically relevant ($F= 8.2$, p-value= 0.0003, $F_{CRIT}= 3.03$) whereas the increase in findability in the group of organisations which does have KPI is not statistically relevant ($F= 2.25$, p-value= 0.11, $F_{CRIT}= 3.18$). However, the group with KPI displays a higher level of findability than the group without KPI over all three years.

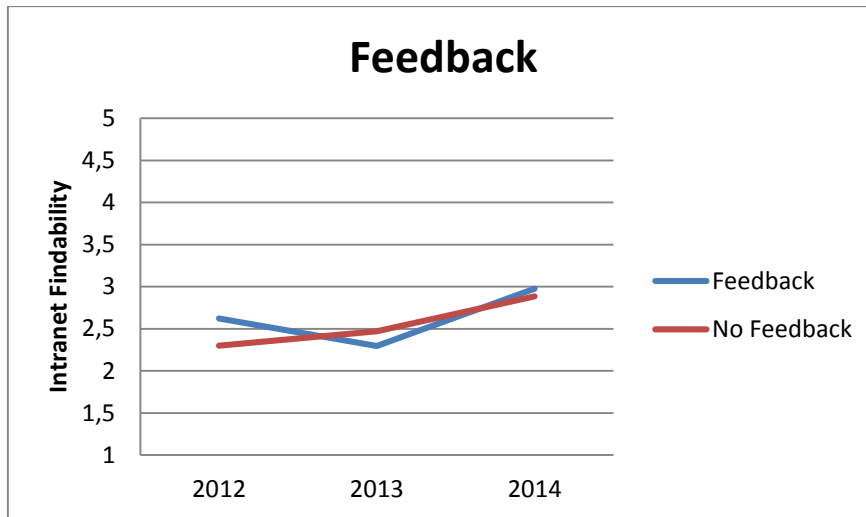**Diagram 15, Key Performance Indicators. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.**

Matched Search displays the same kind of similarities between the groups as KPI. However, in this factor the data suggests that the increase in the group of organisations which does have matched search is statistically relevant ($F= 4.79$, p-value= 0.009, $F_{CRIT}= 3.06$) whereas the increase in the group of organisations which does not have matched search is not statistically relevant ($F= 3.04$, p-value= 0.05, $F_{CRIT}= 3.21$) as shown in diagram 16 below.

Diagram 16, Matched Search. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.

The factor Number of Employees shows that all groups, except the group of '5 001 - 10 000' employees, have an increase which is statistically relevant ('0-1 000' (F= 4.16, p-value= 0.01, F_{CRIT}= 3.06), '1 001-5 000' (F= 3.78, p-value= 0.02, F_{CRIT}= 3.13), '5 001-10 000' (F= 1.2, p-value= 0.3, F_{CRIT}= 3.18) and '10 001 or more' (F= 6.98, p-value= 0.001, F_{CRIT}= 3.0)). The group of organisations with '5 001 - 10 000' employees levels out and does not indicate the same kind of increase as the other groups does. As shown in diagram 17 below, the group of '0 - 1 000' employees have a higher level of findability than the remaining groups.

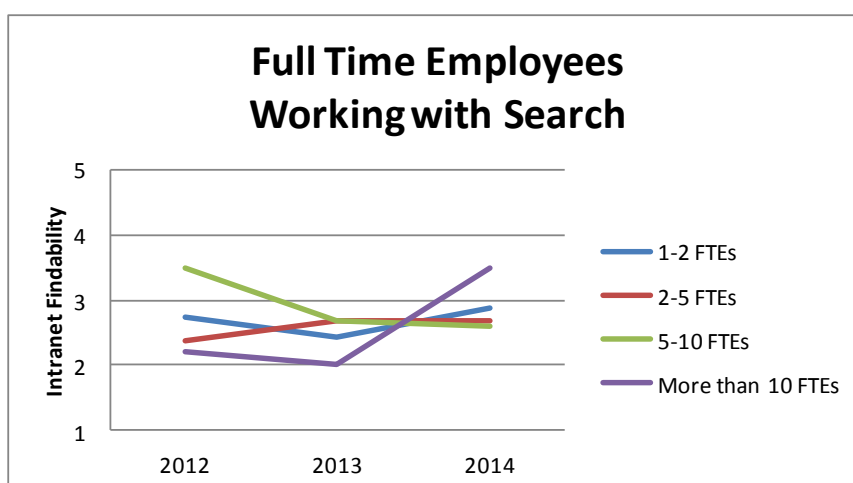**Diagram 17, Number of Employees. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.**

In the Strategy for Search the data displays the same phenomenon as in KPI. Although the two groups seem to follow the same pattern, as shown in diagram 18 below, the increase in findability is only statistically relevant (F= 4.45, p-value= 0.01, F_{CRIT}= 3.0) in the group of organisations that does not have a strategy for search. Despite this it is important to note that the group of organisations which does have a strategy for search has a higher level of findability.
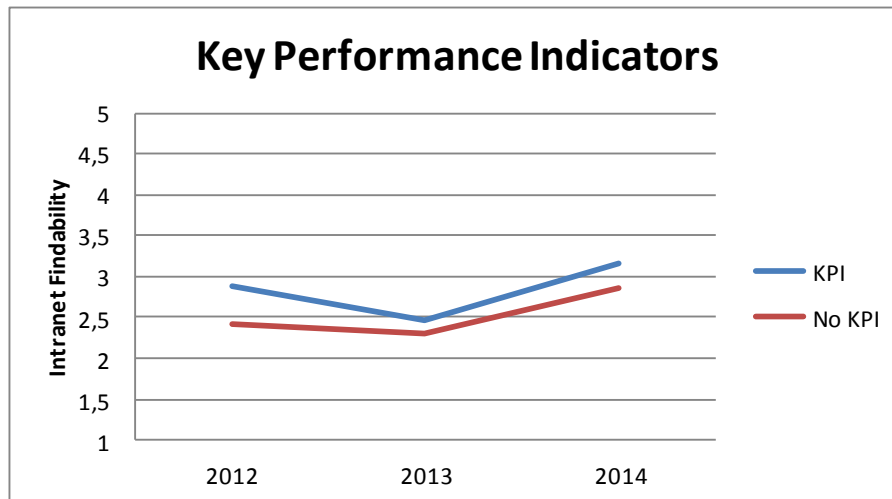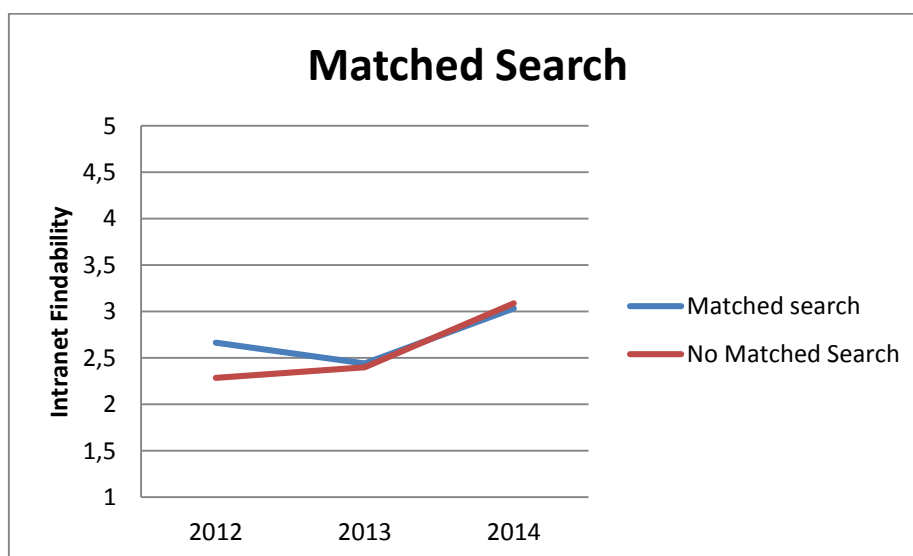

Diagram 18, Strategy for Search. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.

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The factor Taxonomy regarding the level of findability shows the same kind of curve as Taxonomy regarding satisfaction, as shown in diagram 19 below. In this case the increase in the group of organisations which does not use taxonomy is more drastic and statistically relevant (F= 12.97, p-value= 5.64, F_{CRIT}= 3.0). This would suggest that taxonomy had an important impact on findability in 2012 but over the last two years this impact has faded.
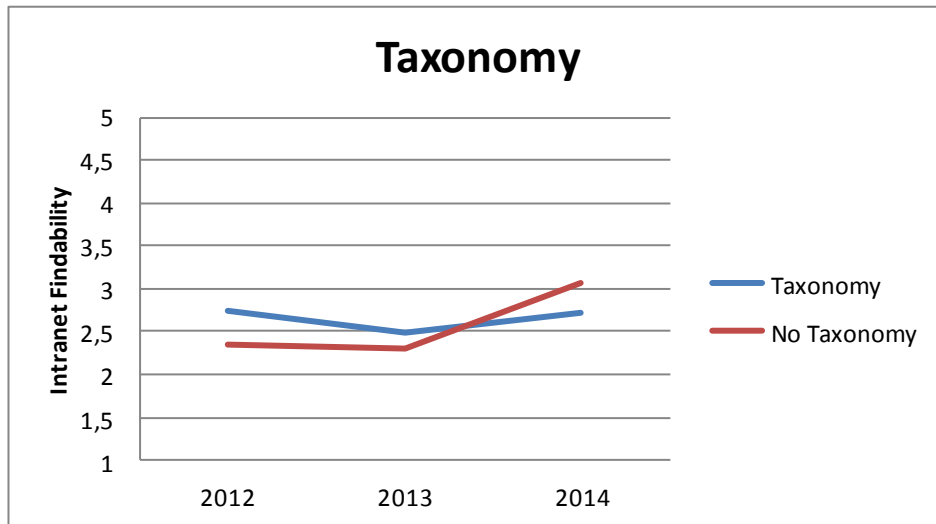
Diagram 19, Taxonomy. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.
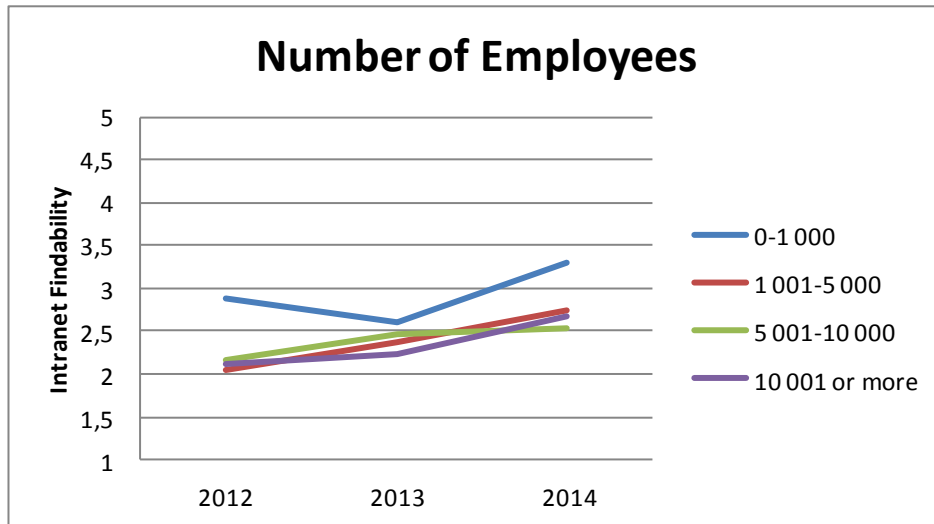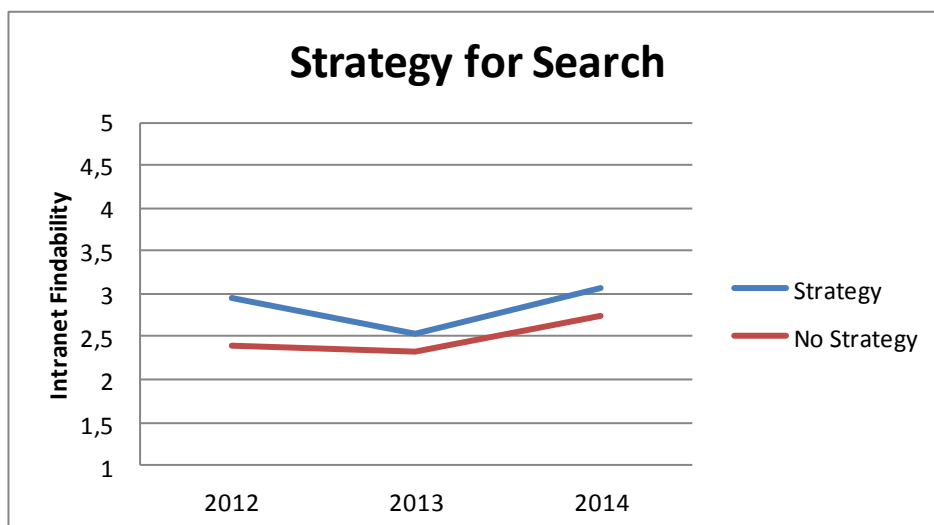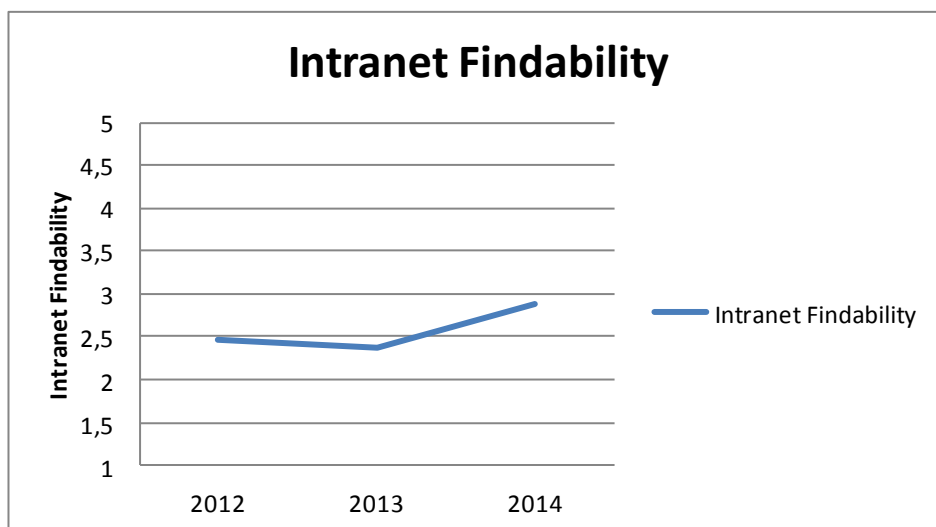

Diagram 20, the overall Intranet Findability. The y-axis indicates the level of findability where 5 refers to a high findability and 1 refers to a low findability.

As shown in diagram 20 above, the overall findability has increased since 2012. This increase in overall findability is statistically relevant (F= 10.3, p-value= 4.35, F_{CRIT}= 3.0).

6 Discussion

In this chapter we discuss the Literature Review chapter. Subsequently we discuss the different factors in reference to organisational search satisfaction and intranet findability in the order of importance, namely the factors that show the most significant impact.

6.1 Discussion of the Literature Review

The Literature Review Chapter is compendious because of the scarcity in previous research. A number of researchers have outlined that insufficient material in this field of research exists. Bargas-Avila et al. (2009) explicitly state that little research exists that identifies from which conditions user satisfaction arises. Stenmark (2004; 2005b) also mentions that it appears that the research community is more drawn to web-related studies, rather than the intranet. Stenmark then subsequently provides two plausible reasons why academia direct less attention to intranet-related studies. (1) As the Internet is an open network and accessible by everyone with an Internet connection, conducting research related to the web is uncomplicated. Whereas complication might arise due to the defensive stance of the organisations of their stored information. The researcher will have to establish a relationship with the organisation in order to gain access. Additionally, (2) the intranet differs from the web, both the content and the usage.

In his studies, Stenmark (2004; 2005b) argues that intranet usage and attitudes differ from the Intranet and further mentions that this has eluded academic interest. This fact alone accounts the reason for insufficient research in this field as the research community had assumed that no difference exists between the intranet and the Internet.

6.2   Organisational Search Satisfaction

The level of satisfaction is decreasing over time in the group of organisations which uses taxonomy. However, the level of satisfaction is increasing over time in the group of organisations which does not use taxonomy. The increase of satisfaction in the group which does not use taxonomy and the decrease of the satisfaction in the group which use taxonomy can be interpreted as a decline in use of taxonomy. This might be because organisations might have chosen another method other than taxonomy which would explain the increase of satisfaction in the group of organisations which does not use taxonomy.

The level of satisfaction is increasing in the group of organisations which does not use KPI. In the group of organisations which does use KPI the satisfaction has decreased and increased again in 2014. The difference between organisations with and without KPI is of statistical relevance (F= 0,1. p-value= 0.89, F_{CRIT}= 3.03) outlining a statement that organisations with KPI have a higher level of satisfaction. The decline in the level of satisfaction in 2013 for organisations with KPI is noticeable. The respondents remained fairly consistent throughout the surveys for the question inquiring about KPIs. Meaning that there are significantly more responses from organisations that do not use KPIs and fewer from those that uses KPIs across the surveys. This result stresses that by using KPIs a higher level of satisfaction might be secured, but this is still questionable as more organisations that does not use any KPIs reported an adequate level of satisfaction. More research should be directed towards this phenomenon to further confirm this result as a factor that impacts satisfaction.

All groups within the FTEs are showing indications of declining in satisfaction, although the decline is minimal. In the case of FTEs and satisfaction, it remains evident that the two different groups, namely '1-2 FTEs' and 'more than 10 FTEs', resided on an average level of satisfaction. Placing aside the fact that fewer responses were received in 2013 from organisations with more than 10 FTEs, interestingly, these organisations reported a low satisfaction in 2012, and in 2014 they reported a level of satisfaction surpassing all other groups of organisations. One could argue that organisations with a higher number of employees need a higher number of FTEs working with search. However, this might be false in the case where all FTEs are working within the same department of the organisation. Due to the limitations of this study we cannot present a definitive answer.

With a statistical relevance of (F= 0.31, p-value= 0.86, F_{CRIT}=3.47) in the difference between the number of employees, our data implies that the lower the number of employees in the organisation, the higher the level of satisfaction will be. Continuing on and applying the argument raised with satisfaction and FTEs in an organisation, with slight alterations, the lower the number of employees the easier it is to provide satisfaction. Although, organisations with '10 001 employees or more' experience a higher level of satisfaction than the remaining organisations, with the exception of the organisations with '0 - 1 000' employees. This might be because of having various offices scattered around the world. We do not suggest that an organisation have to discharge 90% of their employees to improve satisfaction, but that our data shows that by possibly having several departments where the employees are distributed might improve satisfaction. The notion that organisations with a lower amount of employees generate less amount of information also exists and could be a valid counterargument. However, organisations with '10 001 or more' employees reports a higher level of satisfaction than the other remaining organisations, again with the exclusion of the organisations with '0 - 1 000' employees.

As diagram 9, on page 18, exhibit a statistical relevance (F= 49.74, p-value= 0.002, F_{CRIT}= 7.7) existing between organisations with and without a search strategy in such fashion that a search strategy improves satisfaction. We reason that a search strategy does in fact impact and elevate the level of satisfaction within an organisation.

The organisations which have matched search are declining in satisfaction over the years but show indications of regaining some satisfaction. However, the organisations which do not have matched search show an increase in their level of satisfaction over the three years. The data reveals that organisations without matched search are benefitting a slightly higher level of satisfaction in 2014. Although organisations with no matched search experience this, a higher satisfaction might be secured for organisations without matched search. As the respondents are fairly consistent and an unusually high number of responses in 2014 from organisations with matches search enhances the possibility of matched search causing dissatisfaction rather than satisfaction. However, further research is necessary to justify this reasoning.

The organisations which use feedback are declining in their level of satisfaction as opposed to the organisations which do not use feedback. Our data manifests an increasing level of satisfaction for organisations without a process to provide feedback. Even with this indication, this is not deemed as statistically relevant (F= 2.85, p-value= 0.06, F_{CRIT}= 3.0). This might however point to a future trend where user feedback is no longer vital to create satisfaction. According to Etches-Johnson and Baird (2010) feedback from the employees after a redesign implementation proved vast improvement. As the systems are patched and maintained and in this sense develop, the need for a process to provide feedback become extensive. This might be the reason for feedback displaying a decline in impact on satisfaction.

Although all groups of budget for search are declining in satisfaction between 2012 and 2013, they are regaining their level of satisfaction between 2013 and 2014. As we identified in Chapter 5, Analytical Results, a noticeable decrease of satisfaction can be identified in organisations with a budget between '€ 100 001 - € 250 000'. The reason is that less responses from this group of organisations were received in the 2014 survey. Aside from this group, organisations appear to be on an average level of satisfaction regardless of budget intended for search, even though the budget '€0-€50 000' differs from the rest showing a higher level of satisfaction.

The data concludes that in general, satisfaction is not improving immensely. A raise in satisfaction can be identified from 2013 to 2014, but a meagre one. A possible reason for this outcome could be what Bargas-Aavila et al. (2009) were implying, that there exists insufficient research conducted on from which factors user satisfaction rises. This implies that additionally fewer research has been conducted in organisational search satisfaction related to intranets and from which factors the organisational satisfaction rises. The organisations cannot improve search satisfaction if there is no study highlighting how and if certain factors impact the organisational search satisfaction in their organisational environments.

6.3   Intranet Findability

The organisations which use taxonomy display the same curve as the organisations which do not use taxonomy. Both groups are retaining a steady level of findability with an indication of increase. Taxonomy might be considered as a non-impacting factor of findability. The 2012 and 2013 survey indicate that utilising taxonomy creates a low findability. The survey in 2014 reports that utilising no taxonomy is most effective towards a high level of findability with a statistical relevance (F= 12.97, p-value= 5.64, F_{CRIT}= 3.0). Interestingly, organisations without taxonomy dominated the responses underlining that taxonomy might not improve findability. Yet again, as discussed in Chapter 6.2 Organisational Search Satisfaction, it is possible that organisations turned to other methods which improved their findability. Unknowingly which methods these organisations invested in, further studies are vital to address and shed light on taxonomy related to findability.

The group of organisations which does use KPI and the group of organisations which does not use KPI show the same curve in findability, with a delapse in 2013 which is regained in 2014. The readings of KPIs perceived in Chapter 6.2, Organisational Search Satisfaction, is evidently similar to the readings found in findability. Findability for organisations without KPI appears to be unstable. However, as organisations without KPI dominated the amount of responses, it is plausible to conclude that does not improve findability. If there would be an equal amount of responses from organisations with or without KPI, we might have witnessed a similar findability level, highlighting that some organisation benefit while others do not.

In contrast to satisfaction and number of employees, the readings identified on findability appear to be promising, in clearly stating that the fewer the employees the better the findability. This in conclusion might imply, similarly to what Futterman (2001) describes, as information in existence is of little size in comparison to organisations with more employees, findability is significantly improved.

All groups in FTEs achieved the same level of findability in 2013 and indicate a slight increase in findability in 2014. The organisation with 1-2 FTEs dominated the response amount, stating that they have an average level of findability. As can be observed in diagram 14 on page 21, organisations with more than 10 FTEs reported a findability level over organisations with 1-2 FTEs. It is indicated that having a very low amount of FTEs or a very high amount of FTEs generate the highest findability. However, this might relate to the size of the organisations. Organisation that have 1-2 FTEs might be able to coordinate these employees more effectively and this might be an outcome of such statistics.

From the perspective of diagram 12, on page 20, it can be declared that the higher the budget an organisation applies to search, the higher the findability the organisation will have. However, this might depend on the fact that only two responses from organisations with a budget of '€ 1 000 001 or more' replied. Although they stated that findability is high, the validity of their response is questionable due to the low number. In contrast, the findability level received from the organisations with a budget of '€ 0 - 50 000' is reliable as the number of responses from these organisations dominated the budget question in the 2014 survey. The reason for spending a minimal budget and still create high findability is beyond this research paper. Furthermore, the data describes that both organisations with a low budget and a reasonably high budget can achieve adequate findability.

Findability responses in relation to feedback stress the notion that feedback both can and cannot establish findability. Identical to satisfaction, feedback might not prove to be a vital ingredient to improve findability. This might depend on the same thing as in satisfaction related to feedback. As mentioned in Chapter 6.2 Organisational Search Satisfaction, the reason for the use of feedback showing a decline might be because of what Etches-Johnson and Baird (2010) stated.

Both groups within matched search show a steady increase in findability over the three years. The increase in findability in the organisations with matched search are of statistical relevance (F= 4.79, p-value= 0.009, F_{CRIT}= 3.0). The organisations without matched search displays a level of findability which is higher than the findability within the organisations which have matched search. Organisations with matched search have far more responses throughout all surveys, securing that it is likely that matched search does improve findability.

In the factor of Strategy for Search both groups show a delapse in 2013 which is regained in 2014 in their level of findability. Similar reading as with KPI related to findability is exhibited in search strategy. Organisations report a fairly high findability even though no search strategy is in place. These readings are of statistical relevance (F= 4.45, p-value= 0.01, F_{CRIT}= 3.0) and indicate that a search strategy is not a necessary element to consider as an impacting factor of findability.

The overall satisfaction has improved since 2012. Be that as it may, intranets are rapidly increasing in the organisational sector (Gerstner 2002) and with it technology. Interfaces might have become more interactive and the information architecture might have become more structured, as Stenmark (2010) discusses to be an essential quality found in the intranets today, adjusted to satisfy the users. This should answer the improvement of findability in 2014, even though seeing from previous years the improvement is unstable but steadily increasing.

7   Conclusions

How have specific factors impacted the perceived organisational search satisfaction and intranet findability in intranets and how have this impact changed over time? We have concluded that there are several factors that impact the perceived organisational search satisfaction and intranet findability and that this impact varies over time. The factors number of employees, use of taxonomy and Key Performance Indicators (KPI) are the three principal factors which create the most significant impact on organisational search satisfaction and intranet findability.

Our result identifies that organisations with a fewer number of employees possess a higher level of satisfaction and findability. Organisations with more employees could distribute the employees across several departments as opposed to congregating the employees in one department to create a higher level of satisfaction and findability. Organisations without taxonomy will experience a higher level of satisfaction and findability in difference to organisations with taxonomy. A plausible reason for this is that the organisations without taxonomy have identified a corresponding method for indexing content that is superior to taxonomy. The use of KPIs might secure a higher level of satisfaction and findability. However, more research should be directed towards this phenomenon to confirm this result of KPI as an impacting factor of satisfaction and findability. Overall the result displayed that satisfaction had a scant increase whereas findability had increased significantly over the last three year.

Research reveals that findability in intranets are related to how well a system supports navigation and that information architecture may be an essential quality to improve it. User satisfaction is described as an affective attitude toward the application one is interacting with. However, very little research shows from which factors user satisfaction rises. This study has attempted to fill this void, by analysing how factors, correlated with organisational search satisfaction and intranet findability vary over the time frame of three years.

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9 Appendix

9.1 Appendix A, Data Overview

Respondents

Respondents			
	2012	2013	2014
Budget for Search			
0-50 000	50	32	14
50 001-100 000	19	5	10
100 001-250 000	11	6	4
250 001-500 000	5	8	4
500 001-1 000 000	3	5	0
1 000 001 or more	1	3	2
Feedback			
Feedback	77	51	43
No Feedback	48	34	78
FTEs Working with Search			
1-2	100	62	76
2-5	60	15	16
5-10	8	6	6
More than 10	5	1	6
KPI			
KPI	17	22	13
No KPI	111	59	89
Matched Search			
Matched search	48	34	60
No Matched Search	14	10	22
Number of Employees			
0-1 000	94	27	48
1 001-5 000	24	17	34
5 000-10 000	27	15	15
10 000 or more	56	43	43
Strategy for Search			
Strategy	26	21	47
No Strategy	97	69	64
Taxonomy			
Taxonomy	45	33	46
No Taxonomy	76	43	63
Total Number of Respondents	**204**	**102**	**141**

Organisational Search Satisfaction

Satisfaction Anova				
	F	*p*-value	F_{CRIT}	Relevance
Budget for Search				
0-50 000	1,327775954	0,270097039	3,09543275	No
50 001-100 000	0,746379193	0,482408	3,304817	No
100 001-250 000	2,105263158	0,154290389	3,633723468	No
250 001-500 000	0,428870658	0,659518073	3,738891832	No
500 001-1 000 000	0,138613861	0,872895514	4,737414128	No
1 000 001 and more	0,138613861	0,872895514	4,737414128	No
Feedback				
Feedback	0,809145244	0,446997167	3,050787008	No
No Feedback	2,852362796	0,060781342	3,055161773	No
FTEs Working with Search				
1-2 FTEs	2,105208147	0,126224169	3,070512156	No
2-5 FTEs	1,458823009	0,241526282	3,168245967	No
5-10 FTEs	1,908256881	0,180610018	3,633723468	No
More than 10 FTEs	1,732686981	0,230896521	4,256494729	No
KPI				
KPI	1,531583774	0,226570656	3,190727336	No
No KPI	0,108462426	0,897254634	3,031773101	No
Matched Search				
Matched Search	0,357709364	0,699932205	3,0627004	No
No Matched Search	1,089821488	0,345818798	3,225683842	No
Number of Employees				
0-1 000	0,508777159	0,602378	3,063204	No
1 001-5 000	0,224976035	0,799174	3,142809	No
5 001-10 000	0,191399785	0,826457	3,199582	No
10 001 or more	0,234920193	0,790982215	3,068689	No
Strategy for Search				
Strategy	0,535250714	0,587416441	3,100068639	No
No Strategy	0,03304582	0,967499	3,036897906	No
Taxonomy				
Has Taxonomy	2,253264948	0,10963512	3,074447264	No
No Taxonomy	2,195239198	0,1144968	3,049468448	No
Satisfaction Overall				No
Satisfaction	0,102264552	0,902815	3,019349	No

Satisfaction Mean				
	2012	2013	2014	Indication
Budget for Search				
0-50 000	2,78	2,677419355	3,214285714	Unstable
50 001-100 000	3,315789474	2,8	2,9	Unstable
100 001-250 000	3	3,333333333	1,666666667	Unstable
250 001-500 000	3,2	2,875	2,75	Decrease
500 001-1 000 000	3,333333333	2,8	-	Insufficient data
1 000 001 or more	4	2,666666667	3,5	Unstable
Feedback				
Feedback	3	2,8	2,804878049	Unstable
No Feedback	2,25	2,529411765	2,716216216	Increase
FTEs Working with Search				
1-2	3,212121212	3	2,767123288	Decrease
2-5	2,769230769	3,2	2,8125	Unstable
5-10	3,5	2,666666667	2,6	Decrease
More than 10	2,4	1	3,166666667	Unstable
KPI				
KPI	3,470588235	2,954545455	3,416666667	Unstable
No KPI	2,612612613	2,637931034	2,682352941	Increase
Matched Search				
Matched search	3,083333333	2,909090909	2,948275862	Unstable
No Matched Search	2,571428571	2,6	3,05	Increase
Number of Employees	Size			
0-1 000	2,960526316	2,954545455	3,175	Unstable
1 001-5 000	2,368421053	2,5	2,548387097	Increase
5 000-10 000	2,541666667	2,461538462	2,333333333	Decrease
10 000 or more	2,54	2,692307692	2,641025641	Unstable
Strategy for Search				
Strategy	3,269230769	3,047619048	3,045454545	Decrease
No Strategy	2,577319588	2,615384615	2,573770492	Unstable
Taxonomy				
Taxonomy	3,133333333	2,818181818	2,658536585	Decrease
No Taxonomy	2,52	2,595238095	2,890909091	Increase
Satisfaction Overall				
All	2,688235294	2,677777778	2,76229508	Unstable

Satisfaction Mean: Same Factor - Different Groups				
	F	p-value	F_{CRIT}	Relevance
Budget for Search	0,310297	0,864671	3,47805	No
Feedback	6,025333716	0,070093179	7,708647421	No
FTEs Working with Search	1,111694653	0,399652922	4,066180557	No
KPI	14,86578	0,018215	7,708647	Yes
Matched Search	2,144536371	0,216932145	7,708647421	No
Number of Employees	21,0417101	0,000375726	4,066180557	Yes
Strategy	49,74673032	0,002130848	7,708647421	Yes
Taxonomy	1,255652	0,325206	7,708647	No
Satisfaction and Findability	0,725818	0,442245	7,708647	No

Intranet Findability

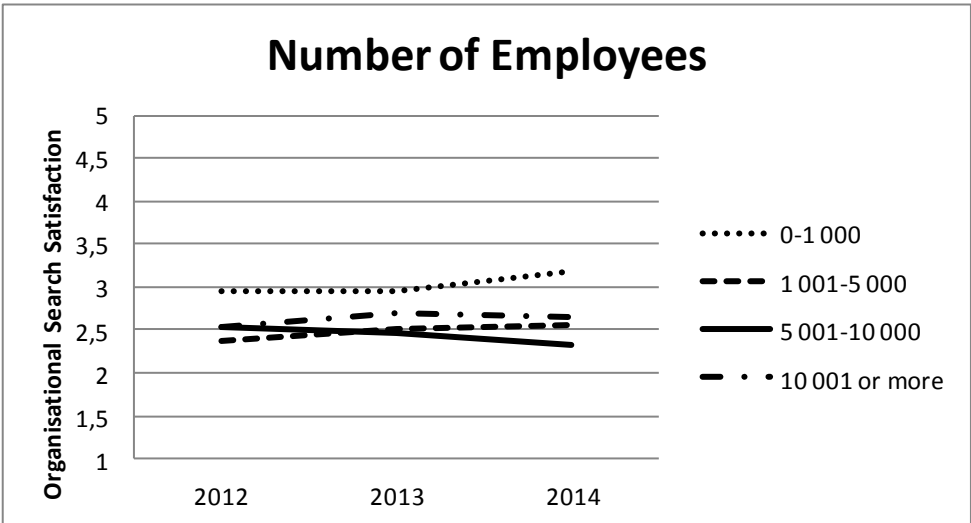| Findability Anova				
	F	*p*-value	F_{CRIT}	Relevance
Budget for Search				
0-50 000	5,364279862	0,006239991	3,094337433	Yes
50 001-100 000	0,787078934	0,464057401	3,304817252	No
100 001-250 000	0,95350881	0,404014301	3,554557146	No
250 001-500 000	0,024221453	0,976110342	3,738891832	No
500 001-1 000 000	0,008802817	0,991251141	5,786135043	No
1 000 001 and more	0,241935484	0,799077293	9,552094496	No
Feedback available for Search				
Feedback	7,051730441	0,001146175	3,049792132	Yes
No Feedback	6,351980187	0,002228163	3,054004174	Yes
FTEs Working with Search				
1-2 FTEs	1,833617156	0,164107316	3,068688537	No
2-5 FTEs	1,13427999	0,329061241	3,164993396	No
5-10 FTEs	1,6796	0,215948309	3,591530569	No
More than 10 FTEs	2,344660194	0,151486104	4,256494729	No
KPI				
KPI	2,255747882	0,115571364	3,186582352	No
No KPI	8,204267149	0,000352271	3,031203309	Yes
Matched Search				
Matched Search	4,795988651	0,009679456	3,061234129	Yes
No Matched Search	3,043459069	0,058050748	3,214480328	No
Number of Employees				
0-1 000	4,16188835	0,017547217	3,060759537	Yes
1 001-5 000	3,782872559	0,027919342	3,138141935	Yes
5 001-10 000	1,208610421	0,307185233	3,182609852	No
10 001 or more	6,980246616	0,001337108	3,068688537	Yes
Strategy for Search				
Strategy	2,254394812	0,110767236	3,096552671	No
No Strategy	4,458847723	0,012625944	3,036339126	Yes
Taxonomy				
Has Taxonomy	0,783036343	0,459416671	3,074447264	No
No Taxonomy	12,97018931	5,64227E-06	3,048211568	Yes
Findability Overall				
Findability	10,30612463	4,35173E-05	3,018921644	Yes

Findability Mean				
	2012	2013	2014	Indication
Budget for Search				
0-50 000	2,58	2,40625	3,357142857	Unstable
50 001-100 000	2,789473684	2,2	2,8	Unstable
100 001-250 000	2,636363636	2,666666667	1,75	Unstable
250 001-500 000	2,6	2,5	2,5	Decrease
500 001-1 000 000	2,333333333	2,2	-	Insufficient data
1 000 001 or more	3	2,666666667	3,5	Unstable
Feedback				
Feedback	2,623376623	2,294117647	2,976744186	Unstable
No Feedback	2,29787234	2,470588235	2,884615385	Increase
FTEs Working with Search				
1-2	2,727272727	2,421052632	2,881578947	Unstable
2-5	2,37037037	2,666666667	2,6875	Increase
5-10	3,5	2,666666667	2,6	Decrease
More than 10	2,2	2	3,5	Unstable
KPI				
KPI	2,882352941	2,454545455	3,153846154	Unstable
No KPI	2,409090909	2,305084746	2,853932584	Unstable
Matched Search				
Has Matched search	2,666666667	2,441176471	3,033333333	Unstable
No Matched Search	2,285714286	2,4	3,090909091	Increase
Number of Employees	Size			
0-1 000	2,8875	2,590909091	3,292682927	Unstable
1 001-5 000	2,047619048	2,375	2,741935484	Increase
5 000-10 000	2,16	2,466666667	2,538461538	Increase
10 000 or more	2,12244898	2,230769231	2,675	Increase
Strategy for Search				
Strategy	2,961538462	2,523809524	3,063829787	Unstable
No Strategy	2,385416667	2,333333333	2,75	Unstable
Taxonomy				
Taxonomy	2,733333333	2,484848485	2,707317073	Unstable
No Taxonomy	2,346666667	2,302325581	3,068965517	Decrease
Findability Overall				
All	2,468571429	2,380434783	2,88	Decrease

Findability Mean: Same Factor - Different Groups				
	F	p-value	F_{CRIT}	Relevance
Budget for Search	1,50943443	0,264024602	3,203874263	No
Feedback	0,093445504	0,775090076	7,708647422	No
FTEs Working with Search	0,32952058	0,804413732	4,066180551	No
KPI	1,355846438	0,308971862	7,708647422	No
Matched Search	0,158714196	0,710692745	7,708647422	No
Number of Employees	2,467045769	0,136628447	4,066180551	No
Strategy for Search	2,907636445	0,163360573	7,708647422	No
Taxonomy	0,070419649	0,803841621	7,708647422	No
Satisfaction and Findability	0,725818	0,442245	7,708647	No

Organisational Search Satisfaction

Search Budget

Legend:
- ▬ ▬ € 0 - € 50 000
- ⋯⋯ € 50 001 - € 100 000
- ▬ · € 100 001 - € 250 000
- ▬ · € 250 001 - € 500 000
- ▬▬ € 500 001 - € 1 000 000

Feedback

Legend:
- ⋯⋯ Feedback
- ▬ ▬ No Feedback

Full Time Employees Working with Search

Legend:
- ▬▬ 1-2 FTEs
- ⋯⋯ 2-5 FTEs
- ▬ ▬ 5-10 FTEs
- ▬ ▬ More than 10 FTEs

Key Performance Indicators

Organisational Search Satisfaction

— KPI
- - - No KPI

2012   2013   2014

Matched Search

Organisational Search satisfaction

— Matched search
- - - No Matched Search

2012   2013   2014

Number of Employees

Organisational Search Satisfaction

······ 0-1 000
- - - 1 001-5 000
— 5 001-10 000
-·-· 10 001 or more

2012   2013   2014

Search Strategy

Organisational Search Satisfaction

- - - Strategy
····· No Strategy

2012   2013   2014

Taxonomy

Organisational Search Satisfaction

—— Taxonomy
- - - No Taxonomy

2012   2013   2014

Organisational Search Satisfaction

Organisational Search Satisfaction

—— Organisational Search Satisfaction

2012   2013   2014

Intranet Findability

Search Budget

Legend:
- €0 - € 50 000
- € 50 001 - € 100 000
- € 100 001 - € 250 000
- € 250 001 - € 500 000
- € 500 001 - € 1 000 000

Y-axis: Intranet Findability (1 to 5)
X-axis: 2012, 2013, 2014

Feedback

Legend:
- Feedback
- No Feedback

Y-axis: Intranet Findability (1 to 5)
X-axis: 2012, 2013, 2014

Full Time Employees Working with Search

Legend:
- 1-2 FTEs
- 2-5 FTEs
- 5-10 FTEs
- More than 10 FTEs

Y-axis: Intranet Findability (1 to 5)
X-axis: 2012, 2013, 2014

Key Performance Indicators

Matched Search

Number of Employees

Strategy for Search

Taxonomy

Intranet Findability