JÖNKÖPING UNIVERSITY
School of Engineering

Conversion Rate Optimization

A Qualitative Approach to Identifying Optimization Barriers

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Abstract

This thesis examined the question "*What barriers are preventing Swedish companies from performing a structured conversion rate optimization process?*". As the purpose is to obtain an understanding of what is preventing companies from successfully execute conversion rate optimization (CRO). Given that CRO is an important part in most digital marketing activities. And despite increase in budget and importance in marketing, resource constraint continues to be the biggest obstacle.

The method employed to investigate this question was qualitative interviews with participants who worked with websites in seven different companies. An analysis was carried out, estimating the participating companies' level of knowledge, overall structure, what to prioritize and current obstacles.

It was established that the interviewees had several different areas of concern with regards to conversion rate optimization. Limited time, budget, priorities, knowledge, ownership, structured approach and interpreting data, were all treated in the analysis. A discussion was carried out to argument the definition of "biggest" barrier, as some barriers were more common than others but easier to overcome. Overall, these obstacles could all be traced back to barriers as prioritization, structure and ownership.

The conclusion was that companies must have a more structured working process within the area of conversion rate optimization in order for this practice to be prioritized as a substantial part of companies online marketing activities.

Sammanfattning

Denna uppsats har undersökt frågan "Vilka hinder hindrar svenska företag från att genomföra en strukturerad konverteringsoptimerings process?". Med syfte att få en förståelse för vad som hindrar företagen att utföra konverteringsoptimering (CRO). Då CRO är en viktig del i de flesta digitala marknadsaktiviteter. Och trots ökad budget och kunskap inom marknadsföring är resursbegränsningen fortfarande det största hindret.

Metoden som användes för att undersöka denna fråga var kvalitativa intervjuer med deltagare som arbetade med webbplatser inom sju olika företag. En analys genomfördes, som tog upp företags kunskapsnivå, övergripande struktur, prioriteringar och nuvarande hinder.

Det fastställdes att intervjuarna hade flera olika problemområden med avseende om konverteringsoptimering. Begränsad tid, budget, prioriteringar, kunskap, ägandeskap, strukturerat abetsflöde och tolkning av data, behandlades alla i analysen. En diskussion gjordes för att argumentera för definitionen av "största" barriären, eftersom vissa hinder var vanligare än andra men lättare att övervinna. Sammantaget kan dessa hinder alltså spåras tillbaka till hinder som prioritering, struktur och ägande.

Slutsatsen var att företagen måste ha en mer strukturerad arbetsprocess inom området för konverteringsoptimering för att denna disciplin ska prioriteras som en väsentlig del av företagets marknadsföringsaktiviteter online.

Keywords

Content

Introduction

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1   Introduction

In 1989 the English scientist Tim Berners-Lee invented the World Wide Web to help people easily share information around the world. Over the following decades the World Wide Web has changed both in terms of functionality and design but also its purpose today.

As the Graphical User Interface (GUI) came along in the 1990s, it allowed designers to incorporate graphical icons and imagery, giving them opportunities to design their websites and play around with text, graphics and to illustrate their newfound capabilities.

Forward to the 2000s, websites were designed for search engines. During this time search engines had rapidly risen in importance. Every company and organization wanted their website to be found online. User-friendliness were not the main focus, and many sites was actually user-unfriendly, since their pages were filled with keywords to the point of being illegible.

In 2010 to present, was the era when website was not user friendly and was only about having a website that ranked in the top search results. Search Engine Optimization is an important tool that helps drive more visitors to websites. A great focus is to drive visitors to the site, however there are still many steps to get the visitor to go all the way through the buying process and thus convert in one way or another. (Langdon, 2018)

In a report by The Internet Foundation in Sweden, IIS (an independent, public-benefit organization that works for a positive development of the internet) presented that about 98 percent of Sweden's population had access to the Internet at home during 2018 which is an increase from 2017 when the number was 95 percent. Internet users on the other hand is remaining at 94 percent. (IIS, 2018)

Conversion rate optimization (CRO) has become an integral part of digital marketing. And is capable of deliver long-lasting benefits to any business. Because conversion rate optimization (CRO) measures actual customer behavior, it might go beyond merely improving sales. Testing may lead to a deeper understanding of customer needs and motivations.

CRO is a systematic process for influencing a higher proportion of website visitors to engage on the site. It has nothing to do with increasing web traffic – it's all about generating more revenue from the visitors they already have. (Croxen-John & Tonder, 2017)

Introduction

1.1 Background

Before ecommerce and the Internet, the solely thing business had to worry about was their local competitors. As the drastic growth of e-commerce, the competition has scaled to a global range, and conversion rate optimization (CRO) quickly become an important part in companies marketing strategy. Although, initiating CRO is not done effortlessly, it requires knowledge in areas that are not directly related to each other. For example, an understanding of analysis of visitor statistics, usability, web marketing and testing. Many companies frequently initiate CRO without a clear method or idea of how to identify where to commence the optimization process.

The 2017 conversion rate optimization (CRO) report produced by Econsultancy in partnership with RedEye is the 9th annual report. While the report explored the key requirements for success, the use of metrics and effective approach to testing and experimenting. It revealed some encouraging sign of conversion rate optimization maturity in the UK market. Although there are still challenges and barriers preventing greater success.

When it comes to creating a culture that allows optimization efforts to be successful and improving CRO, numerous barriers remain in companies' way. As in many areas in online marketing, lack of resources is a key inhibitor. In Econsultancy's report 44% of company respondents cited resource constraint as one of their biggest barriers, and 33% reference lack of budget. And these remains the top two barriers despite years on years improvements (Econsultancy & RedEye, 2017).

Prior research (a master thesis) conducted by Sisse Marianne Bertelsen (2012), entitled "Conversion Rate Optimization: Barriers to Adoption" examined why companies did not invest in higher conversion rates. Although there is an increase in clickstream Analytics tools, software, support, and employees. Only a small percentage of those investments translated into positive returns.

While the average global conversion rates were and still remain as of 2018 around two to three percent. Some of the top online retailers had a conversion rates between 14 and 40 percent. Bertelsen conclude that:

> *"There is a potential out there for companies to improve their online conversion rates. […] I wondered if companies simply lacked knowledge on the subject, or whether there were other reasons for the low conversion rates." – Bertelsen (2012)*

1.2 Problem Discussion

Although conversion rate optimization (CRO) is an established concept, many companies commence implementing CRO without knowing its true potential or how to correctly execute it. A survey was carried out in 2017 by Econsultancy-RedEye (2017) illustrated that around 80 percent of marketers say that CRO is important if not crucial to their organization. See Figure 1.

Figure 1, The importance in business marketing strategy. (Econsultancy & RedEye, 2017)

Regardless of the high numbers of companies saying how important CRO is to their overall marketing strategy, 63 percent responded that they do not have any structured approach to improving their conversion rates, see Figure 2.
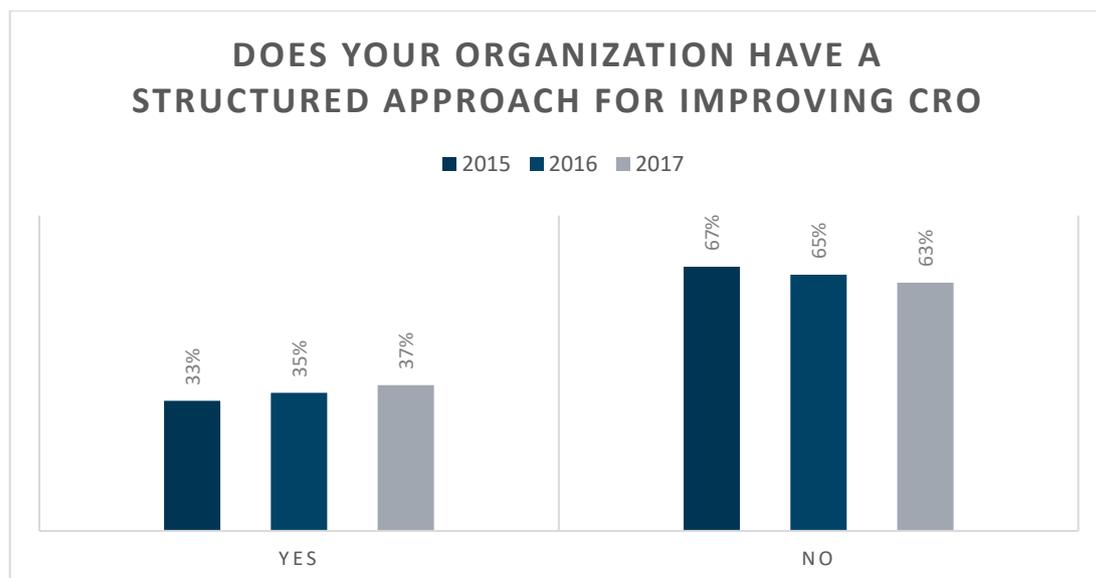

Figure 2, Structured approach for CRO. Source: (Econsultancy & RedEye, 2017).

1.3 Purpose

The purpose of this thesis is to obtain an understanding of what is preventing companies from successfully executing conversion rate optimization (CRO). Given that CRO is an important part in most digital marketing strategies. Near half of company respondents in Econsultancy's report cite they are increasing their budget for upcoming years and are creating a culture that allows experimentation to flourish, and optimization efforts to be successful. Despite increase in budget and importance in marketing, resources constraint continues to be the biggest barriers. (Econsultancy & RedEye, 2017)

It is proven that CRO increases both revenue and profit. Despite this, few Swedish companies are actively prioritizing CRO on their website. On the contrary most money is often invested on only increasing traffic, for example SEO, instead of optimizing the outcome of the traffic that already exists. (Jarnvall, 2015).

> *"We can resemble a website that doesn't convert with a bucket of holes."*
> *– Jacob Jarnvall (2015)*

While the average conversion rate is around two percent, the top ten percent of web companies are seeing around four times higher conversion rates than average. (Croxen-John & Tonder, 2017) The average conversion rate is steadily remaining at two percent which are similar numbers to Bertelsen prior research (2012). Which illustrate that companies have the potential to improve their online conversion rates. Research remain important and relevant as to why companies do not invest more in CRO. One hypothesis might be that companies' lack of resources within conversion rate optimization (CRO) may rely on higher investment in other marketing activities, such as search engine optimization (SEO).

There is a universal CRO process that could be followed which overall consist of:
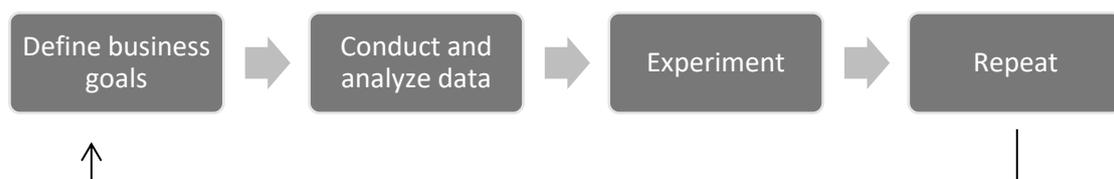
Figure 3, CRO process

The exact research method and analytical methods to use depends on what type of data is being conducted. Bertelsen (2012) concluded that the major barrier for web companies working with CRO were not resources nor money as most companies claimed, it was other internal barriers that prevented for higher conversion rate. The barriers were knowledge, ownership and prioritization.

Seven years have passed since Bertelsen's thesis (2012) and the question remains whether companies still lack adequate knowledge allocated to CRO. This thesis continues the research within CRO while considering Bertelsen suggestion for further research.

> *"Another qualitative study should be carried out with different participants. (...)*
> *Furthermore, a study is needed to define more specifically the activities of*
> *website optimisation"- Bertelsen (2012)*

1.3.1   Research Question

With regards to the research question this thesis is going to attempt answering the issue through research and interviews.

- What barriers are preventing Swedish companies from performing a structured conversion rate optimization process?

This research question aims to get a better understanding of why these barriers appears and if the barriers are related to internals factors like their own knowledge of CRO or external factors. Identifying these barriers and understanding their purpose, might help companies to obtain an enhanced view of their current circumstances in order to preclude these barriers.

1.4 Delimitations

CRO is a complex area that may be implemented in many different types of websites. Delimitations have been made to be able to create a well-arranged thesis with clear focus and to ensure that the work and the thesis will not be too extensive. The thesis will not cover how to attract more visitors to engage in the website, how many people are needed to manage it nor what research what methods are necessary to apply CRO. Some methods will be explained in order for the reader to understand the participant's responses, however the thesis will not discuss each method in detail.

1.5 Outline

The thesis is outlined by first referring to previous research regarding CRO and those findings. Followed with a theoretical background concerning conversion rate optimization (CRO) and defining useful terms. Following this are the details of what implementation method being used and presentation of all findings, along with an analysis, and a discussion. Lastly, conclusions and recommendations for future work will be presented.

2 Theoretical Background

This section will present the theoretical background for the thesis and describe website optimization with focus on conversion rate optimization.

State of Inbound Report conducted by HubSpot research (2018) cited that companies faces many marketing challenges daily. Generating traffic and leads was ranked as the biggest marketing challenge followed by pricing the ROI (return on investment) of marketing services. A similar research conducted by Vital Design (2016) with over 7 500 respondents stated that getting more leads was the number one marketing challenge.

Although there are other top marketing challenges that companies face such as securing an adequate budget, managing the website, and identifying the correct technologies, it is important to focus on the top two challenges for businesses to ensure their success. (An, 2018) In prior thesis (Bertelsen, 2012), research was conducted through qualitative interviews and a discussion thread on LinkedIn. In the final analysis, Bertelsen concluded that these were the most frequent barriers for adopting CRO:

Budget
Budget was a common barrier and many companies stated that they see a need for improvements, however they lack enough resources to take actions. Bertelsen cites: *"This is a very simple issue, though a hard one to overcome."*

Technical issues
Many of Bertelsen's interviewees explains how old systems and incompatibilities prevents them from performing the expected action.

Time and process
Despite stating time as a barrier, budget was the underlying reason. As many said that they had limited time because the IT departments was too small, there was not enough budget to expand the IT department which might solve the time issue.

Focus on goal
Majority of the companies answered that they primarily focus on traffic and even some mentioned traffic as a specific goal.

Ownership (Responsibility and knowledge)
As for responsibility there were mixed answers, Bertelsen cited that no one was responsible for the entire CRO strategy. When it comes to knowledge many understood that CRO and Analytics is a complex process however they would still need more knowledge within the area.

After having all interviews Bertelsen (2012) concluded all these barriers were either related to ownership or knowledge in one way or the other. The analysis demonstrated that ownership was a significant barrier to adoption of CRO. However, Bertelsen reference to an Econsultancy report from 2012 which indicated that only 13 percent of respondents reported lack of ownership as the biggest barrier preventing the organization from improving conversion rates. In 2017 the report indicated that the number was 11%. And the most

successful companies had a chief conversion officers, meaning, the successful companies had someone responsible for conversion and thud has solved the issues of ownership. When the Econsultancy report presented low number of ownership as a barrier. Bertelsen argued it indicated that organizations were not aware of their biggest barriers. Looking at ownership this way, it may be traced back to the issue of knowledge. (Bertelsen, 2012)

2.1 Definition: Conversion Rate Optimization

Conversion rate optimization (CRO) is a structured and systematic approach to improving the performance of organizations website. In opposition to Search engine optimization (SEO), which focuses on generating more traffic to a website, CRO focus on taking the current traffic and persuading them into taking a desired action. (Miikkulainen, o.a., 2018)

To understand CRO, it is important to first understand the concept of conversion. Conversion alone represent the action that occurs when a passive visitor on a website "converts" into an active customer. These actions might either be register as a member, downloads, purchase of product or services, depending on the goal of the company. An example of conversion is happening when a person enters an ecommerce site and then purchase a product or service.

The percentage of visitors that completes the desired action is referred to as conversion rate. Most companies' websites often have multiple conversion goals, and each will have its own conversion rate. Conversion rate is calculated as follows, see Figure 4. An example would be if an ecommerce site receives 100 visitors in a month and has 10 sales, the conversion rate would be 10 divided by 100, times 100 to get the percentages, which would result in 10% in conversion rate. (Jarnvall, 2015)

$$\text{Conversion rate} = \frac{\text{Conversions}}{\text{Unique visitors}} \times 100$$

Figure 4, Mathematical formula for conversion rate.

Measuring conversion rates help businesses to discover if their web pages are persuading visitors into taking the desired action they want to achieve. Higher conversion rate may result in increased revenue.

Conversion rate optimization (CRO) is a marketing optimization strategy for analyzing, understanding and improving websites. CRO focuses on visitor's behavior and what motivates them to engage in a certain way on specific content. It utilizes a wide assortment of techniques, including persuasive design. By arranging, structuring, and optimizing websites to persuade more visitors to take the desired action on a webpage, website or within a campaign. (Shukairy, 2017)

Theoretical Background

Jarnvall (2015) describes CRO as a collection concepts and for a conversion to take place the website must combine user experience (experience design), data analysis (scientific method) and psychology (persuasive marketing).
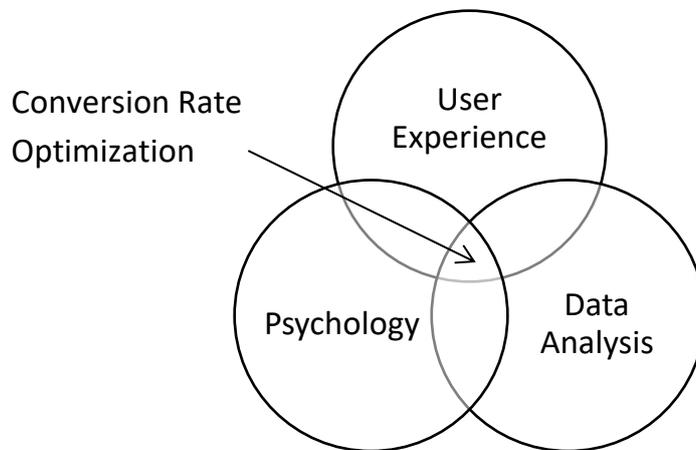

Figure 5, Conversion rate optimization. Source (Jarnvall, 2015)

CRO is a complex process and as other marketing strategies it is long-term commitment. However, it does require anticipation and understanding of their visitors. Wider Funnel (2019) explain CRO is a combination of art and science.

- It is a science because one cannot simply guess and hope for better changes on the website. CRO is about developing hypotheses and run controlled tests and analyze the results.

- It is art therefore statistics cannot act alone in order to create visuals and messaging that engage with their visitors.

When implementing CRO most companies often limit themselves by applying, what is called, "best practices". The dilemma with best practices is that it is not the best way to go. Best practices are only tips and tricks that's easily found online which state things like what color to use for buttons or what headlines to use. After searching for "best practices", there is however no specific information or approach about what best practices are. The reason it is called "best practices" is because these practices are just common principles for an "average" website that may have worked for some websites. Most of these practices have not even been tested and they may just apply to one specific situation and not yours. Instead of best practices websites should apply common or tested practices. (Goward, 2016)

2.1.1 Benefits with CRO

Conversion rate optimization (CRO) is essential to ensure an effective website and a profitable business. With rising advertising costs, a high-performance website has become crucial for success online. CRO helps to utilize the current web traffic and focus on making visitors engage with the website (Jarnvall, 2015). It is much more cost-effective to convert a higher percentage of the visitors already visiting the site rather than attract more visitors. Working actively with CRO enables to achieve the following business objectives:

- Increase in conversion = higher ROI
- Reduction of customer acquisition costs
- A permanent improvement to conversion rates
- Increase in page views for advertising
- Engagement of more users

Successfully converting more visitors to customers leads to increased revenue and profit. And companies will access comprehensive statistics and data on how their visitors move and act on the website, which will help in the continued development of their products and services. (Hellesmark, 2018)

2.2 The scientific method

Several companies begin optimizing without an actual plan or clear structure. CRO is a comprehensive process which is based on:

1. Identifying pages on the website that should be optimized.
2. Following a repeated process in order to optimize these pages.

CRO is a process of diagnosis, hypothesis and testing. Croxen-John and Tonder implies in their book E-commerce Website Optimization (2017) that most CRO systems uses the tried and tested Scientific Method illustrated in Figure 6. Central to the Scientific Method is a reliance on measurable evidence, hypothesis and theorizes.
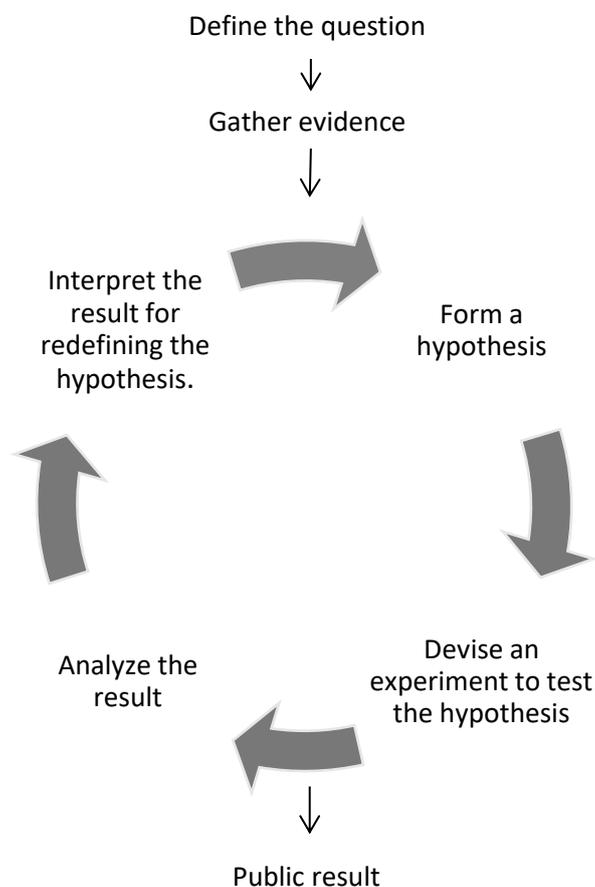
Define the question

Gather evidence

Interpret the result for redefining the hypothesis.

Form a hypothesis

Analyze the result

Devise an experiment to test the hypothesis

Public result

Figure 6, The Scientific Method

Step 1 & 2: Define the question and gather evidence

Everything that is done within the optimization process is aimed in answering the defined question. Followed with data from a variety of sources which hold the key to finding out how to improve CRO strategy. Relying on guessing, opinions and so-called best practices is not the way to go. Following an evidence-led approach companies will gather a huge amount of data which are crucial in order to create a long-lasting plan. This entails a process of prioritizing what to work on first and what to ignore.

Step 3 & 4: Formulate a hypothesis and experiment

Based on what has been observed a hypothesis should be made with rational predictions. It should justify why the test should be carried out and how to measure the result. And have an idea of what effect is expected of the test. Whether if the hypothesis were correct or not, putting it to the test is necessary. As the test results will either support or refute the hypothesis,

Step 5 & 6: Analyze and interpret the results

Even if the hypothesis results present a loss or a win, it should not be considered a failure, instead it should be interpreted as learning experience. And the purpose of a scientific study is oftentimes contributing additional knowledge. Whether the hypothesis have been substantiated or rejected, with every test the companies learn more about their customers than before.

Step 7: Record result

In the scientific community, contributing new knowledge is formalized by publishing the details of the experiment. Similarly, companies work is not complete until they have documented the result. This includes recording the insights from each experiment to share with colleagues in other parts of the company. (Croxen-John & Tonder, 2017)

Companies often have different approaches to CRO and companies that specializes in CRO most likely have created their own methodology or framework that they follow. Most approaches are similar to each other and follow a similar process. The conversion process is universal and may be used across any type of website. Central to these processes is identifying whether the company has accurate data and identifying the critical areas to test and experiment on. The purpose of these processes is to abstract an approach that is capable of being applied and reapplied. (Phillips, 2016)

2.3 A/B Testing

A/B test (otherwise known as split-test) is a method where two variants of content, layout or function on a webpage is shown to users randomly in order to compare and determine which one performs better, in other words, which variation converts more users. Generally, variation A is the original webpage and variation B is with a change. And the traffic to the page is usually divided 50/50. There are endless things that can be performed with an A/B tests; such as changing headlines, image, structure etc. A benefit with A/B testing a website is that there is no guessing of what will work (Croxen-John & Tonder, 2017). According to Econsultancy (2017) the most common and most efficient method used is A/B testing.

2.4 Clickstream Analytics

Clickstream tracking toll are tools that can show on a website in detail where visitors came from, what paths they followed on the site, what pages they visited and buying habits. Clickstream tracking tools is essential as it can help answer almost any question about on-site behavior. The most common tracking tool is Analytics which is the process of collecting, analyzing and reporting data about the visitors behavior on the website. Analytics create a much more comprehensive picture of their customers and their online activities. (Croxen-John & Tonder, 2017)

2.5 KPI

Key performance indicators (KPI) are metrics that measure and help companies understand their overall performance in relation to their business objectives. (Phillips, 2016) It helps define the direction that the business is going, and it meets its goals. It is critical that KPIs are clearly defined, are measurable, have targets, are visible and reflects what the business is trying to achieve. (Anderson, 2015)

2.6 Optimization Culture

Organizations working with web optimization should be data-driven. Anderson (2015) lists several factors which he states are critical for creating a successful data-driven optimization culture.

Open, trusting culture
Rather than being 'owned' by departments. Data-driven organizations provide broad access to data and belongs to the organization. That involves providing access to data to staff outside the core analytics organization, and sharing data among business units, teams, and individuals. For the organization to maximize the potential of the data, the data must be brought together to provide a more complete and richer context.

Broad data literacy
Managers and other decision makers are required to be data-literate. Since they make the final decisions it is a necessity that managers have proper knowledge within that field. A better understanding of experimental design, use of business intelligence tools, interference of statistical analysis, etc. This strengthens Bertelsen's (2012) analysis where she cited:

> *"The conclusion was that an organization's management must have a certain amount of knowledge of the area of conversion rate optimization in order for this discipline to be prioritized as an important part of the company's online activities." – Bertelsen (2012)*

Goal-first culture
A focused organization should have a clear direction of where the business is heading. In a data-driven organization, that goal will be more transparent with clearly defined KPIs and associated definitions, clear targets, and a clear current state.

Theoretical Background

Inquisitive, questioning culture

A data-driven organization should encourage an inquisitive culture. It should create a healthy debate atmosphere where employees are able to ask for additional information, hypotheses, and discuss recommendations or additional tests. Open discussion of possible issues with possible improvements may serve to improve the business, however the key is the non-confrontational and neutral discussion.

Iterative, learning culture

When engaging in forward looking activities such as predictive modeling, a feedback loop is important in which organizations frequently review the results, dig into individual cases and understand where they are capable to do better.

Anti-hippo culture

Hippo, "highest paid person's opinion", is a term coined by Avinash Kaushik, and are anti-data-driven. They make decisions based on their experience, preconceived notions, and their gut, without regard to the available data. One approach is to force their hand by making all decision makers accountable.

Data leadership

Data-driven organizations require strong, top-down data leadership. They need a leadership that inspires, that promotes a data-driven culture, and actively drives and supports all aspects of the analytics value chain, from data collection through to data-driven decision making and institutional learning.

In a data-driven organization, everyone is watching the numbers, a large proportion of the employees is actively using data and there is a broad engagement and investment. They want to understand why and explore deeper and perform better. What defines a proper data-driven organization which is related to Croxen-John and Tonder's Scientific Method (2017) is not to see "failed" A/B tests as a loss and instead view this as a learning experience that is going to help provide inputs to new, and hopefully better, testable hypotheses next time around. (Anderson, 2015)

3   Method and Implementation

This chapter introduces the methodological approach that was carried out in order to address the research questions. To distinguish current barriers when working with conversion rate optimization (CRO). The choice a method and course of action is described, structure of interview and analyzing method.

3.1   Choice of method

Qualitative research is concerned with the nature, explanation and understanding of phenomena. Unlike quantitative data, qualitative data are not measured in terms of metrics or quantity but rather are examined for in-depth meanings and processes. (Cypress, 2018) Interviews are widely used as a data collection tool in qualitative research. Align with Cypress (2018) article that states that qualitative interviews are motivated by the aim of eliciting information useful to a research study. As this thesis is aiming for a more in-depth understanding of companies ongoing barriers allocated with CRO, it was decided that semi-structured interviews would be the most efficient research method.

Semi-structured interviews allowed for a more flexible interview in terms of the order in which the questions are asked and additional follow-questions may be added. The interview questions were determined in advance, thus creating an interview guideline which should be followed. With semi-structured interview the questions are more open-ended, which allows the respondent to talk in more depth and choosing their own words. (Hallin & Helin, 2018)

It shall be known that semi-structured interview does have weaknesses, where subtle signals transmitted by the interviewer might influence the outcome of the interview and potentially alienate the respondents by giving them the wrong kinds of cues (Hallin & Helin, 2018). And finding participants and taking time for each interview is more time consuming than collecting data via questionnaires. (Cypress, 2018)

3.2   Course of action

With the aim of answering the research questions and achieving the purpose. That is to obtain an understanding of what is preventing companies from successfully execute conversion rate optimization (CRO). Given that CRO is an important part in most digital marketing strategies.

The thesis aims to present companies that have an active website and what obstacles arise and how it affects their CRO process. Against the background of theories, seven qualitative interviews have been conducted, throughout the course of four weeks. The choice of interview objects where made on the basis that all companies has an active webpage and are aware of CRO. The companies are not required to have CRO as their primary objective as companies will allow for a broader understanding and determine difference obstacles for different companies.

3.3 Structure of the interview

3.3.1 Layout

Seven interviews were conducted during the study in order to uncover current obstacles and company's overall knowledge with conversion rate optimization (CRO). A small number of participants was considering enough, as it would achieve sufficient data saturation. The interviewees were from different companies where they hold significant positions relevant to online marketing. The companies included companies that run e-commerce, smaller web agencies and other companies where CRO is not their primary objective.

3.3.2 Interviewing

The interviews lasted between 15 -30 minutes and were carried out as semi-structured, open-ended interviews. All interviews were carried out in Swedish, given that this was the first language of both interviewer and interviewees, thus making for a more natural conversation. The interview question was followed up with additional questions.

All interviews were audio recorded and then transcribed. The analysis will be based on the transcription of all the interviews. All respondents were asked for a verbal consent before audio recording. Even though, the process of transcription is time-consuming. (Denscombe, 2017) Transcriptions allowed for detailed searches and comparisons of the data and is a great asset when it comes to using interviews for qualitative research.

3.3.3 Questions

Below are the interview questions that have steered the interviews. All questions focus on getting an understanding of how companies are working with CRO. Two questions aim to continue Bertelsen's (2012) research and examine more deeply into company's knowledge and prioritization. One question was decided after Econsultancy (2017) report portrayed that many companies lack a structured process. Described below is the aim of each question and the expected outcome.

1. What is your experience of the level of knowledge about conversion optimization within the company?

The purpose of this question is to gain a deeper understanding of companies own perception of their knowledge within CRO. CRO is often divided into qualitative, meaning more design and structure. While the quantitative are about statistically significant data. This question will highlight company's strength and weaknesses.

2. Do your organization systematically work with conversion optimization?

This question aims to illustrate how a structured optimization work process at the companies is carried out, if they have any clear goals, what frequency they perform and follow up data. This question will help discover whether there are any relations to knowledge when working with CRO.

3. How is work prioritized between CRO and other marketing activities ex. SEO?

As CRO is linked to other marketing activities this question aims to understand to what extent conversion rate optimization is a priority area for companies. Mostly the respondents were asked to compare with search engine optimization (SEO) since it is a common marketing activity and is stated to work well alongside CRO. This in hope of getting a broader view of companies understanding of CRO.

4. What are the biggest challenges / barriers with conversion rate optimization?

This question aims to identify the challenges and barriers that arise within the company during their work with CRO. This conveys what they previously said in order to comprehend the whole process and determine if companies are trying to reduce their challenges.

In order to obtain rich research data and an extensive understanding additional questions was added. The additional questions allowed the interview to be more in depth as it made the interviewee to explain more in-depth and motivate their answer.

3.4 Quality

With the intention of ensuring the quality within the thesis, the following factors have been considered into the implementation process.

3.4.1   Validity

Validity determines to which extend that the conducted qualitative data are accurate and appropriate (Denscombe, 2017). The validity of this thesis is based on the interview questions, which are intended to provide a basis for answering the research question. By giving the interviewees the opportunity to be anonymous, it increased the credibility of the interviewee's real experiences rather than the person says he/she thinks is expected of them. To validity of the thesis, the chosen method was to mark important word or phrases and summarized the transcript answers. The respondents were then emailed the summary and asked how well the interpretation matches. Some simply approved, while other come with additional feedback which was applied to the summary.

3.4.2   Reliability

A research is stated to have high reliability if other researcher that use the same research instruments would receive the same results and arrived at the same conclusion. Even though this may not be completely achieved there are ways for qualitative research to receive reliability (Denscombe, 2017). To achieve reliability, this thesis supplies the reader with detailed information regarding procedure, use of method and analysis. This will allow for other researcher to follow the procedure and understand how the particular conclusion was achieved and then being able to replicate the research.

3.4.3   Ethics

Ethics entails researching with moral practice and assure no participants during the study had be affected in a negative way by the work (Denscombe, 2017). For this reason, to ensure an ethical approach all interviewees have been informed about the purpose of the research and that participation has been voluntary. All respondents are being anonymous when presented in the thesis and their answers will only be used for research purposes only.

3.5 Thematic Analysis

As qualitative data analysis can be challenging with the amount of text, coding is the core approach of the matter. An approach to analyze the empirical data is with a thematic analysis, which is the process of identifying patterns or so-called themes within qualitative data (Cypress, 2018). According to Hallin & Helin (2018) thematic analysis is the most frequent approach when it comes to analyzing interview material. The purpose of a thematic analysis is to identify themes in the data in which sort the empirical material and on the basis of these themes address the research question. (Hallin & Helin, 2018)

The themes presented below have been formulated beforehand based on the interview questions.

- Knowledge
- Structure
- Prioritization
- Barriers

After conducting all interviews and reading the transcripts. Additional themes were then created based on keyword and phrases that were identified in the transcripts of the interviews. The final themes used in the analysis are:

- Knowledge
- Structure and goal
- Time
- Prioritization
- Overcome Barriers

4   Findings and analysis

The chapter presents the findings and analysis of the data gathered with the method used in the research. The interview findings are analyzed using the thematic analysis approach.

4.1 Empirical data from interviews

Below all companies are portrayed in Table 1, to illustrate the company objective, which are relevant toward analyzing their answers and determine any connections or gaps. For two companies, there was two respondent and their titles are separated with a semicolon. In order to structure the findings and create an explicit analysis. All the themes presented above are analyzed in its own section.

	Work title	E-Commerce	Web agency	Other	Size
1	Head of Marketing	No	No	Yes	Large
2	Digital Strategist	No	No	Yes	Large
3	Director of Development	No	Yes	No	SME
4	Web Analyst; Digital Strategist	No	Yes	No	SME
5	Content Specialist; Web Content Manager	Yes	No	No	Large
6	Head of Analytics	Yes	No	No	Large
7	Head of Ecommerce	Yes	No	No	Large

Table 1, Table of all the companies being interviewed.

SME

Small or medium-sized enterprise, or SME, as defined by the European Commission (2003) are companies or organization that employ fewer than 250 people and whose annual turnover does not exceed €50 million or an annual balance-sheet total does not exceed €43 million.

Prior to commence the analysis of the empirical data collected all the barriers are presented in a graph in order to establish a clear view of all the obstacles that were mentioned during the interviews, see Figure 7. These barriers are mentioned within the themes that has been identified for this analysis.
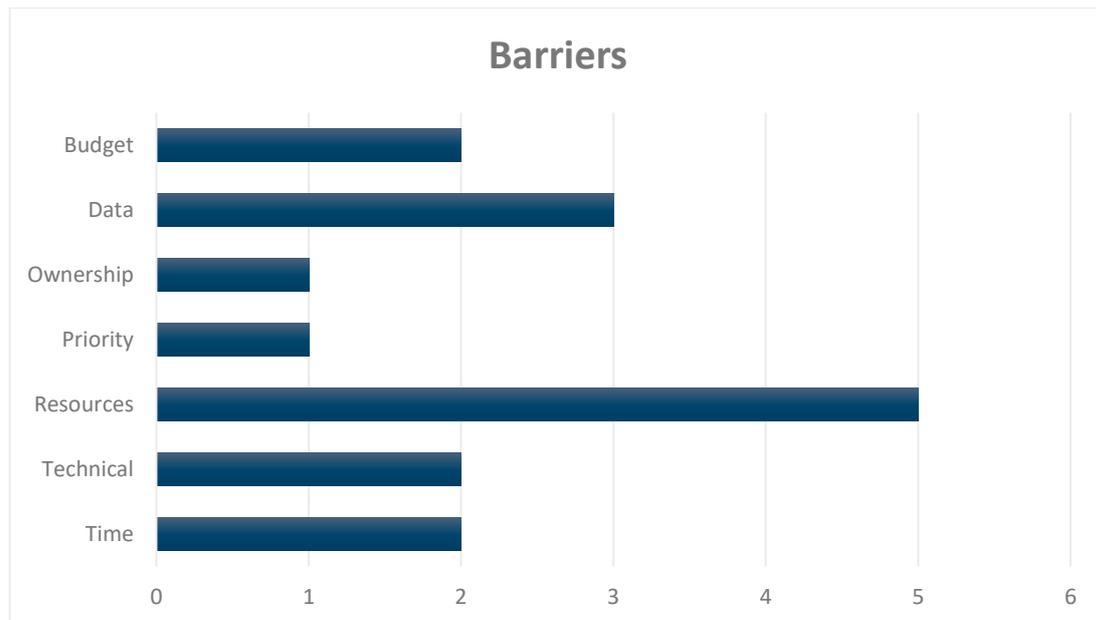
Figure 7 , The barriers presented by the seven companies

4.2 Knowledge

There is a large range between the companies and their level of knowledge, which is dependent on the company objective and for how long they worked with conversion rate optimization (CRO).

Knowledge within CRO is quite complex. The importance for companies is to establish an understanding of what CRO is and what it benefits it may bring to the company. Most companies that was interviewed stated of having good knowledge and understands what CRO is but company #6 and #7 stated that they do not have the resources to put into action.

> *"All of us that work with this (CRO) has a digital background and an understanding of what is means and how to apply it. But then how to execute it is another thing and how to it in practice."*- Company #7

This shows that knowledge within CRO does not solely imply understanding it in theory but also being able to implement it in practice. Company #2, #5, #6 and #7 had seen the need to include external factors such as web agencies to help implement CRO.

The companies with the most significant knowledge was the web agencies company #3 and #4, given that they worked much with CRO when supporting and assisting their clients. Therefor they have great insight into other companies' knowledge of growth and understanding what companies think is important.

The company with the lowest knowledge of CRO was Company #5. They implied of being quite after Sweden in the development of CRO. Mainly on account of them being a subsidiary company and the parent company operating abroad, which is making it hard for them to maintain with the current national market. This can also be related to ownership.

As previously mentioned in section 3.3.3, conversion rate optimization (CRO) can be divided into two parts; qualitative and quantitative. There was no company that expressed of having fully adequate knowledge within CRO as they mostly had higher knowledge within one part.

Company *#3* and *#4* expressed that they have superior competence within the qualitative part, such as user experience (UX) and design. That does mainly depend on the company's priorities and areas of focus. Company #3 stated the following:

> *"We have not worked much with web analytics. It has not been our focus, it has been more informative, nice design and web development." –* Company #3

The interviewee explains that the overall knowledge within CRO is adequate as they can adapt and implement CRO easily. Although the company does express difficulties of working with web analytics, namely interpreting and analyzing the data that they have conducted. Company #3 state the following:

> *"Understanding the data is not considered an obstacle, it is not that we cannot move forward, it is more considered a bonus" –* Company #3

The interviewee considered their difficulties with understanding analytics to be a challenge, in which they can learn more. The company actually state of arranging internal courses and is cooperating with another agency that is working with web analytics.

Company #1 considered themselves of having high competence and has been working with CRO for a long time and therefore their high level of knowledge. Despite the high knowledge, they do have limitations within the qualitative part such as A/B and multivariate testing. Company #1 works mostly Analytics and having surveys on their website.

> *We work more with Google Analytics, Adobe Analytics, Hotjar, Optimizely. That kind of tool, where we do not ask the user, but test different stuff as well as quantitative flows as well as all traffic. –* Company #1

4.3 Time

Conversion rate optimization (CRO) is a complex process which requires time and effort in order to be successfully executed. For some company's time was a recurring factor when it came to implement CRO.

Time constraints may depend on different factors for instance company size and knowledge. For Company #5 which is a large enterprise stated that within their IT department they are a few employees that are responsible for the whole website, time limitation was a daily issue. The main reason for this is that the IT department is small but also that it is only the head office that can take decisions and decide what needs to be prioritized.

> *"You are dependent all the time by many different decision makers and then it is difficult to get forward. The best thing for us would have been if we had systems where we could make these decisions ourselves." –* Company #5

With regards to company #5 the underlying obstacle is ownership, as they have no authority to take decisions or make any big changes themselves.

Generally, it is usually an obstacle in large organizations that it takes a long time to get decisions through. Another concerns which require time as well is if the company may have resources internally the company may have to hire an agency, which requires time and resources.

4.4 Structure and goal

Having a structured process is necessary to obtain a dynamic website. The basis for a systematic execution is to establish a hypothesis, testing, analyze data and then optimize the website (Croxen-John & Tonder, 2017). A first approach, entails obtaining specific goal(s). These goals may vary depending upon their target group and what the company overall want to achieve.

Most companies stated of having clear goals of what they want to achieve. Company #2 expressed that currently there are no fixed goals, however they have started to shape and obtained a clearer image of what they want to achieve. The company expressed the following:

> *"We are getting clear goals, there is still nothing that is completely fixed.*
> *Everything is pretty new, I would say. Although it is such an old organization,*
> *much is happening right now."* – Company #2

On the contrary company #7 declared of having clear conversion goals although they had no systematic work process on how they should reach the intended goals. Corresponding to company #2, company #7 recently this year commenced within conversion and a better work environment as well. Below is company #7s response to the question is they are having a structured working process.

> *"No, we just started, started three months ago. So, we are all very new, we have*
> *an idea, but we have not started yet."* – Company #7

Even though not all companies had a structured process nor specific goal(s), company #2 and #7, began realizing the importance of specified goals and a structured process in order for a successful optimization strategy.

When it comes to user data, specifically Analytics data all companies mentioned of checking up on their Analytics data on a daily basis. However, there were different responses when it came to monitor the data and take actions. Company #5 respondent the following:

> *"We had to bring in a web agency that could help us with the B2B part. […]*
> *They helped us do user tests on our B2B pages, but the problem was that after*
> *they made the tests we got findings about what they came up with on these pages.*
> *And it was very simple, that if we fix this, we can also increase the conversion on*
> *these pages. It's great, but then the problem was after that. When they were*

ready, we still didn't have time to make them the updates because it would take
so much of our daily job to sit and update all that." – Company #5

Company #5 expressed the concern of not going through the whole process. Despite having help from an agency, the company has no structure of how to continue their results. Other companies mentioned similar issues, of having clear goals and collecting mostly analytics data. But few took actions or did other tests in addition to their Analytics data. Which is important in order to execute a successful CRO strategy.

4.5 Prioritization

As stated earlier in section 1.3. It is proven that can CRO increase revenue and profit. Even though there are only a few Swedish companies that are actively prioritizing CRO on their website. Instead, budget is prioritized on investing mainly on traffic enforcement measures; for example, SEO (Jarnvall, 2015). Therefore, this question addressed how companies prioritize work between CRO and SEO.

Company #1 is the only company that stated that they tried to work 50/50 as much as possible, however, it does depend on the situation and project. Company #4 implied that several of their clients are investing in SEO mainly due to the fact that SEO is less complex and easier to implement.

> *"Our customers are interested in conversion and we are as an agency as well.*
> *But since CRO is so time-consuming and uncertain, we choose to focus on*
> *keyword optimization as this is easier to report and adapt"* – Company #4

Furthermore, SEO has been in the market longer that CRO and company #5 mentioned of having a SEO consultant every two weeks. When having an SEO consultant, the company receive help and support from the consultant, making it easier to spend time on SEO, since they have additional resource that helps them. When asked about having a CRO consultant Company #5 expressed the following concern:

> *"It has always been that way, [the consultant] has worked here longer than us,*
> *so if we want a consultant within conversion optimization, then we must have*
> *more resources and that is probably via [parent company]. And then they have*
> *to approve it and what more it needs. How much support can we get in Sweden*
> *and how much support should we have with [parent company]? There is also a*
> *decision-making issue it is not really us who can make the decisions."*

What the interviewee expressed here was that the main reason for prioritizing SEO is due to old habits. In order to acquire a CRO consultant company #5 needed to prove and argue why the company should hire a new consultant, which requires a lot of time, which they do not have.

Out of all seven companies, company *#3* were the only company that mentioned they prioritized CRO more than SEO. Other companies either focused more on SEO or fifty/fifty.

To conclude, SEO is mostly prioritized. Which is mostly due to old habits, but also that many considers CRO to be too complex while SEO is easier to show statistical significance.

Another concern regarding prioritize is budget. Company #4 which is a web agency expressed when working with many of their clients they often encounter the issue of how budget is prioritized.

> *"Priority is the biggest difficulty. For often if one intends to launch a project, then the customer has put a budget per month in order for the site to be operated and functioning. The budget is then being consumed by software-bugs and such that makes the website not work, it can be hosting problem, everything possible like that. If you do not save money specifically for optimization, it will be very difficult to get it purely budgetary. And one can wonder why they do not. Because I was just looking at one that I work with now they put half a million on search engine advertising but none on CRO, and one can wonder why they do so." – Company #4*

These reflection shows that prioritization may be the underlying barrier for numerous obstacles that company faces.

4.6 Overcome barriers

An aspect that should be considered is how these companies are tackling these obstacles that they are currently facing. Understanding how to overcome any challenges is what distinguish major barriers from minor barriers. When questioned of how these companies are tackling their barriers, company #3 and #6 were the ones with the most straightforward answers. Company #3 mentioned that they do not consider themselves to have any barriers except some challenges of interpreting the Analytics data. Their strategy to overcome this challenge was that they have internal coursers and is currently working with another web agency that specializes within web Analytics.

Knowledge were considered the barriers were most companies had an idea or plan of overcoming this barrier. Company #5 that had multiple obstacles stated that after obtaining more experience for their new Systems, they would be able to easily gather and analyze data. Which would result in better conversion. Company #1 which mentioned understanding Analytics data as an obstacle, had a strategy to overcome this barrier. To reduce these barriers, the company works with testing of landing pages and different parts of the website and various buttons and functions. Then in order to see how the site works, the company shows that they are able to both see the site as a whole and discover small details.

> *"**Interviewer:** Okay, so are you trying, try to overcome these barriers?*
> *C1: Yes, we work with both tests of landing pages and different parts of the site and various buttons and functions and so on. And then you try to zoom out and see, the site works or the sites as a whole. And then sometimes you get to see how you are sent back and forth between different domains and sites and subdomains as well." – Company #1*

Findings and analysis

This shows that knowledge may be a common barrier among these companies, however these were also the companies that had a strategy currently in action in order to gain more experience resulting in knowledge not being a barrier anymore.

Another way to reduce barriers is by changing the prioritize. Company #2 are investing more within CRO this year and therefore increased their budget as well.

> *"Specifically, budget, resource and knowledge are the three biggest obstacles. On the other hand, so much more has been invested in conversion rate optimization, since we got a bigger budget, which shows we think conversion is an important thing. With that, it feels like [company name] is starting to keep up."* – Company #2

The interviewee also expressed that previously the marketing department and the IT department had worked separately. Thus, losing affinity. Therefore company #2 has begun with a more open and trusting work culture which will help to make their investment within CRO more successful.

Seeing all the different strategies to overcome these barriers bring up another factor. The difficulty to overcome an obstacle should be a central factor as well, when determining the biggest barrier.

5 Discussion

5.1 Discussion of method

As stated in section 3.1 the method being used were semi-structured interviews in order to obtain a deeper understanding of what barriers exist. The chosen method was considered applicable and useful for the purpose and research question of this thesis.

Semi-structured interviews allow for a greater depth in the interviews question since the interviewer can ask for clarification and steer the direction of the interview which increases the validity. However, this method provides a large amount of text which might be difficult to analyze, and thereof may have low reliability. (Hallin & Helin, 2018) For the purpose of having a strong reliability all keywords and phrases from the transcripts were summarized and then overseen by the interviewees to determine how well the interpretation matches.

In spite of this method being time consuming, seven interviews were carried out in a period of four weeks. All interviewees contributed a great deal of insight information that lead to viewing other connections that were not thought of at first. A simple survey could have been carried out, to obtain a larger response rate, but more statistics, quantitative data and less qualitative. While interviews obtain a deeper analysis and observe relation, which is not applicable with a survey.

5.2 Discussion of findings

The analysis showed that some companies had a structured optimization process, although two companies stated they were in the beginning of implementing a more structured process. The same thing also applies when it came to have clear goals. These companies were also those that most often stated multiple barriers, including resources.

The Scientific Method mentioned by Croxen-John & Tonder (2017) in section 2.2 showed that with a structured approach companies can establish a successful optimization approach. Another aspect to reflect on is knowledge as company *#3* and *#6* expressed that they had courses and seminars in order to overcome the barrier of knowledge. Knowledge is complex and thus it is important to distinguish what knowledge that is preventing from initiating CRO. If companies do not understand the advantage of CRO or realize its full potential, knowledge may be considered a challenge. CRO encompasses testing and learning, therefor limited knowledge within CRO may be challenging. Although lack of knowledge should not be regarded as a barrier, since it is quite easy to overcome.

Even though resources were stated as the biggest barrier, it became clearer after reflecting on the companies' knowledge, structure and priorities, how all these factors represent an important part for an efficient optimization approach. A significant aspect when analyzing all the barriers is that not only does the most common barrier matter but also its difficulty to overcome. Knowledge was the barrier where most companies had a strategy to overcome the issue. While those companies mentioning resources as a barrier tried not to end up in those situations when resources become an obstacle.

Discussion

Bertelsen (2012) declared in her thesis that out of three, ownership was one of the biggest barriers. Even though solely company *#5* expressed ownership as a barrier resulting in ownership being an uncommon barrier it is however considered to be the hardest to overcome. This makes the issue of ownership quite complex. This case it is not necessarily a HIPPO situation as expressed above, but has a rather restricted data literacy. This does strengthen Bertelsen conclusion that companies management must have a certain amount of knowledge within CRO to obtain an understanding of how to prioritize resources which is an important part of the companies online marketing activities.

The concluded barrier is similar to Bertelsen, however there are some differences regarding the discussion of what determines the biggest barriers. This thesis will cover an additional aspect, namely how companies tackle their barriers. Which is an aspect which Bertelsen do not mention in her thesis.

5.2.1   Achieved objectives

CRO is a proven marketing strategy that increases revenue and profit, even though only a few Swedish companies prioritize CRO on their website. (Jarnvall, 2015) Therefore, the purpose of the thesis as mentioned in section 1.3 were to research current barriers preventing Swedish companies from prioritizing CRO on their website and identify any relation between knowledge and work process.

The research question reads as follows:

- What barriers are preventing Swedish companies from performing a structured conversion rate optimization process?

The achieved objective for this thesis is considered of being accomplished, considering that all interviews allowed for a clearer understanding of company's different situation, their knowledge within CRO and ongoing barriers. Interviewing various types of companies widen the perspective in order to determine the underlying reasons for all barriers.

Barriers within CRO is dependent on company's objective and previous experience. Although nearly every company mentioned resources as a barrier, it first and foremost, had different interpreting and secondly after reviewing companies work structure and prior knowledge connections could be seen that resources might not be the biggest barrier in the end.

The interviews worked well but could have been done narrower. Due to the fact that not all companies received exactly the same question, different answers were conducted. While open-ended question may be correct to entail a deeper understanding, it is very dependent on the interviewee as some people can be more talkative than others. If an interviewee did not motivate their answer it was hard as the interviewer to know what to ask in order to obtain the desired answer. Another thing is that the interview never feels done, afterward when doing the analyzing, more thoughts and questions appear that would be decent to ask for additional questions.

Discussion

With semi-structured interviews a lot of information is collected, which is good since it will provide a good analysis, however it also opens up other interesting relations that were not related to the thesis purpose and research question.

This choice of methodology a high level of validity was achieved. Given that an advantage of using semi-structured interviews is attaining validity. Even though reliability may be harder to maintain, given that a summarized version was sent giving the interviews opportunity to rephrase and come with feedback gives the analysis a high reliability as well.

In order to obtain even higher reliability, an alternative is making a quick summary of each answer during the interview to get an instant response from the interviewee, this would allow for an even deeper analysis, since it can open up for a discussion, but also increase the reliability.

Regarding sources and references were majority from US or UK, which does not entirely coherence with the situation in Sweden. The only Swedish book about conversion rate optimization (CRO) that was found for this thesis was Jarnvall's book (2015). It is only recently that companies have started investing in conversion rate optimization (CRO. Showing that companies in Sweden are moving towards a more systematically and data-driven working culture.

6   Conclusions

This thesis identified that in order to rank the biggest barriers within CRO, we must consider its frequency and the difficulty to overcome. The utmost frequent barriers are structure and prioritization. As structure and prioritization stand for the fundamental in order to remain a long-term optimization strategy. Perceiving a structured working plan implies establishing clear goals and increasing efficiency. While good priorities are crucial as they mean getting more out of the limited time. Ownership is the most difficult barrier to overcome, as it requires management to obtain proper knowledge and awareness. However, ownership is not that common of an obstacle. A valuable aspect to consider in order to minimize barrier would be for companies to follow a structured methodology and carry out a data-driven organization.

It has become clear that web agencies have a stronger technical expertise than companies in general and therefore not obtaining any barriers. Since they worked a lot with other companies, they have established a broad awareness about companies challenges and barriers. What differs other companies from web agencies and ecommerce are that they work mostly with quantitative methods such as Analytics, meanwhile web agencies and e-commerce companies spend more time executing A/B testing.

This thesis established additional valuable information regarding that several companies implied of begin investing in CRO recently this year. This entails establishing a structured approach, clear goals or trying out new test methods. Which entails that several companies are aware that many of the barriers are organizational, nonetheless discovered how their company will benefit by prioritizing CRO as part of their marketing activities.

In conclusion although relevant expertise and knowledge are factors that influence the success of the CRO work, it is establish that the biggest barrier are organizational.

6.1   Further research

Further research may always be necessary in order to create a dynamic website. After executing this research and arriving at the conclusion that further research might be done.

This thesis aimed at discovering CRO barriers in general, while for further research one could focus more on only e-commerce, web agencies or other companies in general. To discover their view about CRO. And as many of the companies said that they recently commence a CRO process, it would be interesting to follow up in a couple of years to examine whether more companies have a structured approach.

As this thesis focused on barriers within CRO and concluded that a disorganized approach is a crucial barrier. An unstructured process may not solely affect CRO but also other marketing activities. Therefor further research is needed to discover, what barrier might affect solely CRO and what barriers is affecting other operations as well

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