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SEARCH ENGINE OPTIMIZATION (SEO) AS A DIGITAL MARKETING TECHNIQUE FOR INTERNATIONALIZATION IN HIGHER EDUCATION:

The case of Oulu University of Applied Sciences

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ABSTRACT

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This thesis project is a case study about Search Engine Optimization in the international website of Oulu University of Applied Sciences (Oamk), a Finnish higher education institution that has the vision of being the leading, multidisciplinary and international University of Applied Sciences (UAS) in Finland. The key objective of this thesis is to set a plan for Search Engine Optimization in Oamk's international website (www.oamk.fi/en), in order to improve its online visibility and ranking positions on the search engine (Google), with the aim to bring more international traffic and potential international students to the website. As the organization's website has a wide range of potential users from all over the globe, it is extremely important that the website's contents are accessible and easy to find by potential international users, especially prospective foreign students.

SEO is a Digital Marketing technique that contributes to improving web accessibility. In the globalized world, people use Search Engines, such as Google, to find or know more about many different topics in a fast and visual manner. Through bibliographic review, quantitative and qualitative analysis, this thesis focuses on understanding what Search Engine Optimization is and how it can be implemented appropriately for the commissioner's international website www.oamk.fi/en. The Search Engine Optimization plan provided by this work is built with the intention to provide the commissioner a reference document to use in their future digital marketing strategies for internationalization.

The results of this thesis show that the most important fact of making an SEO plan for increasing internationalization in a higher education institution is to develop web content that takes search intent and semantics in to an account, using the technology available to build the international website coherent with the keywords chosen, and to gain the most relevant international traffic. It was shown by this work, that higher education institutions need not only to be on the top of search engines for their targeted international search queries, but also to have relevant and meaningful snippets, URLs, keywords, heading tags, titles & descriptions, backlinks, internal linking, images file name & alternative text, and actual web content, for the purpose of attracting more clicks and ultimately more international students.

The future of SEO is uncertain and there is only one thing to be sure about search engine and everything related to it: it changes constantly. Thus, search engine marketing and search engine optimization will continue to be a high priority for higher education institutions who desire to highlight among competitors, remain on top, and develop competitively in the global market.

Keywords: SEO, Search Engine Optimization, Higher education, SEO in higher education, SEO for Internationalization, Digital Marketing.

CONTENTS

1   INTRODUCTION

This Bachelor's thesis describes the definition of search engine optimization for an international higher education institution in Finland, introduces a search engine optimization plan for implementing the changes to the institution´s website and provides analytics solutions for monitoring the effect of change. In the beginning of this chapter the background of the study is described. Then the technology problem and the aim of the research are introduced, as well as the commissioner.

1.1   Search Engine Optimization in the Internationalization context

SEO (Search Engine Optimization) is a methodology used to gain traffic by making a website visible in search engine results via organic or paid techniques. The term organic means using natural and free ways to enhance website visibility without using Ads service (paid advertising) (Shenoy & Prabhu, 2016). This thesis aims to support learning about SEO as a digital marketing technique to increase internationalization in higher education, using the case of Oulu University of Applied Sciences (Oamk), a Finnish higher education institution that has the vision of being the leading, multidisciplinary and international University of Applied Sciences (UAS) in Finland. To help the reader better understand and find easily the words or concepts related to SEO and its meanings, the glossary table in Appendix 2 was created.

The Oamk has international students from all continents, as well as international staff and international partner universities. Since the implementation of tuition fee regulation in Finland came into effect, a serious discussion on how to attract international students for UAS in Finland has raised (Khadka, 2017). Consequently, as Oamk is an international institution, its website has a wide range of potential users from all over the globe and this thesis aims to explain the use of SEO and how to implement it to ensure that the website's contents are worldwide accessible and easy to find by potential international users, especially prospective foreign students, ensuring that the international audience can be reached.

Before starting the actual Search Engine Optimization plan and keyword research, the mission statement for the Oamk's international website SEO project was defined: Oamk's international website (www.oamk.fi/en) is the website of Oulu University of Applied Sciences in English, focused on internationalization and international people. The information of the website helps foreign students and stakeholders stay updated about Oamk and its events, as well about practicalities about studying in Oulu and in Finland. The mission of the Search Engine Optimized website is to ensure that information is available for everybody who search for content related to Oamk and its study options in Google, enhancing international visitors' experiences, by providing exclusive and unique content that answers their questions and doubts asked in the search queries.

Improving the quantity of top position rankings and average positions in search engine results pages (in short, SERPs) supports visibility, brand awareness and many other associated measures of progress (Wilson, 2016).

Consequently, from the Digital Marketing perspective, excellent SEO practices are of paramount importance to the success of businesses that depend on reach and visualization, as it allows to achieve these objectives in an organic way and without spending large amount of money (MOZ, 2017). The way a company appears in SERPs can alter its course and determine outcomes. When attention is not put properly on SEO, a company puts itself at risk: competition can swoop in and reputations get tarnished (Ahola, 2017).

Nowadays, achieving relevance is the main SEO guiding principle. Search algorithm obsession is not a best practice in SEO. Living in fear of updates to core rankings means doing SEO wrong. Google has publicly urged webmasters and SEOs to not fixate on each individual component of their core algorithm (Ahola, 2017). Consequently, the focus of SEO is not on algorithms changes, but, in quality content development aligned with the new technologies.

1.2   Research problem

Nowadays, people use Google constantly, to search, ask questions and get information as the result of their searches. If a company/institution is not find in search results, it might have its level of potential leads and effective costumers affected. This thesis will aim to provide an answer to what are the recommended steps in order to implement SEO effectively to a website of a higher education institution, when the target is Internationalization. The research problem was found when the Oulu University of Applied Sciences – Oamk, English website' pages were not being discovered by search engines nor being found in search engine results pages (SERPs), or were being found in very low-ranking positions, when searches were performed in English. Still, pages in English and images in the international part of the website, were often found with misleading titles and descriptions of its contents. This set of factors may cause low visibility of Oamk in international countries and bad user experience, as well as it can affect internationalization, international student recruitment and international engagement level. Moreover, these are critical factors for the commissioner's digital marketing, since Finnish Universities of Applied sciences are facing that the number of applicants from outside Finland have been slightly decreased in 2017, after the introduction of tuition fees (Khadka, 2017). As Oamk is an international institution, the organization's website contents should be accessible and easy to find by potential international users, especially prospective foreign students.

1.3   Research method

This work will consider, in particular, the world's most used search engine, Google, which has 91.99% of the Search Engine' Market share in the world (StatCounter, 2017) and in which the first positions are high competed in search results, especially in English language. For the research, the focus will be on the English version of the commissioner's website (www.oamk.fi/en), since the target is internationalization. Internationalization can be defined as the designing of a product or a service in such a way that it will meet the needs of users in many countries or can be easily adapted to different cultures and languages. (Investopedia, 2018)

The main research method used in this work will be the case study methodology. A case study analysis requires to investigate a business problem, examine the alternative solutions, and propose

the most effective solution, using supporting evidence. (Ashford University, 2003). The case study is conducted through non-participant observation by the author. From bibliographic review this work will explain how Google sees and interprets the websites available on the web, and how it affects digital marketing and internationalization in higher education institutions, using the case study of Oamk. Therefore, this thesis will explain organic SEO strategy on-page that can help in indexing and ranking the commissioner's site in better positions in organic search result. On-page SEO is the practice of optimizing individual web pages in order to rank higher and earn more relevant traffic in search engines (MOZ, 2017). On-page SEO are all factors controlled by the website's owner, including the source code. It contains for example, metatags, title tags and meta descriptions, headings, internal links, site maps, URLs, content, semantics, and ease of navigation. On-page SEO overall focuses on efficient presentation of content to website users. Adhering to semantics and optimal web page structure are imperative for a site's success: they result in a site that is systematic and organized and that provides better reputation, relevance and readability, not only for users but also for search-engine crawlers. (Busche, 2017) (Shenoy & Prabhu, 2016)

Moreover, a qualitative analysis (Situation, Benchmarking and SWOT analysis) and a quantitative analysis using Google analytics (Percentage and number of foreigner users, Users per country, User acquisition per country, Level of engagement, returning x new visitor) will be performed.

1.4   Oamk as an international higher education institution

The Oulu University of Applied Sciences (Oamk, from Finnish: Oulun Ammattikorkeakoulu) is a limited company and one of the biggest Universities of Applied Sciences in Finland. Oamk educates competent and innovative professionals and do active research and development. Still, Oamk provides bachelor and master's degree programs, professional specialization studies, pedagogic studies at the School of Vocational Teacher Education, Open University studies as well as supplementary training (Oamk, 2017).

Concerning internationalization, currently, Oamk, offers three Degrees entirely in English: professional higher education at Bachelor´s level in the fields of Business and Technology, and at Master's level in the field of Education. Annual Tuition fee for international students coming from outside the EU/EEA countries was launched in 2017: 8,000 Euros, as well as scholarships programs were also launched. In the end of the year 2016, Oamk had 350 international degree

students, which means 4,42% of the total number of students (7935) (Statistics Finland, 2016). In the same year Oamk counted 180 international partner universities, 536 outgoing and incoming exchange students (that is, 10 000 credits), 281 staff's working periods abroad, 264 foreign lecturers/experts to Oamk, and 5 international research and development projects staff/teacher exchange weeks.

From data and circumstances abovementioned it is proved that Oamk is an international institution. Consequently, the company needs to align its marketing strategy with international targets. As the organization's website has a wide range of potential users from all over the globe, it is necessary that the website's contents are accessible and easy to find by potential international users, especially prospective foreign students.

1.5   Thesis structure

This thesis will be divided into three main parts:

The first part (chapter 2) will be the Situational Analysis, to identify the companies' strengths, weaknesses, opportunities and threats concerning Search Engine Optimization as a digital marketing technique for Internationalization, as well as its related terms, concepts, advantages and trends.

The second part (chapters 3 & 4) will be the selection of SEO strategy and creation of a SEO implementation plan, providing a procedure on how the learned knowledge can be implemented effectively to optimize the commissioner's website for search engines, focusing on International markets. Books, statistics, blogs and articles from trusted sources in the field will be attentively selected as references for the theoretical background, which will be included in the diverse chapters of the thesis.

The third and final part (chapters 5 & 6) will be the discussion, including suggestions for measuring and monitoring performance, the conclusion and the limitations.

2   SITUATIONAL ANALYSIS

The Search Engine Optimization plan in Oamk started with Website's situational analysis, to identify where are the challenges and opportunities for improvement concerning SEO. According to the Business Dictionary, 2017, a situational analysis is a "systematic collection and evaluation of past and present data, aimed at (1) identification of internal and external forces that may influence the organization's performance and choice of strategies, and (2) assessment of the organization's current and future strengths, weaknesses, opportunities, and threats." The situational analysis will provide data and insights to explain the current situation of Oamk's international website using qualitative and quantitative data concerning SEO elements and suggest what can be improved.

SEO is done through different tactics including content development, HTML, and other techniques that involve developing content in a desirable format, inserting media and other engaging elements to the website's content, and gaining links to the domain from other high-quality domains. SEO can be roughly categorized to two different categories, on-page SEO and off-page SEO. On-page SEO is the practice of optimizing websites or webpages in order to rank higher and earn more relevant traffic in search engines, while off-page SEO refers to actions taken outside of your own website to impact your rankings within search engine results pages (SERPs) (MOZ, 2017). SEO can improve the ranking of websites or webpages, as well as its value when it comes to search engine visibility. This chapter will explain how the current SEO analysis was done in the commissioner's website and what was analyzed.

2.1   Current international SEO analysis

In an increasingly globalized world, it is important to be found by search engines. As Oamk's business is global, then Search Engine Optimization (SEO) takes on a predominant role in making their website contents universally available. If a company wants to highlight its contents on Google for international markets, it needs to work out an SEO strategy, so that it can promote itself to the international target audience, maximizing all the effort and investment spent creating the website.

The goal of SEO is to generate more traffic to the website, by increasing the number of qualified visitors and boosting not only the number of customers but also the increase in deals closed.

Companies that position themselves in Google's first (unpaid) organic results are perceived as market leaders, with confidence and quality perception superior to the competition. The theory of SEO is complex, and it is easier to be understood from the so-called "user experience" perspective. That is, the user's own experience of search engine searching. Nowadays, people are regularly engaged in the Google ecosystem of search engine optimization and search engine marketing. Anyone that type in anything on Google, is involved in SEO. There are several hundred known and theoretical ranking factors, and they affect "position" on Google. They determine how high a web site, social media or article will rank on Google, and the search engine optimization community is constantly trying to figure everything out. Having an SEO-compliant website means having and managing a website in a way that it follows search engine understanding and communicates clearly what it's about to its target audience (Clay, 2015). Users are the most critical aspect of search, because search engines were made to help them find information and content. Therefore, the focus should be on user intent and user satisfaction, rather than using underhanded, manipulative techniques. As the engines continue to evolve, search protocols and ranking factors may change, but SEO and user experience will continue to work aligned. (Shenoy & Prabhu, 2016)

Concerning the benefits of SEO for higher education, incorporating SEO in the website increases traffic, and the recommendations of users visiting the website can help Oamk to get more hits and attract new customers (a lot depends on the content or what's on offer). The reach and scope achievements by implementing SEO, leads to a larger audience. Organic SEO results are not dependent on ads, and with efficient maintenance, can make the site appear at the top results without having to advertise.

As stated by Busche, 2017, at its most basic level, an SEO strategy involves dealing with 15 items, or ranking factors, grouped in the following three main categories: Reputation, Relevance and Readability, as follows:

Table 1 - SEO content optimization Reputation, Relevance and Readability. Busche, 2017

Category	Meaning	Main factors
Reputation	Factors related to the level of authority that search engines assign to the website's domain.	Inbound links; Outbound or external links; Internal linking; Domain reputation; Visitor engagement and traffic; Social metrics.

Relevance	Factors that point to the way search engines connect searchers' queries with the website's content, to ensure that it is appropriate to satisfy their need.	On-page keyword and semantic keyword usage; Heading usage; Title and "meta description" optimization; URL structure; Content freshness; Image and media optimization.
Readability	Factors related to the user's experience after he/she has landed in a particular content piece of the website.	Page speed; Content quality and length; Responsive design and user experience.

All the items explained in the table above can be remembered easily if Oamk thinks in terms of what they are helping search engines to discern: Whether the commissioner's website content is reputable; Whether it is relevant for the searcher's intent; Whether it is readable and provides a quality experience (Busche, 2017).

In this sense, to support the significance of the research problem, a current international SEO analysis was done, focusing on the three main categories suggested by Busche,2017: Reputation, Relevance and Readability.

2.1.1   Reputation

Concerning Reputation, or factors relate to the level of authority that search engines assign to the commissioner's domain, statistics were retrieved from Google Analytics, which reinforce the need of a Search Engine Optimization plan for the commissioner's internationalization: In one year, from 13th December 2016 to 13th December 2017, 95.15% of the Oamk's website users were in Finland. Meaning that only 4,85 % of the Oamk's website users were in foreign countries. From that fact, it is possible to infer that a very low number of foreign prospective students are aware of Oamk's website and its study offers.
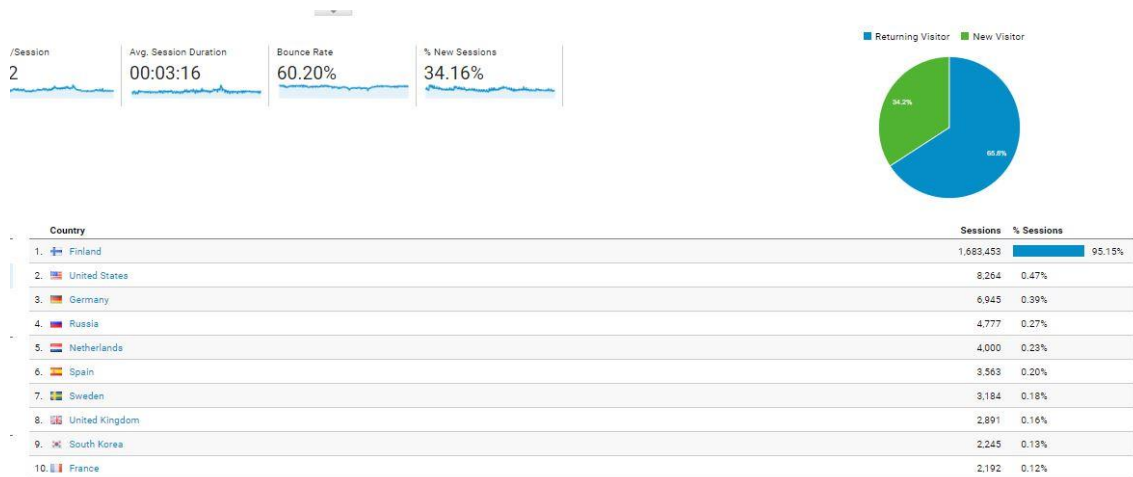
	Country	Sessions	% Sessions
1.	Finland	1,683,453	95.15%
2.	United States	8,264	0.47%
3.	Germany	6,945	0.39%
4.	Russia	4,777	0.27%
5.	Netherlands	4,000	0.23%
6.	Spain	3,563	0.20%
7.	Sweden	3,184	0.18%
8.	United Kingdom	2,891	0.16%
9.	South Korea	2,245	0.13%
10.	France	2,192	0.12%

Figure 1 - 95,10% of the www.oamk.fi domain' users were in Finland (From December 2016 to December 2017).

Still, on the same period, 69,08 % of the website users were using Finnish language as default language, while 29,70 % were using English language. That means that most of the users are Finnish speakers, but there is still a large amount of people that use the website in English, which reinforces the necessity of making the content universally available and the need of internationalization.
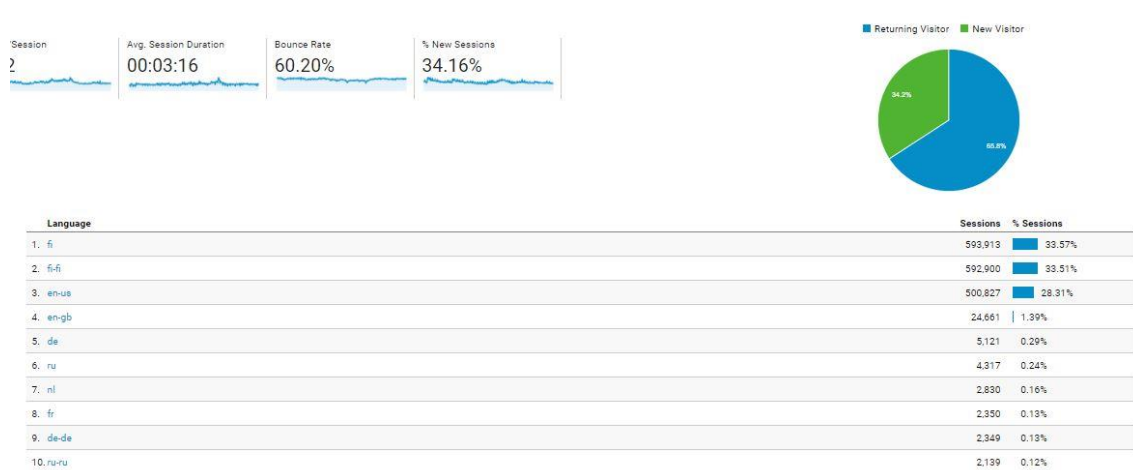

	Language	Sessions	% Sessions
1.	fi	593,913	33.57%
2.	fi-fi	592,900	33.51%
3.	en-us	500,827	28.31%
4.	en-gb	24,661	1.39%
5.	de	5,121	0.29%
6.	ru	4,317	0.24%
7.	nl	2,830	0.16%
8.	fr	2,350	0.13%
9.	de-de	2,349	0.13%
10.	ru-ru	2,139	0.12%

Figure 2 - 69,08 % of the www.oamk.fi domain' users were using Finnish language as default language, while only 29,70 % were using English language.

According to Ahola, 2017, SEO performance can be judged by time spent on a site, number of pages reviewed, or conversions themselves. In the case of Oamk, the situational analysis showed that users were usually spending less than 10 seconds in one page, which is a very short time. This kind of analytics might be a signal that users are not engaging to the content provided or are not finding what they were searching, or are facing loading problems, for example. Thus, deciding

to quit the pages early and affecting the reputation of the content. The evidence of engagement level in Oamk's website is demonstrated below:
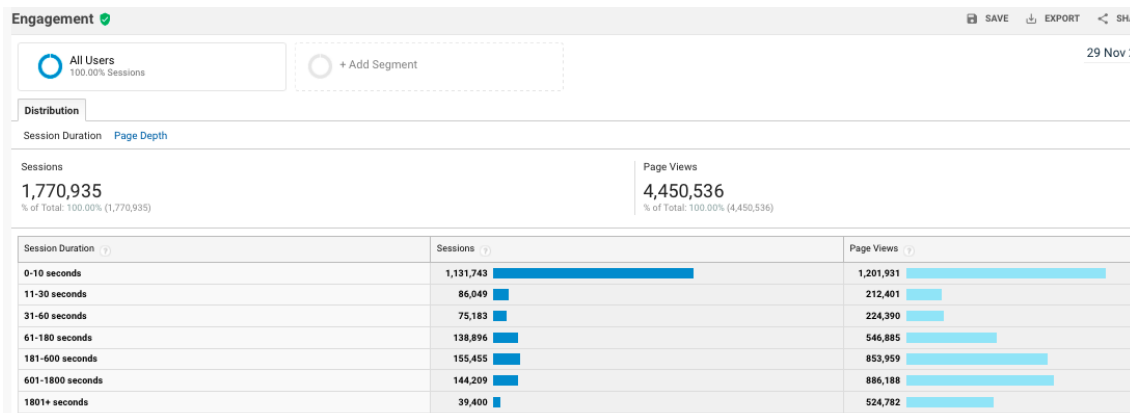

*Figure 3 - Engagement level from 29/11/2016 to 29/11/2017, one-year interval.*

Concerning the positive points, Backlinks were a strength for Oamk on the situational analysis. It was identified that the school has a great number of backlinks. The number of backlinks a website has is a good indicator of its popularity or importance, which strengthens the domain authority and can help to leverage search engine ranking. (Busche, 2017)

Figure 4 - Figure 6: Number of links on Oamk.fi domain. Source: SEO Report Card. UpCity, Dez/2017

Moreover, the high number of Oamk's backlinks versus another multidisciplinary university of applied sciences can be seen from the picture below:
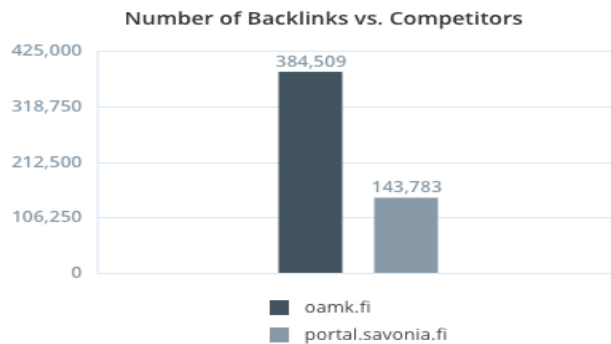
Figure 5 - Example of number of Backlinks versus another multidisciplinary university of applied sciences: Oamk x Savonia Amk

The figure means that when compared to this other multidisciplinary university of applied sciences, Oamk has greater chances to get better ranked in Google for a certain content, as Google uses links to discover new web pages and to help determine how well a page should rank in their results.

2.1.2   Relevance

Concerning the Relevance category, which means factors that point to the way search engines connect searchers' queries with the website's content to ensure that it is appropriate to satisfy their need, first it is necessary to understand what is SERP. According to Brick Marketing, 2017, Search engine results page, or SERP, is the web page that appears in a browser window when a keyword query is put into a search field on a search engine page. The list of results generally includes a list of links to pages that are ranked from the most popular to the least popular from the number of hits for the keywords on the search query. The list will include not only the links, but also a short description of each page, and of course, the titles of the webpage. The term "search engine results page" may refer to a single page of links returned by a query or the entire set of links returned.

According to Moz, 2017, the title tag is an HTML element that specifies the title of a web page in SERPs. During the website analysis, it was discovered that Oamk was not using search engine friendly titles and descriptions (Meta Title and Description tags) on the main English webpage (www.oamk.fi/en). These tag elements are of extreme importance, because they will be the title and description of the company/page in SERPs and are the first thing a searcher will see in a SERP. Title tags are the clickable headline for a given result of a Search Engine query, and are

important for usability, SEO, and social sharing. The title tag of a web page is meant to be an accurate and concise with the description of a page's content and it will be the blue link in the SERPs. Moreover, Meta descriptions are HTML attributes that provide concise summaries of webpages. They commonly appear as a short grey sentence underneath the blue clickable links (titles) in a SERP (Moz, 2017). Still, another important concept related to SERP and relevance, is the meta-tags concept: Meta tags are snippets of text that describe a page's content; the meta tags don't appear on the page itself, but only in the page's code. It is little content descriptors that help tell search engines what a web page is about (WordStream, 2017).

In the evidence below, the Oamk's main English page appears in Google SERPs with a misleading meta-description about Oulu Entrepreneurship Society. Moreover, in some English pages, Oamk was using the meta-keywords which are not recommended for SEO in 2017 anymore (Yoast,2017; Moz,2017) with words in Finnish language. This can make the website hard to find by search engines, as the language tag of the website's English version is English.

Figure 6 - Detail of Google search results for "Oulu University of Applied Sciences", retrieved from Google on 9.11.2017

Still, a print screen of the Oamk main English page was taken (see the next picture), showing that Oamk was using the same Meta-description and Meta-title "Oulu University of Applied Sciences" for the English main webpage of the website, without mentioning Oamk nor any focus keywords, which can make harder for search engine's users to understand what the content of the page is about, affecting relevance and readability. Focus keyword is the search term that a company most want their page to rank for, so when people search for that keyword or phrase, they should find the company (Yoast, 2018). The focus keyword should appear in title, description, H1 & H2 tag, body, and other elements of the webpage. as demonstrated by the next figure:

```
1
2  <!doctype html>
3  <html class="no-js" lang="en">
4  <head>
5  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6
7  <meta http-equiv="content-type" content="text/html; charset=UTF-8" />
8  <title>Oulu University of Applied Sciences</title>
9  <meta name="description" content="Oulu University of Applied Sciences" />
10 <meta name="generator" content="concrete5" />
11 <script type="text/javascript">
```

Figure 7 - HTML Code detail from www.oamk.fi/en with same Meta-Description and Meta-title: "Oulu University of Applied Sciences", without mentioning Oamk nor any keywords. Retrieved on 07.12.2017.

As an evidence for the lack of search engine friendly titles and descriptions (Title and Description tags) on the main English webpage, Print Screens from Google search engine results pages (SERPs) were taken:
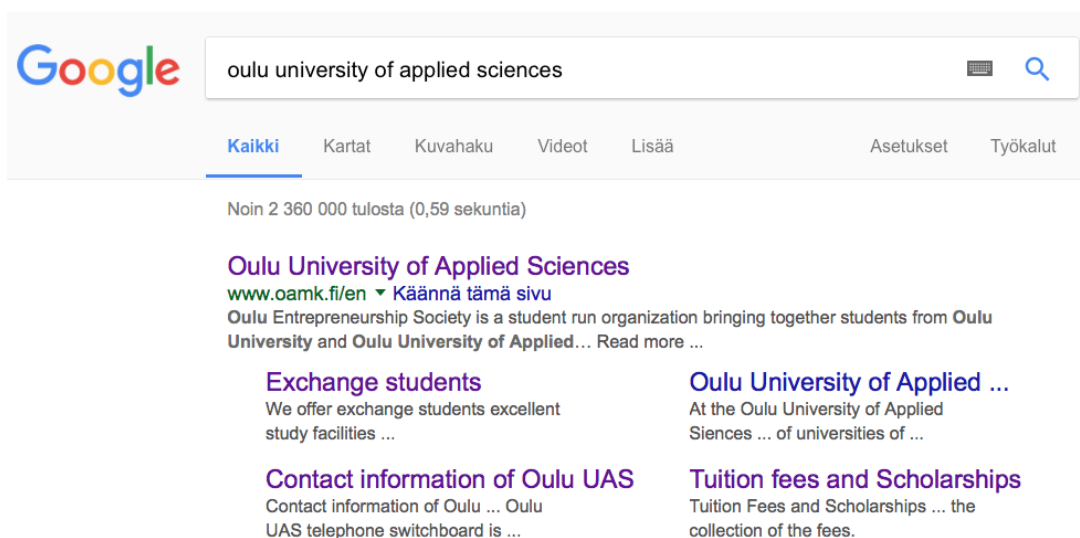

Figure 8 - Google search results for "Oulu University of Applied Sciences" showing misleading description of Oulu Entrepreneurship Society, retrieved on 29.10.2017

Another example of the lack of search engine friendly titles and descriptions, is when Oamk uses the school name in Finnish in the title of an English page, and does not use any meta description containing focus keyword, as demonstrated by the next the next figure:

Figure 9 - Example of page where Oamk uses the school name in Finnish in the title of an English page, and does not use any meta description containing focus keywords.

During the situational analysis it was found that many pages in English contained Meta-keywords, as demonstrated by the following picture:
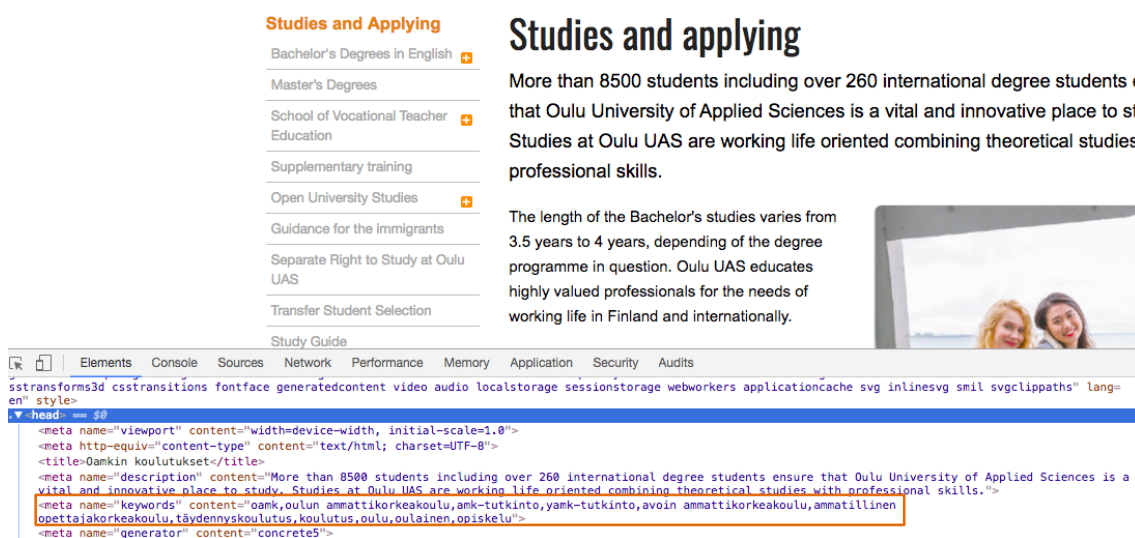

Figure 10 - Example of the use of meta keywords (outdated) in Finnish language on an English webpage.

Meta-keywords are a meta tag hidden in the HTML (<meta name="keywords" content ="") that were used in the past to list keywords relevant to the page's content, but, that nowadays are found to bring spams to the websites and have no positive relation with search engine rankings anymore (Yoast, 2018).

2.1.3   Readability

Concerning content quality and length, that is, Readability category, a Benchmarking analysis was done about search engine results targeting focus keywords. As abovementioned, Focus Keywords are the search terms that a company most want its page to rank for and are relevant for SEO and content creation. That is, when people search for that keyword or phrase, they should find that company's website (Yoast, 2018).

A Benchmarking analysis consists in comparing one's business processes and performance metrics to industry bests and best practices from other companies. In this specific Benchmarking, Oamk was compared to other multidisciplinary universities of applied sciences, which were informed by Oamk's Marketing and Communications Manager. Sample focus keywords were chosen and then used in a trusted SEO Report tool, called SEO Report card. Sample focus keywords chosen were "Study in English in Finland" and "Bachelor's Degree in Finland". After the analysis was performed using the abovementioned keywords, it was discovered that Oamk was appearing on 95th position of Google Ranking for the search "Bachelor's Degree in Finland":

Figure 11 - Benchmarking analysis for keywords 1

When performing the same analysis for another focus keyword "study in English in Finland", the result demonstrated that Oamk was below the 100th position in SERPs for this search, as demonstrated by the picture below:

– Keyword: Study in Finland in English
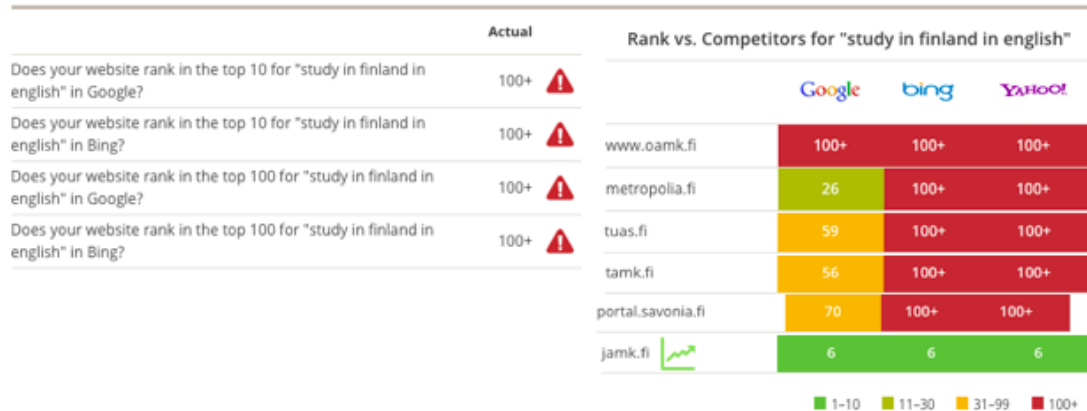
Figure 12 - Benchmarking analysis for keywords 2

From these results, we can see that Jamk (Jyväskylä University of Applied Sciences) would appear in the first page results for both searches, while Oamk would not be found by a searcher. Moreover, compared to all the other multidisciplinary universities of applied sciences, Oamk had the worst ranking in SERPs for the searches abovementioned.

Other negative point identified was that Oamk was not using properly the Heading Tags (h1,h2,h3, h4) on some important English pages. Heading tags refers to the HTML markup used to distinguish headings and subheadings within a website's content from other types of text (e.g. paragraph text). They run from h1–h6, historically in a sense of 'importance' (Search Engine Journal, 2016). The situation is exemplified by the next figure:

```
            <div id="ccm-layout-wrapper-29774" class="ccm-layout-wrapper"><section class="row ccm-layout-name-Sisalto-Layout-2 ">
<div class="ccm-layout-77-col-1 medium-12 large-12 columns"><h1>Sustainable development</h1>
<p class="ingressi">Our staff and students acknowledge their ecological, economic and sociocultural responsibilities. We are
committed to systematically enhancing the principles of sustainable development in all our actions.</p><p>The sustainable
development teams of the campuses implement the practices that are guided by the Sustainable development is part of knowhow –
program 2017.</p>
<p><strong>Campus SD contacts are:</strong></p>
<ul>
<li>Oamk and Kotkantie campus: <a href="http://www.oamk.fi/utils/hkorttilinkki_new.php?
ikkunassa=1&amp;lyhenne=luova&amp;sukunimi=Virkkula&amp;etunimi=Outi&amp;kieli=en">Outi Virkkula</a></li>
<li>Teuvo Pakkalan katu campus: <a href="http://www.oamk.fi/utils/hkorttilinkki_new.php?
ikkunassa=1&amp;lyhenne=liike&amp;sukunimi=Kamula&amp;etunimi=Minna&amp;kieli=en">Minna Kamula</a></li>
<li>Kontinkangas campus: <a href="http://www.oamk.fi/utils/hkorttilinkki_new.php?
ikkunassa=1&amp;lyhenne=sote&amp;sukunimi=Reponen&amp;etunimi=Paula&amp;kieli=en">Paula Reponen</a></li>
</ul></div></section></div><div id="ccm-layout-wrapper-29775" class="ccm-layout-wrapper"><section class="row ccm-layout-name-
Sisalto-Layout-1 "><div class="ccm-layout-78-col-1 medium-12 large-6 columns"></div><div class="ccm-layout-78-col-2 medium-12
large-6 columns"></div></section></div><div class="ccm-remo-expand">
    <div id="ccm-remo-expand-title-14917" class="ccm-remo-expand-title ccm-remo-expand-closed" data-expander-speed="500">Politics
of Sustainable Development in Oulu University of Applied Sciences</div><div id="ccm-remo-expand-content-14917" class="ccm-remo-
expand-content"><p>Oulu University of Applied Sciences (Oulu UAS) is a northern operator for sustainable development. It is
included in the objectives of the education we provide and is also integrated in our research, development and innovation work. Our
staff and students acknowledge their ecological, economic and sociocultural responsibilities and are committed to systematically
enhancing the principles of sustainable development in their actions.</p>
<p>Our sustainable development work follows the requirements of the ISO 14001 environmental standard. Our work is directed
primarily towards strengthening environmental know-how and awareness. We also take into account actions, the environmental impacts
of which we can indirectly affect, such as stakeholder co-operation and maintenance operations. We make sure that we have enough
resources for sustainable development work. We also monitor regularly the progress of the work and fulfil the requirements set to
us by the law and authorities.</p>
<p> </p>
<p align="right"><em>The politics has been discussed in the management group of Oulu UAS on 18 March 2015, and the rector has
signed it.</em></p></div></div><div class="ccm-remo-expand">
    <div id="ccm-remo-expand-title-14918" class="ccm-remo-expand-title ccm-remo-expand-closed" data-expander-speed="500">Goals of
sustainable development work 2015-2017</div><div id="ccm-remo-expand-content-14918" class="ccm-remo-expand-content"><p
dir="auto">In the beginning of the year 2015 students and personnel valued the main activities of Oulu UAS and their sustainable
development (SD) impacts. On the basis of the results three main goals were defined for the SD work of Oulu UAS:</p>
<p dir="auto">1. To strengthen environmental competence of students and staff<br />2. To promote environmental awareness and
responsible action<br />3. To intensify waste sorting, to reduce total amounts of waste and its costs</p>
<p dir="auto">Each goal involves various activities, that are measured and monitored.</p></div></div><div class="ccm-remo-expand">
    <div id="ccm-remo-expand-title-14924" class="ccm-remo-expand-title ccm-remo-expand-closed" data-expander-
speed="500">Responsibilities of sustainable development in Oulu UAS</div><div id="ccm-remo-expand-content-14924" class="ccm-remo-
expand-content"><p><span>Our SD responsibility includes various objects.</span></p>
<table width="100%" cellspacing="5" cellpadding="5">
```
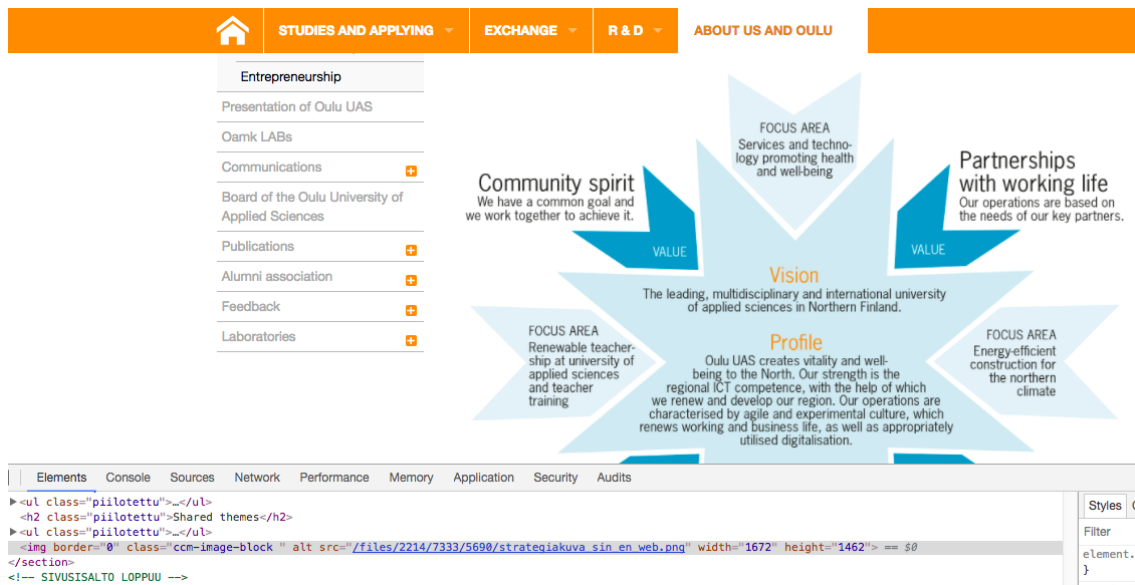
Figure 13 - Example of text where Oamk was using only h1 tag for a large amount of text, when it could have been developed using more heading tags.

Although there are controversies between SEO specialists about the significance of heading tags, the Search Engine Journal, 2016, states that in terms of on-site SEO, heading tags' careful optimization can lead to Google better understand the structure of the text on a page and to major ranking increases.

Other step of the situational analysis, concerning Relevance and Readability, was the image examination. Images make a piece of content more vivid and can contribute to the SEO. Image SEO starts with the right file name, scale, responsive images, captions and alt texts (Yoast, 2017).

The alt text (HTML: Alt= or Alt Src=) is added to an image so there will be a descriptive text when the image for whatever reason can't be displayed to the visitor. The alt text must contain SEO focus keyword for that page and relates to or describes the image (Yoast, 2017).

During the image examination, it was found that Oamk was not using alt text at all on the images from the English part of the website, or instead, they were using Finnish words on the alt texts for images in the English part of the website:

Figure 14 - Alt Src= in Finnish Language when the picture is actually in English. Alt= did not exist for the image. Retrieved on 07.11.2017.

Both situations were making Oamk not appear or appear bad ranked in Image related English language searches:
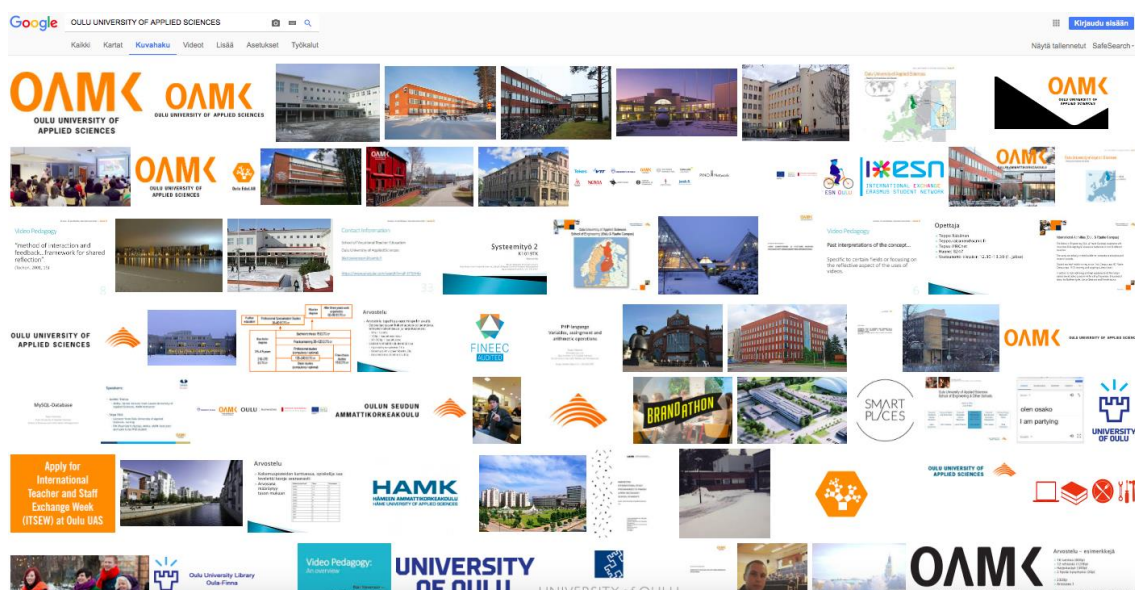

Figure 15 - Image search results for "Oulu University of Applied Sciences". Old logo appearing as well as old photos. New communications images for the application process were not showing up in the main results. Retrieved on 07.12.2017.

Still, it was found different meaningful alt texts in important information for prospective students:

Figure 16 - Meaningful Alt attribute in important image information for prospective students. Retrieved on 07.12.2017.

In the Readability category situational analysis, the Google Search Console tool was also used, in 22.11.2017, when it was found that Googlebot found an increase in server errors on http://www.oamk.fi. The Search Console was showing a message that "Googlebot has identified that an increased number of URLs on http://www.oamk.fi/ return a server error HTTP 5xx. As a result, users might not be able to see Oamk's content at all, and Google might not be able to index and show Oamk's pages in search results." That means, this error was affecting website's readability and the Search Engine ranking of the website. As an evidence, a print screen demonstration below:

Figure 17 - Googleboot found an increase of server errors. Retrieved on 22.11.17, Source: Google analytics.

From all the reasons evidenced above, it was possible to assume that an international student would not find Oamk's website easily when performing searches in Google related to studying in Finland or Bachelor's Degrees in Finland, for example. This is due to the fact that the school was not doing any kind of SEO for the English pages when this analysis was done. Consequently, it was proved the need of a SEO project for the English pages in www.oamk.fi.

2.2   SWOT analysis

According to the Business Dictionary, the SWOT is a type of situational analysis in which internal strengths and weaknesses of an organization, and external opportunities and threats faced by it are closely examined to chart a strategy. SWOT stands for strengths, weaknesses, opportunities, and threats.

Using all the negatives and positive points from the situational analysis before mentioned, it was possible to build a SWOT analysis, showing the strengths, opportunities, weaknesses and threats for the Oamk's Search Engine Optimization plan.

S	O
•Oamk looks and sounds like a brand / Strong Branding •Oamk has a mobile friendly website and uses the tag viewport •High level of backlinks (384.509 in 07.12.2017) •Strong social following and activity in the main social medias (Instagram, Facebook and Snapchat) •Website full of great content, long content •Copy writing, content creation, graphic design, journalism, photography and IT professionals available for SEO	•Improve on-page SEO, off-page SEO & keyword targeting •Fix meta-tags and heading tags for texts •Fix alt attribute for images •Create more 'shareable' (& 'link-worthy') content •Decide for one brand name •Train in-house team for SEO or provide an external resource E.g Consultancy •Invest budget in SEO •Correct server errors/pages not found on the domain
W	**T**
•No on-page SEO / keyword targeting on the English version of the site •Extremely low number of international visitors / % of International visitors on the site •Meta-tags are overall inapropriate used •Alt attributes for images and Heading Tags for texts poorly used •Two brand names in communications: Oamk & Oulu ouas •No Digital Marketing professional dedicated to SEO •No YouTube SEO for videos in English •Low level of engagement on Youtube channel •Large number of Server errors/page not found on the website •Tags in Finnish language on English pages	•Competitors with higher page ranking and higher domain authority •Competitors using paid SEO and paid search results •Competitors investing high budget in SEO •Larger Universities of applied sciences (specially from Southern Finland) already have know-how and strong SEO techniques •Algorithmic updates •SEO changes often / SEO needs to be constantly monitored

Figure 18 - SWOT analysis

After all the analysis, the need to create a SEO plan for the commissioner's website was reinforced. Still, the necessity to Improve on-page SEO, fix meta-tags and heading tags for texts, fix alt attribute for images, create more 'shareable' (& 'link-worthy') content and correct server errors or pages not found on the domain, were highlighted.

3   SEARCH ENGINE OPTIMIZATION STRATEGY

The SEO strategy for Oamk aims to provide a plan of action designed to help the institution to achieve the SEO and internationalization goals. The target audience, the value proposition, as well as the main benefits of SEO were created to build the SEO strategy, as follows:

Figure 19 - SEO Strategy for Oamk's international website

The SEO strategy details are explained in the next sub-chapters.

3.1   Target Audience

In the case of this work, the target audience is international students, aged between 16 to 26 years old, natural from Asian, African and European countries, female and male, who are looking for opportunities to study abroad and for scholarships to study abroad, especially in Finland.

According to Busche, 2017, instead of splashing specific words everywhere, recent new algorithm changes focus on figuring out if a certain page answers searchers' needs—a principle also known as user search intent. Put simply: why are they searching in the first place?

Broder, 2002, created a framework of three types of search intent that can classify searches as transactional, informational and navigational; Transactional searches are actionable: the users

want to do, apply, interact. Informational searches intend to know or learn something new; and Navigational searches are made to reach/ go to a particular website (Broder, 2002).

According to MOZ, 2016, nowadays it is important to expand these three categories to cover searches done via Intelligent Personal Assistants. In the most recent revision of their human rater guidelines, Google introduced a new category — Know Simple — for informational queries that can be answered with a short (< 2 sentences) answer that has an uncontroversial answer (MOZ, 2016), for example, search query: Number of students in Oamk. Content answer: 8500. (see the next figure)

Figure 20 - Number of students in Oamk, "Know short" example of search query, with answer

These are the types of answers that can be featured quite easily in a featured/rich snippet and contain most of the necessary information, as exemplified above.

3.2   Value proposition & benefits of SEO

After the target audience was defined, the main value proposition of this Search Engine Optimization needed to be explained.

The value proposition of SEO in the context of this work, is to deliver quality information as results of searches performed in Google and generate value for the audience through quality content that is reputable, relevant and readable.

SEO STRATEGY

Figure 21 - SEO Strategy for Oamk's international website

This SEO implementation plan aims to position the Oamk's website content on the SERPs in response to a search for a relevant keyword phrase. Someone interested in the information will click on the links on SERP listing. Visitors will then arrive on Oamk's website, research their options, and gain trust in the company's ability to help. Finally, visitors might fill out a form, call, apply to something, or otherwise take an action that moves them further down the path toward becoming an international student in Oamk. This frequently doesn't happen on the first visit. (Mheda Journal, 2013).

4 ON-PAGE SEARCH ENGINE OPTIMIZATION PLAN

According to Busche, 2017, few years ago, the dominant belief in SEO was something along the lines of "think like a search robot." Today, as algorithms become smarter and more attuned with human motivations, the suggestion has changed to "think like a searcher." That is, a human one.

According to Prabhu & Shenoy, 2016, on-page SEO are all factors controlled by the website's owner, including the source code. It contains for example, metatags, title tags and meta descriptions, headings, internal links, site maps, URLs, content, semantics, and ease of navigation, examples of elements that were also supported by Busche, 2017, in the Reputation, Relevance and Readability model used in the situational analysis. On-page SEO overall focuses on efficient presentation of content to website users. Adhering to semantics and optimal web page structure are imperative for a site's success: they result in a site that is systematic and organized and that provides better readability not only for users but also for search-engine crawlers. (Busche, 2017)

4.1 Keywords & topics Research

As stated by Ahola, 2017, when a user enters a keyword in the search engine, SEO's goal is to make one (or several) of the pages of the commissioner's website appear among the first results of organic search. Although keywords are not necessarily the heart and soul of SEO, they are still the best path to attaining search goals.

According to Busche, 2017, as search engines nowadays approach to humans in their "understanding" of content, it has become more important to think semantically, that is, with connotation or the meaning of language use. Focusing on semantics means focusing on what keywords stand for in order to come up with more useful ways to serve and insert them. It also suggests finding other related keywords that users would also think of when typing in a search box.

Instead of spreading specific words everywhere, new algorithm changes focus on figuring out if a certain page answers searchers' needs, a principle also known as user search intent. Overall, the focus must be on the intention the user brings to the query, which is more likely to anticipate what the person wants to know (Ahola, 2017). Put simply: why are people searching in the first place? If

Oamk can understand who the audience for any particular content piece is, thinking of keyword phrases will become much easier.

Oamk was not using any kind of focus keywords (explained in the chapter 2.1.2 - Relevance), which nowadays are essential for a good ranking positioning in Search Engine' results (MOZ, 2017). Therefore, it was possible to assume that an international student with the search intention to find about studies opportunities and scholarships in Finland, would not find Oamk's website easily when performing searches related to studying in Finland or Bachelor's Degrees in Finland, for example, as evidenced in the situational analysis.

Using Google Keyword Planner and Google Suggestions train, several keywords were compared after a brainstorm. As exemplified in the picture below:

Figure 22 - Example of Keywords comparison done during the thesis, using Google Keywords planner to define keywords for Oamk.

Moreover, according to Neil Patel, 2018, long tail keywords are the foundation of an effective SEO strategy. Long tail keywords are keywords or key phrases that are more specific – and usually longer – than more commonly searched for keywords (Yoast, 2017). Long-tail keywords account

for 70% of all web searches and using them is a way how Oamk can outrank the competition, as long-tail keywords are how people actually search the Internet (Neil Patel, 2018). Consequently, long tail keywords or topics for blog posts and FAQ session (Frequent Asked Questions) were also identified, using the Google Keywords Planner, as the example below:

Figure 23 – Long tail keywords for Oamk's website

The list of long tail keywords was created after the suggestions are compared and are in Appendix 1, as well as the list of focus keywords (see Appendix 1).

According to Moz, 2018, it is necessary to avoid keyword cannibalization or keyword spamming, which is the excessive reuse of the same keyword on too many web pages within the same site. Because, this practice makes it difficult for the users and the search engines to determine which page is most relevant for the keyword.

After the keyword research and knowing which keywords the commissioner would like to rank for, it is time to start creating relevant content using SEO copywriting techniques, which will be detailed in the next topic, "Content Development".

4.2   Content Development

Content development for SEO, must be based on which topics does the commissioner wants to be found for, must anticipate the audience's intention and should be better than current SERP winners. Busche, 2017, stated that higher-quality content is the number one source of satisfaction for any visitor, and that it is important to define which words will be used on each page, as well as the distribution of all words through the site content. Although there is no such thing as an ideal content length that will get a website in the first position in search results, many experts have noticed patterns in the top-ranking and high-quality content pieces: Social shares, shareability, time on page, language neither too simple nor full of industry jargon, written to its audience, not for peers, and linking improving with long-form content, may end up ranking better in search. (Busche, 2017)

Still, Wilson, 2016, explains that content-driven websites usually fare well with SEO implementation, provided the content is engaging and relevant. Simply stuffing the content with keywords may not lead to good results. The commissioner needs to understand user intent via their queries instead of focusing on what search engines like.

Finally, to serve the most relevant content possible, search engines also consider how up-to-date it will be perceived by users. Of course, not every topic on Earth depends on newness to appear relevant or useful. Freshness weighs in when we are dealing with time-sensitive content that provides value insofar as it is updated. Yearly roundups, current-events pieces, and social trend coverage are all good examples. (Busche, 2017).

Consequently, the Oamk's search engine optimized and relevant content should include FAQ (Frequent Asked Questions), a section that answers user's real frequent questions (this data can be gathered through Student Admissions services or through surveys with applicants and current students), as well as interesting blog posts focusing on the target audience, informative pages, and so on.

4.3   Heading tags

After the list of keywords and long tail keywords was planned for the Oamk's website contents, Oamk needs to find a place to insert them, and this section aims to inform how. As stated by

Busche, 2017, HTML contains different tags whose goal is to inform search bots and humans alike what is most important, not as important, and least important on the page. Behind every content page published, no matter how text-intensive, there is a basic source code that determines what is shown.

The heading tags (h1 - h6) were created to mark highlights in the website content, to give the user a good reading experience and to provide an organization and sequence of content that makes perfect sense for a search engine. (MOZ, 2017) But, in the case of Oamk the heading tags are not always used properly, as it was demonstrated in the situational analysis. Heading tags, as the name implies, are tags that are used for the creations of headings. The most important tag is the <h1> heading tag, and will usually be the title of a post. Heading tags have a top-down hierarchy from <h1> to <h6> (Yoast, 2017):

H1

- H2
- H2
    - H3
        - H4
        - H4
    - H3
- H2

This structure follows the nesting of heading tags and this is the sequence in which these tags are to be found in the code, that is, when reading the HTML code, the first heading tag found must be h1. Pursuing the reading, one must find an h2, which can be divided into h3 headings and so on. Also, a new subtopic belonging to a h2 or a new subtopic marked on a h2, derived from the main theme marked by h1 of the page, is valid.

The value headings have for SEO is less than it was in the past, but headings still help Google to grasp the main topics of a long post. Using a nice heading structure isn't that hard and help not only Search Engines, but visitors as well (Yoast, 2017). Using heading tags means placing important ideas in equally important spaces on the page. Many SEO experts claim that including the main focus keyword in the first paragraph has a positive impact in the way search engines rank the piece for that term. Thus, it is useful for SEO to reserve your main container and headings for outstanding, strategic content (Busche, 2017).

4.4   Title & description

There are two HTML tag whose importance can't be overstated: the title tag and the description tag. According to Moz, 2018, it is foremost to have unique and accurate meta title and description tags, because they may be the information that the search engines rely upon the most to determine what the page is about. Also, they are the first impression that users get about a page within the SERPs. The title tags are what search engines and other platforms display when they "read" website's pages. Google, for example, builds out a snippet that includes meta title, meta description, date, and URL. When searchers see the content piece in results, they should be able to garner either a complete or pretty good idea of what it is about (Busche, 2017).

To optimize for search engines, it is necessary to use title and description lengths that prevent cut off. Most SEO experts (e.g Moz and Yoast) claim that the ideal title length lies somewhere between 50 and 65 characters and that the focus, or most important, keyword should be at the beginning of the title. Both humans and search engines see initial words first (Busche, 2017).

The content page's meta description is as well important as titles for the visibility in SERP listings. According to Moz, 2017, the meta description are HTML attributes that provide concise summaries of webpages and directly informs searchers what they are about to find when they click a search engine result. SEO specialists recommend keeping the meta description text between 150 and 160 characters long. Although they're no longer weighed heavily in search rankings, these descriptions can be crucial to improve website's listings' number of clicks, increasing organic traffic, which can indirectly affect Oamk's links' positions.

A tool that can be used to generate previews of Google SERP snippets, containing the meta-title and meta-description is the FREE Google SERP snippet optimization tool provided by TotheWeb.com (To the Web, 2017):

Figure 24 - Free Google SERP snippet optimization tool as a guide when creating your Title and Meta descriptions

With this tool, it is possible to measure the Title and Description in Pixels. But, it is important to notice that visible length in the SERPs also depends on the search query. Google will bold the words in the Title and Meta description when they match the words in the searcher's query. Bolded words take up more space and Google will truncate based on the longer pixel count (To the Web, 2017).

4.5   URLs

In the SEO context, the URLs (Uniform Resource Identifier - or Web address) must be created based on the content it is hosting, usually displaying a variation of the main keyword of that page. Busche, 2017, explained that when thinking about URLs for SEO, the company needs to avoid making them obscure: if the URLs look excessively long and incomprehensible then it was probably wrong done. Consequently, here is an example of URL the commissioner must avoid: http://www.oamk.fi/index.php?id_session=4045&sid=30349503495000

Unnecessary parameters and session IDs make it difficult for both bots and humans to understand the meaning of the content. For the preceding link, a structure like www.oamk.fi/degree-international-business-finland, would have been much more descriptive and meaningful.

As with titles, most SEO consultants recommend placing the focus keyword in the actual URL. Additionally, URLs also are part of that snippet that is served in search results and send signals to searchers that could attract them to or repel them from the commissioner's content. Like titles, they also can be truncated. Google also has spoken openly in favor of using hyphens instead of underscores in URLs. When a website use hyphens, bots will read the words as two separate terms. Something like for www.oamk.fi/student-experience-finland.html is much more useful than www.oamk.fi/student_experience_finland.html. (Busche, 2017)

4.6   User engagement and traffic

When it comes to SEO, understanding user behavior metrics and increasing engagement can improve the commissioner's results (G5 Insights, 2017). Creating excellent, engaging content isn't just good for Google; it's good for the website's visitors as well. As explained by Busche, 2017, search engines are increasingly trying to emulate human behavior, attitudes, and responses, in the sense that now search engineers are trying to anticipate human judgment, coming up with different algorithms to imitate human reasoning. Being discovered organically, after a searcher has used certain inputs (queries) to find a solution, is the essence of strong SEO.

If the content is good and the commissioner's SERP result looks compelling, people will click it, go to Oamk's site, and stay there. When users are finding it through genuine searches, the improved rankings will come. Every time someone searches on a relevant keyword, he/she would find one of Oamk's pages in the results, then click the link and spend quality time on the site, which can improve Google's impression of the quality of that page and how it ranks against similar pages across the web in the future. (G5 Insights, 2017)

According to Busche, 2017, the fact that many users have found a content useful in the past is a basic predictor that others will benefit from it in the future, and search engineers are well aware of manipulations concerning this. Therefore, as logical as it is, popularity in terms of traffic is not one of the most stable building blocks of search engine authority. Engagement, on the other hand, is increasingly becoming the focus of major search algorithms. That is, when people land on the commissioner's content pages, they must find fast page speeds, intuitive layouts, and device-responsive experiences. This kind of experiences will make them stay on the pages and get interested to engage with its contents, generating user satisfaction.

4.7   Backlinks or Inbound links

According to MOZ, 2017, Backlinks, also called an "inbound links" or "incoming links", are created when one website links to another. The link between the two websites is the backlink, and has this name because it points back to the linked-to page, that is, backlinks are links coming from the outside pointing to inside.

Blogs, influencers, companies, and brands in general can have included and include in the future links to Oamk's English content. The more reputable the sources of these links are, in turn, the more valuable those links become in helping establish Oamk's authority and higher ranking on Google. Trustworthy references will always make a bigger impact, and this trustworthy and how valuable those backlinks are for search engines can be determined by the factors below, according to Busche, 2017:

Table 2 - Trustworthy and value of backlinks

Trustworthy and value of backlinks for search engines:
•Backlinks are linking to the commissioner using meaningful, descriptive (anchor) text.   •The domains where the links are inserted are reputable;   •The pages where the link (s) is (are) inserted are popular and engaging;   •They are linking to the commissioner using meaningful, descriptive (anchor) text.

Some ways to increase the amount of links back to the commissioner's content pages include: Constantly feeding social channels, investing in guest blogging partnerships, answering relevant questions, reaching out to fix broken links to the content, securing Oamk's presence in reputable directories, including influencers in roundups so that they will link to them, pitching the content in discussion forums, and fostering relationships with other relevant brands (Busche, 2017).

4.8   Domain authority

Domain Authority (DA) is a search engine ranking score developed by Moz that predicts how well a website will rank on search engine result pages (SERPs). A Domain Authority score ranges from one to 100, with higher scores corresponding to a greater ability to rank. (MOZ, 2017). The Oamk's MOZ Domain Authority rank is shown below:
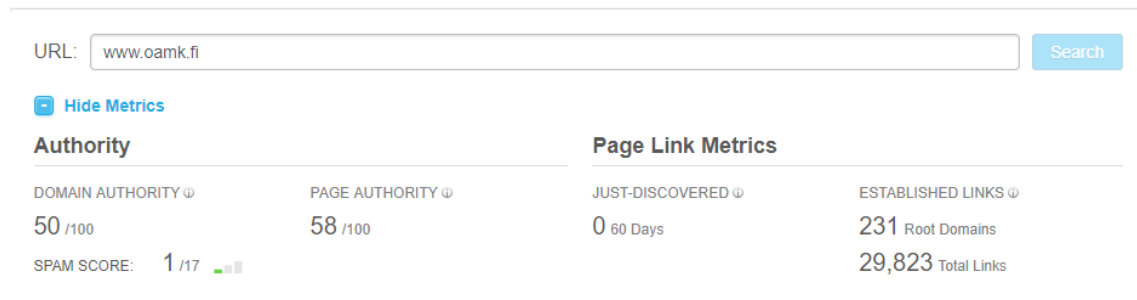

Figure 25 - Oamk MOZ Domain authority

The site's overall reputation can send positive or negative signals to search engines (Busche, 2017). As the commissioner's content helps establish its brand's authority, the site's "search prestige" rises. Similarly, if the commissioner's site is a creditable source within its niche, that will give any content published by the commissioner an extra boost. The backlinks we just analysed contribute greatly to a certain domain's reputation. Having authoritative backlinks, meaningful internal linking, and removing unnecessary or spammy links, are all essential tactics to improve the commissioner site's domain reputation over time (Busche, 2017).

4.9   Images File name and Alternative text

Images, when added with a certain consideration, will help readers understand website's contents better. "A picture is worth a thousand words". As confirmed by Busche, 2017, images and other media types receive special treatment when crawled by search engines.

According to Moz, 2018, alternative text and images file name are description of a graphic, which usually isn't displayed to the end user, unless the graphic is undeliverable, or a browser is used that doesn't display graphics. Alt text and image file name are important elements, because without them search engines can't distinguish one picture from another.

Alt text is the one place where it is acceptable for the search engine robots to get different content than the human user, but only because the alt text is accessible to the user, and when properly used is an accurate description of the associated picture. Special web browsers for visually challenged people rely on the alt text to make the content of graphics accessible to the users. Essentially, proper alt texts, make easier for google bot to understand what a website's multimedia content is about. Because these kinds of formats add to the quality of the commissioner's content experience, it is in Oamk's best interest to define them in a way that search engines can find it and understand its meaning.

As explained by Yoast, 2017, choosing the right file name and alt attribute (alternative text), using responsive images, reducing loading times and file size are essential factors for succeeding in image SEO. The image file name must contain the focus keywords. Still, without even looking at the actual image, the commissioner makes Google know what the image is about. It's simple: if the commissioner's content image is a photo of "Business students in Oamk", the file name shouldn't be DSC1234.jpg, but, business-students-in-oamk.jpg.

Still, Yoast, 2017, explained that loading times are important for SEO. The faster the site, the easier to visit and index a page is. Images can have a huge impact on loading times, especially when the commissioner loads a huge image and show it really small, like using a 2500×1500 pixels image and showing it at 250×150 pixels size (Yoast, 2017). The entire image still has to be loaded. The experts from Yoast advise to scale the image to the size the company want to show it. Unfortunately, that doesn't mean the file size is optimized as well, that's just the image size. Another topic essential for image SEO is the reduction of file size, that is, to make sure that scaled image is served in the smallest file size possible.

4.10   Internal linking

When a company wants to extend the content experience by suggesting other pieces hosted in their own site, it needs internal linking. According to Busche, 2017, internal links pointing to other pages within the same domain help users navigate a topic and provide meaningful connections to guide them there. Search engines value these kinds of links because they pass on authority from one page to another.

Anchor Text

Learn what keywords the site might be ranking for. Analyze the phrases and terms most commonly used as anchor text to link to the provided URL or domain.
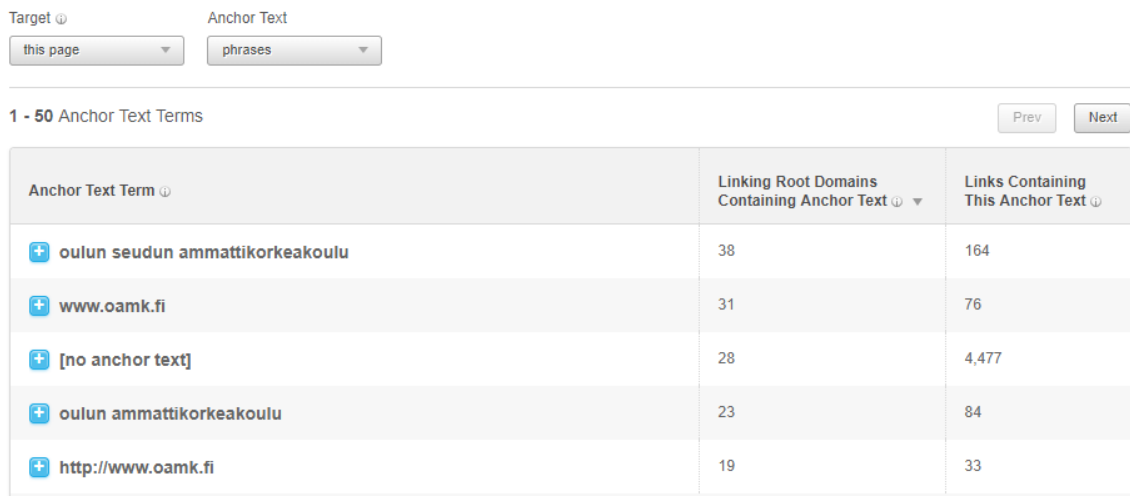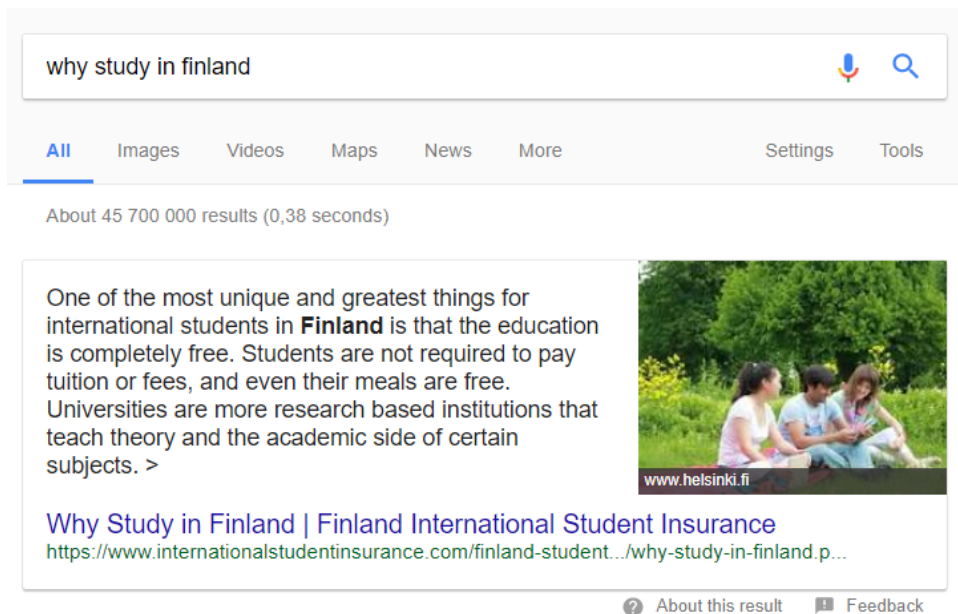
Target ⓘ	Anchor Text
this page ▾	phrases ▾

1 - 50 Anchor Text Terms   Prev   Next

Anchor Text Term ⓘ	Linking Root Domains Containing Anchor Text ⓘ ▾	Links Containing This Anchor Text ⓘ
⊕ oulun seudun ammattikorkeakoulu	38	164
⊕ www.oamk.fi	31	76
⊕ [no anchor text]	28	4,477
⊕ oulun ammattikorkeakoulu	23	84
⊕ http://www.oamk.fi	19	33

Figure 26 -Figure 25 - Most used anchor text terms in Oamk.fi

In the figure above, it is possible to consult the most used anchor texts in Oamk.fi site. There are many links with not anchor text, which can be improved by adding relevant anchor texts. Still, the commissioner can identify its content pieces with the strongest positions in Googles' ranking and find ways to add links that allow Oamk to pass some of that "page authority" on to another piece.

4.11   Structured Data Markup & Google Data Markup Helper

Structured data is a standardized format for providing information about a page and classifying the page content; for example, on an article page, headline, description, who is the author, date of publication, publisher and so on. (Google Developers, 2017)

In the Oamk's case, they have a website with a lot of articles. If they add structured data to a page within an article, their ranking in Google will change. It will be much "richer" regarding content that's shown. That's the reason these results are called rich snippets (Yoast, 2017). This is what a rich snippet looks like:

Figure 27 - Rich Snippet Example

In this result, the user can see on the top of the page, the title, the URL and the description of the search result, answering the question made by the user in the search query. To get such a rich snippet, the commissioner needs to add structured data to the website's code.

Structured data is coded using in-page markup on the page that the information applies to. The structured data on the page should describe the content of that page. The commissioner should not create blank or empty pages just to hold structured data; nor should add structured data about information that is not visible to the user, even if the information is accurate (Google Developers, 2017).

Some tools can be used to help adding structured data to websites, such as Google Data Markup helper, as exemplified in the picture below:

Figure 28 - Example of data markup tool: Google Structured Data Markup Helper.

In the picture taken from Google Structured data Markup Helper, it is possible to see that Article name, author, date, images and article sections/body can be easily tagged and results can be copied to HTML source.

5 RESULTS

This thesis provided an International SEO strategy (see figure 20) and an SEO on-page implementation plan for Oamk. The SEO implementation plan pointed the factors that Google currently uses to rank the websites in the SERPs. These ranking factors , are summarized in the table 3, as well as the suggested tactics to improve it for the commissioner's international website.

Still, after the implementation, the commissioner might want to track the improvements. Consequently, the next topic is about the metrics and tools for measuring results and performance concerning SEO.

5.1 Measure results and performance

A SEO professional without analytics is a blind one; analytics are the key for measuring which SEO tactics work and which do not (Ahola, 2017). Considering metrics that matter for measuring SEO success, what is most important is identifying what matters most to the commissioner, which is Internationalization, in the context of this thesis. The following achievement areas are some of the most commonly target metric groupings: Quality, Volume (quantity), technical and performance (Wilson, 2016).

According to Wilson, 2016, to measure quality of organic SEO the following metrics can be used:

Table 3 - Quality metrics

Quality metrics	Meaning
Visitor engagement (Bounce rate, Pages per session, Repeat visitors, Average time on page)	The ability to hold the user's attention or to induce the user to participate in some sort of activity
Demographics	For example, language and location
Price of keyword	The company can have an estimate of clicks/traffic and times this by the 'suggested bid' of each keyword

	This has many forms of measurement including shares, social engagement and interaction, backlinks (natural linking), direct feedback, and more.
Value delivered	

To measure Volume (or quantity), Wilson (2016), suggests the following metrics:

Table 4 - Volume metrics

Volume metrics	Meaning
Traffic	Turn visibility into people landing on Oamk's website
Topics and themes	Increasing the number of relevant topic areas in which Oamk can be seen as an authority
Rankings and average positions	Measure in which ranking Oamk is for the targeted keywords.

Finally, Wilson (2016) suggests that technical and general website performance metrics for organic SEO include:

Table 5 - Technical and general website performance

Technical and general website performance	Meaning
Accessibility	All the items that make Oamk's content; messaging and website pages universally available
Search supportive	Ability to encourage effective crawling and indexation of content, understanding of the website and removal of any technical impediments to search engine success
Hierarchy and architecture	Ensure that all indexable content can be discovered by users and search engines

Internal linking	Users and search engines can discover associated content without the need to use the main or supportive navigation elements of the website
Usability, operability and functionality	How intuitive the site is and how friendly it appears to be to users
Search appearance	Uses an example to illustrate the elements of Google Search results. Used to visualize how Oamk's site may appear in search and learn more about the content or structure changes needed to influence each possible element.
Site speed (including mobile, device and desktop)	Including mobile, device and desktop speed.

Several analytics tools can be used to measure the abovementioned metrics. Such tools, as well as the audition suggestions, will be explained in the next topic.

5.2   Analytics tools and audition

Google Analytics (GA), Google Search Console (GSC) and Google Webmaster Tools (GMT) are free tools and are easy to utilize. According to Ahola, 2017, it's crucial to combine GA with GMT for website SEO performance analysis and measurement. Creating benchmarks within analytics is simple, annotations are the key to making meaningful observations, and documentation is the key to memorize and understand SEO implementations. Example of analytics for SEO in Internationalization context, used in the situational analysis, that can be used in the future for comparison with the initial state, are: Users per country, Users' language, User acquisition per country, Engagement (session duration, number of sessions and number of page views in International countries), Returning x new visitor, top landing pages and top search queries.

This project gave lots of guidelines on how to implement SEO changes for internationalization, once the commissioner has implemented them, they can perform the SEO audit on-page. The on-page audit involves a deep analysis and comparisons to the state before the implementation. The commissioner can take a good look at the website and compare it against the data provided in the situational analysis, after the implementations have been done.

6   DISCUSSION AND CONCLUSION

The key objective in this thesis was to set a plan for on-page Search Engine Optimization in Oulu University of Applied Sciences' international website, in order to improve its online visibility and ranking positions on the search engine (Google) and attract more international students. To reach this objective, it was explained the use of SEO as a digital marketing technique and how to implement it to ensure that the commissioner website's contents are worldwide accessible and easy to find by potential international users, especially prospective foreign students, ensuring that the international audience can be reached. In this sense, the main benefit for Oamk is that the on-page SEO implementation might result in increasing the level of internationalization and the number of foreign students.

6.1   Managerial implications

Every website is built upon a specific foundation with a special goal to meet and require a different approach in terms of SEO. Thus, securing strategic positions in Google when the audience needs what the institution offers, can turn into a strong competitive advantage.

The SEO on-page implementation plan provided by this work highlighted the role of SEO in internationalization in higher education institutions, where digital technologies play a key role in the marketing strategy process. The summary of the implementation plan for Oamk, including all the ranking factors and suggested tactics for improvement, are summarized in the table below:

Table 6 - The ranking factors pointed by the implementation plan and the suggested tactics for improvement

Ranking factors on Google	Suggested tactics for improvement
Keywords & topics Research	Target audience or personas→ Intent→ Topics→ Qualified Keywords→ Quality content.
Content Development	Outline quality content pieces that are relevant, reputable and readable, based on the target audience's search intents and what would provide a better, more natural reading experience that answers their doubts. For example, an FAQ question session.

Heading tags	When Oamk starts to write content focusing on SEO, they must insert the chosen keywords in the heading tags (h1, h2, etc.)
Title & description	Use meaningful meta-title and meta-description that identify clearly the content on each specific page.
URLs	Create URL addresses based on the content it is hosting, usually displaying a variation of the main keyword of that page.
User engagement and traffic	If the content is good and the commissioner's SERP result looks compelling, people will click it, go to Oamk's site, and stay there. The users must find fast page speeds, intuitive layouts, and device-responsive experiences. This kind of experiences will make them stay on the pages and get interested to engage with its contents, generating user satisfaction.
Backlinks or Inbound links	Blogs, influencers, companies, and brands in general can have included and include in the future links to Oamk's English content. The more reputable the sources of these links are, in turn, the more valuable those links become in helping establish Oamk's authority and higher ranking on Google.
Domain authority	Having authoritative backlinks, meaningful internal linking, and removing unnecessary or spammy links, are all essential tactics to improve the commissioner site's domain reputation over time.
Images optimization	The commissioner must add Alt text and image file name for all the relevant images on the website, because without them search engines can't distinguish one picture from another.
Internal linking	Oamk can use internal links pointing to pages on their own website to help users navigate a topic and provide meaningful connections to guide them there. Search engines value these kinds of links because they pass on authority from one page to another.
Structured Data Markup & Google Data Markup Helper	Add structured data to the website's code to get rich snippets in Google SERPs.

The study confirms that being on the top of a search engine results page has tremendous advantages for institutions of higher education that want to focus on Internationalization, especially the commissioner. This thesis confirms that a higher education institution should have its website at the top of web searches in order to be universally visible. However, this might not be enough. If the results are less relevant and the text snippets are less attractive, the users still might not click.

It was shown by this thesis, that higher education institutions need not only to be on the top of SERPs for their targeted search queries, but also to have relevant and meaningful snippets, URLs, keywords, heading tags, titles & descriptions, backlinks, internal linking, images file name & alternative text, and actual web content, for the purpose of attracting more clicks and ultimately more international students. The results of this thesis show that the most important fact of making a SEO plan for increasing internationalization in a higher education institution is to develop web content that takes search intent and semantics in to an account, using the technology available to build the site coherent with the keywords chosen, and to gain the most relevant international traffic.

Along with the changing of SEO, search engines have also refined their general rules and evolved their search algorithm in order to protect their search results from spam and poor-quality contents. Nowadays, Google wants to offer users the best user experience that people can get. Consequently, it was shown by this work that some strategies and techniques that worked in the past may not work at the present or even cause negative impact on the website. The future of SEO is uncertain, and there is only one thing to be sure about search engine and everything related to it: it changes constantly. Thus, search engine marketing and search engine optimization will continue to be a high priority for Digital Marketing in higher education institutions, who desire to highlight among competitors, remain on top, and develop competitively.

Using the implementation plan provided by this work, the commissioner is able to start SEO implementation and measure SEO's performance. It can be observed that high quality content and well build links have been the major factor determining the ranking on Google, despite the continuous algorithms updates. The case study of Oamk has shown the important SEO techniques and extensive potential of SEO to drive organic international users and potential international students to the institution.

Analysing the data provided by this thesis, it can be assumed that SEO has broad potential in digital marketing to enhance higher education Institutions growth and should be integrated as a core element in every marketing task. Further, there is a high obligation for the commissioner to consistently keep track of search engine changes, marketing trends and customize SEO strategy respectively, in order to highlight among competitors in the market.

6.2   Limitations

It is indispensable to acknowledge some limitations and issues that appeared during the writing of this thesis. The first limitation, is that the factors mentioned in the Search Engine Optimization plan are mutable and are only a small portion of complexity of SEO, since Google itself states that there are hundreds of factors they observe to rank a page or website in their results and they change algorithms related to search engine ranking frequently. The study utilizes Google as a search engine target. However, results could have been richer if other search engine platforms were considered. (E.G. Yandex from Russia and Baidu from China). Although, this thesis is purposely synthesized to stimulate more detailed and specific actions aided by the plan provided here, focusing on Google.

Another limitation was the fact that the commissioner did not give access to the author for the HTML codes changes, since there are programmers responsible for doing so, which means the author was not in the position to do any SEO changes by herself. Consequently, the author will not be able ensure improvements, as the implementation of SEO plan depends on the commissioner.

Another crucial aspect were time constraints and size of the thesis document. Since the thesis worth 15 ECTS, the amount of time to conclude it was limited, and consequently the size of the document. Due to this fact, it was not possible to stick with the initial plan, which was to add SEO off-page techniques and YouTube SEO optimization to the project. Consequently, it was only possible to add on-page SEO plan to the thesis, and off-page SEO remains to a future project by the commissioner.

Still there is the limitation concerning paid versus organic SEO. This thesis project included only organic SEO, but, According to Ahola, 2017, SEO can be more efficient if the organizations use organic SEO in the beginning, but in an advanced phase use organic and paid SEO combined. The lack of SEO mindfulness can easily become dependent on costly paid search traffic for revenue, consequently, it is necessary to reach balance between both paid and organic SEO.

To keep the analysis and implementation plan tractable I have focused only on references in the marketing domain. However, there are several important contributions in the area of information technology and economics which could complement my work.

6.3 Personal and professional development

Finally, I want to conclude with my personal and professional development insights about this thesis. I discovered Search Engine Optimization some years ago, when I had a blog, by searching ways to improve my blog's digital marketing on the Internet. At that time, I was already passionate about Marketing in general, and I started to develop strong interest about SEO and Digital Marketing, to read articles & e-books about it, and got the intention to study it deeper in a near future. What I like most about SEO is that it involves creativity as well as analytical thinking, in the digital marketing context. Through my research for this thesis and by creating a Search Engine Optimization plan for Oamk, I had the chance to access and learn more about digital marketing, and about many helpful and interesting digital marketing tools such as Google Keywords Planer, Google data mark-up helper, Google Analytics and Google Webmaster tools. Besides, thanks to this thesis and as my research on this topic has been extremely interesting and motivational, I noticed that being a Digital Marketing expert can be one of my career choices, as it suits my strengths and skills.

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LIST OF FIGURES

LIST OF TABLES

Focus keywords list:

Bachelor's Degree in Finland, Oamk, Oulu University of Applied Sciences, Oamk Degrees/Programmes in English, Oamk how to apply, University of Applied Sciences Finland, Study in Finland, Study in Finland in English, Bachelor's Degree in English in Finland, Bachelor's Programme in English Finland, Finland Scholarship, Scholarships in Finland, , Scholarships abroad Finland, Study in Finland for free, Finland Universities for International students, partial scholarships for international students, Finland Education, Finland Education System, Universities in Finland, Finland Universities in English, Scholarships in Finland for International students, Study in Finland for free, Degree students in Finland experiences, Exchange student in Finland experiences.

Longtail keywords list:

Study in Finland tuition fees, Finland education system, Finnish Universities that teach in English, Student costs of living in Finland, Student cost of living in Oulu, Guide for student in Oulu, Guide for student in Finland, Why study in Oulu Finland, Study in Finland insurance, Study in Finland admission, Student visa for Finland, Bachelor's Degree taught entirely in English in Finland, Where is the best place to study in Finland, Where to study in Finland, Places to study in Finland, Where to study in English in Finland, How is it to study in Finland, Where to do a bachelor's degree in English in Finland, Bachelor's study in Finland, study in Finland bachelor, My experience studying in Finland, How is it like to study in Finland, Exchange student in Finland experiences, etc.

GLOSSARY

Algorithm	A program used by search engines to determine what pages to suggest for a given search query.
Alt text / Alt Tag / Text Attribute	A description of a graphic, which usually isn't displayed to the end user, unless the graphic is undeliverable, or a browser is used that doesn't display graphics.
Analytics	A program which assists in gathering and analyzing data about website usage. Google analytics is a feature rich, popular, free analytics program.
Anchor Text	The user visible text of a link. Search engines use anchor text to indicate the relevancy of the referring site and of the link to the content on the landing page. Ideally all three will share some keywords in common.
Authority	The amount of trust that a site is credited with for a particular search query. Authority/trust is derived from related incoming links from other trusted sites.
Backlink	Any link into a page or site from any other page or site (synonyms: inlink, inbound link, incoming link).
Bot	A program which performs a task more or less autonomously. Search engines use bots to find and add web pages to their search indexes. Spammers often use bots to "scrape" content for the purpose of plagiarizing it for exploitation by the Spammer (synonyms: robot, spider, crawler).
Bounce Rate	The percentage of users who enter a site and then leave it without viewing any other pages.
CMS	Content Management System - Programs such as Wordpress, which separate most of the mundane Webmaster tasks from content creation so that a publisher can be effective without acquiring or even understanding sophisticated coding skills if they so chose.
Content	The part of a web page that is intended to have value for and be of interest to the user. Advertising, navigation, branding and boilerplate are not usually considered to be content (Synonyms: text, copy).
Conversion	Achievement of a quantifiable goal on a website. Add clicks, sign ups, and sales are examples of conversions (or goals).
HTML	(Hyper Text Markup Language) directives or "markup" which are used to add formatting and web functionality to plain text for use on the internet. HTML is the mother tongue of the search engines.
Impression (page view)	The event where a user views a webpage one time.

Index	Noun - a database of Webpages and their content used by the search engines.
Index	Verb - to add a web page to a search engine index.
Keyword/Key phrase	The word or phrase that a user enters into a search engine.
Landing page	The page that a user lands on when they click on a link in a SERP.
Link building	Actively cultivating incoming links to a site.
Long tail	Longer more specific search queries that are often less targeted than shorter broad queries. For example a search for "university" might be very broad while "university of applied sciences in Finland" would be a long tail search. A large percentage of all searches are long tail searches.
Meta tags	Statements within the HEAD section of an HTML page which furnishes information about the page. META information may be in the SERPs but is not visible on the page.
Metric	A standard of measurement used by analytics programs.
Mobile-friendly	Web pages that render in a user-friendly way on smartphones and tablets
Page Rank	A value between 0 and 1 assigned by the Google algorithm, which quantifies link popularity and trust among other (proprietary) factors.
Robots.txt	A file in the root directory of a website use to restrict and control the behavior of search engine spiders.
ROI	(Return On Investment) One use of analytics software is to analyze and quantify return on investment, and thus cost / benefit of different schemes.
SE	Search Engine.
SEM	Search Engine Marketing.
SEO	Search Engine Optimization.
Oamk	Oulu University of Applied Sciences.
Organic search results	The search engine results which are not sponsored or paid for in any way (Natural search results).
SERP	Search Engine Results Page.
Search Query	What a user types in the search box.
Spam	Irrelevant or misdirected or unsolicited messages and contents sent over the Internet, typically to a large number of users, for the purposes of advertising, phishing, spreading malware, etc.
URL	Uniform Resource Locator - AKA Web Address.
XML	Extensible Mark-up Language.