The impact of SEO on business

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Digital marketing has been radically growing and changing dynamically over the years, and the only handful of companies are left who are not aware of this strategy, which makes the market very competitive for companies to push their product/services towards their prospective customer to gain some traction and increase conversion. Hence, search engine optimization has been a trending aspect of marketing strategy for the majority of the companies and it is observed that companies incorporating the strategy in appropriate manner seem to excel in terms of profitability and marketing visibility.

The thesis deals with search engine optimization (SEO); which is a crucial strategy to enhance the visibility of marketing efforts in a business. It is research based and primarily aims to analyze various factors that influence search engine optimization and its implication on the success of a business. It encompasses on topics about how SEO has been changing over the time and show contrasts to the trending factors that might still be effective for at least a year from the published date of the thesis.

The thesis is a case study, it contains materials from various leading companies in online and digital marketing stream. The thesis proceeds with extensive details of trending SEO techniques and analyzes some disclosed relevant cases of companies that support the thesis's objective in order to conclude that SEO is an integral part of business.

In conclusion, SEO is a dynamic process which exists with the web and requires continuous improvement for the business survival and growth, which puts the responsibilities on companies to be consistently aware of search engines updates, competitors and take actions accordingly.

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1 Introduction

It was August 6, 1991, when the inventor of internet/World Wide Web (WWW) Tim Berners-Lee published the world's first website (Huffington Post, 2012). Ever since the businesses began to operate online and the internet got overloaded with massive numbers of websites within a short time. There was a high demand for websites that could process a huge volume of information and help all the other websites connect to their potential customers. A number of websites appeared and disappeared to fulfill the gap but it didn't happen until 1993 when a search platform Excite transformed the way of indexing and ranking the information based on keywords volume in the content and backend optimization.

Later on 1994, Yahoo came into the stream followed by Google in 1994 to improve indexing and delivery aspects of information while search engine optimization (SEO) was just starting to take a peak with growing competition among businesses for acquiring online visibility. At that time the search algorithm was simple and require a longer time to update which led marketers to manipulate the search engines by using black hat SEO techniques such as keyword stuffing, excessive tagging and using unnatural links which were opposing the sole purpose of existence of search engine. Therefore, in early 2000's with new algorithm update SEO manipulation techniques were penalized and focused towards providing quality content to the user (Stern, 2015). Since then, the search engines algorithms have been constantly changing to provide quality content to the customers, help businesses grow and foster healthy competition. There has been an online source about Google changing its algorithm 500-600 times a year (Moz, no date).

The immense popularity of search engines and its powerful ability to drive traffic and modern marketing shift towards digital marketing has been crucial factors for businesses to invest resource in SEO. Apparently, it has become one of the basic foundation for the majority of the businesses and is noticed in their increased performance with appropriate optimization.
Nevertheless, over optimization and manipulative marketing practice which is against search engine optimization guideline has resulted in a serious penalty, to name a few BMW website was removed for cloaking, SearchKing home page lost its rank for selling links, and Wordpress for doorway spam (Sullivan, no date). Thus, designing and implementing SEO technique aligning with webmaster guideline (Google, 2010) can be very effective for any business for its sustainable growth and prevent any possible penalties.

1.1 The Objective

The marketing shift and high volume of competitors in the market have been a major barrier for businesses to present themselves to their clients. Despite serving with quality products, there are still a number of businesses failing to reach their potential customers or not been able to deliver at their optimum level due to lacking visibility causing a decline in financial performance and eventually get rooted out from the market at worst scenario. Thus, incorporating search engine optimization can be the effective strategy on business to cope with such circumstances and can offer huge opportunities in future.

Considering the popularity of the search engines, the thesis has been focused on the market leader Google for analyzing SEO techniques for organic ranking in search engine result pages (SERPs) nevertheless, the effectiveness of discussed technique in not limited only to google search engine. The dynamically changing search engine algorithm has been carefully taken into account for formulating trending SEO techniques and, its implementation and outcome has also been demonstrated through a couple of case studies in order to show that there is high demand of SEO for business at present.

1.2 Limitations

The majority of the information used in the study are highly dependent on electronic sources obtained from reputed organizations of digital marketing stream nevertheless, may not be absolutely credible. The availability of a limited number of cases with reluctant to disclose full data might limit the quantitative aspects of the analysis. In addition, due to dynamic nature of search engine the search engine optimization technique is also in a continuous process of change therefore, the study can be valid up to certain extent and period of time.

1.3 Data

The theoretical background for modern SEO techniques has been borrowed from the latest version of SEO books and relevant electronic sources. The data for investigation were retrieved from various online sources published by the marketing firms. The name of the company involved in the case studies is Nike Golf, UAV Coach, Your Foot Doc and Talkpoint.

1.4   Methodology

The study analyzes data from four company case study individually where business perfor-
mances before and after SEO implementation are compared while also simultaneously taking
account of SEO changes to detect the association of SEO implementation on business growth.

2   Search engine and Search engine result page (SERP)

Search engine is an automatic indexing and query service tool which search information by
using keywords on the Internet (Moran & Hunt, 2008). Basically, the search engines operate
by crawling the internet to build an index of web pages and rank them based on the relevance
for certain keywords. When the users make a search in the search engine, the search engine
provide them search engine result pages consisting of ranked list of indexed websites for that
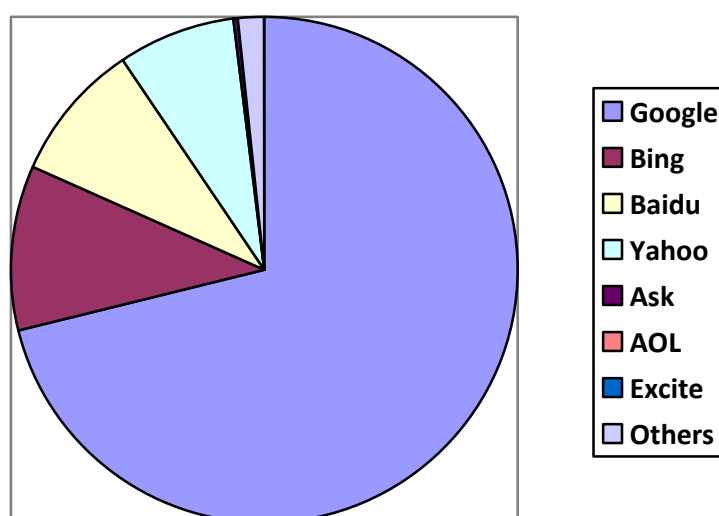specific keyword (Fishkin, 2015).

Figure 1: Global search engine market share (Netmarketshare, no date)

From Figure 1, it can be clearly perceived that search engine market is very competitive with
many search engines vying for shares (Netmarketshare, no date). Some of the popular search
engines are Google, Bing, Baidu, Yahoo, Ask, AOL, Excite, and Yandex. Currently, Google
stands as the market leader dominating globally with enormous market share 71.11%. Where-
as, Baidu, Yandex, Seznam and Naver are popular as country specific search engines control-
ling China, Russia, Czech Republic and Korea respectively. Based on the recent real-time
online data of major search engines index size, Google has the largest number of 46.5 billion
pages followed by Yahoo with 14.5 approximately (Worldwidewebsize, 2016).

Search engine result pages should not be overlooked as it helps to provide information about how a particular website is displayed and evaluated by the search engine. Figure 2 shows the SERPs layout for keywords "good hotel" however, sometimes it may slightly vary depending upon the nature of searched terms and results.
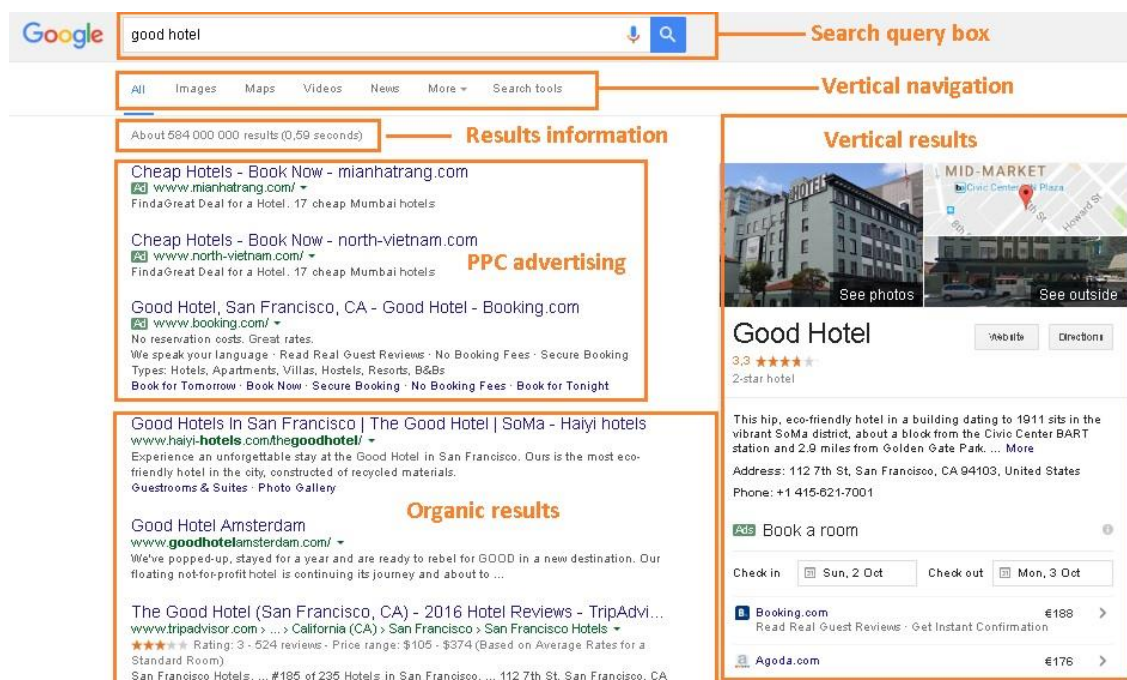

Figure 2: Google search result page

The different sections highlighted on Google search result page are discussed further:

- Search query box

It is the input section of search engine where users can query for their desired phrase. A user can also make their search using speech or images using microphone or camera option available in the right corner of search input dialog box.

- Vertical Navigation

Users are able to filter and narrow down their search results based on the nature/format of content by selecting specific tabs present in the vertical navigation section.

- Results information

Results information section displays the information of a total number of results relevant to the specific search phrase.

- PPC (Pay-per-click) Advertising

Also known as paid search, are purchased by companies from the search engine. It is an advertisement section and the results are displayed based on the factors like click through rate, relevancy and bid amount. It is often seen in more than one section of SERPs.

- Organic results

It is also called natural or algorithmic results. The result appearing in this section are solely based on their relevancy and quality which makes it more valuable in comparison to PPC results. It is the core subject of this study and will be discussed in details in later sections.

- Vertical results

These are often seen for a various query. Unlike results with just a link to their website, it answers users query directly within the SERPs by providing broader information for the search term. (Enge, Spencer & Stricchiola, 2015.)

3   Search engine algorithm and ranking

Google states that the search engine basically crawls through web pages following links and sort the pages based on the content and other factors, and keep track of it in the index. As presented in Figure 3, when the users make a search, the search algorithms analyze the query and pulls the relevant documents from the index, rank them based on over 200 ranking factors and deliver them as results in SERPs. Google claims to have over 60 trillion pages which are handled by the algorithms. Algorithms are the heart of search engine consisting of computer processes and logics that takes users query and convert it into results. (Google, no date.)
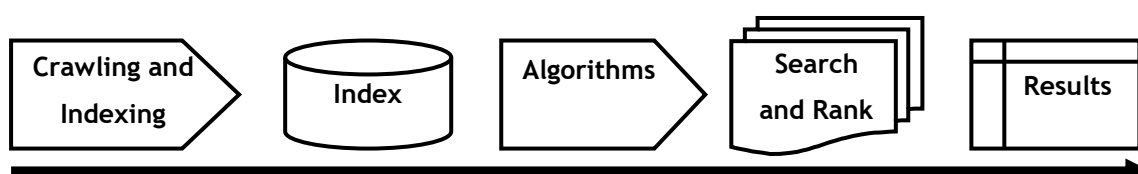

Figure 3: Google search engine working process

It is certain that algorithms entirely depend on ranking factors for evaluating websites. But the ambiguous nature of ranking factor makes SEO challenging. To understand the ranking factors as shown in Figure 4, a survey was conducted involving over 150 SEO experts that show the different possible ranking factors and its intensity (scaled between 1 to 10) to influence Google ranking algorithms (Moz, no date). The survey showed that link metrics had the highest influence followed by content and keyword metrics. The inclusion of social metrics as ranking factor was very interesting since Google claims to ignore social signals for ranking (Google, 2014).
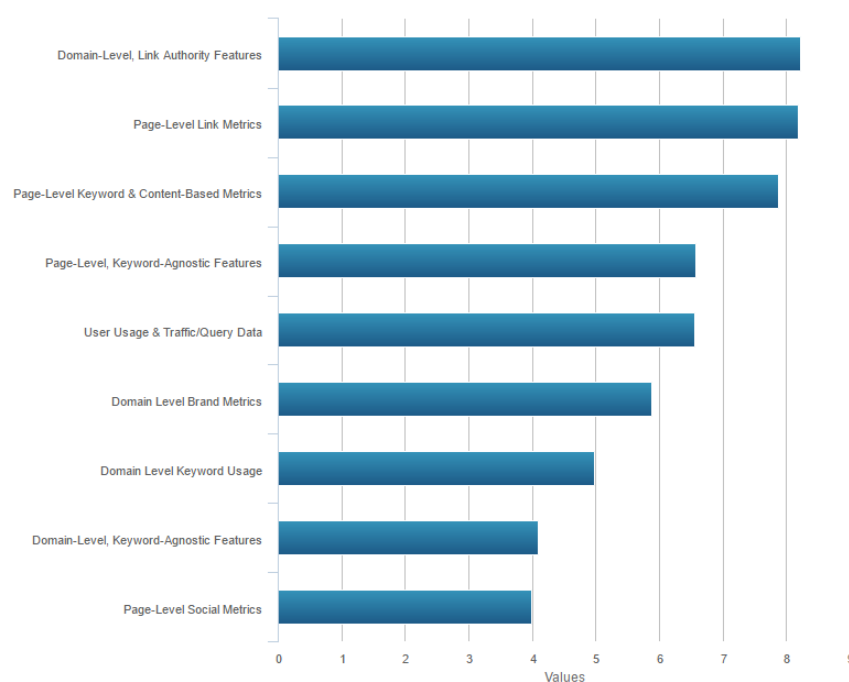
Figure 4: Influential ranking factors in Google ranking algorithms 2015

Therefore, focusing on identifying and understanding the ranking factors can help to perform effective SEO, place products/services in a higher rank and reach the targeted potential customer.

In addition, an SEO practitioner should also be well aware of algorithms such as panda, penguin and similar other algorithms to prevent penalties and negative impacts on page ranking. Using Google analytic, Google webmaster tool and keeping eye on major algorithm updates (Moz, no date) consistently can be very beneficial to track and resolve algorithms and penalty issues (Enge, et al., 2015).

4   Search engine optimization

As aforementioned, the sophisticated nature of search engines and ranking factors creates difficulties for SEO professional to rank or achieve visibility in front of potential customers. Thus, a number of tasks are undertaken to establish a better connection with the search engines and get higher quality traffic from search engines, which is a continuous process known as search engine optimization. SEO is a subset of search engine marketing which doesn't involve any sort of paid activities for example: buying keywords, and entirely focuses on getting organic traffic by optimizing various factors which will be discussed further (Grappone & Co u z i n, 2006).

There are different factors to be taken into account to achieve successful SEO and essentially can be done by using SEO pyramid as the core foundation of overall SEO strategy. Figure 5 is an SEO pyramid by Rand Fishkin shows that strong base determines the effectiveness of SEO and higher importance should be given to content followed by keywords, links and social media channels (Willoughby, 2008).

Figure 5: The SEO pyramid by Rand Fishkin (Willoughby, 2008)

To understand the significance of ranking, there has been an online discussion of a case on eye tracking performed by research firms Enquiro, Eyetools, and Didit, it shows the heat map on how search engine users scan search result page (Safaribooksonline, 2006). As observed in Figure 6, the users tend to have an F-shaped pattern which demonstrates that greater attention is paid to organic results ranking higher on the page.
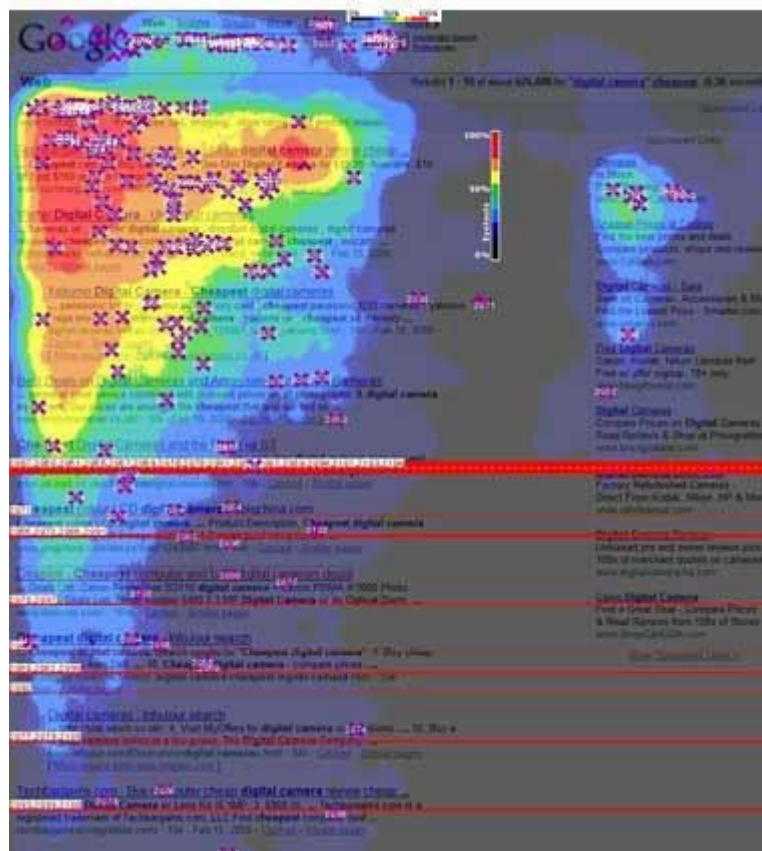
Figure 6: Enquiro eye tracking results (Safaribooksonline, 2006)

In order to study the performance of search results in SERPs, there has been a research on Google's organic click through rate (CTR) that shows the quantitative metrics for the performance of search result in Google organic SERPs in relation to the position across mobile and desktop devices as illustrated in Figure 7 (Advancedwebranking, no date). The data shows that bulk of the CTR are shared by the top ranking results on the google first page barely leaving some for the rest.

Figure 7: Organic CTR vs position on page (Advancedwebranking, no date)

4.1   SEO strategy

The majority of the marketers understand that SEO strategy should be developed prior to site development. It is the crucial element that dictates the effectiveness of SEO implementation and bonds websites to their business goals. An organization's ultimate goal is sales, however, other metrics for example number of new visitors, the number of subscribers, social shares, newsletters, form sign ups, downloads, follows, social metrics, etc should be used for measuring the effectiveness. A basic representation of the relationship between SEO goal, strategy and metric are shown below in Table 1.

SEO Goals	Strategy	Metrics to measure
Traffic	- Create high-quality contents that target a broad range of keywords such as, high volume and long-tail keywords. - On-page optimization	Traffic volume from various search terms.
Branding	- Emphasis on long-tail keywords - On-page optimization	Traffic volume from specific search terms.
Revenue	- Target searches that represent the customers close to the end of buying journey and optimize product page for conversion.	Conversion, value, etc

Table 1: Goal setting for SEO

The primary goal of SEO is increasing visibility for branding keywords or non-branding keywords that are specific to their core business, capturing organic traffic by listening to the au-

dience and using potential phrases, and measuring the traffic conversion to determine if the objectives are met. It is very important to understand the brand, the products they offer, the prospective customers, website structure, website content, content management system (CMS) flexibility and competitors to tailor SEO strategy. Focusing on customers searching behavior and finding a niche can be beneficial to generate more personalized keywords for content creation and reaching quality potential customers. In addition, setting SEO goals using SMART (Specific, Measurable, Attainable, Relevant and Timely) principle and including SWOT analysis can assist in the evaluation of the SEO plan to minimize possible risks and implement SEO strategy effectively. (Enge, et al., 2015.)

To understand the value of SEO strategy, a research conducted on 400 companies by Econsultancy on the integration of SEO strategy across their various marketing activities, shows high integration among a majority of the companies as illustrated in Figure 8 (Patel, 2014).
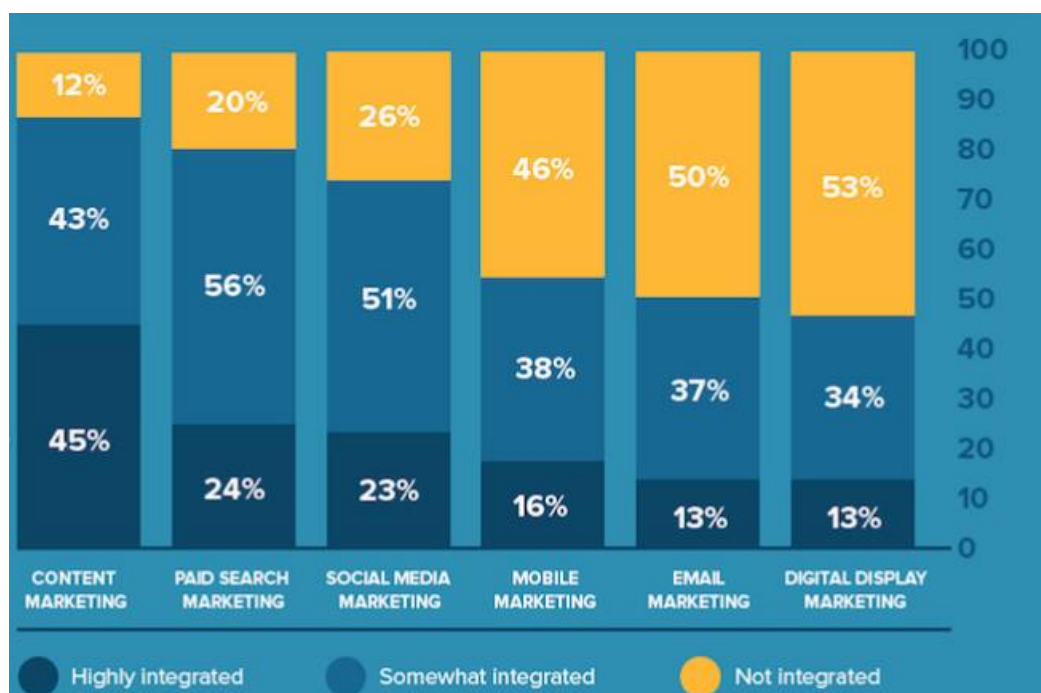
Figure 8: SEO integration in companies (Patel, 2014)

4.2   Keyword research

The keyword is one of the utmost important factors that influences both search engine marketing and SEO. Understanding the trend of how people make search can be very crucial for identifying the demand for certain content and developing it. Keyword research helps to get a clear insight into what people are looking for, the keyword choices and help in designing tar-

geted contents with SEO. Identifying right keywords require a lot of research and can be done in various ways.

Google search engine displays autocomplete suggestions simultaneously as the user types in the search input box and also displays a list of related searches at the bottom of the SERPs which can help to get general insight about trending keywords. Using Google tools like Google keyword planner and Google trend can be very helpful to obtain quality data. In addition, there are plenty of third party platforms such as SEM rush, Word tracker, Keyword discovery, Moz, SEO audits and Submission complete that provide keyword research tools. With the help of keyword research tools and proper evaluation based on various metrics such as competition, search volume, time and location, it is possible to identify very effective trophy keywords.

It is also essential to consider long-tail keywords because it is often not possible to rank for a single query due to very high competition. Keywords with 2 or more descriptive word are termed as a long-tail keyword. Long term keywords are also equally valuable, and are specific customer focused, with low competition and tend to attract quality customers. According to an online article on keyword demand curve, more than 70% of overall searches performed on the internet are long tail searches (Fishkin, 2008). The demand curve in Figure 9 demonstrates the significance of long-tail keyword targeted content pages with information not directed at any particular single keyword.
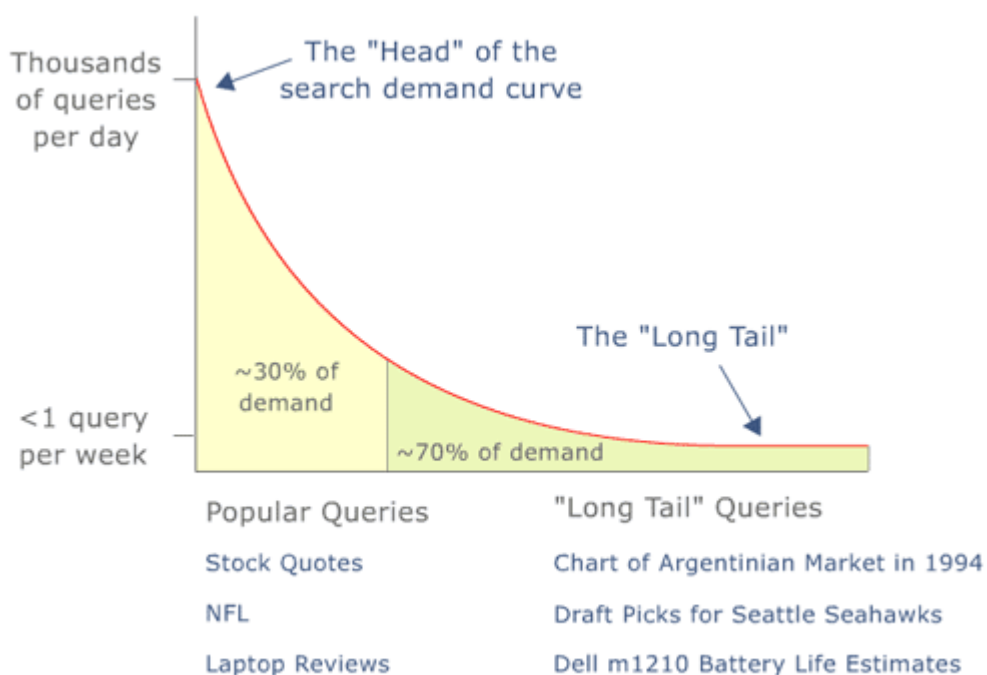

Figure 9: Search engine query demand (Fishkin, 2008)

4.3   Building search engine friendly website

Websites should be built optimized to help search engine crawlers to collect relevant information from the website and index them properly with ease. It is a crucial stage and the planning should be done before designing website architecture. The various set of tasks to be performed to make website SEO friendly are as follows.

- Website design
The web pages should use appropriate URL paths relevant to the content and well-structured navigation and content layouts, this makes the website user-friendly to both the customers and search engines.

- Sitemap
It is an XML file created to help search engines to crawl and index contents properly. This file is created manually, however, can also be generated using online sitemap generators.

- Robot.txt file
It is a text file that provides crawlers the permissions to crawl or index various contents of the website. Irrelevant contents can be prevented from being indexed by the search engine by using this file.

- .htaccess file
 It is a file used to controls server behavior. Functions like access to certain files in the server and banning unwanted traffic from certain sources are possible with its use. In addition, it can also prevent image hotlinking practices which can impact on ranking factors.

- Working with redirects
Factors like website updates, adoption of new CMS, change in files location, broken links and domain change can affect the URL paths and cause errors in search result page. Thus, using this files to apply 301 redirects for permanent change or 302 redirects for temporary change help search engines to direct traffic to the desired web page and prevent negative impact on ranking.

- Comply W3C standards
It is necessary to ensure the website meets web standards to ease the search engine crawling and indexing process. Using structured data format provided by schema.org as markup in the code is very important to maintain the standard and generate search re-

sults with rich snippets in SERPs. Passing the website through W3C markup validation website (http://validator.w3.org) can help in measuring the standard and detecting errors in the website.

4.4   Content Development

After the keywords have been identified, the next phase is to develop powerful content around it. Content is the main factor that search engine relies on for ranking web pages in search results hence, often called content is king in the world of marketing. It is also the heart of content marketing.

Avoiding spelling and grammatical errors, typos and duplicate content is very crucial part while creating contents. Using appropriate titles, headings and adequate amount of keywords based on the size of the content helps search engines to determine relevancy, however, over stuffing it unnaturally can degrade ranking. Google also uses latent semantic indexing (LSI) to moderate keyword stuffing, therefore the use of keyword variations or synonyms are very effective technique as a substitute for repetitively using the same keyword in the content (Nastic, 2010). Below listed are the technique of using keywords in content recommended by Moz (Fishkin, 2015).

- Once in the URL separated by hyphens (-) for example https://www.mysite.com/how-to-use-keywords-in-URL.
- Use at least one in the Meta description tag and title tag.
- One at the top of the page.
- Around 2 to 3 times in the contents body section or even some more if the content size is big.
- Once in the alt attribute of image contents.

Besides, using headings, titles, images and videos containing emotional triggers make content significantly attractive and engaging. According to an online article on the study of over 4 million tweets, the use of images has shown to increase retweets by 2 times in average (Enge, 2014). In addition, quality contents play a crucial role to reduce bounce rate which is considered a positive signal for ranking factor (Dean, 2016).

4.5   On-page optimization

As shown in Figure 10, it is the technique performed on codes in web pages, file names, and contents, and require a basic understanding of HTML.

```
1   <!DOCTYPE html>
2   <html>
3
4   <head>
5       <title>My Website | Cool SEO tricks</title>
6       <meta name="description" content="Page description">
7       <meta name="keywords" content="keyword1, keyword2">
8       <meta name="author" content="Author Name">
9       <meta name="copyright" content="2016">
10  </head>
11
12  <body>
13
14  <h1>How to impress Google with SEO ?</h1>
15  <p>
16  <img src="image.jpg" title="image title" alt="image description">
17  </p>
18
19  </body>
20  </html>>
21  |
```

Figure 10: HTML file structure

4.5.1   Meta tags

Meta tags are the tags used in HTML code created for feeding search engines with various in-formation. These tags are displayed as descriptive texts in the search result and used in ana-lyzing content relevancy by the search engine.

- Page title Meta tag provide information about the title of a web page and using length under 70 characters is recommended.

- Page description Meta tag include further detailed descriptive information of the page and is limited to 155 characters.

- Page keyword Meta tag contain the main keywords that represent the content and are separated by commas. Using 2 to 5 percent of the content keywords is recommended.

- Author and Copyright Meta tags provide information such as the creator of the web page, ownership, brand name and company name.

4.5.2 File name, title and alt tags

Images should be named appropriately and should be titled with the title tag and described using alt tags. Title and alt tags are attributes given to images that help search engines to recognize the image and the function it serves on the page. In addition, it also helps a user to know about the image in situations where the browsers fail to display image due to errors.

4.5.3 Optimize content

Errors in HTML, CSS, and JavaScript codes can significantly affect the web page and its content loading speed. Online tools like google page speed insight or w3c validator are helpful to improve web page performance. It is also equally important to consider keyword density within the different section of content which is around 2 to 5 percent of overall content size. In addition, internal links, which is the use of links between relevant content within the same web page can help in ranking. (Elmansy, 2013.)

4.6 Off-page optimization

The process primarily deals with links to increase websites popularity, traffic, and ranking. Use of content marketing strategy for example blogging, infographic, guest posting, etc is the best way to get quality natural backlinks. Getting back links from websites that has good domain history, authority and falls in similar categories, are considered quality links and have a powerful role in ranking whereas, low-quality links can bring negative impact. Therefore, it is essential to study other websites based on factors such as competition, business area, traffic, brand reputation, etc to weight the quality of links. Use of Mozbar tool can be very insightful for knowing information such as domain authority, page authority, keywords, links, social engagement, etc of competitor's website in order to build better link building strategy. Submitting website to a couple of reputed relevant web directories can also help to gain traffic and ranking. Buying links, swapping links and using link farm networks are techniques where marketers have a varying opinion. Therefore, such techniques should be only implemented carefully considering Google's webmaster guideline to keep up with the best practices and prevent from getting penalized. (Enge, et al., 2015.)

4.7   Social Media

Social Media, such as Facebook, LinkedIn, Twitter, Google+ and Pinterest are very popular with a massive number of users and can be used as channels to deliver contents. Taking websites to such platforms help to gain popularity, develop customer trust and opportunities to acquire links from many sources. Social platforms also can be used as one of the link building strategies for SEO. According to a video released online (Google, 2014), Matt Cutt has claimed that social medias are not a part of the algorithm for ranking while there has been a discussion on the case (Chloe, no date), showing majority of companies incorporating social media into their SEO strategy and presents a different perspective on possibility of social media influencing ranking indirectly.

4.8   Optimization for local search

Local search has become very popular over the year. Based on a research conducted on consumer's local search behavior, it is observed 4 out of 5 consumer use search engine to find local information and 50% of consumers who conducted a local search on their smartphone visited a store within a day, and 34% who searched on computer/tablet did the same (Google, 2014). The optimization for local is executed by creating business profiles in google my business (GMB) page by providing information of business name, location, contact details, opening hours, website address, images, and categories. This information helps the search engine to determine to rank and boost the result for local searches.

4.9   Optimization for mobile devices

Mobile devices are very popular and hold a massive volume of users. Further to understand growing popularity of mobile devices, Figure 11 shows the statistical data showing global mobile phone sales over years whereas, Figure 12 is the data published online by Chaffey (2016) from a research done on mobile user volume over the years by Morgan Stanley. There also has been a discussion on Google's official statement saying over 50 percent of the search performed are from mobile (Sterling, 2016). In addition, there has been official disclosure of mobile friendly algorithm which affects ranking only in mobile pages, applies to an individual page and affect globally in all languages (Google, 2015). Thus, these statistical facts demonstrate the growing trend of user preference towards mobile devices and the potential need for mobile optimization to drive mobile traffic and improve ranking.
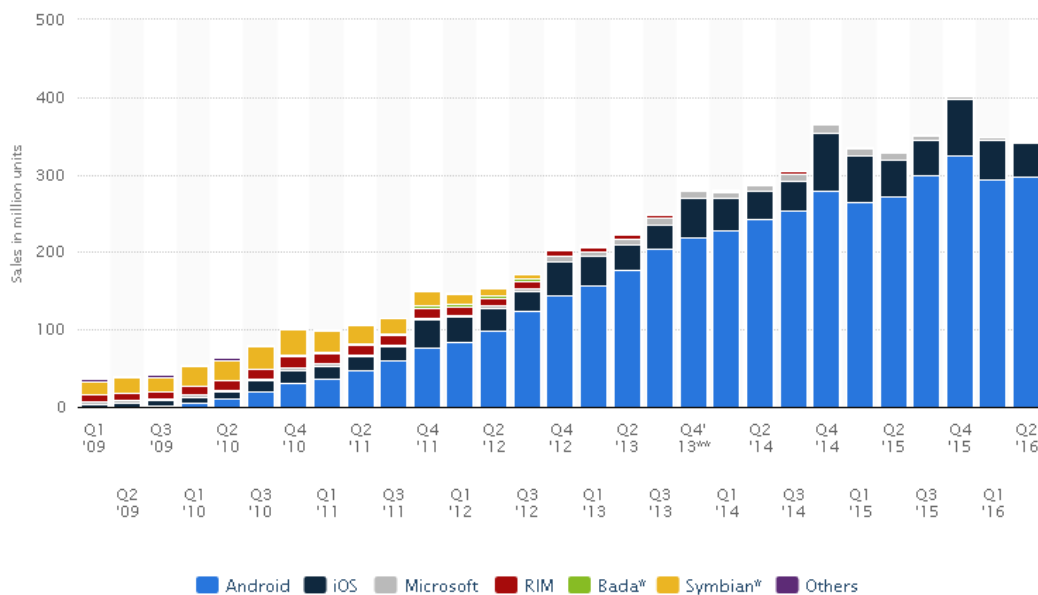
Figure 11: Global smartphone sales to end users (Statista, 2016)
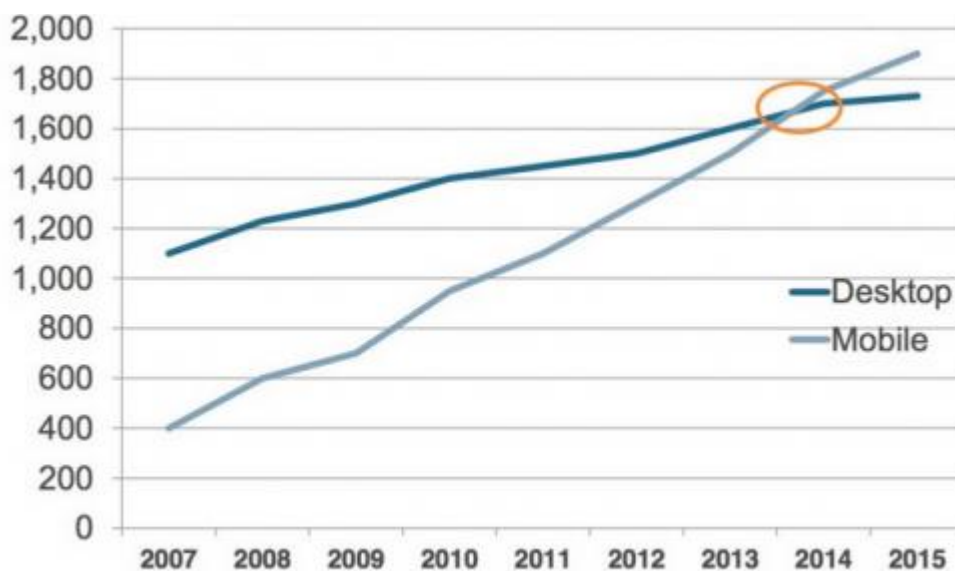

Figure 12: Number of global users (Million) (Chaffey, 2016)

A website should be finger friendly, able to load within a second and properly display contents on various mobile devices screen without errors to be considered as mobile friendly. Using Google's webmaster, page speed insight and mobile-friendly test tools help to measure and tweak mobile optimization process.

The techniques involved in setting optimization for mobile are as follows:

4.9.1 Responsive web design

This is currently a widely used technique and Google's recommended design (Google, 2016), which use single same URL and purely CSS dependent for rendering a page. The HTML and CSS files served from the server are same but are displayed/rendered differently on various devices with the help of CSS.

4.9.2 Adaptive web design

This technique is also very similar to responsive with the same URL except the server serves with different HTML and CSS files based on the user agent (mobile or desktop browser) requesting the page.

4.9.3 Separate URL paths

It uses different paths or subdomain for example www.site.com and www.m.site.com or www.site.com/mobile/, with each path serving with device specific optimized files.

4.9.4 AMP (Accelerated mobile page)

AMP is a very new trend recently starting to gain popularity in mobile optimization. It is mobile device specific pages designed for increasing loading speed and optimizing content for mobile usage. The technique uses two pages, one is a basic standard web page or non-AMP version and other AMP version of that page. Based on an article on the effect of AMP on ranking, Google has stated AMP not to have any effect on ranking algorithm but prioritize amp version in mobile over the standard non-amp version of that page (Sterling, 2016). However, it holds a great potential to drive mobile traffic considering the immeasurably growing number of mobile device users and mobile search.

4.10 Monitoring with Google webmaster tool and analytics

Google webmaster tool and analytics are very powerful tools provided by Google that help through SEO process and measure the results.

Webmaster tool plays a great role while building and implementing SEO. Basically, it checks the health of the site and shows how the search engine sees the web pages. Sitemaps can be uploaded for indexing and crawl errors can be checked with webmaster tool. It offers a mobile-friendly test to evaluate the website performance in mobile devices. In addition, the disavow function can be used to tell search engines to ignore the links coming from irrelevant or low-quality sites that might deteriorate the ranking of the website.

Google analytics is another crucial tool for measuring and reporting the performance of the website. It is leashed with powerful ability to measure the traffic flow across various metrics and dimensions such as demographic, device type, location, source, operating system, etc. Tracking and measuring the performance of specific content is possible with it. Besides, it also provides insight about the keywords to help in creating better contents.

Thus, Google webmaster tool and analytics plays a vital role in building effective SEO technique and, quantitatively and qualitatively measure the performance to meet targeted SEO goals.

5   SEO case studies

5.1   Nike Golf (6Dglobal, no date)

- Background

Nike is one of the most popular worldwide brand known for manufacturing quality sports wears, apparels, and equipment. Nike Golf Nike started making golf shoes in 1986 and been sponsoring popular athletes. Currently, it is also well known in golf sports for producing best high-performance shoes, clubs, balls and bags.

- Challenges

Nike was struggling to rank for non-branded keywords which were limiting the potential to reach a wide range of golf enthusiasts, build brand image and product promotion. The website was built on a platform that lacked flexibility in implementing technical techniques for improving crawling and indexing process, which presented a challenge in ranking for the brand and athletic focused broad keywords.

- Implemented SEO techniques

Due to the technical limitation in performing on-page optimization, the SEO technique was concentrated on achieving page authority for Nike Golf using social media and offline activities. Thus, highly popular sports professionals and social signals wave created from public activities relevant to sports brand and equipment were used in tailoring promotion strategy followed by activities such as releasing new balls, clubs and apparel, and use of that product in different professional events. In addition, the website was integrated with new additional technology making it indexable to the search engine and rank for the pre-existing contents.

- Outcome

The website was able to increase organic search traffic by 348% and traffic for non-branded keywords by 250% between 2011 and 2012. In addition, taking platform flexibility into consideration, the new Nike Golf 360 was launched in HTML5 based platform.

5.2 UAV Coach (Richards, 2015)

- Background

UAV Coach is a US based company helping people to break into the drone industry and establish a business.

- Challenges

The company was in starting phase and with the presence of competition in the drone industry, it was challenging task to find ways to drive traffic. The potential key was to develop evergreen content-focused SEO strategy to achieve long-term visibility, establish brand image, capture lead and convert them to paying customers.

- Implemented SEO techniques

The first crucial task for the company was to identify high-quality keyword for the content. Keyword research for the long tail keywords was performed using Google keyword planner and SEM rush. Since keyword alone wasn't enough to determine the ranking hence, competitor's research was carried out to check domain authority, page authority and links of their web

page with the help of Mozbar to ensure the chosen keywords "How to fly a quadcopter" is not impossible to rank for.

On-page SEO was performed by optimizing Meta description, title, URL, heading, image alt tags, keywords density, keyword variation and page load speed. For developing quality content, top 10 competitor contents for the keywords were analyzed to find an opportunity to outrank them. The use of fairly large content combined with image and videos offered a high ranking potential amongst other short contents which rarely had some media in it. Internal and external links to relevant content were created to reduce bounce rate and increase relevancy.

For content promotion, various established social platforms were used such as Twitter, Facebook, Quora, etc. Marketing automation apps like Buffer was used for scheduling content promotion across social media platforms and forum marketing strategies were also performed. For generating backlinks, the techniques used were blog commenting, directory submissions, fake forum account link building, link pages and weekly roundups out of which lead them to get high-quality backlinks from MIT with DA96. In addition, in order to capture and convert leads, interesting contents like free trials, eBooks, infographics, etc were delivered through different kinds of pop-up forms.

- Outcome

With aforementioned SEO strategy implementation, in just 6 months UAC Coach was able to organically rank 1st position in Google, increase traffic by 11,065% and acquire hundreds of new email subscribers and potential business leads without investing any resource in paid advertising and link building.

5.3   Your Foot Doc (Blazonco, no date)

- Background

Your Foot Doc is a business in the medical industry offering wide-ranging podiatry care utilizing most innovative diagnostic and therapeutic method to treat various feet, foot, and ankle disorders.

- Challenges

The company's website was having trouble being visible in major search engines and get organic rank for the keywords related to their service they provide. Thus, the business was failing to take advantage of their website and acquire customers.

- Before SEO implementation

The website was ranking in the 99th position placed in 9th page in Google SERPs making it hardly visible to the customers.

- Implemented SEO techniques

Proper site maps were developed and submitted to the major search engines for indexing. Keyword research was performed to identify top 20 keywords relevant to the industry and geographical location for optimizing content to rank for specific keywords. The website was further submitted to reputed search engines manually and local business profiles were created in Google, Bing and Yahoo for optimizing for local search. High-quality incoming links were obtained with the help of link building strategy. In addition, proprietary custom SEO software was used for the optimization process.

- Outcome

Within less than 7 months of SEO implementation, company website's organic traffic increased by 250% and was able to rank position 1st on Google's 1st page for the majority of the targeted keywords.

5.4 Talkpoint (Lambrecht, 2016)

- Background

Talkpoint is a company offering webcast software and services to companies to enhance the business communication.

- Challenges

After implementation of on-page and off-page SEO, Talkpoint was still unable to rank due to high competition in the market. Thus, there was a need for further optimization in order to increase relevancy and establish the authority of their site for improving visibility in the organic SERPs.

- Implemented SEO techniques

After running extensive SEO audit on the website, all the crawl errors and broken links were rectified. To enhance the relevancy of the content, heading, titles, content text and descriptions of all the existing important web pages were modified using appropriate keywords. For getting quality backlinks and increasing the authority of the site various link building strategies were implemented.

- Outcome

The company website succeeds to rank on the first page of Google search result page for 50% of targeted keywords, out of which one landed #1 position.

6   Discussion and conclusion

Every website is built upon a specific foundation with a special goal to meet and require a different approach in terms of SEO. It might hold both potential and limiting factors that bring challenges in optimization. Thus, a specific website tailored SEO strategy built on taking account of factors like website platform, site architecture, competition, target customer, company size, brand image and location, is necessary to achieve performance-driven SEO.

With reference to Nike Golf case, even for a popular giant company like Nike with a strong brand image, it wouldn't be possible to reach broad target customer for golf without SEO. On-page optimization was out of the option to start with due to the platform inflexibility thus, using social channels and public activities for content development and promotion as the primary element of SEO surprisingly seems to be the factor that helped to drive traffic, boost rank and establish brand authority for non-branded search terms. As stated earlier, social signals have no direct relation to ranking algorithms however, it can be assumed that high traffic

flow from social channels to Nike Golf page for non-branded keywords was the major factor for acquiring rank for Nike.

In the case of UAV coach, as a new company in drone industry with an aim to establish as an authority page, content-focused SEO was a great preference. Beside keyword research, including competitor domain authority, page authority, links and contents in the analysis provided strong opportunity to develop high-quality content with target customer focused long tail keywords. Despite having high-quality content, considering the value of backlinks on ranking, implementing various link building strategy was a very smart idea to ensure optimum optimization. In addition, use of social media channels for content promotion was also a great task to drive traffic. Thus, the perfect blend of content focused extensive on-page and off-page optimization were the possible factors that led UAV coach to rank as 1st position authority page for the targeted keyword in Google SERPs.

Subject to Your Foot Doc, they had an issue with site structure which might lead to crawl errors and limit indexing by the search engine. Fixing site and new sitemap submission were an initial basic task for making site search engine friendly. Further, using relevant location based keywords of their services and obtaining quality backlinks were the primary task performed in order to boost relevancy for ranking. In addition, creating a local business profile in the major search engines was a common technique performed but effective way to appear in location based search. The case study states that page was ranking in 99th position before the SEO implementation which implies that the web page was indexed, had no such major crawling issues and more likelihood use of a very competitive keyword. Thus, there are high probabilities that the improvement in ranking was due to keyword optimization in the contents and quality backlinks from relevant companies.

On the other hand, Talkpoint was facing poor performance after previous SEO implementation and presence of broken links in the pages was a very critical issue in ranking. Therefore, re-modifying websites important pages with new quality keywords and backlinks were the potential factors to work on for showing web page relevancy to the search engines, which helped Talkpoint to land Google's first page. In addition, a long tail keyword was ranked in 1st position, this can be an indication of opportunity and a need to focus more on long tail keywords in future.

Based on above discussed case studies, keyword choice, content with optimized keywords and implementation of different link building strategies have been observed to make a significant impact on increasing traffic and achieving great ranking in SERPs. In context to linking building strategy, natural links are considered high quality nevertheless, the cases have not revealed the detail information about the nature of backlinks obtained from various sites. Com-

paring the four cases across time frame, it can be observed that content and links have been the major factor determining the ranking despite the continuous algorithms updates. The case studies have shown the important SEO techniques and extensive potential of SEO to drive organic traffic in business.

Analyzing aforementioned data of global search engine market share, organic CTR, SEO integration in companies and case studies results, it can be assumed that SEO has broad potential in digital marketing to enhance business growth and should be integrated as a core element in every marketing tasks. Further, there is a high obligation for businesses to consistently keep track of search engine changes, marketing trend and customize SEO strategy respectively in order to stay in the market.

In addition, due to limited disclosure of data on SEO cases by companies, the study was incompetent to show the business performance in terms of financial numbers. Thus, it requires further study based on comprehensive SEO data to analyze the conversion in terms of revenue generated by the organic traffic after implementing search engine optimization.

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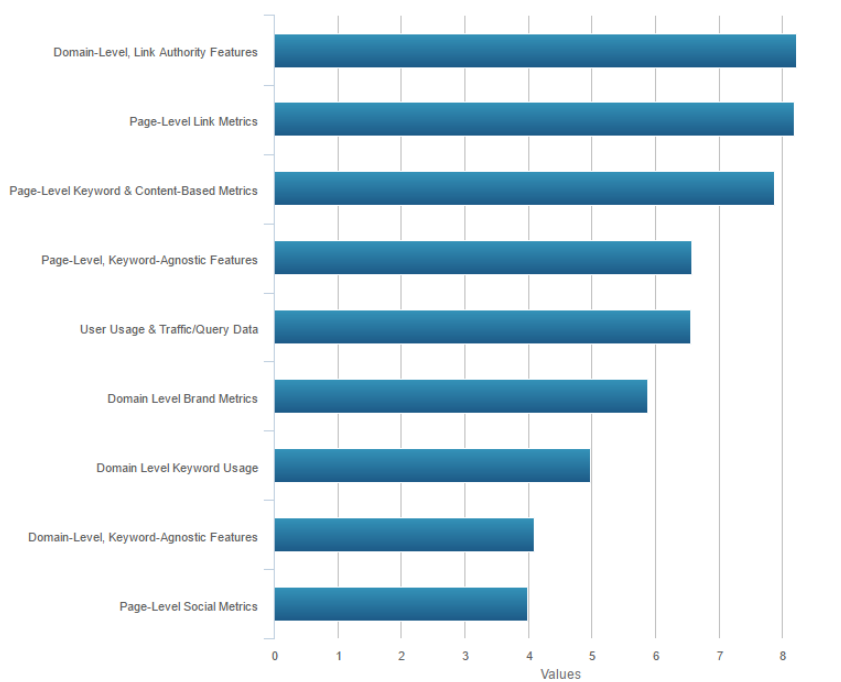
Figure 5: The SEO pyramid by Rand Fishkin   11
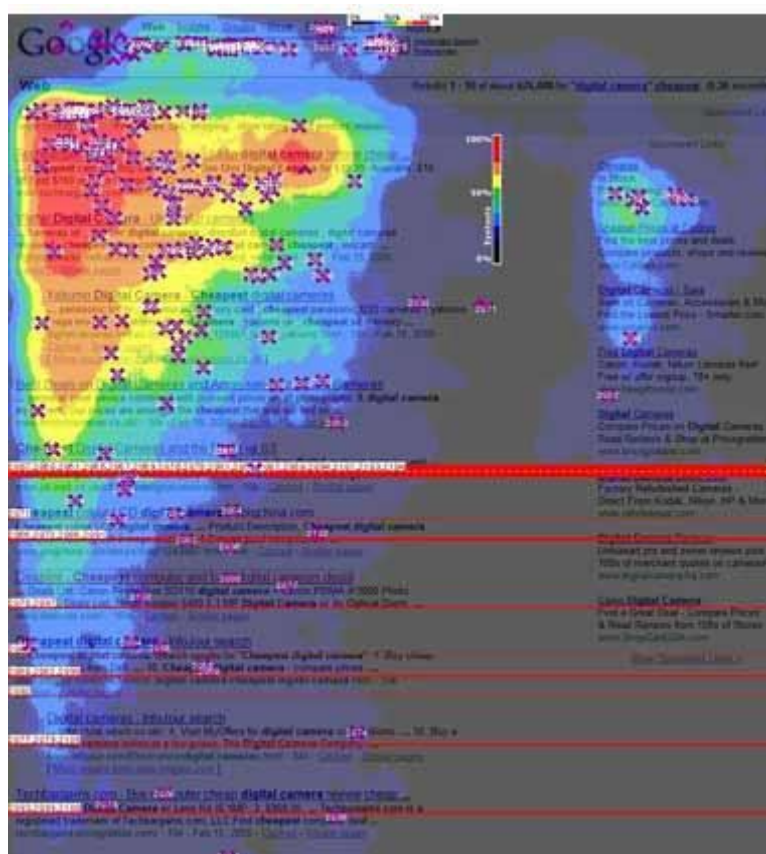

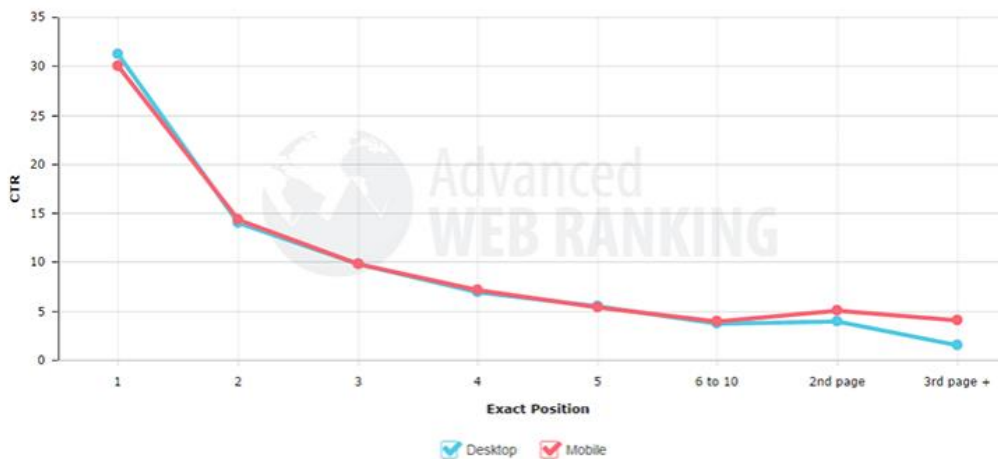Figure 6: Enquiro eye tracking results   12
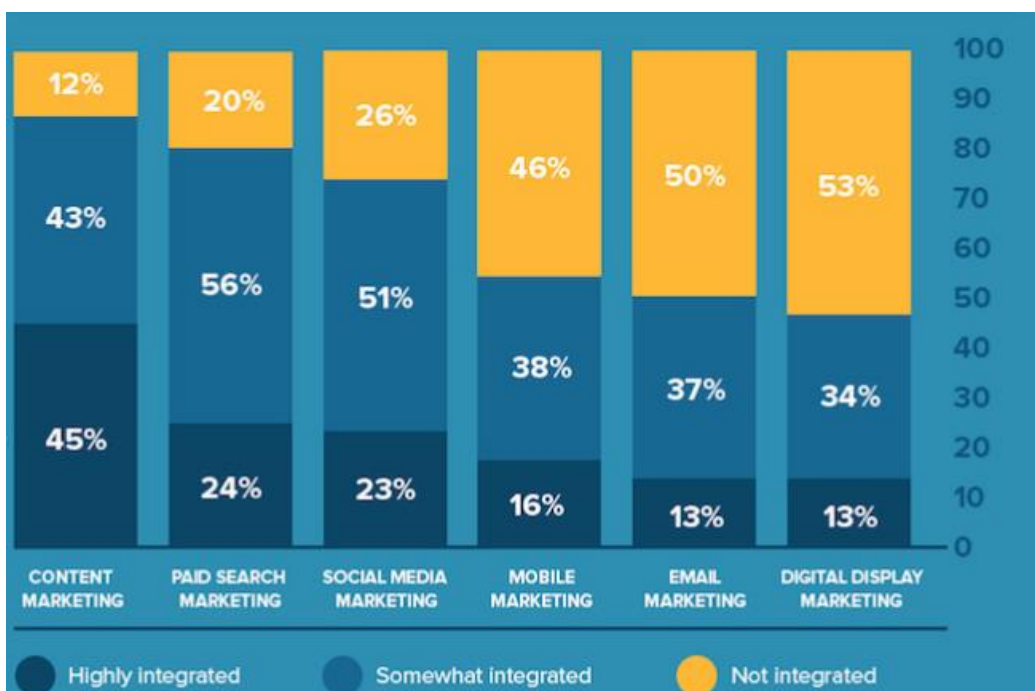
Figure 9: Search engine query demand 15

The "Head" of the
search demand curve

Thousands
of queries
per day

~30% of
demand

The "Long Tail"

<1 query
per week

~70% of demand

Popular Queries

Stock Quotes

NFL

Laptop Reviews

"Long Tail" Queries

Chart of Argentinian Market in 1994

Draft Picks for Seattle Seahawks

Dell m1210 Battery Life Estimates

Figure 10: HTML file structure 18

```html
1   <!DOCTYPE html>
2   <html>
3
4   <head>
5       <title>My Website | Cool SEO tricks</title>
6       <meta name="description" content="Page description">
7       <meta name="keywords" content="keyword1, keyword2">
8       <meta name="author" content="Author Name">
9       <meta name="copyright" content="2016">
10  </head>
11
12  <body>
13
14  <h1>How to impress Google with SEO ?</h1>
15  <p>
16  <img src="image.jpg" title="image title" alt="image description">
17  </p>
18
19  </body>
20  </html>>
21  |
```
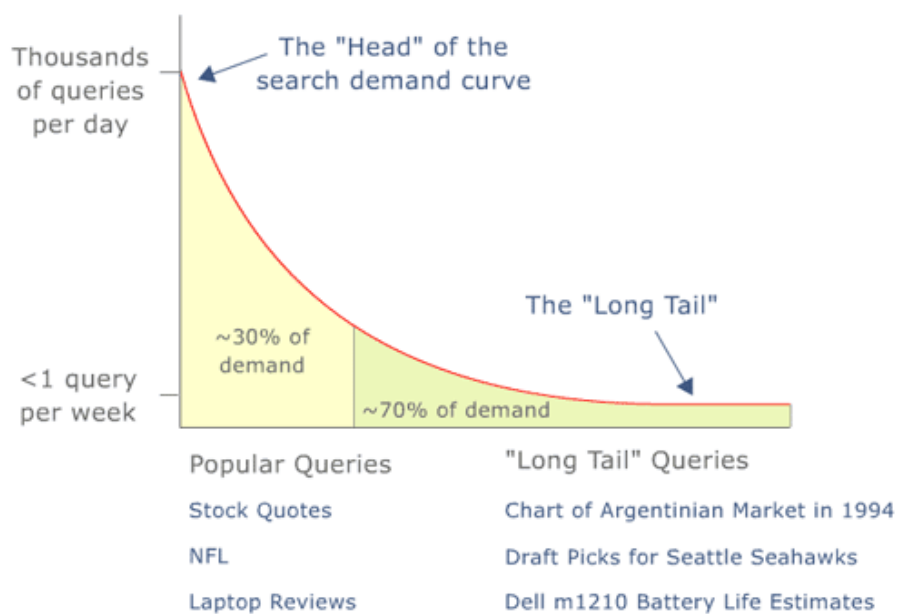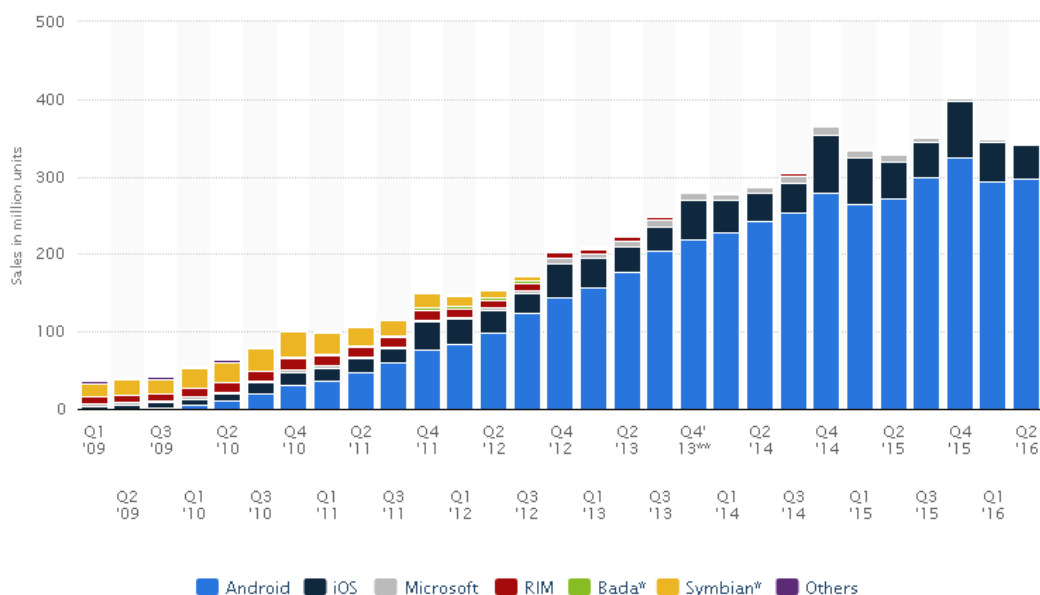
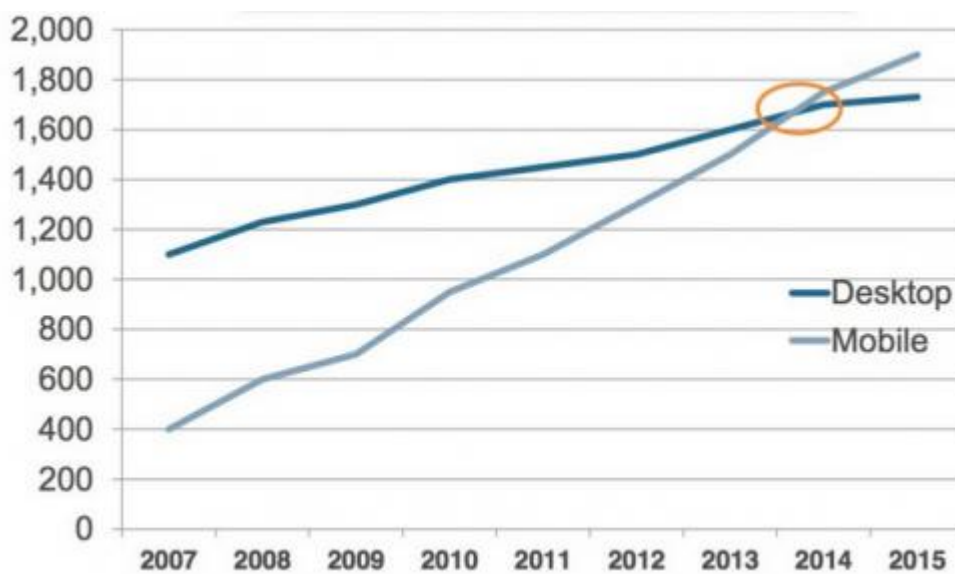Figure 11: Global smartphone sales to end users   21

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Tables

SEO Goals	Strategy	Metrics to measure
Traffic	- Create high-quality contents that target a broad range of keywords such as, high volume and long-tail keywords. - On-page optimization	Traffic volume from various search terms.
Branding	- Emphasis on long-tail keywords - On-page optimization	Traffic volume from specific search terms.
Revenue	- Target searches that represent the customers close to the end of buying journey and optimize product page for conversion.	Conversion, value, etc