

# **Digital marketing plan for a Finnish startup company with a limited budget**

## **Case: PrimerDigital Oy**

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<p>Throughout the last decade, globalization and digitalization have changed the world of business dramatically. As a result, the glories days of word-of-mouth and cold calling have gone completely. Although nowadays companies rely more and more on digital marketing as a tool to promote their goods and services, most of them still lacking a comprehensive digital marketing plan that would let them succeed in this endeavor.</p> <p>The goal of this study was to create an effective digital marketing plan for a Finnish startup company with a limited budget. Since the company has some budget constraints, the particular focus of this study was to find out the right blend of most suitable and effective digital marketing channels, tools, and tactics, that would allow the commissioning company to achieve business success on the biotech software market.</p> <p>In order to achieve this goal, the author has explored effectiveness of digital marketing techniques regarding ROI, the most valuable planning frameworks, most suitable digital marketing techniques, channels, and tactics for the sector the company works, and finally, the minimal set of digital marketing activities needed for achieving the company's marketing objective. Whereas the insight into planning models and effectiveness of specific approaches was obtained from the reviewed literature, the understanding of what works the best for the biotech software sector and the company in question was received from the competitor analysis and the survey of the company's clients.</p> <p>Using this information the author has developed an effective digital marketing plan that includes specifically those tactics and actions that are necessary for achieving marketing objectives and business goals defined by the management of the company.</p> <p>This research was conducted as a case study research with a holistic single-case design, where, as the research philosophy was chosen pragmatism. As to the data collection, the author used mixed methods data collection approach, which considers both, the secondary and the primary data. Such a combination of data is quite typical for case study research strategy.</p> <p>Due to the mentioned above budget constraints, it was not possible to implement the developed plan in full. The implemented scope comprised only the tasks that could be accomplished by the company's team and the author of the research. Despite this fact, during the four months of the implementation, many of the marketing goals defined by the management of the company have been achieved. As to the objectives of this study, they all have been completed as well.</p>	
<b>Keywords</b> Digital marketing, Digital marketing plan, PR Smith's SOSTAC®, RACE, Content marketing, Email marketing, Search engine optimization (SEO), Search engine marketing (SEM), Social Media Marketing (SMM).	

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# 1 Introduction

Throughout the last decade, globalization and digitalization have changed the world of business dramatically. As a result, the glories days of traditional word-of-mouth and cold calling have gone completely. Along with that, due to the availability of new technologies for people, consumer behavior has transformed as well. Instead of blindly buying goods that companies offer in their ads, people tend to research to find the products that suit their needs the best. All these outcomes of technological progress made business competition genuinely fierce for many sectors.

Nowadays, to win the market companies also try to use new technologies. Although they rely more and more on digital marketing as a mean that allows to pop up in front of their potential customers, most of them still lacking a comprehensive digital marketing strategy that would let them succeed in this endeavor. In fact, instead of having a digital marketing strategy or at least a digital marketing plan that would guide them towards the success, such companies heavily invest in random sets of digital marketing channels without an understanding of what works and what does not work for their sectors. As a result, quite often, such companies have wasted marketing budgets and, if any, get miserable financial outcomes.

## 1.1 Research objectives

PrimerDigital, the commissioning company of this research, is one of those companies that wish to boost their sales and increase awareness of its brand with the help of digital marketing. Although due to a specific of PrimerDigital's products and the sector the company operates, digital marketing is seen as the best way of achieving the company's marketing objectives and business goals, until recently, the company used more conventional methods of marketing. Specifically, along with pursuing a donation-based monetization model, PrimerDigital has heavily relied on word-of-mouth approach as the primary mean of delivering information about its products to prospective customers.

Since these methods were not the most effective in terms of products promotion and raising capital for the further development of PrimerDigital's products, the company's executive team decided to reconsider their tactics and try digital marketing instead.

Although the moment this research was initiated the company's business goals and marketing objectives were not entirely clear, the CEO of the company has defined three main reasons why the executive team wants to get into digital marketing. Specifically, these

were: attract new visitors to the website to increase sales, achieve a strong digital footprint of the company within the internet, and reinforce the company's brand image on the biotechnological software market.

To achieve these goals the company needs a comprehensive digital marketing plan that will define particular tactics and actions on how the mentioned objectives could be met. As the company has some financial issues that do not allow hiring a professional agency for developing a digital marketing plan, and none of the company's employees has neither a marketing background nor competencies needed to develop and implement the plan, the company and the author of this research made an agreement to accomplish this work as the authors' thesis project.

As a result, the primary goal of this study is to create and implement an effective digital marketing plan for the commissioning company. Due to marketing budget limitations PrimerDigital has, the particular focus of the study is to discover the right blend of most suitable and cost-effective digital marketing channels, tools, and tactics, that would allow the company to achieve its marketing objectives most efficiently.

As to the personal objectives of the author, along with delivering some value to the company through achieving its marketing goals, he hopes to raise his knowledge and skills regarding digital marketing planning to a new level. Also, since the research implies the implementation phase, he also plans to actively participate in the implementation to apply obtained knowledge and skill throughout a practical context, and, as a result, get hands-on expertise regarding digital marketing.

## **1.2 Research problem and question**

Since the primary goal of this research is crafting an effective digital marketing plan for the startup company that has some budget constraints, the main research question was formulated as follow: How to create an effective digital marketing plan for a Finnish startup company with a limited budget?

To answer the question entirely and create a genuinely effective plan for the company this research implies providing the answers to the following sub-questions:

- Which digital marketing techniques, tools, and tactics currently exist?
- Which digital marketing techniques are most cost-effective?
- Which digital marketing techniques, channels, and tactics are most suitable for the biotech sector?

- What is the minimal set of digital marketing techniques, tools, and channels needed for achieving the company's marketing objectives?

Knowing the answers to these sub-questions, the author will be able to develop the digital marketing plan that allows the company to focus all its efforts on a particular set of tools and techniques needed for achieving marketing objectives without wasting of resources and budget.

### **1.3 Case company introduction**

PrimerDigital Oy is a Finnish biotechnology startup company specializing in high-quality PCR (Polymerase chain reaction) primer and probe design service, and software development for PCR analysis. The company has 5 to 7 employees, and its headquarters is based in Helsinki, Finland. Although PrimerDigital is located in Finland, it provides services and products internationally throughout the internet.

Typical customers of the company are different kinds of biotech startups, research institutes or universities, governmental or nonprofit organizations, and big and midsize commercial organizations that operate within the field of biotechnological research. Targeted segment (decision makers) are purchasing managers, chief process engineers, CEOs or business owners, and heads of IT departments. End users are research staff, post-doctoral researchers, and Ph.D. students.

Although the company offers quite in-demand products, due to lack of marketing efforts, its sales are not impressive at all. As a result, the company has financial difficulties and cannot afford to waste its marketing budget anymore. Moreover, as it turned out to be, traditional offline marketing efforts are not that efficient as PrimerDigital management expected. Thus the CEO of the company decided to make extra stress on digital marketing activities within their overall marketing strategy for the year 2018.

As the primary outcome from this research, the company expects a digital marketing plan that would allow to raise awareness about the company's products among prospective and existing customers (brand awareness), attract and encourage new customer to try services and products (lead generation and sales boost), and maintain a strong relationship with existing customers (customer relationships management).

## 1.4 Research structure

As can be seen in figure 1, this research consists of several phases, where each of them includes additional stages. More precisely these are:

1. Phase 1 (Literature review). This phase comprises of:
  - A review of professional literature on existing online promotion and communication techniques and suitable theories regarding digital marketing planning.
  - An analysis of digital marketing trends for 2018.
  - Development of a conceptual framework that will guide the creation of a digital marketing plan for the company.
  
2. Phase 2 (Research and development of a digital marketing plan). This part of the research includes:
  - An analysis of PrimerDigital's competitors regarding digital marketing promotion and communication techniques. (This stage aims to reveal the most commonly used digital marketing channels among companies that work in the biotech software market).
  - A survey of the company's customers. (This survey should provide an insight into the most suitable digital online communication channels from the customers' perspective).
  - Defining the minimal set of digital marketing techniques that suites the most for the company. (The aim of this section is, based on the insight obtained from the survey, the competitor analysis, and the theoretical findings regarding the effectiveness of the techniques in terms of ROI, to refine the list of most suitable options for the case company).
  - Development of a digital marketing plan. (The goal of this stage is, based on the framework developed at the literature review stage and findings obtained from the research section, to create an effective digital marketing plan for PrimerDigital).
  
3. Phase 3 (Implementation). This phase aims to implement the plan in a real-life context and analyze results. Thus, the phase consists of:
  - implementation of the digital marketing plan, and
  - follow-up and analysis.
  
4. Phase 4 (Conclusions and recommendations). The aim of this phase is summing up all findings and provide recommendations for further work.



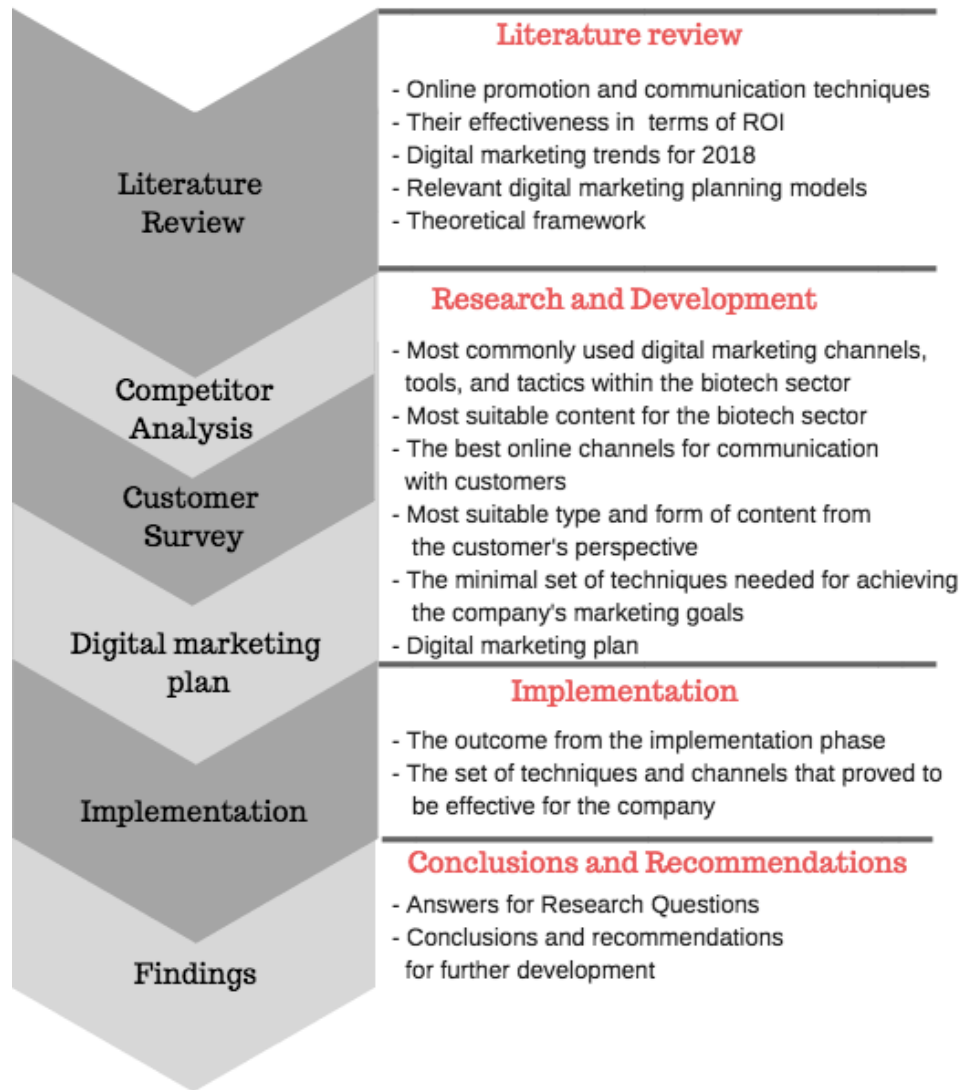


Figure 1. Research structure

As can be seen from above, while literature review provides an overall direction for this research, information obtained from the Research and development phase helps to refine the list of possible digital marketing techniques and find out the set of most applicable options for the company. Only such an approach provides an opportunity to get a holistic understanding of the current trends within the biotech software field and create a well-thought and tailor-made digital marketing plan for PrimerDigital.

## **2 Literature review**

This chapter introduces the most relevant digital marketing planning models, tools, and promotion techniques as well as the latest trends and tendencies of the digital marketing world. Due to rapidly changing technology and means of communication, the field of digital marketing also evolves fast. Therefore, this chapter covers not only recently published books but also a number of internet articles from highly reputable sources of information on digital marketing.

### **2.1 Fundamentals of digital marketing**

A digital revolution that has accrued during the last several decades has significantly transformed a marketing and business world. Constantly evolving internet technology, digital platforms, and social media affect consumers' mindset and the way they interact with business. For instance, with the help of social media platforms, consumers may easily communicate with each other and share valuable information about products or brands. This information, in its turn, affects the people's purchase decisions about different products and services and, as a result, gave them more power and independence regarding their choices. Therefore, if marketers want to communicate with their audience effectively, they should revise a current marketing approach and use the newest digital technologies. (Ryan 2014, 8-16.)

As the primary challenge for marketers today Chaffey and Ellis-Chadwick (2016, 8) point out an ability to understand which innovations are the most relevant for an organization and how to integrate them with traditional marketing communications to gain an advantage for a company. Ryan (2014, 12) argues that the challenge for a marketer is not just understanding technology itself but understand how people use it to take advantage of it, and engage with people more effectively.

Over the years, the use of digital technologies to support a company's marketing efforts has been known by different names. Among them were terms like Internet marketing, e-marketing, web marketing, and digital marketing. Although, in essence, they all are alternative terms, Dave Chaffey (2018a) proposes to focus on the latter term as on the most frequently used today. (Chaffey 2018a.)

There are lots of different definitions of the term within professional literature and relevant internet sources. For instance, digital marketing can be outlined as "[t]he promotion of products or brands via one or more forms of electronic media" (Businessdictionary 2018;

SAS 2017). Alternatively, Chaffey and Ellis-Chadwick (2016, 11) define digital marketing as “[t]he application of the internet and related digital technologies in conjunction with traditional communications to achieve marketing objectives”.

Despite both definitions identify digital technology and media as key elements that allow achieving marketing objectives and business goals, Chaffey and Ellis-Chadwick (2016, 11) make an extra emphasize that such technologies should be applied in conjunction with traditional communication channels. In other words, it should support traditional marketing efforts rather than entirely replace it. (Chaffey & Ellis-Chadwick 2016, 11.)

Along with that, scholars (Chaffey & PR Smith 2013, 19) outline that digital marketing entirely supports the primary goals of marketing, such as identification and anticipation of customer needs, and satisfying these needs profitably.

The identification of customer needs, in context of digital marketing, occurs through an analysis of customers’ comments, inquiries, requests and complaints collected from sources such as a company’s website, emails, or social media communities. Along with that, a company should make an analysis of customers’ interests via web analytics platforms, analyze what’s selling and what’s not, and finally make online customer survey regarding satisfaction and suggestions for services or products improvements. (Chaffey & PR Smith 2013, 19.)

As to the anticipation of customer needs, a company should engage customers in a dialog, from which it will identify and anticipate what customers might like or dislike. For this purpose, along with the set of tools mentioned earlier, a company should use cookies. A cookie is a piece of code that allows gathering valuable information about people who are visiting a company’s website. (Chaffey & PR Smith 2013, 19.)

The third goal of marketing is meeting or satisfying customers’ needs. In the context of digital marketing, it is all about positive customer experience from communications with a company and delivering valuable and relevant content to customers from a company’s side. (Chaffey & PR Smith 2013, 19.)

As can be seen from the above, digital marketing indeed can help with anticipating and meeting consumer needs and, as a result, gain some profit for a company.

Since the definition and the role of digital marketing is clear, let's look at the benefits it provides, and what kind of business objectives can be achieved with the help of digital marketing.

As the common goals for and benefits of digital marketing, Chaffey and Ellis-Chadwick (2016, 18) point out the following:

- Grow sales – achieved through wider product range or distribution channels.
- Add value – achieved by providing customers with extra benefits or product development based on customers' online feedbacks.
- Get closer to customers - achieved through two-way dialogue and online interactions.
- Save cost – completed by providing online services and communication that does not imply extra stuff or print cost.
- Extend the brand online - achieved through building communities and delivering new propositions.

Additionally, Ryan (2014, 21) points out that “[u]nlike conventional forms of mass-media marketing, the internet is unique in its capacity to both broaden the scope of your marketing reach and narrow its focus at the same time”. Also, he notes that by using digital channels for connection with an audience a company may overcome constraints like geography and time zones (Ryan 2014, 21-22). Besides, digital channels are relatively cheaper than conventional media and allow to provide for customers instant access to valuable information at any time and any place they need it (SAS 2017).

As can be seen from above, despite the nature of a business, almost any kind of company, at least to some extent, may benefit from using digital marketing.

## **2.2 Digital marketing scope and communication channels**

Although digital marketing is often associated with a company's activities regarding its website or presence on different social networks, in fact, the scope of digital marketing is more extensive. For instance, digital marketing should cover interactions between a company and its audience across a number of digital platforms, devices and communication channels. (Chaffey 2018a.)

Dave Chaffey (2018a), highlights the following activities that are inherent for digital marketing:

- online communication via digital media and different communications channels
- company presence across different online platforms and digital devices
- development of customer relationship through marketing automation
- integration of multichannel communications
- management of marketing activities through digital technologies and platforms.

As can be seen from the list above, the scope is comprehensive. Along with that, there is apparent stress on the importance of multichannel integration that is an integral part of digital marketing success (Chaffey 2018a).

Neil Patel's vision about the scope of digital marketing is even broader. He proposes (Patel 2015) that digital marketing is based on two main pillars: online marketing and offline marketing. Whereas the former implies online activities and includes promotion techniques such as Search engine optimization (SEO), Search engine marketing (SEM), Content marketing, Social Media Marketing (SMM), Pay-per-click advertising (PPC), Affiliate marketing, and Email marketing, the latter is more about enhancement of offline marketing activities like Radio marketing, TV marketing, and Phone marketing. (Patel 2015.)

In essence, both perspectives on the scope of digital marketing, are quite similar and refers to multichannel integration. Thus, we may conclude that all mentioned elements are essential and should be considered at the development phase of this study. Otherwise, PrimerDigital may miss out some vital market opportunities.

Figure 2 depicts how the mentioned elements should be applied through customer lifecycle (CLC). As the diagram shows, each stage of CLC requires a particular set of different communication channels. Moreover, among them can be found online marketing activities as well as offline ones.

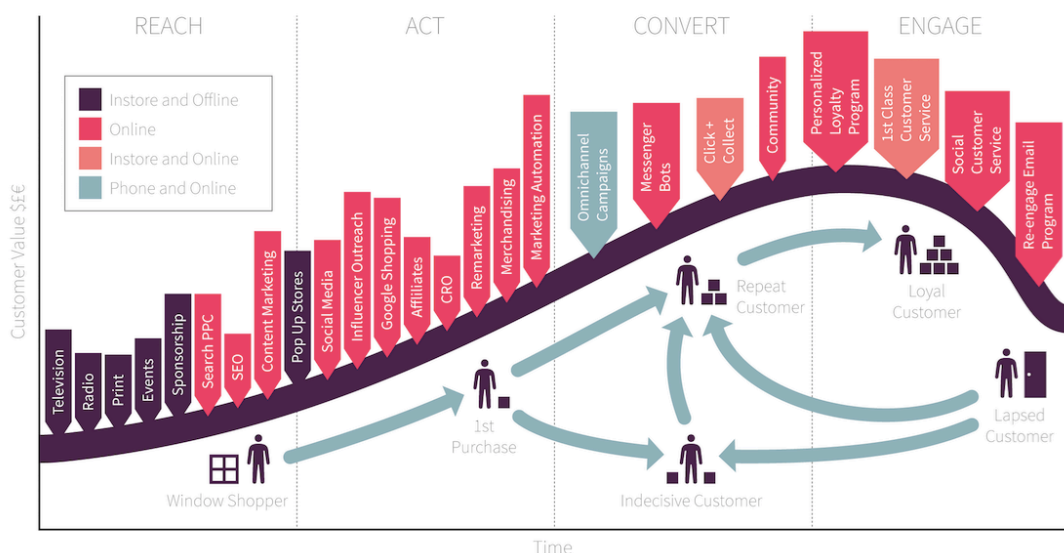


Figure 2. Application of marketing communication channels through consumer lifecycle (Chaffey 2018b.)

Considering that currently, PrimerDigital does not use any of mentioned above offline marketing activities that would require enhancement by online digital marketing efforts, further in the text will be discussed only those techniques and communication channels that refer to the online part of digital marketing scope given earlier. Precisely, the following seven categories of online marketing:

- Search engine optimization (SEO)
- Search engine marketing (SEM)
- Content marketing
- Social media marketing (SMM)
- Pay-per-click advertising (PPC)
- Affiliate marketing
- Email marketing.

Despite the importance of each chosen category, due to budget constraints PrimerDigital has, this list should be refined to a few the most suitable and cost-effective digital marketing techniques. To do that it is essential to understand the purpose and role of each technique regarding customer lifecycle as well as its effectiveness concerning return on investments (ROI). By having such insight, it is possible to reduce a chance to waste a budget on irrelevant or ineffective marketing efforts.

### **2.3 Customer lifecycle concept**

Nowadays, the chance that someone buys a product after the first contact with it is meager. As a rule, people make kind of research about products before making the purchase decision. Therefore, the consumer journey has many touch points that businesses may use for communicating and convincing people that products and services they promote are way better than the rest of the offers on the market. (Hogg 2018.) To identify such points of contact companies need to understand the concept of the customer lifecycle.

In essence, customer lifecycle represents the phases of a customer's relationship with an organization. Usually, it includes stages of feeling a need, awareness, consideration, selection and purchase, experience, loyalty, advocacy, engagement, or an alternative to the latter three - exit. By identifying the stage at which customers or prospects are at a particular moment, an organization can communicate with them more efficiently and finally establish a relationship that is important for better understanding their' needs. (Franz 2014.)

The main tasks for marketer regarding customer lifecycle can be identified as the following:

- Claim someone's attention.
- Bring them into your sphere of influence.
- Turn them into a registered and/or paying customer.

- Keep them as a customer.
  - Turn them into a company advocate.
- (NetGenesis corp. 2000, 26.)

To accomplish all those tasks, a marketer has a number of communication strategies at his disposal. Figure 3 represents how digital communications channels can be used through an entire customer lifecycle. (Chaffey 2018b.) The diagram is based on Smart Insights' RACE framework that stands for Reach, Act, Convert, and Engage. The Framework covers the whole customer lifecycle and outlines online marketing activities that should be considered as part of a digital marketing strategy. (Chaffey 2017.)

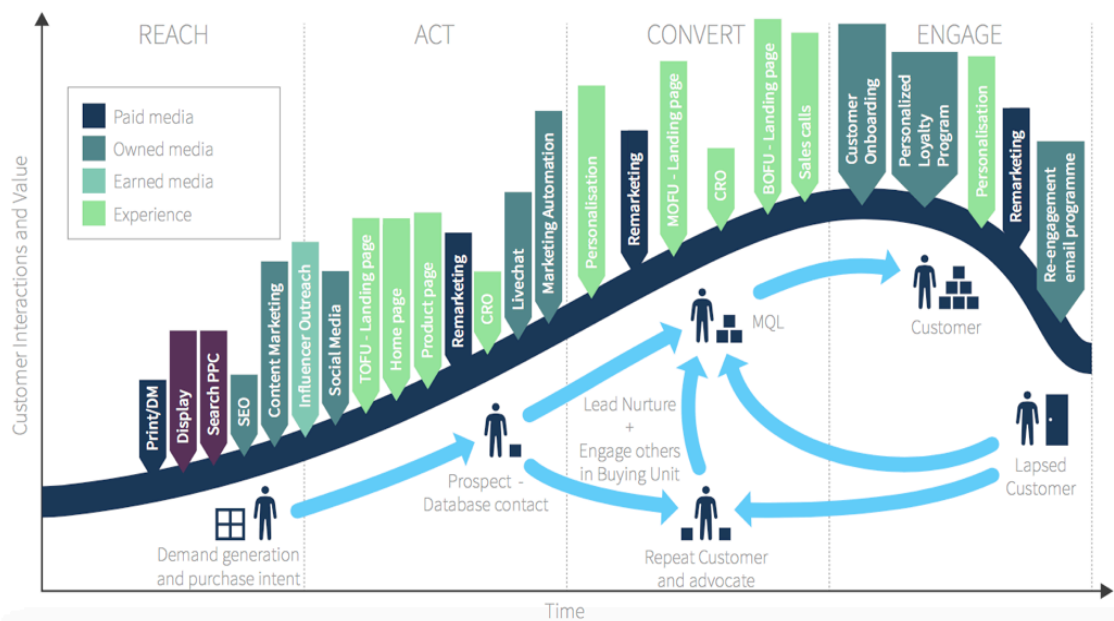


Figure 3. Digital marketing communication channels with regard to consumer lifecycle (Chaffey 2018b)

Relying on this diagram, a marketer can find out which communication channel is the most suitable for a particular stage of CLC. By having this insight, it is possible not only effectively communicate with customers and prospects but also wisely use a company's resources.

#### 2.4 The most effective digital marketing channels regarding ROI

Although figure 3 allows identifying the most relevant marketing techniques for a particular stage of the customer lifecycle, it does not tell anything about their efficiency regarding the return on investment (ROI). Such insight can be especially crucial for startup companies that have some marketing budget limitations. Because of such issue companies quite often try to figure out a core set of digital marketing activities that are not only relevant to a

company but are delivering the best return on investment. For this purpose, a company needs to estimate “which channels will produce significant volumes of leads and sales at an acceptable cost per acquisition (CPA) for new customers” (Chaffey & Jones 2017, 20).

According to the research conducted by SmartInsights in 2017, Organic search (SEO), Content marketing, and Email marketing are the most effective digital marketing techniques regarding ROI. These three are followed by Social media marketing (organic) and paid advertisement techniques such as Paid search marketing (AdWords) and Social media ads. Techniques such as Website personalization, Online PR, and Display advertisement have relatively lower results regarding ROI. (Chaffey & Jones 2017, 20-21.) The research conducted by Econsultancy in the year 2106 (Davis 2016), also indicates Email marketing, SEO, and Content marketing as the top three the most effective marketing techniques regarding ROI.

Figures 1 and 2 in appendix 7 provide more detail information regarding the effectiveness of the mentioned above techniques in terms of ROI and show their positioning relative to each other.

Although these findings highlight SEO, Email marketing, and Content marketing as the most effective techniques with the highest ROI, it is essential to understand that for each particular company this set may vary. Therefore, all investments into a specific set of digital marketing techniques should be based on a company’s objectives and metrics, ROI, and customer journey analysis. Also, a company may research how competitors from the same industry spend their budgets and which channels are the most effective for them. (Burney 2016.)

## **2.5 Trends in digital marketing for 2018**

It is not a secret that, due to emerging technologies, the world of digital marketing is continually evolving. Thus, to take advantage of such changes, along with usage of the mentioned above the most commonly used marketing techniques, a marketer should also take into account some new trends happening within the digital marketing field.

Constant monitoring of emerging technologies or at least paying attention to new trends allows companies to take advantage of new marketing opportunities and stay competitive for a long time. All the trends that are discussed in this subchapter have started in few last years and are going to continue in 2018 as well.



## **Video marketing**

During the past few years, for many people, visual content has become more preferable than text-based alternatives. Even in case of a product's or services' reviews, people prefer to consume information in the form of video over simple text. (Tripura 2018.) Considering that nowadays most of the social media and blogging platforms allow using video in different forms, from businesses perspective, such trend provides a range of opportunities. For instance, through the use of video content on social media companies can deliver valuable information to their followers and achieve higher user engagement. As a result, many companies started to use it as a part of their marketing communication strategies. (Tripura 2018.)

Along with that, marketing experts highlight the overall increase in mobile device usage. According to research conducted by Cisco (2017), by 2021 the share of mobile videos will achieve three-quarters of overall mobile data traffic. In other words, people will watch videos on their mobile devices more often than they do it now. So that, in order to take the full advantage of video marketing, video content should be optimized for mobile platforms.

All these facts suggest that video marketing should be considered as one of the most critical trends for 2018. Therefore, undoubtedly it should be taken into account at the digital marketing planning stage.

## **Artificial intelligence**

Another significant trend is the usage of Artificial intelligence. Artificial intelligence (AI) is the simulation process of human knowledge by machines, that is based on learning, reasoning, and self-correction. (Rouse, 2016.) Regarding digital marketing, it has a range of applications. For example, AI helps to predict customers' needs and interpret their behavior. Based on this information, marketers have an opportunity to personalize a customer journey and improve conversion. Along with that, AI allows to figure out the most effective marketing approaches or defining the most efficient advertisement message for a paid advertising campaign. (Tripura 2018.)

## **Chatbots**

The third trend in digital marketing is Chatbots. In essence, Chatbot is an AI-based piece of code designed to conduct a conversation with humankind over the Internet. From a digital marketing perspective, Chatbots are an excellent tool for fast response to customers' questions or comments regarding a product or customer service issues. (Tasner 2018.) Although Chatbots work only with basic repeatable questions, it is only the way to provide

immediate responses from a company's customer service across the globe in 24/7 mode. Moreover, this technology is applicable in a range of sectors. (Investopedia 2016.)

All these benefits make Chatbots more and more popular in the business world and, as a result, companies implement this tool for enhancement of their online communications efforts.

### **Online reviews and User-generated content**

The last trend discussed in this subchapter is Online reviews and User-generated content. They both are quite important because nowadays customers have become more active with regards to searching for information on a product or service before buying it. According to Smith and Anderson (2016), around 82 percent of Americans read online reviews and ratings generated by other buyers when purchasing something for the first time. Moreover, 39 percent of US adults state that they have shared their opinion about companies or products on different social media. Since such online reviews or share of experience is usually unpaid and generated by regular people, the public tends to trust it more than companies' generated message. (Smith & Anderson 2016.)

Alongside online reviews, there are many types of content that can be generated by customers online. Such material is called User-Generated Content (UGC) and refers to the promotion of a brand by users, instead of the brand itself. UGC may have different forms, most common types are: media content like videos and pictures, blog posts, and testimonials. For businesses, UGS has a range of benefits over traditional marketing techniques. Comparing to a TV commercial or banner ads, USG is a significantly cheaper and relatively effective way to reach a target audience. As a rule, campaigns that are based on UGC will be more authentic, transparent, and consumer-oriented. (Tintup 2016.)

To take advantage of this trend companies should use all forms of UGC including testimonials and reviews on social media platforms where they have a presence as well as on their websites.

## **2.6 Digital marketing techniques**

Considering the findings from the previous subchapters, as the critical online promotion techniques for discussion in this section, have been selected the following:

- Content marketing
- Social Media Marketing (SMM)
- Search engine optimization (SEO)
- Search engine marketing (SEM)

- Paid advertisement (PPC)
- Email marketing
- Video marketing.

All the mentioned above digital marketing techniques are introduced and discussed in more detail in the following subchapters. The methods that fell out of this scope are not discussed in this study at all.

### **2.6.1 Content marketing**

Through the past decade, digital marketing and content have become genuinely inseparable. Nowadays, content in a digital landscape is one of the few available for organizations marketing approaches that allow them to communicate effectively with their prospects and customers. As a result, content marketing has become widely used not only by leading large brands but also by small businesses and one-person entities from around the globe. (Ryan 2014, 300.) Eighty-six percent of B2C and ninety-one percent of B2B companies that have participated in marketing research conducted by Content Marketing Institute in the year 2017 have stated that they actively used content marketing for achieving their marketing goals (Beets & Handley 2017a, 6; Beets & Handley 2017b, 6).

Among the reasons why content marketing is so prevalent in the business world, Ryan (2014, 300) highlights the following reasons: relatively low entry barriers, high availability and a wide variety of publishing platforms, and its cost-effectiveness. Besides that, the usage of content marketing may help organizations increase sales, reduce costs, and get better customers who will be more loyal to an organization. (Contentmarketinginstitute 2017.)

As to the definition, Content marketing can be defined as follow:

Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience — and, ultimately, to drive profitable customer action. (Contentmarketinginstitute 2017.)

From Neel Patel perspective, Content marketing is all about storytelling and attracting people's attention (Patel 2018a). With the help of such stories, companies not only promote their products but also attract and engage customers. However, instead of just telling about products or services, they should provide genuinely relevant and useful content that can solve problems that people may have. (Contentmarketinginstitute 2017.) In other words, unlike a traditional advertisement, content marketing is based on high-quality, relevant content and storytelling approach with the focus on building a strong relationship with

the target audience. As a result, if the target market feels that content is valuable for them, they will engage with a company, promote its message, and finally become loyal customers. (Patel 2018a.)

Neil Patel points out the following three key elements that should be addressed to make content valuable and appealing to the target audience:

1. Push on the person's pain point.
  2. Agitate that pain.
  3. Solve their problem.
- (Patel 2018a.)

In essence, a company should understand not only who their customers, prospects, and audience are but understand their pain (a problem they have) in order to address it. Just after getting such insight, a company should plan and create content. Otherwise, content is not able to solve the problem and will be seen by people as not valuable for them at all. (Patel 2018a.)

There are many possible types of content that an organization may create and use for achieving its marketing and business goals (appendix 7, figure 3). According to Beets and Handley (2017a, 22; 2017b, 23), in the year 2017, the most popular content among B2C segment were: social media posts, pre-produced videos, illustration, infographics, and interactive tools, whereas for B2B segment that were: social media posts, case studies, videos, e-books, infographics, and Illustrations. As the most effective types for B2B companies, they highlight e-books and white papers whereas for B2C it was social media posts. (Beets & Handley 2017a, 22; Beets & Handley 2017b, 23.)

Of course, for each particular case, the effectiveness of a specific type of content may vary. In fact, it depends on a range of factors such as brand, resources, budget, and target audience. (Ryan 2014, 311.) Besides, Neil Patel (2018a) points out that each stage of the customer journey requires a particular type of content. Therefore, to find out the most effective type of material, a company should also understand who is its ideal client and know all possible touch points through the journey. (Patel 2018a.)

Figure 4 represents how different formats of content should be applied regarding various stages of Sale funnel. For instance, while content like e-books is excellent for building trust at the consideration stage of the funnel, newsletter creates either a sort of ongoing conversation with prospects or helps to stay in contact with them at the research stage. Careful guidance of prospects through the funnel allows a company to turn them into loyal customers who will advocate the brand in the future. (Patel 2018a.)



Figure 4. Example of different formats of content regarding stages of Sale funnel (Patel 2018a)

To map the most relevant content throughout a customer journey, marketers may use the content marketing matrix (figure 5). The matrix was developed by Smart Insights in 2012, and it is still a quite popular tool among digital marketers. The main aims of the tool are: review a company's current content marketing efforts to find out a gap within an existing set, generate ideas for the most engaging types of content to fill the gap, and analyze competitors to find out what type of material they use. (Bosomworth 2015a.)

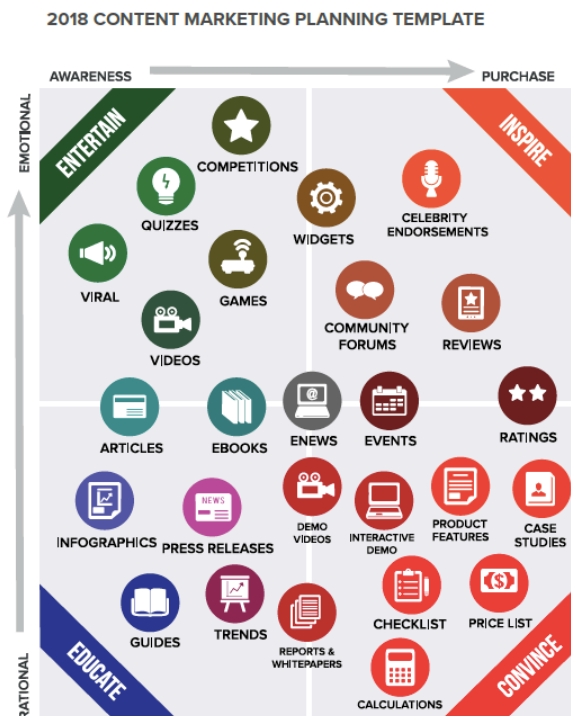


Figure 5. The content marketing matrix (SmartInsights 2018, 13)

The matrix has the four quadrants that refer to different purposes of content (Educate, Entertain, Inspire, Convince). Also, it has the two dimensions that relate to marketing goals (awareness/purchase) and the way by which a marketer appeals to the audience to achieve engagement (emotional/rational). Depending on the marketing goals, whether it is supporting the purchase process or achieve audience engagement, a marketer identifies a starting point for content ideas. Whereas for the former we are mapping content from awareness to purchase direction, for the latter we are mapping content from emotional to rational. (SmartInsights 2018, 13.) As a result, a marketer can identify the type of material that would be relevant and valuable for customers at each stage of the customer journey.

As it is clear from the definition of content marketing, along with the thinking about a type of content, marketers should think over the way by which content will be delivered to the target audience.

Although there are many options available for content distribution, Social media, Email, Blogs, In-person events, and Webinars are the top five formats that marketers from B2B and B2C segments use for delivering their content. As a rule, companies use a mix of several options simultaneously. A particular set depends on the nature of business as well as on marketing goals and target audience. (Beets & Handley 2017a, 22; Beets & Handley 2017b, 23.)

On top of that, as a rule, each channel has its own specific regarding the required amount of content and the frequency of publishing. According to Ryan (2014, 314), the amount of published content rather varies for each particular case and depends on factors such as a company's marketing objectives, industry, and available resource. Although Ryan (2014, 314) points out that there is no a golden rule on how many content companies should create, he notes that "the more content you create – the better". (Ryan 2014, 314.)

As it is clear from the definition of content marketing given earlier, along with content's value and relevance, a marketer also should think about content's consistency. Consistency in content marketing can be defined by two factors: consistent quality, and consistent publishing. Whereas the former refers to the quality and style of delivered information, the latter means publishing regularly. (Hodkinson 2017.) Dave Chaffey (2015, 614) also points out that content should "be updated regularly to encourage return visits to the site, and amplified through social media, thus helping to increase the visibility of a brand within the search engines". To manage content effectively and deliver it on time

companies should plan out the content schedule via content or editorial calendar. (Chaffey 2015, 614.)

Despite the benefits content marketing provides, like any other digital marketing technique, it has some drawbacks as well. Specifically, some marketers encounter challenges measuring the effectiveness of content marketing regarding conversions, revenue, and returns on investment (ROI). (Patel 2018a.)

As it turned out to be, a significant percentage of B2B and B2C companies do not measure content marketing ROI because they either do not know how to measure it or because the measurement is too complicated (Beets & Handley 2017a, 31; Beets & Handley 2017b, 32).

As an option to gauge content marketing ROI, Esti Frischling (2017) suggests using different analytics platforms such as Google Analytics or Clicky. These platforms allow measuring conversions defined for a particular campaign. As an example, it can be the number of leads generated or the number of purchases completed. (Frischling 2017.)

To track the efficiency of a particular piece of content across customer journeys is recommended to analyze metrics like engagement rate, time on site, and page views per visit. Also, analysis of metrics such as the number of readers, top performing source, and articles viewed, may help to measure content performance and find out the most performing one. (Frischling 2017.)

As can be seen from above, content marketing is an excellent digital marketing technique that allows companies not only increase sales by building brand awareness and guiding people through sale funnel but also enables to engage people with a brand and convert them into loyal customers who will advocate a brand.

### **2.6.2 Social Media Marketing (SMM)**

Over the past few years, the importance of Social media marketing has increased significantly. According to Michael Stelzner (2017, 15-18), this form of digital marketing allows companies to engage with their customers and improves their business in the following ways:

- increased exposure
- increased traffic
- developed loyal fans
- provided marketplace insight

- generated leads
- increased thought leadership
- grew business partners
- improved sales.

Chaffey and Smith (2013, 599) describe social media marketing as a process of “[m]onitoring and facilitating customer-to-customer interaction, participation and sharing through digital media to encourage positive engagement with a company and its brands, leading to commercial value.” One more definition, such as that from Searchengineland (2014), describes social media marketing as follow: “[s]ocial media marketing refers to the process of gaining traffic or attention through social media sites.”

As can be seen from above, despite the definitions look at SMM from slightly different angles, they both refer to social media as one of the primary means of achieving marketing objectives.

Nowadays, scholars from the digital marketing field point out the growth in popularity of social media. Since many users from across the globe use social media on a daily basis, for many companies, it has become one of the most important channels for engaging with a target audience. (Stelzner 2017, 7.)

Among the reasons why organizations should get involved in social media, Damian Ryan (2014, 155) points out an opportunity of getting deeper engagement with customers and having some insights that are not possible to get in any other way. Along with that, Chaffey (2015, 7) highlights that social media are highly influential in shaping people’s opinions about brands. To understand why this is possible, it is important first to determine what social media is.

Alan Charlesworth (2015, 1), describes social media as “any web presence where users can add their own content but do not have control over the site in the same way as they would their own website”. The almost identical definition provides Simon Kingsnorth. In his vision “[s]ocial media is generally defined as any website or application that enables users to create and share content, or to participate in social networking” (Kingsnorth 2016, 150). According to Ryan (2014, 151), “[s]ocial media is the umbrella term for web-based software and services that allow users to come together online and exchange, discuss, communicate and participate in any form of social interaction.”



As can be seen from the definitions, along with interactions between people, social media implies the creation and sharing of user-generated content (UGC). As a rule, such material may have a form of text, audio, images, and video. Besides that, people may share some personal experience and expertise, create recommendations, reviews or ratings of products, services, and brands. (Ryan 2014, 151.)

Nowadays, people do not trust what adverts say about products. Instead, they prefer the recommendations and insights received from their peers (Charlesworth 2015, 7.) Based on this fact, it is possible to assume that USG is critically important for many companies across the globe. Along with that, since USG is an essential element of social networks, it is quite clear that social media, indeed, may shape the perception of a brand or product (Charlesworth 2015, 7).

To leverage the power of social media companies should understand not only what social media is but also reasons why people use it in the first place. As the main reasons why people use social media Charlesworth (2015, 12-13) points out the following:

- for socialization
- for self-expression
- for achievement of a certain status within a community
- to get information from peers
- to get a financial gain as access to free/discounted products, music downloads or searching for a job.

The reasons mentioned above have a different nature. Therefore, quite often, people have not a particular one but rather a combination of several reasons at a time. What is more important, is that the number of such reasons may vary from time to time. (Charlesworth 2015,12.)

Since reasons for being on social media are clear, let's look at what strategy organizations should apply regarding presence and communication on social media platforms. Linda Coles (2015, 22) points out that success on social media platforms largely depends on people engagement and readiness to share a content company promotes. Therefore, it is essential to create only content that people would appreciate. (Coles 2015, 22.) In order to identify what would be valuable for people, organizations should not only pursue tactics described further but clearly understand how social media work.

In essence, whatever the reason people have to use social media, all interactions between them on social media platforms occurs in the form of conversations and sharing of content. In other words, while people are hanging out, they talk to each other and share what has a sense for them or a community they belong to. Since people use social media

for spending their leisure time, they are unlikely to be interested in a business sales pitch or any advertisement. Moreover, companies cannot control what people say or think about the services or products they promote. (Ryan 2014, 170.)

Despite such limitations, organizations should participate in conversations to positively influence the direction of discussions (Kingsnorth 2016,152; Ryan 2014, 154). To get the most out of social media companies should rather listen than talk. By listening they will reveal what people talk about, what would be interesting for them and what kind of information and content would be valuable for them. (Ryan 2014, 154.) In the case of negative perception of a product or a brand, a company should also try to spot issues that need fixing. Such insight allows creating a relevant content or a solution that satisfy a need or fix an issue people might have. As a result, a company get people interested in products and finally engage them in relationships. (Coles 2015, 2-7.) To achieve engagement, Ryan (2014, 173) suggests being open, honest and considerate. By following this approach, organizations may create a positive image, that is important for better communication between customers and an organization. Moreover, it may help to foster an atmosphere that implies brand advocacy from customers side. (Ryan 2014, 151-154.)

Another issue a marketer encounter regarding social media marketing is the identification of appropriate platforms to be applied. It is not a secret that there are a vast variety of different types of social media platforms and sites available for business. For instance, figure 6 represents the most-used social media platforms among B2C and B2B companies that participated in the Social media marketing Research in 2017. (Stelzner 2017,19.)

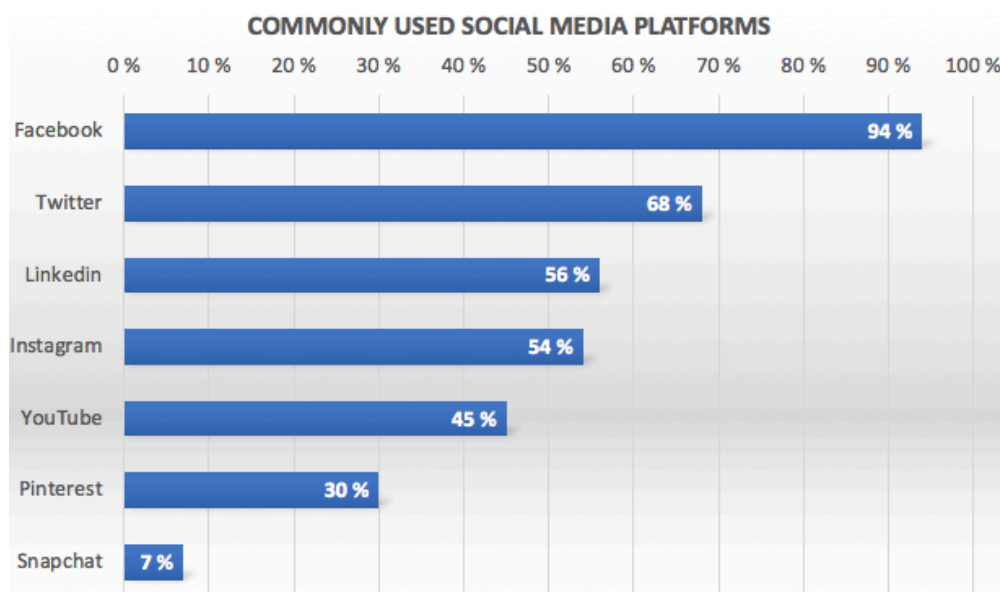


Figure 6. The most commonly used social media platforms in B2B and B2C segments (adapted from Stelzner 2017,19)

According to the same research, despite 94 percent of the respondents have Facebook in their set of social media, only 62 percent of them would choose Facebook as the primary platform used for achieving their marketing goals. LinkedIn and Twitter would prefer 16 and 9 percent of respondents respectively. (Stelzner 2017, 25.) In other words, this data demonstrates that options that work the best for one organization may not work for another one with the same results. Therefore, a blind usage of the most popular platforms will be inefficient and may lead an organization to poor outcomes. Organizations should always have a valid reason for selecting a particular platform. (Charlesworth 2015, 20.)

To find out the most appropriate options a marketer should distinguish between different types of social media platforms and know the benefits they have. According to scholars (Charlesworth 2015, 4; Ryan 2014, 158-161; Kingsnorth 2016, 159), all social media sites can be broadly segmented into the categories described below.

### **Social bookmarking (sharing) sites**

The first category is Social bookmarking (sharing) sites. This category refers to sites that allow users to share content that they perceive as favorite or valuable for them or for a community they belong to. Along with that, people from the community may rate and rank such content. The most known sites in this category are Digg, Reddit, Delicious, and StumbleUpon. From a business perspective, such sites allow analyzing what type of content people are interested in or what they do and do not like. Also, sites from this category help to find out some “hot” topics that can be used for content creation purpose. (Ryan 2014, 157.)

### **Social networks**

The second category is Social networks. All social networks can be divided into two main types: Professional networking and Social networking sites. Whereas the former, is mostly used for publishing more formal types of content and discovering an opportunity within business and academic world, the latter has a focus on social life and used for staying in contact and sharing different types of digital media content. The most known sites in this segment are LinkedIn, Google +, Facebook, Meetup, and Myspace. Also, this category comprises a number of document-sharing sites such as SlideShare and Docstoc. For marketers, this type of social media provides a lot of different opportunity regarding building brand awareness and running PPC campaigns. (Kingsnorth 2016, 155-156.) The main focus for a marketer here is listening to customers and providing engaging and valuable content (Chaffey 2015, 7).

### **Social streaming sites**

Social streaming sites, also known as Media sharing sites, are quite popular for sharing and discussing media content like photos, video, podcasts, and presentations slides. Since streaming sites allow commenting on content, it is a good source for gaining an insight into a target market's preferences. Such information is vital from a content creation perspective. Also, these sites are suitable for distributing a company's digital media content. Among the most established names in this category are: Pinterest, Instagram, Flickr, YouTube, Blip.tv, and Vimeo. (Ryan 2014, 159.)

### **Social search sites**

This category refers to a number of available search engine platforms that help not only find a relevant and valuable content regarding certain products but also allow to tag, comment, and vote for the result of a search. The most known example is Google +1. (Chaffey & Smith 2013, 216.)

### **Social knowledge sites**

The fifth category is social knowledge sites or simply "WIKIS". Acronym stand for "what I know is". In essence, it is an online collection of web pages that are available for anyone to contribute. (Ryan 2014, 169.) The basic idea behind such sites is sharing information (content) to help people solve their problems or find some answers. The most known examples of such sites are Wikipedia and Yahoo! Answers. Whereas Wikipedia has relatively little application for marketing, Yahoo! Answers allow organizations to demonstrate how their products may help people to solve problems they have. (Chaffey 2015, 7.)

### **Social blogging sites**

During the last decade, we have witnessed emerging of free and easy-to-use blogging platforms that allow almost anyone to become a publisher and express their opinions, share their visions and experiences. Since such views might shape the perception of a brand, social blogging should not be underestimated by marketers. From a business perspective, blogging is a valuable tool as well. Corporate blogs usually help companies to reach out many people and connected them to a brand. Online blogs allow companies to achieve massive exposure for a brand and get more online traffic and inbound links. (Ryan 2014, 165.) The most known example of a blogging platform is WordPress.

Along with traditional blogging platforms, in this category, we have Microblogging platforms as well. The most established example here is Twitter that has become incredibly popular among businesses and brands. It can be used for broadcasting short messages to keep people up-to-date with the latest news regarding a brand or an industry. Besides

that, “[t]witter can offer an immediate and surprisingly accurate barometer of public opinion on the web”. (Ryan 2014, 167.)

Simon Kingsnorth (2016, 156) argues that despite both types are essential tools, they have different purposes and should be used in different ways. While Twitter is great for sending and getting short messages that are effective for updates, blogs allow sharing a more detailed content and can, therefore, provide more opportunities for shaping potential customers' perception regarding products or a brand. (Kingsnorth 2016, 156.)

### **Social publishing and rating sites**

This category includes a number of forums and discussion sites where people talk, share their opinions, rate products and write reviews. All these sites allow users to express their opinions and discuss a range of topics. From a marketing perspective, sites from this category enable companies not only to get an insight into what people think about their products but also get in touch with them. (Ryan 2014, 161.)

Despite such a broad segmentation, it is important to remember that due to a variety of features inherent for social media platforms most of the mentioned examples do not belong to a single category in 100 percent. (Ryan 2014, 156.)

Figure 7 represents the Social Media Marketing Radar that helps to summarize all mentioned above categories. This tool was developed by Smart Insights in 2010 with the aim to help companies prioritize available options. According to the model, those options that are close to the center are more critical for business and should be considered in the first place. (Bosomworth 2015b.)

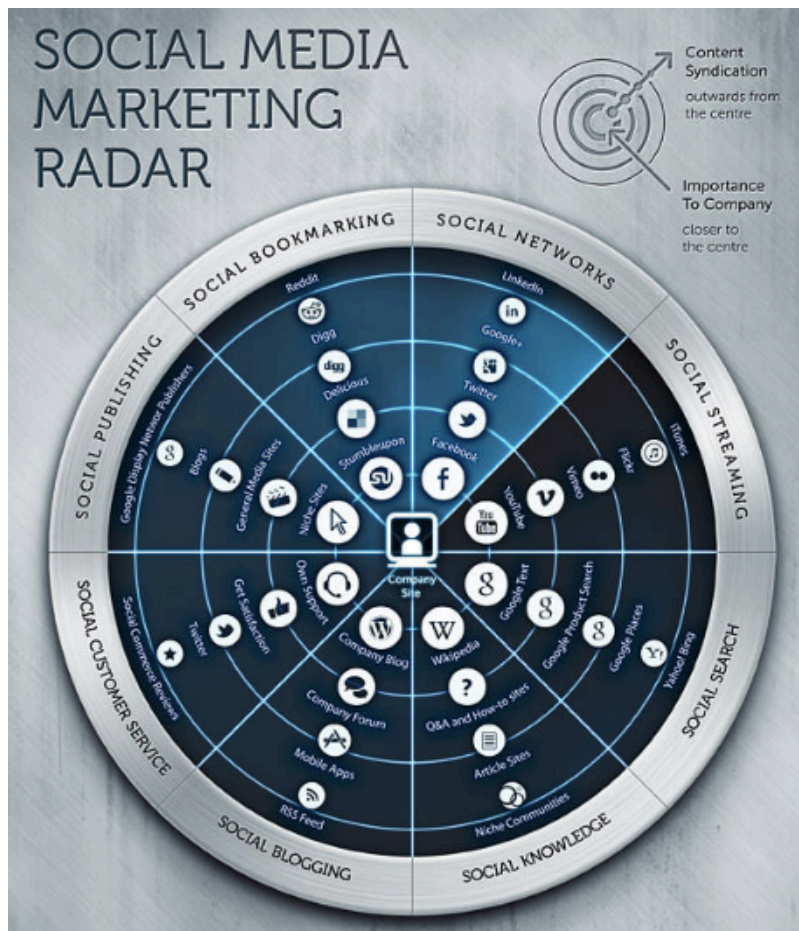


Figure 7. Social Media Marketing Radar (Bosomworth 2015b)

Although radar allows keeping a company's focus and recourses on the most appropriate options, it rather provides a universal set of social media platforms. To understand what types of social media suite the best for a particular case, along with applying this tool, companies should investigate what works the best for their sectors. For this purpose, Chaffey and Smith (2013, 224) propose surveying customers about their preferences regarding social media platform and analyze competitors regarding the set of social media they have and how they use chosen channels. (Chaffey & Smith 2013, 224.)

As was shown above, social media marketing undoubtedly has many benefits that make it one of the most important parts of digital marketing. Nowadays, if companies do not take advantage of using social media platforms, they are definitely missing out an incredible marketing opportunity. Therefore, social media marketing should be considered as a vital part of a company's digital marketing plan.

### 2.6.3 Search Engine Optimization (SEO)

As the State of Inbound research has revealed (An 2017, 17), the biggest marketing challenge for many companies from across the globe in 2017 was generating traffic of leads to their websites. In 2018 the issue, most likely, will remain acute as well.

In today's digital landscape, different search engines like Google, Yahoo, and Bing play a crucial role in navigating target traffic to a company's website. Therefore, many companies try to leverage this channel and establish a presence within search engine results. (MOZ 2014a.)

Mimi An (2017, 17) highlights that 61 percent of The State of Inbound research's respondents state that the highest priority for their online marketing efforts is increasing company organic visibility. In other words, they are ready to make an enormous amount of efforts to reach the top positions on a search engine's first page. The reason why it is so vital for them is that the first five organic results from a search get 67 percent of all clicks. (Patel 2018b; Sarcona 2018.)

Due to continually growing competition, standing out from the crowd and generating high-quality traffic is getting harder. In order to achieve or maintain top-ranking positions within a search, along with producing high-quality content, companies need to do search engine optimization (SEO). (Patel 2018b.)

There are many different definitions of SEO within professional literature. For instance, Neil Patel (2018b) describes SEO as "the process of optimizing your online content so that a search engine likes to show it as a top result for searches of a certain keyword". Similarly, Dave Chaffey (2015, 412) defines SEO as "[a] structured approach used to improve the position of a company or its products in search engine natural or organic results listings for selected keyphrases". According to MOZ (2018a), "[s]earch engine optimization (SEO) is the practice of increasing the quantity and quality of traffic to your website through organic search engine results". And, finally, from Searchengineland's perspective, SEO "is the process of getting traffic from the "free," "organic," "editorial" or "natural" search results on search engines" (Searchengineland 2017).

Although all the definitions above have a different focus, they all have a mutual idea behind. This idea is that SEO can improve a company's position on the search engine results page (SERP) and increase organic traffic to a company's website.

As to the advantages of SEO, Chaffey and Ellis-Chadwick (2016, 488) point out the following:

- allows attracting a significant number of highly targeted visitors
- target visitors always have a high intent of making a purchase
- cost per visit is relatively cheap
- allows to include new content into search dynamically and relatively quick.

Although these benefits look quite promising for companies, it is essential to know that SEO has some drawbacks as well. Among them are lack of predictability regarding ROI, it requires a significant amount of time for results to be implemented, unclear weight and impact of ranking factors, ongoing investments, and reduced ability to develop awareness comparing to other media channels. (Chaffey & Ellis-Chadwick 2016, 488-489.)

To get the most from SEO, it is crucial to understand the basic principles behind the approach and how search engines work. As can be seen from the definitions, the character "O" of the acronym SEO stands for Optimizations that are needed to be done to make the mentioned above results achievable. As a rule, to be efficient, such optimizations should consider many factors that affect a page ranking. Based on such factors search engines determines if the content has a high-quality and if it is relevant to a user's search query. (Ryan 2014, 106.)

Nowadays, each search engine has its own algorithm that is based on a particular set of ranking factors (MOZ 2018a). Considering this fact and the fact that Google has about 73 percent of the total search engine market share (NetMarketShare 2018), it is wise to focus primarily on Google and discuss only factors that affect its algorithm.

According to Brian Dean (2018), Google's algorithm includes more than 200 ranking factors that can be broadly divided into the following categories:

- Domain Factors
  - Page-Level Factors
  - Site-Level Factors
  - Backlink Factors
  - User Interaction
  - Special Google Algorithm Rules
  - Brand Signals
  - On-Site Webspam Factors
  - Off-Site Webspam Factors
- (Dean 2018.)

Although these factors are essential for Google's ranking algorithm, they all have different weight relative to each other. Figure 8 represents all the mentioned above categories combined into thematic clusters with their relative importance to Google's algorithm. (Fishkin 2013.)



## Weighting of Thematic Clusters of Ranking Factors in Google

(based on survey responses by 128 SEO professionals in June 2013)

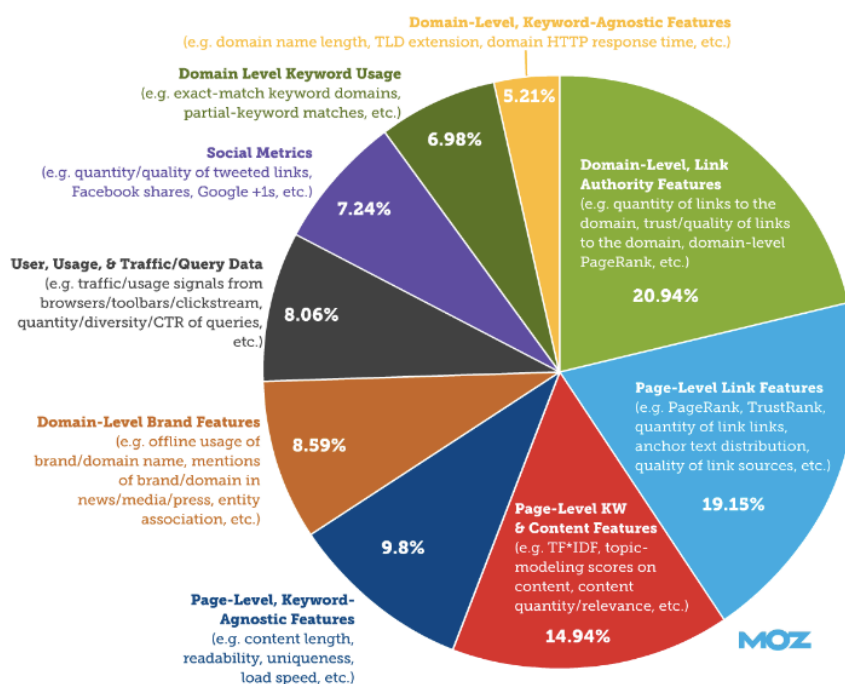


Figure 8. Weighting of thematic clusters of ranking factors of Google's algorithm (Fishkin 2013)

As can be seen from the pie chart, there are three significant clusters that Google's algorithm perceives as the most important. Altogether they account almost 60 percent of SEO success. Thus it is wise to start optimization from them. Along with that, it is also essential to take into account categories with a smaller impact. There are two reasons why they should not be ignored. First one is that Google always changes its algorithm. As a result, the impact of these factors may vary over time. And the second one is that in total they still account more than 40 percent of success. (Fishkin 2013.)

To address these ranking factors, a marketer should make some optimizations. Although those optimizations can take a number of forms, they all can be divided into two broad categories: on-page SEO and off-page SEO. (Patel 2018b.)

Whereas on-page SEO refers to optimization of a website's content and HTML source code to match it to a critical phrase searched, off-page SEO relates to actions taken to improve a search engine's perception of a website's popularity (MOZ 2017).

In essence, on-site SEO concerns all ranking factors that help search engines understand what kind of content a website has and what kind of search queries (keywords) would

match to this content. As a rule, in part of on-site SEO, a company should make optimization of the following elements: Content, HTML code, and webpage's structure. (MOZ 2017; Patel 2018b.)

Among the most important factors regarding content optimization, Neil Patel (2018b) highlights the following: quality of copy, keywords, freshness of content, and how precise content answers to a search query.

In case of HTML optimization, a marketer should look at elements like Title tags (the information user see up in the tab of a browser when opening a new page), Meta description (information users see as an excerpt in the results of Google searchers), Schema (HTML tags that affect the way content of our webpage will be shown in search results), and Sub-heads (provide a clear structure of content and give reference points). (Patel 2018b.)

Finally, in part of a company's website structure and architecture optimization, the most critical factors are a safe connection, mobile optimization (a mobile-friendly design) and loading times (Patel 2018b).

When it comes to off-page SEO, Google analyzes the factors like quality and quantity of links into the page, quality and quantity of shares of a website's content, some personal factors like geolocation and searcher's history, and of course trust of the page which is based on the page's authority, bounce rate, domain age, and brand Identity of a webpage (Patel 2018b).

Unlike on-page SEO, where the success of optimizations depends on a company's efforts, most of the factors related to off-page SEO are out of a company's control. Despite this fact, both groups of optimizations are essential for achieving good ranking results and getting high-quality traffic. (Patel 2018b.)

Although many companies know that Search Engine Optimization may help them to reach the top position in the search engine results page (SERP), they often do it only once and never optimize their websites again. Such an approach is not appropriate because search engines often adapt their algorithms to provide better search results for users. For instance, due to a rise in mobile search, Google plans to roll out "mobile-first" index, that implies favoring mobile versions of websites over their desktop counterparts in SERP. (Hughes 2018.)

According to Murray (2018), to do SEO efficiently and get the most of it, companies should continuously do keywords search, create new content and revise it over time, analyze inbounds links, and monitor technical aspects of a webpage. Similarly, Ryan (2014, 105) highlights the importance of the same set of actions and make stress that only by satisfying each of the mentioned above aspects companies will get a correctly done SEO. Moreover, he states that only such a tactic can bring sustainable results in long-term perspective (Ryan 2014, 105). Besides, Simon Kingsnorth (2016, 91) argues that “SEO should always focus on optimizing for the user, not the search engine”. As a result, by following these strategies, companies will be able to achieve tangible results from their SEO efforts.

To measure the success of Search Engine Optimization efforts, a marketer should track the following metrics (MOZ 2014b):

1. Search Engine Share of Referring Visits (this metric shows the contribution of each traffic source for a website. It is useful for comparing results over time or for identifying possible weaknesses).
2. Search Engine Referrals (is vital for measuring the contribution of the company’s search traffic from each engine to gauge performance at each one regarding SEO efforts).
3. Visits Referred by Specific Search Engine Terms and Phrases (this metric help identify new trends in keyword demand, the most performing key terms, and find potentially under optimized keywords that can bring significant traffic).
4. Conversion Rate by Search Query Term/Phrase (this metric is vital for identification of keywords that send visitors who are more likely to convert to customers, and understanding which landing-pages should be improved or promoted).
5. The number of pages visited from search engines at least once (this number provides an insight into indexation of website’s pages and essential for understanding if a company has missing pages from search).

These five metrics are universal for any businesses and can be used along with more specific ones that are important for a particular business case. Besides that, these metrics can be used not only for assessment of overall SEO performance but for analysis and optimization of SEO strategy on a regular basis.

As can be seen from this section, SEO is a bit complex and technically oriented field. However, this is a good way for businesses to stand out of the crowd and get the top position in search engines results. To get that, companies need to have not only a solid SEO strategy that reflects all mentioned above practices but also regularly run an SEO audit to figure out possible areas for improvement.

#### 2.6.4 Search Engine Marketing (SEM)

Although Search Engine Marketing (SEM) is another popular online promotion technique that many companies include in their digital marketing plans, there are lots of confusion about the term (Sullivan 2010).

For instance, Pulizzi and Barrett (2009, 68) provide the following definition: "Search engine marketing (SEM) generally refers to the pay-per-click (PPC) listings on the right side of a search engine results page." As can be seen, the definition refers only to pay-per-click and exclude search engine optimization part, which, according to Sullivan (2010), is an inseparable part of search engine marketing. Sullivan (2010) insists that SEM is an umbrella term for two different search engine marketing activities: search engine optimization and paid search. As a result, he defines Search Engine Marketing as "[t]he act of marketing a web site via search engines, whether this be improving rank in organic listings, purchasing paid listings or a combination of these and other search engine-related activities" (Sullivan 2010).

In order to understand how SEM works and how both activities relate to each other, it is vital to understand the composition of Search Engine Result Pages (SERP). Such an understanding can be obtained from an analysis of Google's SERP structure.

Since 2001, Google regularly adds non-organic results into the SERP. Nowadays, besides Organic results, Google SERPs may have the following features (MOZ 2018b.):

- rich snippets (additional fields that visualize search result)
- paid results (results that are based on bought keywords)
- universal results (have a form of images, news, and featured snippets)
- knowledge graph (data in the form of panels or boxes).

In essence, all mentioned SERP's content may be divided into two main types: Organic (Natural listings) and Paid Search (Pay-Per-Click basis (PPC) Listings). While the appearance of the former within SERP mostly depends on the quality of content and SEO efforts, the latter gets listed only if a company pays money. (Searchengineland 2010.) In other words, a company may achieve a top position on the first page of Google's search in two ways: by doing SEO or paying money.

As was mentioned in the previous subchapter, although getting the top positions in SERP by doing SEO is possible, it is not simple at all, especially for small-size companies that just entered a market. As a solution for such a situation Chaffey and Ellis-Chadwick (2016, 489) propose to look at paid search promotion. They see this technique as an excellent

alternative to SEO which allows achieving results quickly and outshines the mentioned earlier drawbacks of SEO. (Chaffey & Ellis-Chadwick 2016, 489.)

Comparing to SEO, paid search provides more control on the appearance in the listings. As a result, this form of search engine activities is seen as a preferable way for increasing a company's visibility and generating visitors. (Chaffey & Ellis-Chadwick 2016, 495.) Besides that, according to Pulizzi and Barrett (2009, 68), "Many companies use PPC to generate conversions (to a direct sale, download, or free trial promotion) or to buy traffic when organic listings are nonexistent".

Despite all the benefits, paid search is not an ideal promotion option and it also has some disadvantages. For example, many people perceive the natural listings more reliable and prefer to click on them instead of paid search results that usually are marked as an "ad". (Chaffey & Ellis-Chadwick 2016, 485.) According to Ryan (2014, 106), "70–80 per cent of users ignore the paid ads on any given search, focusing on the organic results".

Another drawback of PPC is that a content promoted on paid basis appears in SERP only if a company pays (Sullivan 2010). As a result, such a strategy is rather good for a short-run promotion campaign than for promotion of content regularly.

Considering mentioned above facts, it is clear that each promotion approaches has its pros and cons and has different purposes to be used. To get the most of search engine promotion, companies should use SEM that encompasses earning traffic through unpaid (free) listings as well as buying traffic through paid search listings. This technique is an excellent way to find a balance between both ways of gaining targeted traffic and increasing visibility from search engines. (Searchengineland 2010.)

### **2.6.5 Paid advertising (PPC)**

Although paid search promotion technique has been already briefly touched in the context of SEM, in this section, this technique will be discussed in more detail and compared with social media paid advertisement. Also, this section concerns the Pay-Per-Click (PPC) model, types of online paid advertisement available for companies, advantages and disadvantages of each of them, and the main differences between targeting approaches used in PPC based campaigns.

As discussed earlier in this paper, nowadays, most companies strive to achieve a top position on the first page of search engine results to build sustainable traffic to their websites. Although it is possible to do with the help of SEO, in most cases it requires a significant amount of effort and time. “Time without traffic, of course, is a missed opportunity for your online business, and that’s where paid search advertising comes in.” (Ryan 2014, 129).

The primary purpose of online paid advertising is building awareness of a brand and delivering highly targeted visitors to a site (Kingsnorth 2016, 107). In essence, it is the same purpose as SEO has but unlike SEO paid advertising is focused on buying visits to a website instead of getting them organically (Kim 2016).

Since paid advertising allows companies to show up in tops of searches and bring traffic to websites in a short time, it has become one of the most common techniques used in digital marketing. The online advertising market is growing all the time. According to eMarketer (2017), in 2017 the worldwide average growth of online ad spending was 7.0 percent. This trend is expected to be maintained in the future with the average growth rates between 4.9 and 8.3 percent. (eMarketer 2017.)

In essence, there are two types of online paid advertising available for business:

- paid search ads (refers to the ads that usually appears as a search result within the search engines results pages or context-based ads (contextual ads) that displayed on third-party sites that are part of ‘display networks’ like Google AdSense) (Chaffey 2015, 414; Ryan 2014, 128)
- social media platforms ads (refers to the advertisements displayed to users on social media platforms) (Jolly, W. 2018).

Both groups are based on pay-per-click (PPC) model which implies that “advertisers pay a fee each time one of their ads is clicked” (Kim 2016). In other words, unlike the conventional approach, advertisers pay not when an ad is displayed, but when the ad is clicked and bring visits to the advertiser’s website. This model is also known as pay-per-click marketing. (Chaffey 2015, 414.) As a rule, paid ads are labeled with the special mark like “AD” or “sponsored links” to make it clear to users that they are not part of the search engine’s organic results (Ryan 2014, 128).

As the advantages of PPC, scholars (Chaffey & Ellis-Chadwick 2016, 498; Ryan 2014, 129) point out the following:

- It is based on pay-per-click approach, that implies payment for an ad if only it were clicked instead for an impression.
- It allows to target audience with high precision and, as a result, high conversion.
- Comparing to SEO, it is relatively simple and allows to get results in a short time.

- It provides financial and editorial control that makes PPC more predictable.
- It allows to retarget the same people over time.
- It builds brand awareness even if an ad was not clicked.

Along with the advantages, paid advertising has some drawbacks as well. According to Chaffey and Ellis-Chadwick (2016, 499), due to the popularity of PPC, a campaign may be highly competitive and expensive, as a result not cost-effective to compete. Besides that, PPC requires specialist knowledge and time for preparing and managing an ad campaign. Last but not least is that ads are not always relevant to people interests or needs, or people do not trust them. (Chaffey & Ellis-Chadwick 2016, 499.)

Despite both, paid search ads and social media ads, based on the PPC model, each of them has its own specific regarding targeting. To understand the difference let's compare them to each other.

Since Facebook and Google are the two main options that companies prefer to use for their PPC campaigns (Trabelsi 2014), these two will be used further in the text, to explain the difference between social media and search engine paid ads.

Let's start with paid search ads from Google. The company provides two options: AdWords service that works with search queries and AdSense display network based on pages' content. The central principle behind both is to display ads based on the search queries searchers use. In other words, the search engine analyzes keywords from an entered query and returns relevant ads alongside with list of organic search results. (Ryan 2014, 129.) On the display networks, the algorithm works the same way, but instead of analyzing queries, the system interprets a page's content and displays ads relevant to the context. In both cases, a marketer has to bid on keywords that are relevant to business offer. (Trabelsi 2014.)

Since Google does not have much information about its users, its algorithm relies on keywords targeting. On the one hand, keywords targeting does not allow to control precisely who will see ads (Trabelsi 2014), but on the other hand, Google's keywords targeting model, allows to find people who are in research or buy mode. As a result, companies may expect significantly higher conversion and response rate compared to campaign for social media platforms. (Chaffey 2015, 415; Trabelsi 2014.)

In comparison to Google, Facebook has a significant amount of information about its users. Data from people's profiles provides an opportunity to target an audience by different

parameters such as interests, demography, and geography. In other words, Facebook shows ads according to people's like, shares, demographic and location. (Trabelsi 2014.)

Such a model allows a marketer to create custom or lookalike audiences that are based on a particular portrait of a company's clients. In essence, Facebook analyzes profiles of existing client and matches them up with people who have some similarities. When such people found, they can be targeted with similar offers. Knowing for sure a portrait of those who have already converted, a marketer targets alike people that are more likely will turn to customers. Another option Facebook provides is targeting based on a company's customer email list. Again, based on the data Facebook has, it finds owners of emails from the list and shows them ads. This option is crucial for remarketing purposes. (Page 2018.)

Since both options have different targeting approach and have slightly different applications, the choice between the two mostly depends on a company's marketing goals, product's nature, and target audience. As an option, companies may start from equal budgeting for each and then decide which one works best and brings better conversions.

To make a PPC campaign effective, a marketer should follow specific strategies. If a PPC campaign is going to be on search engines, it is important to remember that keywords are the foundation of paid search ads. Thus, selection of keywords should be made wisely. Keywords should be not only relevant to a product of an offer but be also as specific as possible. In case if a company select a generic keyword, it is highly likely that an ad will appeal to the wrong audience or, due to high competition, a keyword will be too expensive. As a solution, companies should use product-specific and long-tail keywords. In essence, a long-tail keyword is rather a phrase that is relevant to offer or product than a particular word. (Ryan 2014, 131; Patel 2018a.) Figure 9 represents how the probability of conversion and cost depends on keyword phrase length.



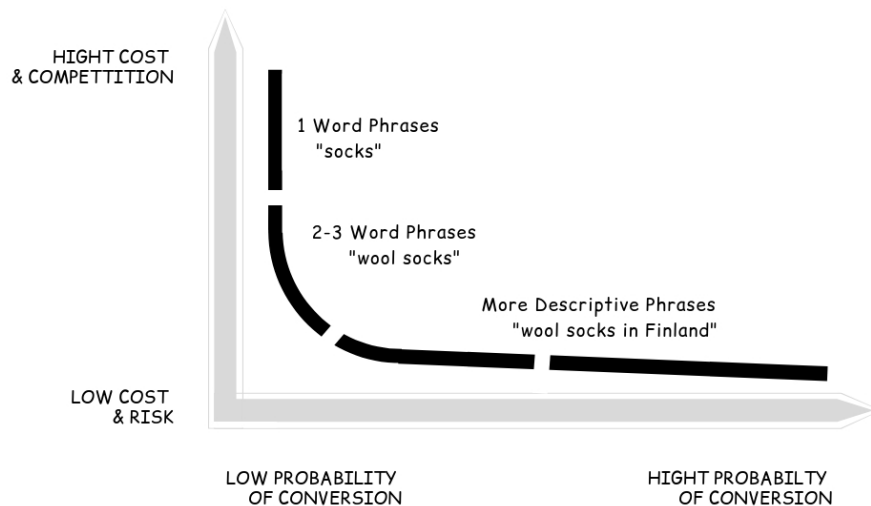


Figure 9. Relation between conversion and length of a keyword phrase (adapted from Patel 2018a)

In the case of social media advertising, a company should know a portrait of a customer to focus on the right people instead of targeting a broad audience. If a company's offer is shown to random people, they never click the ad. As a result, a campaign will be ineffective. Another issue a marketer should consider is the ad's copy and style. If a message is plain and is not appealing to people, they never click on it. Hence, it is recommended to try different ad variations to find the right combination of keywords, message, and images. The variant that has the highest click-through rate, cost per conversion, and brings the most of traffic is the best one. (Ryan 2014, 134.)

Considering all mentioned above it is possible to conclude that paid advertising is undoubtedly an effective marketing technique that allows businesses to conduct a highly-targeted, low cost and high conversion campaigns on search engines as well as on social media platforms. Thus, this technique should be considered by marketers as a part of a digital marketing plan.

### 2.6.6 Email marketing

Nowadays, many marketing practitioners perceive Email marketing as one of the most potent and cost-efficient techniques that allow communicating effectively with customers and prospects. By having this tool in digital marketing arsenal, a company may efficiently deliver information in front of the target audience. (Ryan 2014, 179-180.) Chaffey and Ellis-Chadwick (2016, 524) note that "email is an effective tool for building relationships with customers online."

According to Ryan (2014, 180), email marketing allows not only delivering a sale offer to prospects or customers but also maintaining consumer engagement, strengthening brand perception, and adding credibility to the business. As the main benefits of this digital marketing technique, Chaffey and Smith (2013, 454-455) point out the following:

- It is relatively cheap and cost-efficient tool comparing traditional direct mailing.
- It implies direct response to offer through clicking embodied call-to-action link to a destination site.
- It does not require much time to start a marketing campaign
- It allows making campaign highly personalized for each particular segment of customers.
- It provides an opportunity to test different options of emails' design before rolling out it as a campaign.
- It may efficiently reinforce another media campaign that carries out through direct mail or mobile messaging.

In essence, Email marketing implies two different types of emails- those that a company sends to customers, (Outbound email marketing), and those that customers sent to a company (Inbound email marketing). Whereas the former is used for customers retention, sale promotion, gathering customer data, lead generation, and acquisition purposes, the latter is needed for direct communications with customers to support them and get feedback. Both types are important. Therefore, a marketer should manage Outbound emails as well as Inbound ones. (Chaffey & Ellis-Chadwick 2016, 522.)

According to Chaffey and Smith (2013, 403), customers acquisition can be carried out through cold emails, co-branded emails, and ad placements links embodied into third-party emails. The choice between these three depends on the level of customers' engagement with a company. For instance, cold emails recipient, as a rule, know nothing about a company, whereas co-branded emails imply that a recipient has a strong affinity with the company. (Chaffey & Smith 2013, 403.)

The following text presents five options of emails that companies can use to convert potential customers and retain existing ones. (Chaffey & Ellis-Chadwick 2016, 524; Chaffey 2015, 440).

Conversion email - As a rule, this type of emails takes place when a person has expressed his interest in a product but did not make a purchase yet. The aim is to persuade the person to try a trial version of a product or make the next step to purchase. (Chaffey & Ellis-Chadwick 2016, 524.)

Regular e-newsletters – This type is needed for sending clients some updates on the latest products or promotions. Frequencies and type of content depend on a segment of the

audience. (Chaffey & Ellis-Chadwick 2016, 524.) Although a marketer himself decides the frequency, it is recommended to ask directly from customers what option would be the best for them (Chaffey 2015, 440).

House-list-campaign – A company should use this type of emails to encourage people to use a trial of existing product or service, promote new products and services, stimulate repeat purchase, and re-activate users who no longer use a service (Chaffey & Ellis-Chadwick 2016, 524).

Event-triggered (behavioral) emails – As it is clear from the name, this type of emails refers to the launch of the company's new products or services, or for sending special offers (Chaffey 2015, 440).

Email sequence – Is a series of emails sent with some interval between them. For instance, after subscription for a trial version of a product, emails will be sent out at 3, 7, 15 and 21 days to encourage recipients to update for a paid version. (Chaffey 2015, 440.)

Whatever option a company has chosen for its email marketing campaign, before start sending a message, a marketer should check if all recipients in the email list have given their permission to contact them. Skipping this step a marketer risks that recipients consider the message as spam. Moreover, each email should have an option for unsubscribing from a campaign. (Chaffey & Smith 2013, 403.)

Chaffey and Smith (2013, 403-455) point out the importance of maintaining up-to-date lists and thinking out email message and design. Also, they make stress that emails' content should be renderable for different email reading systems and device platforms. (Chaffey & Smith 2013, 403-455.)

To address these issues and get the most of an email marketing campaign, instead of relying on a standard desktop email client, a company should always use professional email marketing systems. Nowadays, there are several options available for businesses: software installed on a company's local machine, software that runs on company's server, or a software-as-a-service (SaaS) that runs on an online service platform. (Ryan 2014, 181.)

As the most popular options of online-based marketing software can be identified the following (Kissmetrics 2010):

- AWeber
- MailChimp
- Constant Contact

- Campaign Monitor
- Blue Sky Factory
- Emma.

Any of the mentioned above options, allow to manage a company's email lists efficiently, craft messages' design templates, modify the content to make sure that emails pass through spam filters, and finally, to track campaigns performance. Usage of professional software is vital in case a company has a long list of recipients and runs email campaigns regularly. (Ryan 2014, 181.)

Another secret of success in email marketing is engagement with recipients. Chaffey and Ellis-Chadwick (2016, 527) point out some approaches that may help to achieve it:

- Develop a welcome program. This approach implies sending automatically triggered messages over the first several months after a person has registered in the list. The aim of such emails is educating a respondent about a brand and products, or merely send a highly targeted offer.
- Use offers to engage and re-activate a list in case they are less responsive.
- Segment email list by different criteria such as age, geolocation or level of responsiveness to treat them differently and make more crafted offers.
- In case of renting lists, it is essential to request only emails that opted-in no more than nine months ago.

In order to measure the success of an email campaign, a marketer should consider some metrics that can be found from email clients or email marketing software. As the most important metrics, digital marketing scholars, and practitioners indicate the following:

- Open rate: Indicates how many people have opened the email a company sent. From this metric, a marketer can gauge how well a company established a relationship with recipients. If the number is low, a company should focus on providing value and managing customer's expectations. (Kissmetrics 2010.)
- Click-through rate: indicates the number of people who clicked through a link embodied within an email (Chaffey & Ellis-Chadwick 2016, 526), also indicates a type of links people tended to click on in case if an email has more than one option for clicking (Ryan 2014, 199). The cause of low number can be either wrong target audience or poor quality of copy (Kissmetrics 2010).
- Unsubscribe rate - shows how many people unsubscribed from the company's email lists (Ryan 2014, 199). A cause of high unsubscribe rate can be low value to subscribers or issue related to copy quality (Kissmetrics 2010).
- Delivery rate – Indicates the number of delivered emails. If it is low, it means that some emails from the list are no longer valid or spam filter block the sent email. (Chaffey & Ellis-Chadwick 2016, 526.)

Comparing to a website where content usually is more generic and oriented on a broader audience, through email marketing a company can efficiently deliver a relevant message to people who have a genuine interest in it. So that, email marketing is an efficient way of connecting and maintaining a relationship with customers. As a result, email marketing is a vital element of digital marketing which should be undoubtedly integrated into a company's digital marketing plan. (Ryan 2014, 203.)

## 2.6.7 Video marketing

The last marketing tool discussed in this subchapter is Video Marketing. This tool is getting more and more popular among marketers from across the globe so that it should be considered as part of a digital marketing plan in this study as well.

It is not a secret that nowadays, people prefer consuming visual content instead of traditional text-based alternatives (Hayes 2018). As a result, businesses actively leverage this trend. According to Stelzner (2017, 40), eighty-five percent of companies participated in the Social media marketing research conducted in 2017 actively used visual content in the context of social media marketing. (Stelzner 2017, 40.)

Figure 10 indicates the most commonly used type of content for social media among the research's respondents. As can be seen from the graph, although the two most popular forms of content were images (85%) and blogs (66%), a large percentage of the respondents used video (57%) and live video (28%) in their social media marketing as well. (Stelzner 2017, 40.)

Along with that, the report highlights that in the near future seventy-five percent of respondents are planning on increasing their use of videos (Stelzner 2017, 40-42). These data undeniably confirm that, for many companies, videos already became an integral part of their marketing in 2017. Moreover, the research predicts significant growth in the popularity of videos as a marketing instrument in 2018. (Stelzner 2017, 40-42.)

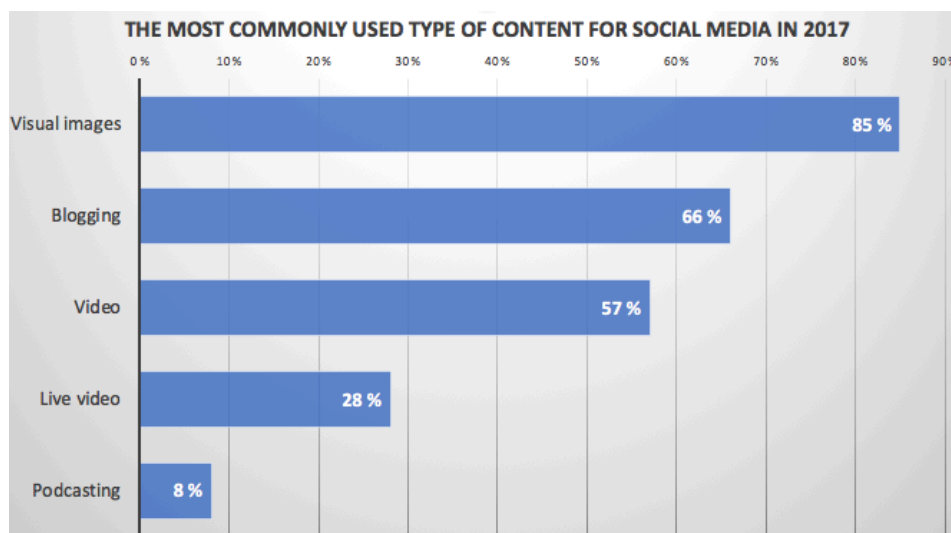


Figure 10. The most commonly used type of content for social media in 2017 (adapted from Stelzner 2017, 40)

To understand why video content is so crucial for both, business and people, we should discover the role it plays for each of the categories.

While for people videos have become a source of information (Trimble 2015), for companies it is a tool that gives an opportunity to improve credibility and confidence of customers and teach them about the products company produces (Rouhiainen 2014, 5).

Nowadays, video is not only the most desirable type of content that people would like to receive from the business in which they are interested but also the type of content that makes people remember the company's message relatively longer comparing to other types of content (Collins & Conley 2017). Besides that, If a company creates videos that are enjoyable for a target audience, most of the audience consider sharing it with their peers (WYZOWL 2018, 7). Finally, videos have the highest ROI comparing to other types of online content (Selders 2018).

Marketers often use videos as a tool that helps them to improve business in the following ways (Hayes 2018):

- educate people regarding products or services a company provides
- increase traffic and sales
- reduce support queries
- increased dwell time on a company's website.

To effectively use video content, it is vital to understand what types of videos exist in the context of digital marketing. As a rule, marketing practitioners distinguish between the following types of videos.

### **Company presentation videos**

This type of videos is also known as "About" videos. As the name of the category suggests, it refers to company mission, vision, goals, and beliefs. Additionally, it should briefly describe some information regarding products and services a company provides. (Rouhiainen 2014, 12.)

### **Demo videos**

As a rule, a demo video should be about 10 minutes long and give a viewer an understanding of how a product can be used. Since the viewer is eager to learn about a product in detail, these videos are good for pointing out the product's features and advantages it provides. (Mendez 2017.)

### **FAQ or Questions and answers videos**

The aim here is providing clear answers to the most frequently asked questions. It perfectly works at the consideration stage of the buyer journey, where potential customers consider making a purchase. (Rouhiainen 2014, 13.)

### **Educational (Tutorials) videos**

As a rule, instead of promoting a product or a service, the educational videos reveal valuable and useful information to help viewers understand how a product should be used or how it may solve a problem that the viewers have (Mendez 2017).

Since people often find such videos through search, by having educational videos in a marketing arsenal, a company may not only establish its presence in search engines but attract new people to a company's website or any other media platform a company has a presence (Rouhiainen 2014, 15).

### **Explainer videos**

Like the previous category, these videos also explain how product or service may solve a problem but in a storytelling style. As a rule, explainer videos are about 2 minutes long and may have some stimulating animation. Due to the short length and useful content, people like to share it on social media. (Mendez 2017.)

### **Testimonial (Case studies) videos**

In essence, a testimonial is a short video where people (quite often customers of a company) tell others about their experience with a product or a company, and clarify why the product that they choose is better than any alternative option on a market. Since Testimonials implies third-party endorsements of a product, service, or company, they are an excellent way to generate brand trust. (Mendez 2017.) Quite often companies make testimonials in the form of "before and after" comparison where clear empirical data confirm results. This approach is an excellent way to increase a viewer's trust in testimonials. (Rouhiainen 2014, 14.)

Such a variety of video types allows a marketer to find a proper video for each stage of the customer journey. Having videos from different categories in a campaign, enable a marketer to guide prospects through the sales funnel and convert them into the clients. (Mendez 2017.) Figure 11 demonstrates the application of videos from mentioned above categories at each step of the funnel.

## VIDEO MARKETING FUNNEL

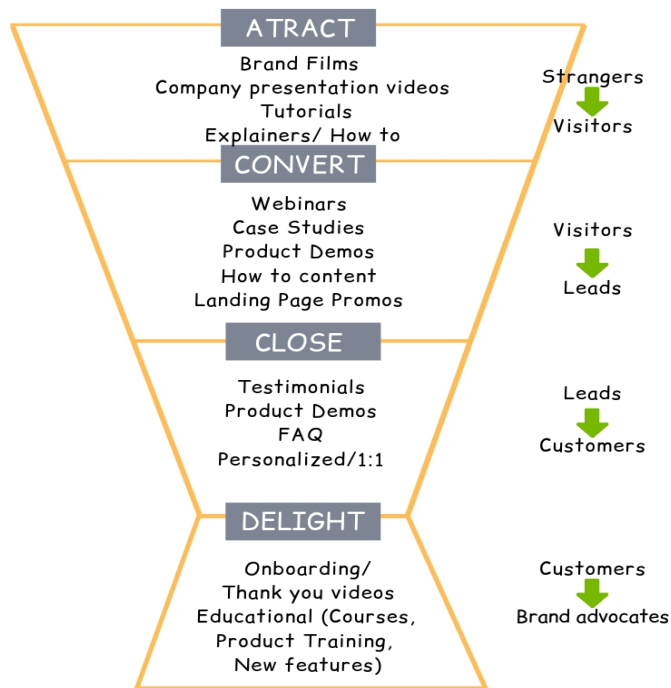


Figure 11. Video marketing funnel (adapted from Collins & Conley 2017)

As a rule, people at the top of the funnel are searching for a solution to the problem they have. Such people do not know yet anything regarding particular products or brand that could help them. Thus, Educational videos and Videos about the company are the best content to attract their attention and bring them to the website. At the next stage, by using Case studies, How to videos, and Product demos a company may easily achieve trust and establish contact with people. All these are vital for converting visitors to leads. Testimonials and FAQs, in their turn, help to convince people that products a company offers are the best, and as a result, convert leads into customers. At the last stage of the funnel, with the help of Educational videos, a company may turn customers to brand advocates. (Mendez 2017.)

One more issue regarding videos is the choice of a platform where a company can publish its content. According to Hangwon (2014), there are four options for content promotion: company's website, social media platforms, mobile, and emails. Each of these alternatives provides a range of benefits for business. For instance, having a video on a landing page make people stay on the page significantly longer and as a result, make the page more valuable from search engines perspective. When publishing on social media platforms, video content has better chances to be shared compared to text-based alternatives of content. Also, an email that has incorporated videos show a better click-through rate. (Hangwon 2014.)



As the most popular social media platforms for publishing video content the State of Video Marketing 2018 report indicates the following options: YouTube, Facebook, Instagram, Twitter, and LinkedIn (WYZOWL 2018, 8). The order shows the popularity of platforms.

Although there are lots of different options of social media available for marketers today, to make video marketing proficient, it is essential to understand what works precisely for the market a company operates. As discussed previously, the best way to find out what works is to analyze the marketing efforts of competitors and survey the company's customers.

As was shown in this section, video marketing is another powerful digital marketing promotion technique that should not be avoided by marketers in 2018.

## **2.7 Digital marketing planning**

This subchapter introduces the most relevant models and frameworks for digital marketing planning and strategy development. Also, it presents the role of digital marketing strategy and digital marketing plan as well as the relationship between them.

### **2.7.1 Digital marketing strategy and digital marketing plan**

To show the importance of having a digital marketing strategy and digital marketing plan this section outlines information on what digital strategy and plan are, why companies need them, how each is related to overall business strategy, and what kind of issue companies may encounter in case of lacking these two.

Chaffey and Chadwick (2016, 178) define digital marketing strategy as “[d]efinition of the approach by which applying digital technology platforms will support marketing and business objectives.” As the main aims of digital marketing strategy, they point out the following (Chaffey & Ellis-Chadwick 2016, 178):

- defining a clear direction for digital marketing activities
- provide an analysis of a company's external environment and internal resources
- setting clear objectives that support the overall marketing objectives
- defining a set of suitable strategic option for achieving the objectives
- specify deployment of resources.

As to the scope of digital marketing strategy, it is also quite broad. Precisely, it includes the following areas (Chaffey & Ellis-Chadwick 2016, 180):

- enhancing website functionality and attraction visits
- customer relationship through marketing automation tools
- development of the overall customer experience across multiple channels
- maximize the result from partnering with publishers, influencers, and bloggers
- use of social media marketing through a company's website and social networks.

A clearly defined strategy helps companies not only to stay focused, target the right audience, and align digital marketing activities with their business goals but also allows to avoid risks of missing a substantial market opportunity or even lose market share to competitors (Ryan 2014, 22). Besides, lacking a digital marketing strategy may affect client acquisitions, brand visibility, and a company's revenue generating opportunities (Forbes 2014).

In fact, despite the mentioned benefits of having a digital marketing strategy, not all companies do, indeed, have one. As the Managing Digital Marketing research indicates, only thirty-four percent of the research's respondents have stated that they have a clearly defined and integrated digital marketing strategy. In contrast, almost half of the business surveyed do not have a strategy at all. (Chaffey & Jones 2017, 14.)

Strategy development and implementation processes are usually coordinated through a marketing plan that occurs as a result of the marketing planning process (Chaffey & Ellis-Chadwick 2016, 187). Chaffey and Ellis-Chadwick (2016, 187) describe marketing planning as "[a] logical sequence and a series of activities leading to the setting of marketing objectives and the formulation of plans for achieving them."

In essence, there are two types of marketing plans: strategic marketing plans and tactical marketing plans. Whereas the former covers a period of three to five years and focused on strategic decisions, the latter covers specific actions over a period up to one year. (McDonald & Wilson 2011, 30.)

Chaffey and Ellis-Chadwick (2016, 187) argue that strategy development in digital marketing context implies the same principles. As a result, a company may have an overall digital marketing plan, that is typically annual, and also a long-term digital transformational plan for the next three to five years. (Chaffey & Ellis-Chadwick 2016, 187.) Figure 12 illustrates an overall hierarchy of the mentioned plans and their relations to each other.



Figure 12. Hierarchy of plans (adapted from Chaffey & Ellis-Chadwick 2016, 185)

As can be seen from the diagram above, there are several different plans that perfectly support each other. At the top of a planning hierarchy, we have a business plan that outlines organizational objectives and identifies a long-term strategy to achieve corporate goals. The purpose of the business plan is matching opportunities with resources and strategies an organization has. (Cowman 2017, 3-6.)

Further, the business strategy informs and influences a marketing plan, which, in essence, considers the sales activities, distribution, delivery of a product or service, and communications. The purpose of the marketing plan is achieving the overall corporate objectives from the business plan through engaging and influencing an audience. Also, it should define the strategy and resources needed to complete the goals. (Cowman 2017, 7-12.)

Under these two, we have communication or multichannel marketing plan integrated with a digital marketing plan, and some marketing campaign plans. Whereas the former is a long-term plan defining how to compete more effectively with different communication channels including digital ones (Cowman 2017, 28), the latter is a short-term integrated communications plan indicating different digital media channels to achieve objectives of a particular campaign (Cowman 2017, 12). A digital marketing plan, in its turn, suggests the best combination of different media channels and how they support a company's goals and objectives (Cowman 2017, 20).

A digital marketing plan is typically annual, and it covers the following areas (Cowman 2017, 22):

- a review of a company's digital capabilities

- set of achievable and realistic objectives
- set of digital marketing techniques to be invested in
- list of required resources.

As the purpose of a digital marketing plan, Sarah Cowman (2017,21) indicates the following:

The purpose of a digital marketing plan is to ensure that digital marketing activities are relevant and timely in the achievement of your organization's objectives, that they can be implemented with available resources and that they are capable of creating and sustaining a competitive position online. (Cowman 2017, 21.)

Even though, doing digital marketing without a strategy is possible, by pursuing such approach companies are not able to get the most from the digital marketing activities they conduct (Rouhiainen January 2018).

For companies that do not have a strategy yet, the best option to start is to create at first a separate digital marketing plan, that, along with opportunities and problems, should define the way how to incorporate digital marketing as a part of business activities. And secondly, start integration of digital into a marketing strategy. As a result, digital activities will be fully aligned with overall marketing goals and become part of business as usual. (Chaffey 2018c.)

To create a digital marketing plan that will have all the essential elements and address all possible implementation issues, an organization should use appropriate frameworks developed for planning purpose. As such tools, Sarah Cowman (2017, 25) suggests using SOSTAC® structure developed by PR Smith and RACE Frameworks developed by Dave Chaffey and Smart Insights' team. Whereas the former is a good option for structuring overall digital marketing plan, the latter is more action-oriented and helps to plan tactics to implement. (Cowman 2017, 25.) Both frameworks will be discussed in detail in the following sections.

### **2.7.2 PR Smith's SOSTAC® planning model**

SOSTAC® is a relatively simple, clear and logical framework that perfectly fits for structuring different kinds of plans. For the development of a digital marketing plan, the framework is useful as well. SOSTAC® stands for Situation analysis, Objectives, Strategy, Tactics, Actions, and Control. All these elements are critical to the success and represent particular stages of a plan's development process. (PR Smith 2018.)

As can be seen from figure 13, the framework has a logical structure where each stage informs the following one. Although the stages follow a particular order, they have some overlap, and each of them may be easily revised during the planning process. (Chaffey & Smith 2013, 3; Smith 2018.)

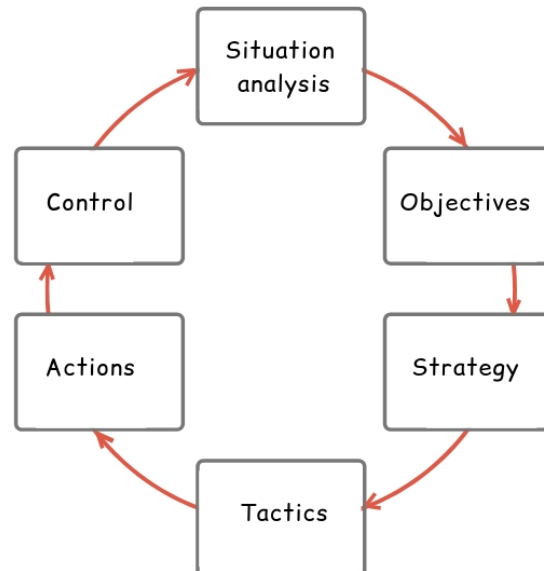


Figure 13. PR Smith’s SOSTAC® planning model (adapted from Smith 2018)

To understand the role and what stands behind each of the stages, let’s look at these six blocks from the digital marketing perspective.

**Situation analysis.** The purpose of this stage is to outline the situation in which a company currently is. It implies answering the question “where are we now?” and includes an analysis of a company’s customers, competitors, competencies, current performance, partners, and market trends. (Chaffey & Smith 2013, 538, 540-537.)

**Objectives.** At this stage, a company determines specific, measurable objectives which should be achieved with the help of digital marketing. In essence, this stage implies answering “Where do we want to be?” and “what do we want to achieve through online channels?” (Chaffey & Smith 2013, 3.) As the most common goals for companies Chaffey and Smith (2013, 548) point out the following: grow sales, add value, get closer to customers, save costs, and add some value.

**Strategy.** At this point, a marketer should answer “How do we get there?” question. In other words, he needs to identify the overall direction to follow and summarize how to achieve the goals. Specifically, it should include a company’s online value propositions

(OVPs), the overall marketing and promotional mix, and set of the selected digital media channels. On top of that, it is essential to define the level of resources needed for each of the channels and the way those resources will be used. (Chaffey & Smith 2013, 551-552.)

**Tactics.** According to Chaffey and Smith (2013, 559), “Tactics are the detail of strategy”. Thus, this section represents and defines in detail how to implement the strategy and answers “how exactly do we get there?”. In other words, at this stage, a marketer defines the list of tools he plans to use at each stage during the strategy implementation. (Chaffey & Smith 2013, 559.)

**Actions.** This stage is about particular actions, skills, and responsibilities needed for the accomplishment of the tactics defined in the previous stage (Chaffey & Smith 2013, 4, 564-566).

**Control.** The purpose of this stage is to make sure if we are on the right track or not. Specifically, it is about the assessment of key performance indicators (KPI) or the results achieved regarding the objectives defined earlier. The main point is that by having a control system, a marketer may regularly review the KPI and make improvements of tactics or actions timely. (Chaffey & Smith 2013, 566-576.)

As can be seen from above, each element of SOSTAC® is unique and essential. Thus they all should be considered by a marketer without any exception. Figure 14 indicates critical points and questions that need to be addressed during the planning as well as some tools and approaches that should be used at each stage of a plan development process.

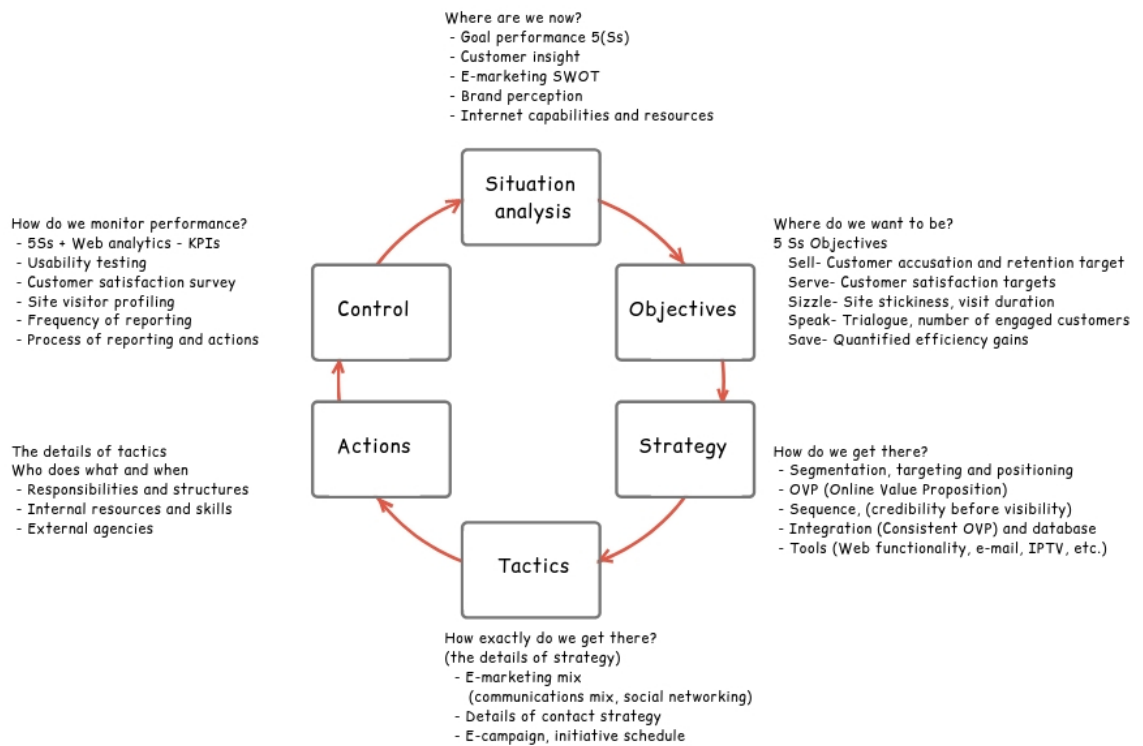


Figure 14. SOSTAC® planning framework (adapted from Chaffey & Smith 2013, 4)

All the features mentioned above make SOSTAC® one of the most popular and useful models for digital marketing planning.

Although SOSTAC® is an excellent tool for structuring and developing plans, it is recommended to combine it with the RACE planning framework. (Cowman 2017, 25). Whereas the former is covering all stages of creating and implementing a digital marketing plan, the latter “is structured around the many activities in the modern marketing funnel designed to define online and offline tactics to engage audiences to get results” (Cowman 2017, 29). Also, the RACE framework perfectly supports the SOSTAC® planning model in case of multi-channel plan structure (Cowman 2017, 29).

### 2.7.3 RACE Digital Marketing Planning Framework

RACE is a framework developed by Smart Insights to help manage and improve results companies gain from digital marketing activities. RACE stands for Reach, Act, Convert, and Engage. Each of these steps has a particular purpose and helps to engage prospects and customers with a company at different stages of the customer lifecycle. (Chaffey & Ellis-Chadwick 2016, 31.) Although the acronym consists only of the four mentioned above steps, in fact, the framework involves an additional phase which implies the creation of the overall digital strategy, setting objectives and planning. (Chaffey 2017.)

As to the rest of the framework steps, they can be described as follow. Reach is about building awareness of a brand, products or services across different media platforms with the aim to generate traffic to a website or any other platform a company has a presence on (Chaffey & Ellis-Chadwick 2016, 31). Act implies engagement of an audience with a brand and making them interact with a company or each other on the company’s website or social media (Chaffey & Ellis-Chadwick 2016, 31). Convert is aiming to convert visitors of a company’s website or social media communities to leads or customers (Chaffey & Ellis-Chadwick 2016, 31). And, finally, Engage implies establishing long-term relationships with customers that in its turn ultimately lead to customer’s retention and repeat purchases (Chaffey 2017).

RACE is a practical and action-oriented framework that focuses on a set of tactics that should be managed in a digital marketing communications strategy. Figure 15 represents all the mentioned stages of the framework in relation to the customer lifecycle and indicates a set of KPIs that digital marketers should consider while setting targets for a company’s performance evaluation at each specific stage. (Cowman 2017, 25.)



Figure 15 RACE framework (Chaffey 2017)



Since RACE framework provides a clear structure that covers all stages of a customer lifecycle in relation to communication channels and identifies a set of relevant KPIs, it is an excellent tool for understanding which set of digital marketing activities are the most efficient at a particular stage. Such insight is vital not only for making digital marketing strategy effective but for getting more commercial value from investments in a specific channel as well.

## 2.8 Literature summary

As was shown in the literature review section, there is a range of different online marketing techniques, tools, and models that may help to develop an effective digital marketing plan for PrimerDigital. Let's look at them briefly one more time.

The list below provides the set of online promotion and communication marketing techniques that should be considered further in this study:

- **Content marketing.** This technique is essential for the company because it provides a general understanding of what type of content a company needs to achieve its marketing goals. Along with that, it plays a crucial role in the success of digital marketing techniques outlined further.
- **Search Engine Marketing(SEM).** Since this digital marketing technique incorporates both, SEO and PPC, it can help the company not only improve its position in search engine organic and paid listings but also generate traffic of visitors who have a firm intention to buy.
- **Social Media Marketing (SMM).** With the help of SMM, the company will be able not only promote information about its products and services but also can effectively communicate with customers and engage them in generating content (UGC), which, in its turn, will help to establish a trust for the brand and increase lead-to-customer conversion. Besides, this channel is useful regarding increasing brand awareness among the target audience.
- **Email marketing.** Email marketing also plays an essential role in building a relationship with customers and prospects. Moreover, through this channel, the company can get valuable insight from customers regarding issues they may have with the products and services the company provides.
- **Video marketing.** Since nowadays people prefer watching videos instead of reading boring texts, Video marketing provides an opportunity to support marketing efforts throughout the whole consumer journey and, as a result, helps to increase conversions at different stages of the marketing funnel. Along with that, video content may positively affect the company's position in search engines as well as consumer trust towards a company.

Although quite often we can find all these five techniques used simultaneously in marketing arsenals of companies from across the globe, it is important to remember that each method has its own purpose to be used. Moreover, they all have different performance in terms of ROI. Considering this fact and the fact that PrimerDigital has some budget limitations, it is quite critical to range the mentioned above techniques according to their effectiveness regarding ROI. By doing so, we get the following order: SEO, content marketing,

email marketing, SEM/PPC and social media, where SEO demonstrate the highest ROI, and social media the lowest one.

As for the tools, and planning models that may help to develop an effective digital marketing plan for PrimerDigital, this research highlights SOSTAC® and RACE frameworks. Since these two planning models not only help to structure the development process but also help to manage the implementation of the developed digital marketing plan they both should be used at the development stage of this research. Along with that, tools such as Social media marketing radar, Content marketing planning template (Matrix), and a concept of customer lifecycle may also contribute to the development process.

Even though, during this stage, the author attempted to narrow down the scope and focus of the literature review to the most relevant options for the company, the list of findings is still quite broad and universal. To make it more specific, and find out which techniques are the most suitable for the biotech software sector in general and for the PrimerDigital in particular, it is necessary to carry out competitor analysis as well as ask the company's customers regarding their preferences about types and formats of content, and their preferences regarding communication channels and platforms.

Since these two activities are essential for answering the research question and, developing a genuinely effective digital marketing plan for the company they will take place at the development stage of this study.

Also, it is important to note that, due to the continually evolving nature of the digital marketing field, there is a probability that some of the information discussed in this chapter may be a bit outdated. Despite this fact, the findings from this chapter form a solid basis for developing a digital marketing plan for the company.

## **2.9 Conceptual framework**

This subchapter introduces the conceptual framework that will guide the development process of a digital marketing plan for the commissioning company.

As can be seen in figure 16, the framework for this study has been developed based on two planning models that were presented earlier. Specifically, these are PR Smith's SOSTAC® and Smart Insights' RACE model. Along with that, the framework involves ad-

ditional empirical data from a competitor analysis and a survey of PrimerDigital’s customers. Such data can help to refine the findings from the literature review section and make the planning process more focused and accurate.

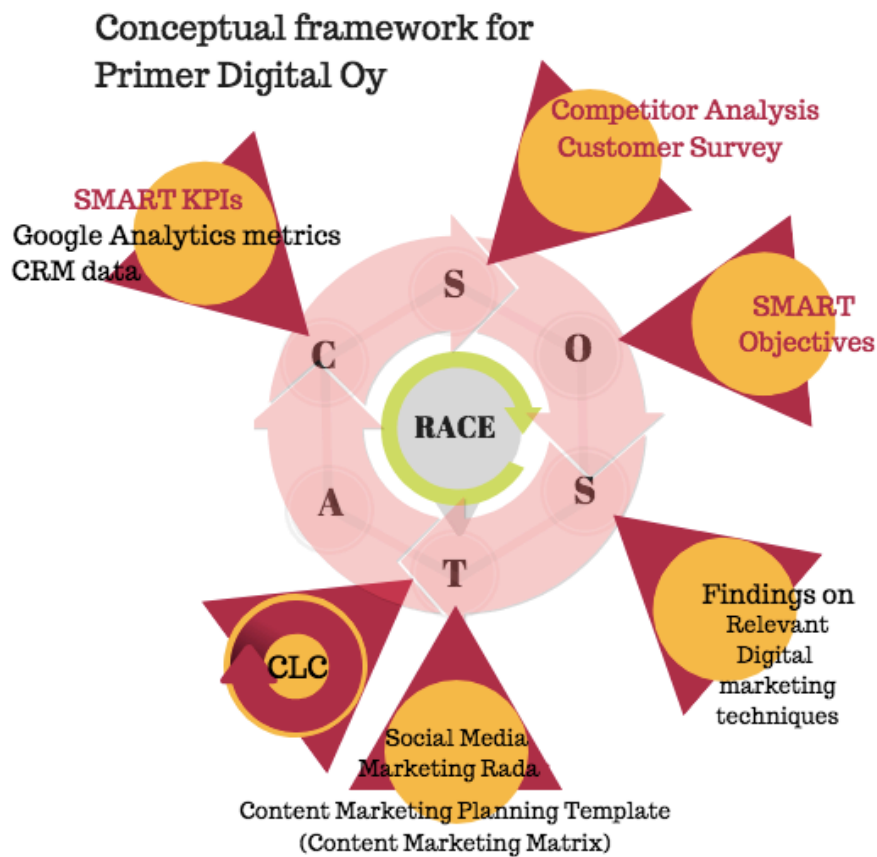


Figure 16. Conceptual framework for developing a digital marketing plan for PrimerDigital

Although SOSTAC® implies a range of essential tools and methods for each stage of a planning process, they all are rather generic and lined up to fit the development of any plans. To make the framework more digital marketing oriented, along with the tools that SOSTAC® model suggests, the framework includes additional instruments such as Content Marketing Template (Content Marketing Matrix) and Social Media Marketing radar. The role of RACE in this framework is to help think over the objectives and communication channels through PrimerDigital’s customer lifecycle. Additionally, Smart KPI and Google Analytics' metrics have been added to the framework as the vital elements of the control and assessment stages.

### 3 Research methodology and methods

This chapter aims to introduce the methodology and the design of this research. Specifically, the chapter presents the chosen research philosophy, approach to theory development, methodological choice, strategy, the time horizon of the research, and, finally, the process of data collection and analysis. Each of these elements represents a particular layer of so-called research ‘onion’ introduced by Saunders, Lewis & Thornhill (2016, 124).

Figure 17 depicts the research ‘onion’ itself and helps to understand the connection between the mentioned above layers. By peeling off the onion’s layers one by one, a researcher can define the way in which research data will be collected and analyzed to answer a research question. (Saunders & al. 2016, 122-124.)

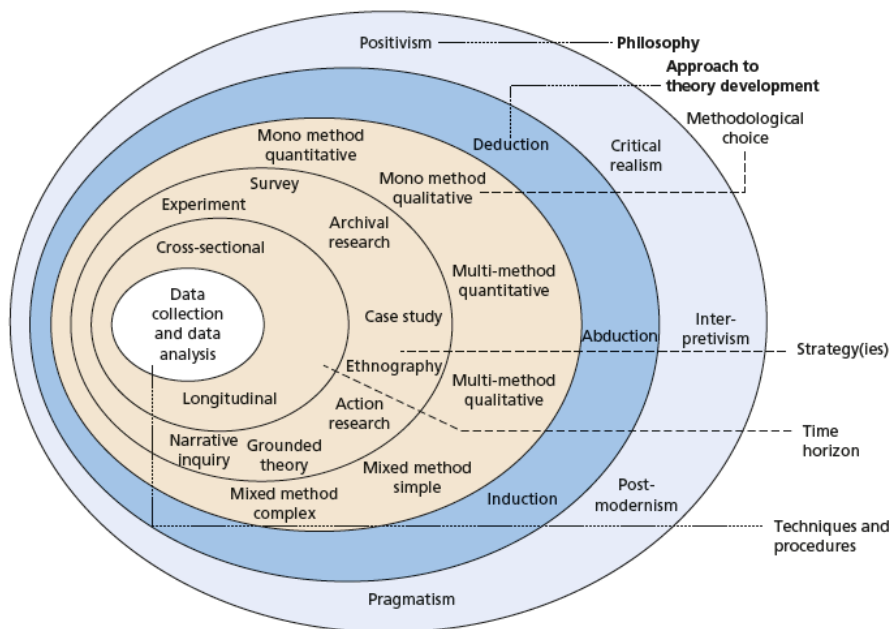


Figure 17. The research ‘onion’ (Saunders & al. 2016, 124)

#### 3.1 Research design

As shown in figure 17, the first decision a researcher should make regarding planning his study is to define an appropriate research philosophy. The term research philosophy refers to a researcher’s beliefs and assumptions regarding the development of knowledge. These include epistemological assumptions (assumptions about human knowledge and how to communicate it to others), ontological assumptions (assumptions about the nature of reality in which a researcher encounter himself), and axiological assumptions (the ways a researcher’s values influence a research process). In other words, while a researcher

undertakes research for a particular organization, these three types of beliefs and assumptions shape his understanding of research questions, the strategy and methods of the research, and interpretations of findings. (Saunders & al. 2016, 124.)

According to Saunders & al. (2016, 135), there are five major philosophies available for business and management study. Among them are positivism, critical realism, interpretivism, postmodernism, and pragmatism (Saunders & al. 2016, 135). To find out which one the best suits research purposes, a researcher should make a choice based on his own beliefs and assumptions (Saunders & al. 2016, 125-135).

In this study, the phenomenon under research is an effective digital marketing plan for a startup company, and the research seeks practical outcomes that would be implemented in the real-life context of the company. Considering that pragmatism implies a wide range of research strategies and that ontology, epistemology, and axiology of pragmatism are precisely focused on improving practice, this philosophy was chosen as the most appropriate option for the case. (Saunders & al. 2016, 137, 142-144.)

When the research design comes to theory development approach (the second layer of the onion), there are three main options of theory reasoning available for choice. Among them are deductive, inductive, and abductive. Whereas deductive approach implies the development of a theory or hypothesis based on literature and testing it further through data collection, inductive approach involves building theory or hypothesis based on the data collected through a conducted research. Abductive approach, in its turn, effectively combines both approaches and allows moving in both directions - from theory to data (as in deduction) as well as from data to theory (as in induction). (Saunders & al. 2016, 144-149.)

In this research, the author used a mix of deductive and inductive approaches. It was necessary because the study has a complex structure (figure 18). Specifically, it starts from literature review, where the relevant theories and the most suitable hypothesis are defined, continues with the phase where the initial theories are tested and adjusted based on the findings from the customer survey and the competitor analysis, and ends with the implementation phase where the theories are tested by the data again. Therefore, only a combination of both approaches allows answering the research question in full.

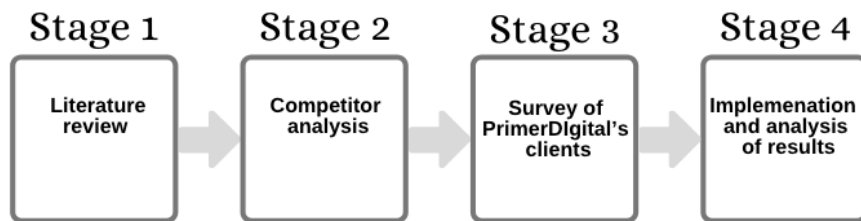


Figure 18. The structure of the research

The next important layer of the 'onion' is the methodological choice of the research. As shown in figure 17, there are six different alternatives available for selection. Despite such a variety of options, in essence, a researcher should decide whether to follow qualitative, quantitative, or mixed methods research design.

Simply put, qualitative design implies collection and analysis of non-numeric data such as words, images, video clips, and other similar materials, whereas quantitative one is about gathering and analysis of numeric data such numbers, graphs or statistics. In the case of a combination of both, quantitative and qualitative elements, research will have a mixed methods research design. The choice between the options depends on the research philosophy, research approaches, and choose strategies. (Saunders & al. 2016, 164-166.)

Since this research is focused on a particular phenomenon (creation of digital marketing plan) within a real-life context of one particular company, as a research strategy, was selected Case study research with a holistic single-case design (Saunders et al. 2016, 184). According to Saunders & al. (2016, 185-186), this research strategy is clearly connected to inductive and deductive theory development approaches and provides an opportunity to use a mixed methods data collection approach. The chosen earlier pragmatism philosophy also valued both, quantitative and qualitative research. Considering these facts and the fact that the research consists of different phases of the data collection that should be done one by one and should subsequently inform and guide each other, the sequential mixed methods research was chosen as the perfect option for this research. (Saunders & al. 2016, 170-171.)

As to the nature of the research, it can be defined as exploratory, descriptive, explanatory, evaluative or a combination of these (Saunders & al. 2016, 164). Although, this research starts from exploration and identification of the most suitable and efficient digital marketing tools and techniques for the sector, it also includes the phase where, based on the data obtained from the competitor analysis and the customer survey, the author defines the ultimate minimal set of digital marketing techniques that the company should use to achieve its marketing objectives fully. Therefore, instead of being merely Exploratory, this research

is rather a combination of two natures: Exploratory and Explanatory. (Saunders & al. 2016, 164.)

The last layer of the onion is time horizon. Considering all mentioned above and that the research was meant to be conducted within a certain period of time as a “snapshot”, as the most appropriate time horizon of the research was chosen cross-sectional one (Saunders & al. 2016, 200).

### **3.2 Data collection and analysis**

As was mentioned earlier, to answer the research question fully, this research consisted of several stages of data collection. Among them were a literature review, competitor analysis, surveying of the company’s clients, and the last but not least was the implementation and analysis of the results (Figure 18).

The data obtained at each of the mentioned stages has its own purpose and role. Hence it could not be ignored or taken out of consideration. Specifically, findings from reviewed literature not only brought an insight into digital marketing planning and the technique and tools available for achieving the company’s marketing objectives and business goals but also guided the further research and digital marketing plan development. Since the findings from the initial stage were too broad, which is quite typical for Exploratory type of study (Saunders & al. 2016, 175), competitor analysis helped to narrow the focus of the research down and to define the methods and tools that are the most appropriate for the biotech sector. The findings from the conducted survey, in its turn, helped to refine the findings further, and, as a result, to distill a small set of digital marketing techniques which are relevant and efficient precisely for the case company. Finally, the data obtained at the implementation stage were vital for understanding the effectiveness of the developed plan.

Along with that, each phase of the research involved the use of different research instruments and approaches. For instance, the literature review was done by reading through up-to-date books and internet-based articles. The competitor analysis was based on observations made by an assessment form discussed in more detail in the sub-chapter 4.1 (Competitor analysis). For the survey was used a questionnaire developed specifically for this research (appendix 8), which, in its turn, was run on a specialized online survey platform. An assessment of the results of the implementation phase involved the usage of Google Analytic platform to control certain KPIs defined at the digital marketing plan development stage of this research.

As a rule, the data collected during research can be categorized as secondary or primary one. As the secondary data, this research considers the data that were originally collected for some purpose that differs from the research question or objectives, whereas the primary one is the data that were collected exclusively by the author of the research to answer the research question and meet the research objectives. This research, due to its research design, considered the secondary data as well as the primary one. Such a combination of primary and secondary data is quite typical for case study research strategy. (Saunders & al. 2016, 318-332.)

To collect the secondary data, along with findings from relevant literature, were used reputable online sources of data. Among them were online services such as Google Analytics, Similarweb, Woorank, and Likealyzer. In most cases, these were quantitative data such as statistics about the industry or companies under research. Since these data were used for comparative purposes only and rather played a role of a guideline for defining KPIs needed for further assessments of the research's outcomes, there was no need for applying statistical methods of analysis to it.

Vartanian (2011, in Saunders & al. 2016, 330) points out that secondary data that is highly relevant to the research question and has a high-quality helps not only to answer the research question in full but also save resources such as time and money. Therefore, since secondary data used in this research matched these criteria, it was used together with the primary one to answer the research question and save mentioned above resources.

As to the primary data, it was collected via the survey conducted with the company's clients as well as via the competitor analysis. Whereas the former had a form of questionnaire run on an online survey platform, the latter implied collection of the data through observation of the competitors' online entities such as websites and social media communities.

The competitor analysis considered an examination of eleven companies that were identified by the management of the commissioning company as the main rivals within the sector it works. The analysis implied an online observation of competitors' websites and social media communities via the internet to assess how they carry out their digital marketing tasks, and to find out some common patterns regarding digital marketing channels and tactics within the biotech sector. All the data were collected by the author of the research manually with the help of the assessment form presented in appendix 2b. During the observations, the author inspected the mentioned above online entities entirely anonymously



and was not involved in any actions, but analysis of the posted content and identification of used digital marketing approaches.

The survey, in its turn, was carried out with the help of an online survey platform. The primary purpose of the survey was to collect the data that are required for answering the research question and achieving the objectives of the research. To find out participants for the survey the author used PrimerDigital's customer database which was provided by the management of the company. As a result, a group of customers in the amount of 350 people were invited via email to participate in the survey.

The questionnaire and the assessment form used for the research are described in more detail in the subchapters 4.1 and 4.2. Also, in these subchapters can be found more detailed information on the data collection process.

As the most appropriate technique for the qualitative data analysis, in this research, was applied Thematic Analysis. This technique is often used as a generic approach to qualitative data analysis, and its purpose is to search for themes, and patterns, that arise across examined data sets. Also, Thematic Analysis is not tied to a particular research philosophy, and it works for both deductive and inductive study approach. (Saunders & al. 2016, 579.)

Since the research implies several stages of data collection (sequential design), the initially undertaken literature review allowed to determine categories and codes according to which, the data collected from the competitor analysis stage were coded, summarized, and categorized for further consideration. Precisely, from the literature were identified digital marketing techniques, channels, online platforms, and types of content that could be found during the observations.

After accomplishing the observation stage, all the collected data were coded and grouped by categories for further identification of common for the sector themes and patterns regarding digital marketing. As the codes were used professional terms, acronyms and metrics also defined from the literature. Consequently, these data sets were analyzed with the help of Microsoft Excel spreadsheets, where all the results were presented in the form of tables and graphs. At the final stage of data analysis, the results were interpreted and linked with the research question. The findings of the competitor analysis are presented in the section 4.1.6.

Unlike the competitor analysis, the data collected via the customer survey were coded, categorized, and presented with the help of embodied tools available at the chosen online survey platform. The author made the final interpretation of the results in the same manner as it was done for the competitor analysis. The findings from this stage are presented in the subchapter 4.2.3.

## **4 Digital marketing priority list for PrimerDigital**

Whereas the literature review section provides an overall list of currently existing digital marketing techniques, this chapter reveals the digital marketing channels, tools, and tactics that are the most commonly used within the sector the company operates as well as defines the minimal set of the techniques that would be the most suitable and efficient for the case company.

As discussed in the literature review section, the best way to understand what works and what does not work, for the sector in general and the company in particular, is to make a competitor analysis and conduct a customer survey.

In order to find out the minimal set of digital marketing techniques that would be sufficient for achieving the company's business goals and marketing objectives, all the channels, tools, and tactics identified from the analysis and the survey should be aligned with the company's marketing objectives and prioritized according to their effectiveness in terms of ROI.

### **4.1 Competitor analysis**

The conducted competitor analysis provides an insight into the most commonly used digital marketing techniques in the biotech sector. Also, it reveals the types and formats of website and social media content, the most widely used social media platforms, and the tactics that the competitors use to manage their social media communities.

#### **4.1.1 The structure and tools used for the competitor analysis**

To conduct the competitor analysis, the management of PrimerDigital has provided to the author a list of eleven companies. All those companies work within the same sector and can be classified either as the direct competitors of PrimerDigital (companies that offer the same services or products) or indirect ones (companies that provide a bit different services or products to the same target group).

Since the analysis implied not only an identification of individual efforts each competitor makes regarding digital marketing but also the discovering of common patterns and trends for the biotech sector, the author decided to conduct the competitor analysis in two parts — specifically, an individual examination of each company, and final consideration and

comparison of gathered information. Individual examination, in its turn, encompasses a website analysis, an analysis of social media, and identification of digital marketing techniques that examined companies use. Each of these stages presented in more detail further in the text.

#### Stage 1. Website analysis

This analysis, along with an overall description of the inspected website, reveals the types of the content the site provides, its ranking on google search, technology in use, connection to social media platforms, and sources of traffic to this site.

Since this analysis goes beyond a visual examination and a brief overview of a website's structure and appearance, the author used professional digital marketing tools and specialized online services. Specifically, for identification and classification of the content provided on the competitors' websites was used the content marketing matrix (figure 5). To understand a company's position in search engine results (SERP) was used a list of queries based on keywords relevant to a company or products it provides. In order to conduct an SEO audit, reveal a website's possible connection to social media platforms, and identify the technology used on the examined website, was used Woorank.com online service. Finally, to identify main sources of traffic to the website and get the website's audience insight was used Similarweb.com service.

Woorank, Similarweb, and keyword queries approach have been identified by the author of this research from an article of Francois Georges (Francois 2018) published on Talkwalker website. As to the matrix used in the analysis, it has been identified at the literature review stage and discussed in detail in subchapter 2.6.1.

The main benefit behind the use of precisely these tools is that besides they provide all the necessary information regarding the competitors' websites, they all can be used on a free basis with an insignificant loss in the functionality. Such a feature makes this set of tools a perfect option for companies that have some constraints of marketing budgets. Since PrimerDigital is one of those companies, this set has become a backbone for the competitor analysis in this research.

#### Stage 2. Social Media analysis

Social Media analysis reveals all the activities and efforts the competitors make regarding social media. Specifically, the analysis implies an examination of the competitors' presence on different social media platforms such as Facebook, Twitter, LinkedIn, and

YouTube, a breakdown of the content they publish on the platforms, and revealing social media strategies they pursue.

To identify a company's presence on social media were used the links provided on the examined websites, data obtained from the social media section in the Woorank analysis, and results from a web search. As the primary tools for this stage were used Likealyzer.com and Twitonomy.com online services.

Stage 3. Analysis of digital marketing techniques the companies use

As clear from the name, this analysis is aiming to reveal the set of digital marketing techniques the competitors use. To understand what exactly they have in their digital marketing arsenals, along with data obtained at Stage 1 and Stage 2, the author used detailed reports from Similarweb online service. Such reports, among other things, provide a breakdown of website traffic by different channels. As a result, combining these data with the data obtained from the website and social media analysis stages was possible to gauge if a company use a particular digital marketing technique or not.

Such a broad examination of the competitors' online activities allowed not only to reveal the set of online digital channels the companies use but identify their content marketing and social media marketing strategies.

To structure and combine all the information mentioned above the author used a modified version of Lasse Rouhiainen's company examination form (appendix 2b). Although the original version of the form (appendix 2a) helps to sum up all the necessary information about a company and its digital marketing activities, it was designed for revealing a company's strengths and weaknesses regarding digital marketing rather than for competitor analysis. Therefore, the original design has been modified by the author of this research. In contrast with the original form, the modified version has a design that is more suitable precisely for this study. Specifically, the new design implies additional dimensions such as Number of employees which helps to reveal the size of a company, Client's interests that are important for a target segment identification, and Overall summary section, which is critical not only for an understanding of a digital marketing strategy a company uses but also for further comparison between companies under examination. Also, since the original form implies information that is available only for the insiders, fields such as Biggest challenges and Main marketing objectives have been removed from the new design.

Having completed individual examinations of the competitors, the author proceeded to the second part of the analysis - consideration and comparison of gathered information. At

this stage, the summaries of the accomplished eleven individual examinations were combined and analyzed to find out some common patterns of the competitors' behavior regarding the use of digital marketing channels and techniques. The procedure involved becoming familiar with the gathered data, coding it based on codes derived from terms used in the professional literature reviewed at the literature review stage, categorizing and grouping it into appropriate units, and subsequent analysis and representation of the findings in the form of tables and graphs with a help of Microsoft Excel spreadsheets. The conclusions of the competitor analysis are presented and discussed in the following section.

#### **4.1.2 Digital marketing techniques the competitors use**

As it turned out to be, most of PrimerDigital's competitors actively use digital marketing as a part of their marketing strategy. Table 1 represents an overview of eleven selected companies in terms of digital marketing techniques they use. The table is based on the data obtained from SimilarWeb and Woorank services as well as on a visual examination of the competitors' websites.

According to the findings from the conducted analysis, only OLIGO Primer Analysis INC has a lack of digital marketing activities regarding product promotion, building brand awareness, or communication with customers.

Despite the companies work in the same sector and offer similar products and services, their size varies significantly. Therefore, along with the digital marketing techniques common for the industry, the table provides information about the size of the competitors.

Since each company has a unique number of employees, they all were grouped by categories such as XS (1-10 people employed), S (11-50 people employed), M (51-500 people employed), L (501-1000 people employed), and XL (more than 1000 people employed). The data about the number of employees were obtained from information published on the companies' websites, Google search, or Similarweb service. Such an additional dimension helps to understand if there is a correlation between the size of a company and the set of marketing approaches it uses.

Those digital marketing techniques that the companies certainly do or do not have within their marketing arsenal are marked by green or red color respectively. The gray mark means that a marked technique is most likely in use but not regularly (the more details

about the gray mark can be found in the Search Engine Optimization section further in the text).

Table 1. The set of digital marketing techniques that the competitors use

Name of a company	Size/number of people working	Google Analytics	SMM	Content Marketing	Email Marketing	Search Engine Marketing (SEM)		
						SEO	Paid search	Displays
Eurofins Genomics	(M)							
Thermo Fisher Scientific	(XL)							
Integrated DNA technologies	(L)							
Genesig	(S)							
Eurogentec	(M)							
Premier Bio-soft	(L)							
DNA Software	(XS)							
GenePattern	(XS)							
Qiagen bioinformatics	(L-XL)							
OLIGO Primer Analysis	(XS)							
Unipro U-gene	(S)							

As can be seen from the above, almost each of the eleven examined competitors, regardless of its size, use digital marketing techniques such as Email marketing, Social media marketing, and Content marketing.

Another interesting fact is that, although techniques such as Search Engine Optimization (SEO), Paid Search, and Display advertising are the elements of Search Engine Marketing (SEM), most of the examined companies use them somewhat independently. For instance, Qiagen bioinformatics use only SEO and Paid search, whereas Thermo Fisher Scientific have all the three within its marketing arsenal. In contrast, Unipro U-gene, GenePattern, and Eurogentec neglect SEM at all and mostly rely on Social Media Marketing (SMM) and Content marketing as the primary marketing activities for product promotion and communication with customers.

Figure 19 represents the popularity of each of the mentioned digital marketing techniques among the examined companies. Regarding SEO, the visual represents only those companies that most likely are doing SEO regularly (in table 1 they are marked by gray color).

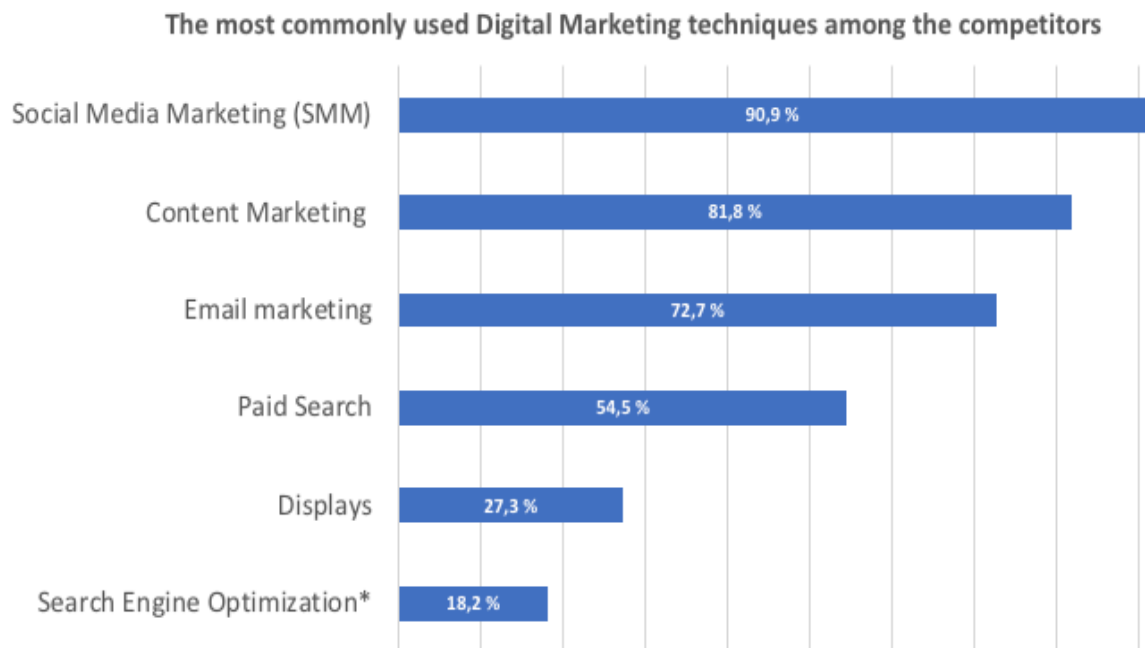


Figure 19. The most commonly used digital marketing techniques among the competitors

As can be seen from the figure, Social Media Marketing, Content Marketing, and Email marketing are the most popular digital marketing techniques among the selected competitors. Specifically, almost 91 percent of the examined companies have a presence on different social media platforms and provide some valuable content on their websites. Nearly 73 percent of the companies use emails as a part of their digital marketing strategy. Paid search is popular among 54.5 percent of the competitors. Last but not least is Display Ad Networks, which is popular among 27.3 percent of the examined rivals. As can be seen from table 1, among these companies are Thermo Fisher Scientific, Integrated DNA technologies, and Premier Biosoft. They all have more than 500 employees and belong to the L and XL size category.

Although it is difficult to find a correlation between a company's size and a set of digital marketing tools it uses, it is clear that Displays Network ads are exclusively used only by companies that belong to the L-XL size category (table 1). A detailed analysis of and findings on each of the techniques presented further in the text.



### Social media marketing

Figure 20 represents the most commonly used social media platforms among the selected companies. As can be seen from the visual below, the most popular social media are Twitter (90.9%), Facebook (81.8%), YouTube (81.8%), LinkedIn (72.7%), and Research Gate (63.6%). Google+ (54.5%), personal blog (45.5%), and Instagram (9.1%) are less popular within the industry. A particular set of social media platforms and the most commonly used topics for social media posts in the biotech sector will be discussed in the subchapter 4.1.4.

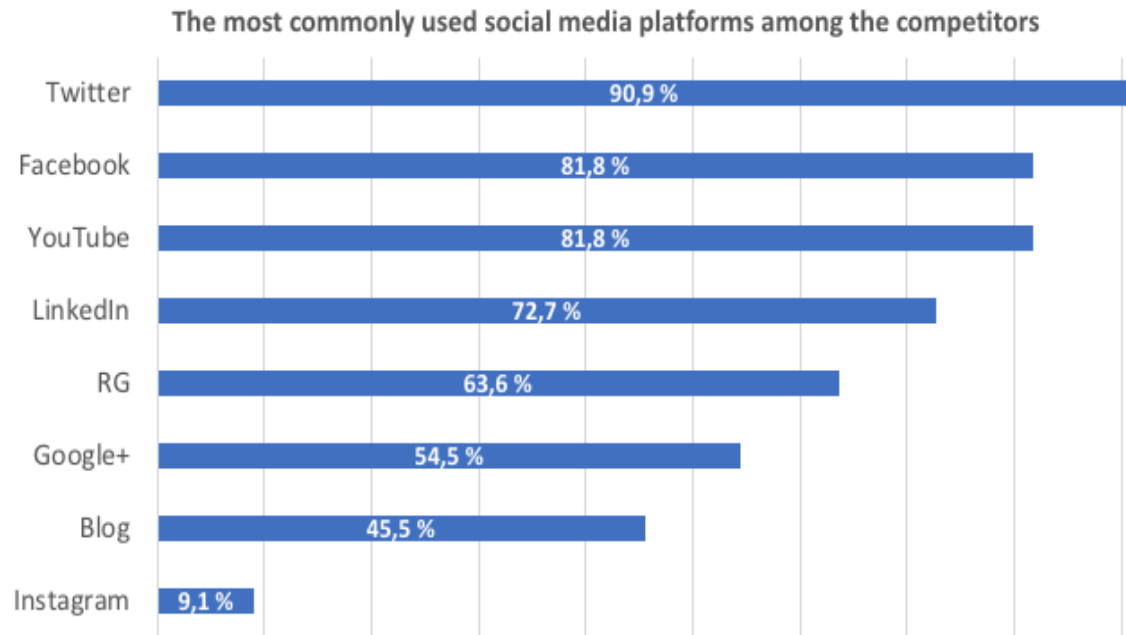


Figure 20. The most commonly used social media platforms among the competitors

### Content marketing

As was mentioned above, along with a presence on social media, the significant fraction of the companies (90.9%) publish some content on their websites. Although each company has its own set of content, some types of content are more popular than others. Figure 21 represents the types of website content by popularity among the competitors.

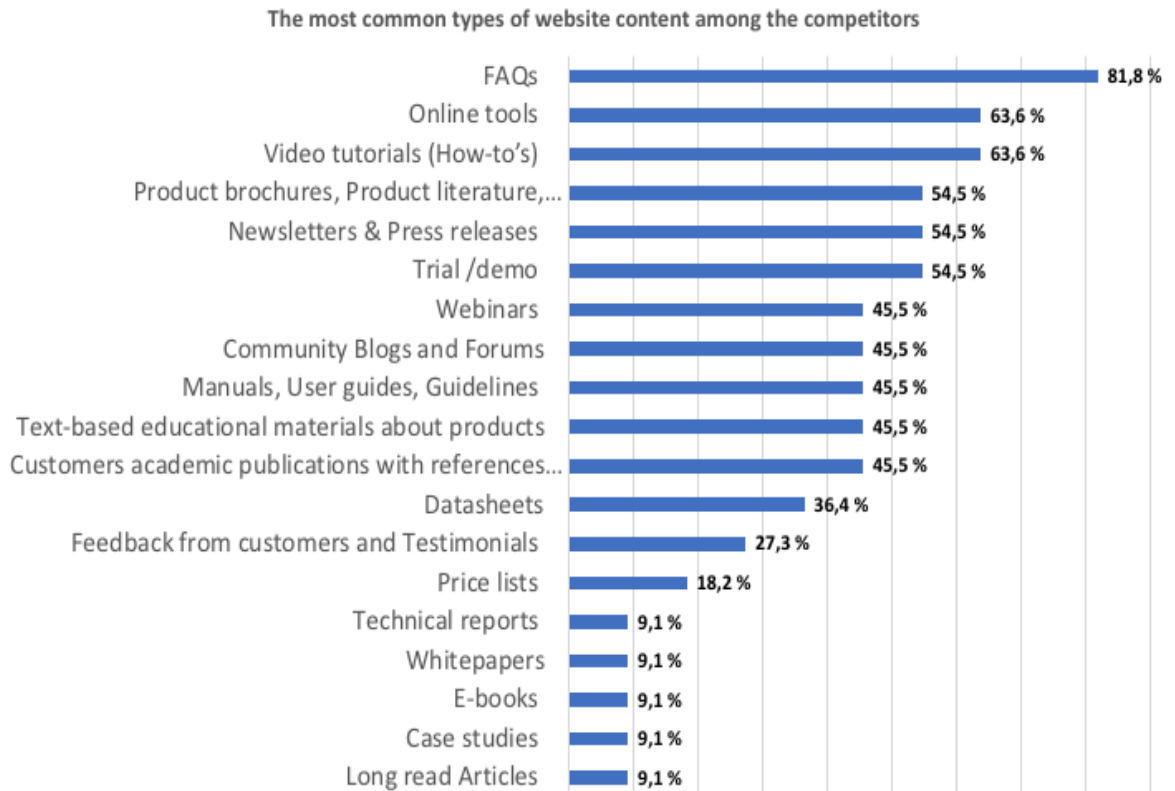


Figure 21. The most commonly used types of website content among the competitors (Content formats)

As can be seen from figure 21, almost 82 percent of the competitors have published FAQs on their websites. Such type of content helps visitors to find out an answer to a particular question without contacting a company.

The second most popular types of content are Online tools and Video tutorials. These types of website content are having 63.6 percent of the research participants. Whereas Online tools help to solve a particular issue directly from a website, Video tutorials explain how to use a product and educate customers about product features. Also, according to the findings from the literature review section, such content makes people staying on a webpage longer and as a result, increases average duration of a visit that is important from search engines' algorithm perspective.

Almost 55 percent of the competitors provide some materials that represent overall information about products or services. Among them are Product brochures, Product literature, Catalogues, and product descriptions.

Besides that, the same percentage of the competitors provide subscription on Newsletters & Press releases and allows to download Trial or Demos of a product. Whereas the for-

mer allows customers to follow the latest updates on a company's products, the latter provides an opportunity to try a product for free. In most cases, such type of content implies an exchange of contact information to the content (appendix 3, figure 1).

Webinars, Manuals, User guides, and text-based Guidelines that explain how to use a product in more detail are popular among 45.5 percent of the examined companies. The same percentage of the competitors provides a link to Community Blogs and Forums where people may learn more about products. Also, they publish customers' academic publications which have some references to the products or services a company provides (Citations & References). Such articles not only attract visitors to the website but also serve as case studies.

Datasheets, Case studies, Long read Articles that explain the features of products or services, Price lists, Whitepapers, Feedback from customers, and Testimonials are less popular within the sector.

From the Content marketing matrix perspective, discussed in detail in subchapter 2.6.1 (figure 5), the competitors mostly use content that belongs to the Education, Inspiration, and Convincing sections of the matrix. Content from the Entertainment category is not popular among the competitors at all. Figure 22 represents Smartinsights' Content marketing matrix that has been modified by the author according to the findings mentioned above.



Figure 22. Types of content the competitors have on their website (adapted from SmartInsights 2018, 13)

### **Email marketing**

As the examination of the competitors' websites has revealed, to get some types of the mentioned above content, visitors have to provide personal data to a company. Among these data are full name, email address, and the name of a company a person works for (appendix 3, figure 1). A particular combination varies from case to case and may depend on a requested type of content. Since companies collect such information to build email lists and contact visitors via email later (Patel 2018c), a sign-up form on a website may evidence that companies use email marketing as a part of their digital marketing strategies.

Another sign of having email marketing within a company's digital marketing arsenal is website traffic that came from emails. According to the data obtained from Similarweb.com (appendix 4), almost 73 percent of the competitors receive some traffic to their websites from emails. Among these companies are Eurofins Genomics, Thermo Fisher Scientific, Integrated DNA technologies, Premier Biosoft, DNA Software, GenePatern, Qiagen bioinformatics, Unipro U-gene.

Based on the fact that nearly all of the mentioned above companies also request personal information in exchange for content, we may assume that email marketing has an essential role in the digital marketing strategies of those companies.

### **Paid search and Display Ad. Networks**

The Similarweb analysis has identified the usage of paid traffic among the competitors. Specifically, six out of eleven companies actively use Paid search (appendix 5) and three out of eleven use Displays (appendix 4). The companies such as Thermo Fisher Scientific and Integrated DNA technologies use both, Paid search and Display Ad. Networks, simultaneously. Table 2 provides the findings regarding paid traffic among the competitors in the form of a fraction of the overall search engine traffic as well as a fraction of the overall website traffic.

Table 2. The percentage of Paid search traffic in overall search traffic

Name of a company	Search Engine Traffic (Percentage of the overall website traffic)	Paid search traffic (Percentage of Search Engine Traffic)	Displays traffic (Percentage of the overall website traffic)	Paid search traffic (Percentage of the overall website traffic)
Eurofins Genomics	28.51%	9.92%	-	2.83 %
Thermo Fisher Scientific	71.66%	6.02%	0.34 %	4.31 %
Integrated DNA technologies	49.74%	0.39%	0.04 %	0.19 %
Genesig	72.96%	27.56%	-	20.11 %
Eurogentec	66.03%	-	-	-
Premier Biosoft	66.88%	-	0.06 %	-
DNA Software	26.73%	3.77%	-	1.01 %
GenePattern	1.31%	-	-	-
Qiagen bioinformatics	67.81%	5.5%	-	3.73 %
OLIGO Primer Analysis SW	71.25%	-	-	-
Unipro U-gene	65.26%	-	-	-

As can be seen from the above, the fraction of the Paid Search traffic within the breakdown of overall search traffic varies from case to case. Whereas for Genesig company this number is quite high (27.56% of the total Search Engine Traffic which is equal to 20.11% of overall website traffic) for Integrated DNA technologies such a number is significantly lower (0.39% of the total Search Engine Traffic which is equal to 0.19% of overall website traffic). For the rest of the competitors, this number fluctuates between 4 and 10 percent of the search engine traffic.

As was mentioned earlier, only three companies have traffic from displays. These companies are Thermo Fisher Scientific, Integrated DNA technologies, and Premier Biosoft. In the case of Thermo Fisher Scientific, displays provide 0.34 percent of the overall website traffic the company received, while for Integrated DNA technologies and Premier Biosoft companies these are 0.04 and 0.06 percent respectively.

Based on the data mentioned above we may conclude that 54.5 percent of the examined companies use paid search promotion technique as a tool for increasing search engines traffic. Additionally, 27.3 percent of the companies use the display ad. networks that allow not only increase traffic but the visibility of a brand as well.

### **Search Engine Optimization**

Due to difficulties in the assessment of the competitors' efforts regarding SEO, which is caused by constantly changing search engine algorithms, it is difficult to say if companies are doing SEO regularly or not. Thus, based on the findings from Woorank analysis and a

company's position in search engine results, all the competitors were grouped into the three clusters and marked by different colors. The first group (green mark in table 3) includes the companies that have well-optimized websites (Woorank score is more than 60 points) and appear within the first five Google organic results. It is highly likely that such companies are doing SEO regularly. The second group (grey mark in table 3) includes the companies that, despite having some presence within the first page of web search results, have some minor issues regarding website optimization (Woorank score is between 50 and 60 points). And the last third group (red mark in table 3) includes the companies that have significant issues regarding a website optimization (Woorank score is less than 50 points) and do not have a presence within the first page of the search (red mark in table 3). It is highly likely that the companies marked by red and gray colors are doing SEO occasionally or not doing it at all.

Table 3. The competitors' website analysis

Name of a company	Top 5 position in Google SERP (organic)	Woorank score	No HTML code Issues	Mobile optimization	SEO
Eurofins Genomics		54			
Thermo Fisher Scientific		81			
Integrated DNA technologies		57			
Genesig		43			
Eurogentec		48			
Premier Biosoft		59			
DNA Software		56			
GenePattern		52			
Qiagen bioinformatics		65			
OLIGO Primer Analysis		33			
Unipro U-gene		53			

#### 4.1.3 Impact of different online channels to the competitors' website traffic

Table 4 sums up the data obtained from SimilarWeb service (appendix 4) and represents the impact of different digital marketing channels on the companies' website traffic. As can be seen from the table, for most of the examined companies the most significant number

of visitors came from Search Engines and Direct (direct links). For some companies, the traffic from referrals is substantial as well. For instance, Genesig, GenePattern, and Qiagen bioinformatics receive about 15, 29, and 7 percent of the traffic from this source respectively. According to the data presented in table 4, on average, the companies receive from Social media only 1.86 percent of their overall traffic, whereas for Email marketing this number is 5.71 percent. Based on these data, we may assume that, in terms of website traffic, on average for the sector, the most important source is Search engines.

Table 4. Impact of different channels to the competitors' website traffic

Name of a company	Size/number of people working	Traffic Estimations	Direct traffic	Traffic from referrals	Social Media Marketing	Email Marketing	Search Engine Traffic	Displays
Eurofins Genomics	(M)	High	60,73 %	3,84 %	0,91 %	6,02 %	28,51 %	-
Thermo Fisher Scientific	(XL)	Very High	20,96 %	4,06 %	1,42 %	1,56 %	71,66 %	0,34 %
Integrated DNA technologies	(L)	Very High	37,76 %	1,65 %	2,93 %	7,89 %	49,74 %	0,04 %
Genesig	(S)	Low	10,98 %	15,03 %	1,03 %	-	72,96 %	-
Eurogentec	(M)	Medium	28,94 %	4,80 %	0,24 %	-	66,03 %	-
Premier Biosoft	(L)	High	26,25 %	0,88 %	2,82 %	3,16 %	66,88 %	0,06 %
DNA Software	(XS)	Low	61,78 %	0	6,58 %	4,90 %	26,73 %	-
GenePattern	(XS)	Medium	65,51 %	28,75 %	0,45 %	3,98 %	1,31 %	-
Qiagen bioinformatics	(L-XL)	High	23,35 %	7,16 %	0,32 %	1,36 %	67,81 %	-
OLIGO Primer Analysis Software	(XS)	Low	25,40 %	1,28 %	2,06 %	-	71,25 %	-
Unipro U-gene	(S)	Medium	11,16 %	5,01 %	1,73 %	16,84 %	65,26 %	-

#### 4.1.4 Social media marketing insight for the biotech sector

Even though on average Social Media provides only about 2 percent of the overall website traffic, almost each examined competitor has a presence on different social media platforms.

According to the conducted analysis, companies use social media for the following purposes:

- provide news and products updates (about product or service as well as about company-related events)
- provide products' or services' online support and customer service
- educate customers regarding products and services (Educational articles and videos)
- make direct and indirect promotions of product and services or any relevant content (including online-tools and use cases)
- maintain a strong relationship with a community's followers.

As shown above, even though companies promote new products and services on social media, in most cases, they use social media for providing products' support and building relationships with clients (professional community) rather than for building traffic or increasing direct sales.

Despite a variety of Social media nowadays available for the companies, most of them use a similar set. Table 5 identifies social media that the competitors currently use. This table based on the data obtained from Woorank and SimilarWeb services as well as on the links to social media communities provided by the companies on their websites.

Table 5. The social media platforms that the competitors use

Company	Face-book	Twitter	Linked In	YouTu be	RG	Insta-gram	Googl e+	others	Blog
Eurofins Genomics	✓	✓	✓	✓	✓	✗	✓	✓	✗
Thermo Fisher Scientific	✓	✓	✓	✓	✓	✗	✗	✗	✓
Integrated DNA technologies	✓	✓	✓	✓	✓	✓	✓	✓	✗
Genesig	✓	✓	✓	✓	✗	✗	✗	✗	✗
Eurogene-tec	✓	✓	✓	✗	✗	✗	✓	✗	✗
Premier Biosoft	✓	✓	✓	✓	✓	✗	✓	✗	✓
DNA Software	✗	✓	✓	✓	✓	✗	✗	✗	✗
GenePattern	✓	✓	✗	✓	✗	✗	✓	✗	✓
Qiagen bioinformatics	✓	✓	✓	✓	✗	✗	✗	✗	✓
OLIGO	✗	✗	✗	✗	✓	✗	✗	✗	✗
Unipro U-gene	✓	✓	✗	✓	✓	✗	✓	✓	✓

As can be seen from the table, the four most popular social media platforms among the competitors are Twitter (90.9%), Facebook (81.8%), YouTube (81.8%), and LinkedIn (72.7%). As the examination of the competitors' social media profiles has revealed, quite often, a company's content posted on Facebook is identical or quite similar to the content displayed on LinkedIn and Twitter, if such content satisfies characters limitation of the platform (appendix 3, figure 2). On YouTube, companies have instead a unique video content that does not intersect with the content posted on social networks. Such a thing may be explained by the fact that according to the Social media marketing radar classification



(figure 7), Twitter, Facebook, and LinkedIn platforms can be classified as Social Networks, whereas the YouTube belongs to the Social streaming group, where visual content is paramount.

As the main categories of posts on these three social networks, the research has identified the following:

1. Posts about a company's routine.
2. Posts about upcoming events.
3. Posts about the company's achievements and the company's news.
4. Relevant news from the industry.
5. Link to educational or academic articles (long-read).
6. Products' promotion.
7. Posts related to holidays (Local/ international).
8. Surveys.
9. Tech support and Q&A Sessions.
10. Information about working hours and technical issues a company may have.
11. Products or services related posts from the following categories:
  - FAQ about products
  - Product's new features releases and updates
  - New products and services releases
  - Case studies (Posts explaining an issue relevant to a product).

Such posts may have a form of plain text, text with image, or video. Table 6 identifies a mix of content the companies use on Facebook as well as provides key characteristics of Facebook's content such as the average length of posts and frequency of posting. The table based on the data obtained from Likealyzer online service and includes only those companies that have a presence on the platform as a registered community.

Table 6. Competitors' Facebook post analysis

Company name	Post per day	Average post length	Type of content		
			Photos	Notes	Videos
Eurofins Genomics	0.7	190	19%	76%	5%
Thermo Fisher Scientific	1	232	77%	20%	3%
Integrated DNA tech.	1.1	354	94%	3%	3%
Genesig	0.2	316	100%	0	0
Eurogenetec	0.1	209	100%	0	0
Premier Biosoft	0.1	219	100%	0	0
GenePattern	0.1	102	0	100%	0
Qiagen bioinformatics	0.1	257	25%	75%	0
Industry average	0.42	235	64%	34%	2%

Considering that on LinkedIn and Twitter the companies often post the same content as on Facebook, we may assume that this data represents overall social media strategy of the competitors in terms of frequency and type of the materials they use.

Unlike social networks mentioned above, YouTube, which is popular among almost 82 percent of the competitors (figure 20), serves for a bit different purpose. Specifically, it is an education of customers regarding products and services (including product support), direct and indirect promotion of products and services and brand promotion. As the content supporting the mentioned purposes, the companies use video manuals, tutorials, videos on how to use a product, webinars, products' new features videos, stories of success (use cases), and company routine related videos (news, reports from events, and testimonials).

Despite the similarities of the content posted across the mentioned social networks, some of them demonstrate better performance than others. As the metrics for the assessment of social media performance can be used the following: the number of followers, likes, comments, or shares (Agius 2016), where the latter three can be expressed as Engagement rate. Engagement rate is the number of likes, replies, retweets/shares, and mentions received relative to the total number of followers (Hootsuite 2018).

As can be seen from table 7, for Eurofins Genomics, Thermo Fisher Scientific, and Eurogenetec the most performing social media platform in terms of followers is LinkedIn, whereas for Genesig and Premier Biosoft it is Facebook.

Table 7. The number of followers on competitors' social media

Company	Facebook	Twitter	LinkedIn	YouTube
Eurofins Genomics	1 170p	296p	1 287p	10p
Thermo Fisher Scientific	71 248p	40 569p	270 166p	34 647p
Integrated DNA technologies	6 552p	11 227p	10 904p	2 000p
Genesig	1 932p	644p	862p	78p
Eurogenetec	1 627p	1 005p	3 515p	✖
Premier Biosoft	705p	122p	675p	3p
DNA Software	✖	758p	37p	37p
GenePattern	81p	570p	✖	171p
Qiagen bioinformatics	5 127p	9 575p	1 777p	2 700p
OLIGO	✖	✖	✖	✖
Unipro U-gene	185p	159p	✖	701p

Also, it is important to note that although the companies have a lot of social media followers, in most cases the engagement rate is quite low (table 8). According to Likealyzer analysis, on average for the sector, the engagement rate on Facebook varies between 1 to 3 percent. Although the used in this analysis tools and services do not provide the engagement rate for the rest of the social media platforms, knowing that the performance of

the same post across different platforms is quite the same, we may assume that engagement rate for Twitter and LinkedIn will be no more than 3 percent as well.

Table 8. Engagement rate on Facebook

Company name	Engagement rate	Number of Followers
Eurofins Genomics	1%	1 170p
Thermo Fisher Scientific	3%	71 248p
Integrated DNA technologies	1%	6 552p
Genesig	0%	1 932p
Eurogenetec	2%	1 627p
Premier Biosoft	1%	705p
DNA Software	N/A	N/A
GenePattern	3%	81p
Qiagen bioinformatics	0%	5 127p
OLIGO	N/A	N/A
Unipro U-gene	N/A	185p

Along with the different performance in terms of the number of followers and the level of engagement, each of the mentioned social media demonstrates a different contribution to website traffic (appendix 6). For example, in the case of Genesig company, as shown in figure 23, despite the company's presence on Facebook, Twitter, LinkedIn, and YouTube, only LinkedIn send traffic to the company's website.



Figure 23. The contribution of different social media to website traffic for Genesig company (adapted from Similarweb.com)

Additionally, to the discussed above four social media, companies such as Eurofins Genomics, Thermo Fisher Scientific, Integrated DNA technologies, Premier Biosoft, DNA Software, OLIGO, and Unipro U-gene have some mentions about them on Research Gate platform. This platform is quite popular within the industry. As the analysis has revealed, on Research Gate people share their experience with a product and advocate the brand, or just sharing their professional achievements with a reference on a product they used.

Also, Eurofins Genomics, Integrated DNA technologies, Eurogenetec, Premier Biosoft, GenePattern, and Unipro U-gene companies have a presence or mentions on social media platforms such as Instagram, WhatsApp messenger, Vkontakte, and Reddit. These

platforms have their specifics so that they are not that popular within the biotech sector. As the analysis revealed, the companies use them for Employer branding (hiring new staff or inviting students from developing countries for internship or collaborations) rather than for product promotion.

Along with mentioned above, 54.5 percent of the examined companies have a presence on Google+. Among these companies are Eurofins Genomics, Integrated DNA technologies, Eurogenetec, Premier Biosoft, GenePattern, and Unipro U-gene. Despite such popularity of Google+ within the sector, it fell out of this research because Google has announced that they are going to shut down the platform in the middle of 2019 (Google 2018).

Finally, some small percentage of the examined companies have personal blogs or forums which they tend to use for product support and engagement with customers. Among those companies are Thermo Fisher Scientific, Premier Biosoft, GenePattern, Qiagen bioinformatics, and Unipro U-gene.

#### **4.1.5 Video content the competitors post on social media and websites**

In essence, all video content the companies publish on social media can be categorized either as pre-recorded videos or live stream ones. Whereas the former group represents professionally made videos with decent graphic, script, and soundtrack, the latter group includes simply-made screen captured video that is good for live streams or webinars.

The following examples of prerecorded videos were found on the competitors' websites, Facebook profiles, and YouTube channels:


































- tutorials (How to use a product)
- use cases or testimonials
- product updates
- product ads /promotions.

As the examples of live videos published on websites, Facebook profiles, or YouTube channels can be found webinars and Livestreams from professional Events.

Whereas on a website or YouTube videos are uploaded and grouped into different categories (Playlists), on Facebook videos are not categorized and can be published either as a post with a link to videos hosted on other sites (including YouTube), or as native Facebook videos (uploaded or created on Facebook and played as a part of the news feed).

Table 9 represents the types of videos the competitors have on social media platforms. The data was obtained from Likealyzer analysis and the company's YouTube channels examination.

Table 9. Video content the companies have on social media platforms

Name	Native Facebook videos	– Facebook Link to prerecorded videos	– YouTube – videos
Eurofins Genomics			
Thermo Fisher Scientific			
Integrated DNA technologies			
Genesig			
Eurogenetec			
Premier Biosoft			
DNA software			
GenePattern			
Qiagen bioinformatics			
OLIGO			
Unipro U-gene			

#### 4.1.6 Most suitable digital marketing channels and tactics for the sector

As the analysis has revealed, Social Media Marketing, Content Marketing, Email marketing, and Search Engine Marketing are quite popular digital marketing techniques among the competitors. Therefore, they can be considered as the most suitable for the biotech sector.

As it turned out to be, the companies use SEM (incl. SEO and Paid promotion techniques) and Content Marketing for increasing website traffic and products promotion. SMM and Email marketing are vital for communicating with customers and building brand awareness. Also, with the help of SMM and Email marketing, the companies provide the latest news regarding the industry they operate, their products, and services.

Since each of the techniques has its purpose and serves to satisfy particular marketing objectives, there is no one-size-fits-all combination can be found. As a result, each company has a unique set of online channels that allow it to achieve specific marketing goals and objectives.

Moreover, even though some of the techniques may serve to satisfy the same objectives, their effectiveness is not always the same. For example, although both, email marketing

and SMM can be used for improving the number of visitors to a website, on average, emails demonstrate better results in this regard.

Another important finding from the research is that despite having different digital marketing techniques in the marketing arsenal, for most of the companies the primer source of website traffic is search engines. Therefore, methods such as SEO, Content marketing, and partly Paid search should be considered as the most effective in terms of brand or product promotion and building traffic to the company's website.

As the most commonly used website content within the sector, the research identifies content that belongs to the Education, Inspiration, and Convincing sections of the content marketing matrix. In terms of content formats, it can be published as text-based materials or as videos, where the latter can be prerecorded video as well as a live one.

Last but not least is the competitors' presence on social media. According to the research, despite Facebook, Twitter, LinkedIn, and YouTube are the most popular social media among the competitors, they all demonstrate a quite low engagement rate and, in most cases, require significant efforts to maintain a social media profile.

Another exciting outcome regarding social media is that, quite often, the companies tend to have an overall content strategy for all social networks where they have a presence. As a rule, companies make posts in the form of plain text (average length for the sector is about 240ch.) or combination of text and image. For streaming social media like YouTube, due to the different nature of the content, the companies have a separate content strategy.

#### **4.2 Survey of PrimerDigital's customers**

Although the competitor analysis has revealed a set of the most commonly used digital marketing techniques and approaches within the biotech sector, it is still unclear which ones are the most suitable for the PrimerDigital case. The best way to refine the list is to conduct a customer survey. Such an investigation may provide a vital insight into the preferences of PrimerDigital's customers regarding types and formats of content they like and digital channels that they more likely would use to learn more about the company's products.

Specifically, the survey helps to get essential information regarding the following issues:

- Where our audience does hang out online and which communication channels are the best to contact them?
- How did they find out information about the company and which channel brought them to the site?
- What types and formats of content they would like to receive regarding the products the company provides?
- What would be the best media platform for publishing the content?
- Which companies are the main competitors for PrimerDigitla's products from the customers' perspective?
- And finally, which, if any, issue regarding the website's usability and navigation does the company have?

As a result, instead of relying on the industry's trends as a guideline for the crafting marketing plan, PrimerDigital gets a chance to develop a digital marketing plan that will be informed by its customers' preferences (Cowman 2017, 19). Such an approach, ultimately, will lead to a more focused and efficient set of digital marketing techniques and allows to spend a marketing budget wisely.

#### **4.2.1 The structure of the survey**

To get an insight into the mentioned above issues, the author designed a list of questions. Those questions were carefully thought out and grouped into the four different blocks. The full list can be found in appendix 8. The purpose and the focus of each block are described further in the text.

The first block of questions, which includes questions number one and two (appendix 8), pursues the two goals. The first one is to reveal any information about specific channels from which the customers first have heard about the company. And the second one is to form a list of direct competitors, whose products the customers considered as an alternative option to PrimerDigital's products. As a result, it is possible not only to figure out the most reliable marketing channels in terms of delivering traffic to the site but also form a list of direct competitors whose digital marketing activities should be analyzed in more detail (HUBSPOT 2018, 8).

The second block of questions has focused on further product development and revealing issues that a product may have. Specifically, it includes questions number three, four, and five (appendix 8). The goal of this section is to understand if the customers are satisfied with a product, what they like most or least about it, and if they need some extra features to added to a particular product.

At first glance it may seem that such type of questions is useless from the digital marketing perspective, however, since they have a form of an open-ended question, by doing an in-depth analysis of the given answers, it is possible to get some insight that may be used in the digital marketing context as well. For instance, if people ask to add a feature that already exists in the current version of the product, it means that there is a lack of information regarding this feature. As a result, the company should consider this information in content strategy and create additional manuals or tutorials on how to use the feature. Moreover, further analysis of the given answers may also reveal particular words that can be used as keywords for product promotion, website search engine optimization, and content creation purposes.

The aim of the third block of questions, which includes questions number six and seven (appendix 8), is revealing issues regarding the company's website navigation and usability. By asking people how easy or difficult was it to find out, for instance, contact information or pricing on the site it is possible to understand if the website needs some optimization regarding these issues.

Questions number eight, nine, and ten (appendix 8) form the fourth block of questions. The intention of this block is revealing information about the customers' preferences regarding the content and social media platform that would be the most convenient for them to learn more about the company and the products it provides. Knowing the ideal social media platform and the particular types and formats of content the customers prefer, the company may prioritize a specific set of marketing efforts that allow staying focused and allocate needed resources wisely.

#### **4.2.2 Tools and communication channels used for the survey**

The moment this study took place, FastPCR software was the best seller of PrimerDigital's products. Thus, the survey was mostly focused on this particular product. To find the participants for the survey, have been leveraged FastPCR customer database. Due to the lack of the customers' contact information and lack of available resources, conduction of the survey by phone or in the form of a face-to-face meeting was impossible. Therefore, as the most appropriate channel for communication, was chosen email. Instead of asking people questions directly within an email message or sending them a questionnaire as an attachment, the author used emails for inviting people to participate in the study. The questionnaire itself was running on a specialized online survey platform. Nowadays, such an approach makes an analysis of given responses much more convenient and reliable.



The survey was conducted between July and August 2018 by emailing a list of 350 customers. The duration was one month.

As the survey platform was chosen SurveyMonkey, which has a range of useful features available for the platform's users. Among them are questionnaire design tools such as templates, typefaces, and page layouts that allows producing a professional-looking questionnaire with easy, a graphical representation of a survey's results, and built-in analytical functions that enable identification of the most frequent words and phrases in the given answers. All these features combined in the same package make the platform a perfect choice for companies that are going to conduct an online customer survey. An additional benefit of the service is that most of the mentioned above features are available even if the company use the service under a free account. The latter is especially crucial if a company has some budget constraints. Considering all the benefits the SurveyMonkey has, the platform has been favored over other available options.

Due to constraints of the marketing budget, the company used the SurveyMonkey platform under a free account. As a result, the total number of questions was limited to ten, where seven out of them had the form of multiple-choice questions, and the rest of them were open-ended ones. The full list of the survey's questions can be found in appendix 8. According to the SurveyMonkey's estimations, the accomplishment of the mentioned above set required about 3 to 4 minutes.

To make an invitation email campaign more efficient, instead of using simple email clients such as Gmail or Microsoft outlook, was used MailChimp service. The service allows not only to send out a massive email campaign with easy but provides lots of useful tools that help to create an invitation letter and monitor the progress of an email campaign. Whereas for crafting an email design the platform offers different types of templates, for tracking a campaign's progress it provides a number of KPIs to be measured. Among them are total number of delivered emails, open rate (shows the percentage of audience that have opened the emails we sent them), click rate (shows the percentage of successfully delivered emails that got at least one click), and bounce rate (shows the percentage of undelivered emails for an email campaign). All these KPIs are essential not only for understanding if an email campaign was successful or not but for discovering the most efficient versions of email design. (MailChimp 2018.) In other words, based on the mentioned above KPIs, it is possible to assess email campaigns performance and, if needed, to make some adjustments to the email's text or subject line. All the features mentioned above combined with the MailChimp pricing policy (absolutely free for up to 2 000 subscribers list and 12

000 emails per month), makes the service a perfect option for a company with a limited marketing budget.

Along with the mentioned above features, MailChimp provides some stats that can be used as a guideline for setting KPIs for a mail campaign. Although MailChimp’s data are categorized by industry type and size of companies, there is not the biotechnology software sector within the list. Therefore, for PrimerDigital campaign have been selected industries that are the closest to the company’s field of interest (biotechnology software industry).

Table 10 and Table 11 represent average email campaign stats of MailChimp customers in 2018. Whereas the former represents stats by industry, the latter provides stats by company size. With the help of this data have been defined KPIs for the PrimerDigital case.

Table 10. Average Email Campaign Stats of MailChimp Customers by Industry (adapted from MailChimp 2018)

Industry	Open Rate	Click Rate	Soft Bounce	Hard Bounce	Abuse Rate	Unsubscribe Rate
All non-labeled accounts	21.09%	2.61%	0.61%	0.39%	0.012%	0.23%
Pharmaceuticals	18.95%	2.39%	0.69%	0.55%	0.010%	0.20%
Professional Services	20.77%	2.39%	0.90%	0.61%	0.012%	0.30%
Software and Web App	19.81%	2.05%	1.02%	0.69%	0.011%	0.35%
Education and Training	21.80%	2.48%	0.54%	0.37%	0.009%	0.20%

Table 11. Average Email Campaign Stats of MailChimp Customers by Company Size (adapted from MailChimp 2018)

Company Size	Open Rate	Click Rate	Soft Bounce	Hard Bounce	Abuse Rate	Unsubscribe Rate
1-10	20.30%	2.60%	0.50%	0.30%	0.011%	0.27%
11-25	19.74%	2.25%	0.54%	0.35%	0.010%	0.23%
26-50	20.68%	2.56%	0.42%	0.28%	0.007%	0.17%
50+	22.10%	2.66%	0.50%	0.38%	0.008%	0.18%

As can be seen from the data above, despite the numbers differ from industry to industry, they all are pretty close to each other. According to MailChimp (MailChimp 2018), “the size of your company doesn’t typically make a difference on open rate or click rate”. Thus, for the assessment of the success of PrimerDigital campaign were used the average numbers for the four selected industries. Specifically, open rate is 20.5 percent, click rate is

2.4 percent, unsubscribe rate is 0.3 percent, and bounce rate is 0.7 percent for soft bounce and 0.5 percent for the hard ones.

As was mentioned at the beginning of this subchapter, in PrimerDigital case, the total amount of the survey campaign recipients was 350 people. They all were grouped in three different segments (Lists), where each has received its own version of invitations letter. Such segmentation was made with the intention to find out the most appealing subject line and the text of the message.

The first segment of recipients was used as a test batch. This email list consisted of 50 emails. Both, the text of the invitation letter and its subject line were written in quite a formal way (appendix 9, figure 1). As a result, despite 76 percent of recipients successfully received the email, only 18.4 percent opened it, and 10.5 percent clicked the link to the survey. Bounce rate was 24 percent, where soft bounces were about 4 percent, and another 20 percent were hard ones (appendix 10, figure 1).

As can be seen from the data above, the metrics for the first batch differ from the average numbers for the industry. Specifically, the open rate was 2.1 percent lower than expected, whereas the click rate was 8.1 percent higher.

According to MailChimp (2018), there are two possible causes of a low open rate. The first one is a non-resonant subject line of a sent email, and the second one is issues relevant to passing spam filters. (MailChimp 2018.)

To increase open and click rate for the second batch, the subject of the invitation letter has been changed significantly. According to Olivia Allen (2018), a subject line of an email written in the form of a question increases the chances that the email will be opened. Therefore, instead of formal "FastPCR software, survey invitation" was used "Can you help us make FastPCR software better?" question. Also, it was personalized by a recipient's full name with the help of MailChimp's merge tags.

Additionally to that, with the help of Glock App was conducted a spam analysis of the invitation letter. Since the investigation has revealed some minor issues regarding spam filters, the text of the invitation letter has been significantly redesigned as well (appendix 9, figure 2a).

As a result of the changes, the open rate and click rate for the second batch (91 recipients) were 36.2 and 8.6 percent respectively (appendix 10, figure 2). As can be seen from

the numbers, comparing to the first batch, the open rate was twice higher, whereas the click rate showed a decrease in 1.9 percent. Since the new subject line helped to increase the open rate, it remained the same for the third batch (209 recipients), whereas the design of the letter has been slightly changed again.

Although the number of recipients of the third batch was 209 people, the quality of the email list was significantly lower. Comparing to the previous two batches, the third one lacked personal data of the recipients, specifically - full name, position, and the name of a company a recipient work for. Without this data, emails cannot be personalized with the help of MailChimp's merge tags. Since impersonalized emails often perceived by recipients as spam, despite the usage of the same subject line as in the previous batch, all metrics for this one were not impressive at all. Specifically, delivery rate was 70.8 percent, Open Rate - 25.7 percent, Bounce rate - 29.2 percent, where 22 percent were hard bounces and 7.2 percent the soft ones. Click Rate was only 4.1 percent (appendix 10, figure 3). Table 3 sum up the results for all the three batches.

Table 12. Overall Email Campaign Stats for all three batches of invitation emails

Company name	Open Rate	Click Rate	Soft Bounce	Hard Bounce	Total bounce	Accomplishment of the survey
First batch (50p)	18.4%	10.5%	4%	20%	24%	2% (1p)
Second batch (91p)	36.2%	8.6%	6.6%	29.7%	36.3%	2.2% (2p)
Third batch (209p)	25.7%	4.1%	7.2%	22%	29.2%	1.95% (4p)
Overall(350p)	18.9%	4.3%	6.6%	23.7%	30.3%	2% (7p)

The total number of emails sent during all three campaigns was 350, where 244 were delivered (Delivery Rate- 69.7%), 106 were bounced (Bounce Rate-30.3%), 66 were opened (Open Rate-18.9%), and only 15 were clicked (Click Rate-4.3%). Also, it is important to note that despite the click rate was 4.3 percent, only 2 percent (7 people) of recipients accomplished the survey. Since the survey was conducted anonymously, it was neither possible to analyze who these people were nor contact them later.

As can be seen from the data above, almost one-third of the sent emails haven't been delivered to the recipients. According to MailChimp (2018), there are three reasons why bounces may arise. The first one is because the email list is old, and many emails does not exist anymore (so-called hard bounces), the second one is because an email did not pass through spam filter (hard bounce as well), and the third reason is because a recipient is temporarily unavailable, or his mailbox is full (Soft bounce). (MailChimp 2018.)

As the bounces rate analysis has revealed, the reason of such a high bounce rate (30.3%) was the poor quality of the email list rather than a design of invitation letter or harsh settings of the recipients' spam filters. As the reason of low click-through rate (4.3%) and low participation rate (2%) can be named a lack of promised rewards that would persuade people to participate in the survey. As can be seen from the invitation letters' text (appendix 9), instead of promising people some tangible rewards for participation, the text appeals to the ego of a scientific community. Although such an approach negatively affects the number of participants, it provides unbiased and honest answers.

#### 4.2.3 Findings from the survey

As shown in figure 24, four out of the seven respondents (57.14%) referred to their colleagues as a source from which they first heard about the FastPCR software. Another two respondents (28,57%) found out about the product from search engines, and one more person learned about FastPCR directly from the management of the company.

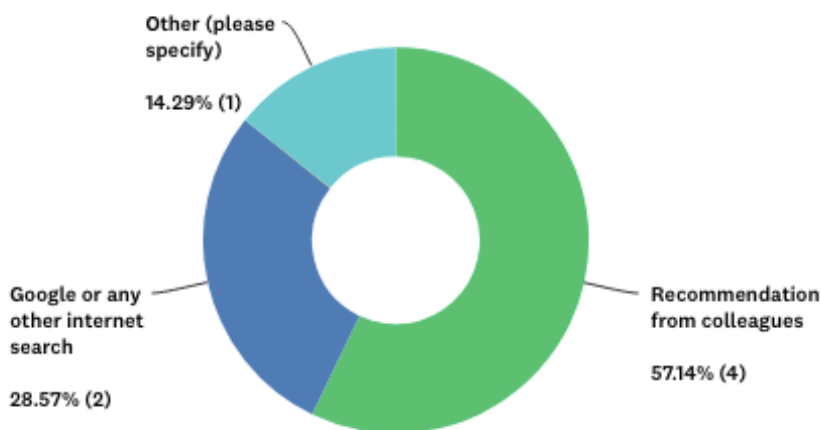


Figure 24. The channels by which customers found out about FastPCR software

As the alternatives that respondents considered before buying FastPCR, the study points out the following products: Geneious, Gene Runner, Primer3, LaserGene, and Primer-Blast software.

As to the level of satisfaction with the product, nearly all respondents of the survey are completely satisfied. Specifically, 71.43 percent of respondents (5 people) are just satisfied, and another 28.57 percent (2 persons) are very satisfied (figure 25).

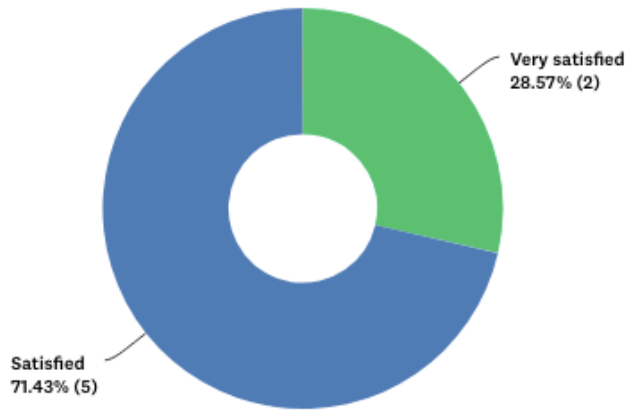


Figure 25. The level of PrimerDigital customers' satisfaction with FastPCR software

The findings on what people like most/least about FastPCR and if they have any thoughts on how to improve the software are confidential, so that, they are not presented in this paper.

Looking at figure 26 and figure 27, it is clear that most of the surveyed consumers have not had any issue with finding out the contact information on PrimerDigital website. However, one of the respondents has experienced some difficulties with finding information about FastPCR pricing.

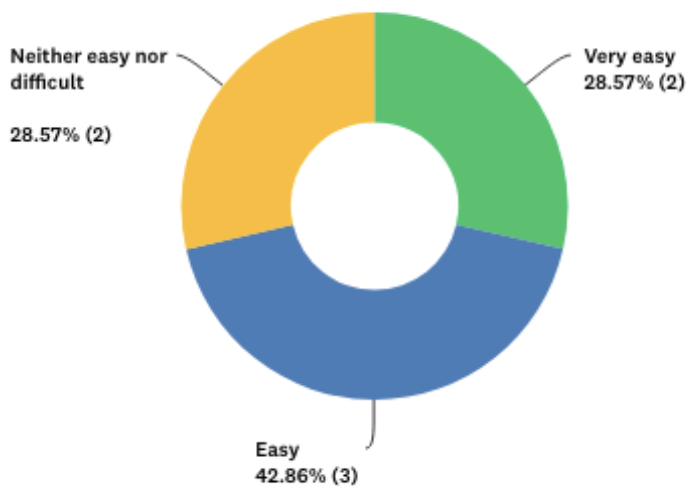


Figure 26. The level of difficulties the customers have experienced with finding out contact information on PrimerDigital website

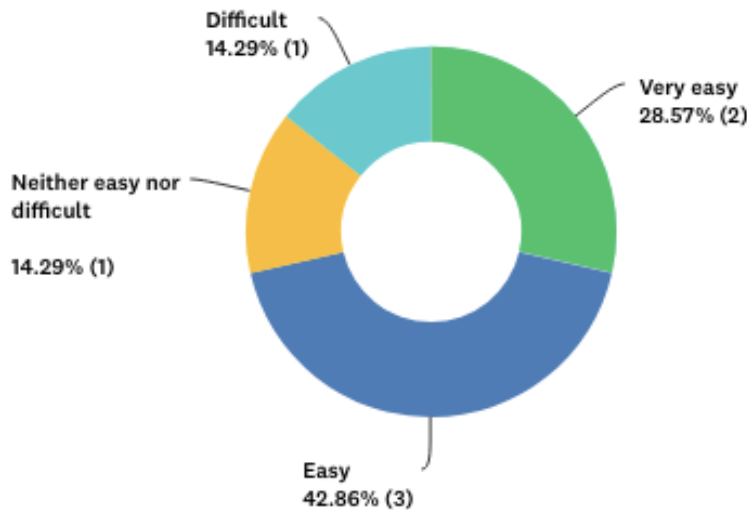


Figure 27. The level of difficulties the customers have experienced with finding out FastPCR prices on PrimerDigital's website

As can be seen from figure 28, in terms of types of the content, respondents would prefer case studies (71.43%/ 5 votes), Tutorials (57.14%/ 4 votes), Manuals and guidelines (42.86%/ 3 votes), and Testimonials (14.29%/ 1 vote) to learn more about the product.

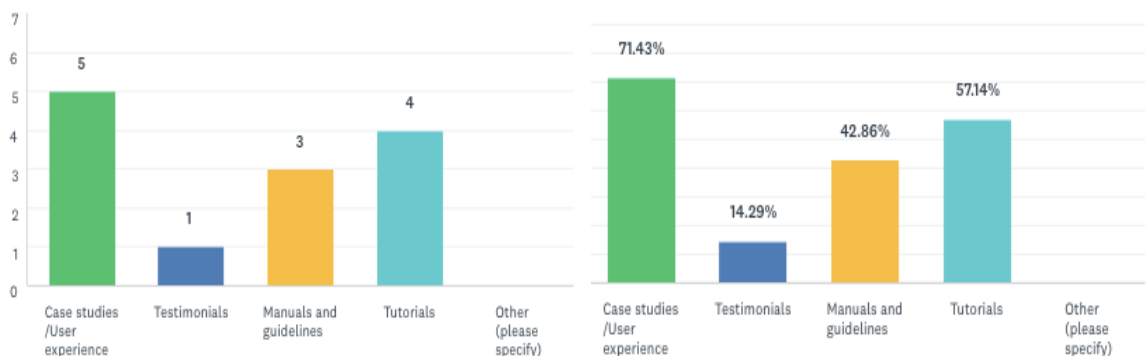


Figure 28. The types of content that the survey's respondents would prefer to consume regarding FastPCR software

As to the online formats of content, respondents would prefer to consumer product related information in the form of a video (57.14%/ 4 votes), email newsletters and shorter articles or blog posts (28.57%/ 2 votes). Besides that, one vote was given to long read articles, and one respondent specified that he would like to have some materials regarding FastPCR in the Japanese language (figure 29).

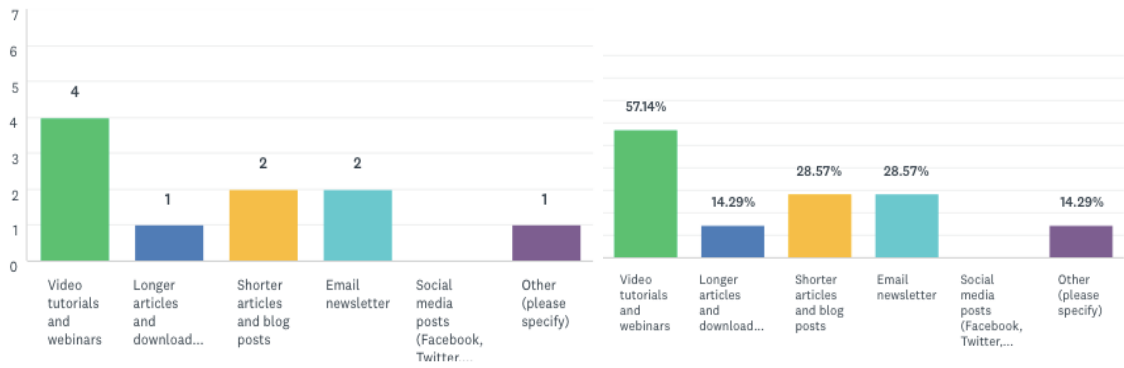


Figure 29. The formats of online content that the customers would prefer using to learn about the product

The last outcome from this survey is the set of the most convenient platforms for consuming FastPCR related content. As figure 30 shows, the respondents chose PrimerDigital's website (5 votes), YouTube (3 votes), Email Newsletters (2 votes), and LinkedIn (1 vote). Social networks such as Twitter and Facebook were not popular among respondents at all.

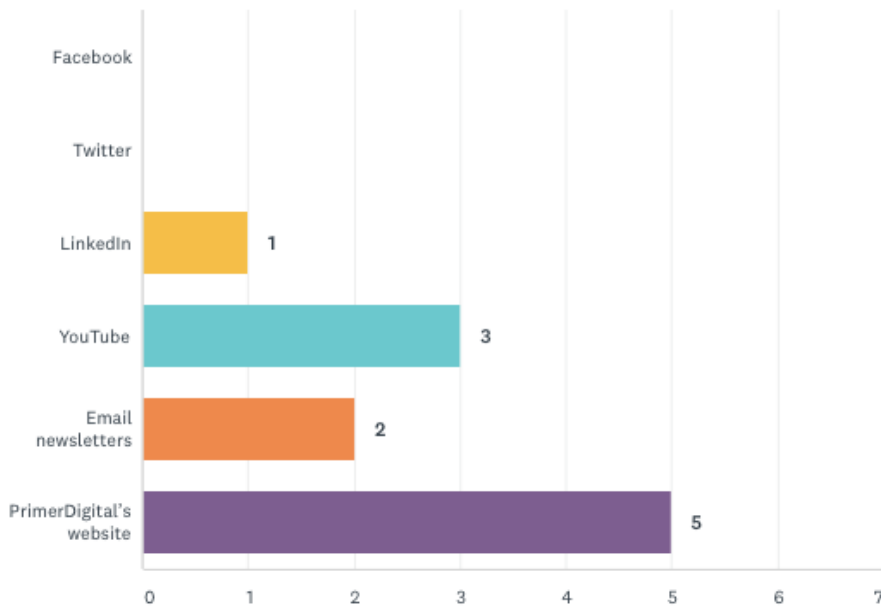


Figure 30. Media platforms that are the most convenient for the customers to learn more about the product

Although the findings mentioned above represents the preferences of only seven customers, this is the only information that the company can get regarding the digital marketing preferences of its customers. Therefore, this data should be taken into account and used at the planning stage to narrow down the list of options formed at previous stages of this research.



#### **4.2.4 Insight into the findings of the survey**

As the survey has revealed, the respondents would prefer using the company's website, YouTube, Email Newsletters, and LinkedIn as the most appropriate and convenient channels from which they would like to learn more about the company and products it provides. As the most desirable type of content, the survey suggests Case studies, Tutorials, different kinds of Manuals and guidelines, and Testimonials. To make such content easy to consume for customers, it should have the form of video, webinar, or short articles.

Taking into account this insight regarding media platforms and types of content, we may assume that PrimerDigital's website and its YouTube channel are the best options to post video content such as webinars and manuals. As for publishing articles and news regarding PrimerDigital's products, the company should use LinkedIn or a personal blog. Since the latter is also vital from an SEO perspective, the company should consider it as the most preferred option.

As some respondents would like to receive the latest news about FastPCR via newsletters, Email marketing should be considered as one of the main channels for communication with customers. Along with keeping existing customers up with products updates and the company's news, it is an excellent way to get contact information on the website's visitors. Having newsletters in a marketing arsenal enables the company to engage subscribers into a dialogue, which, is vital for guiding subscribers through a sales funnel and converting them into customers.

Also, newsletters are seen as a good way to get customer feedbacks which may provide a vital insight into further product development and content creation. All these opportunities make email marketing one of the most powerful communication channels for the company.

Along with emails, for the communication purpose, the company may also use social media such as YouTube and LinkedIn. Both platforms imply a comment section under each post, where the company may readily communicate with people. Since algorithms of both platforms consider a level of engagement, such an approach allows not only answer the customer's questions and learning about their experience with products but also increase the visibility of posts in their news feed.

The last but not least is the finding regarding the website design and usability. Since some of the respondents have experienced difficulties with finding pricing on the company's products, the current version of the website needs some small adjustments in this area. Along with making the site more convenient, such adjustment may positively affect the company's position in web search results.

#### **4.2.5 Limitations of the conducted customer survey**

The main limitation of the conducted survey was the size and quality of the customer database. Specifically, the company had only 350 email addresses in its customer database, where, as it turned out to be, almost 24 percent of entries were severely outdated. Moreover, some of the entries in the database were lacking personal data of the recipients, which made impossible personalization of the sent messages. As a result, some of the forwarded emails were considered by recipients as spam.

As the survey was conducted between July-August of 2018, some recipients were on their summer vacation. As a result, they received the company's survey invitation when the link was already inactive, and the survey was closed for participation. Due to a busy schedule of this research, changing the starting date or the duration of the survey was not possible.

A lack of rewards for participation can be appointed as one more limitation that affected the number of participants. Although the company could promise some monetary compensation for the survey participants, to get a fair result, management of PrimerDigital decided not to go with this option and instead appeal to the scientific spirit of the participants.

The last but not least is running the survey with the help of the SurveyMonkey platform under a free account. When using the service under a free account, it is not possible to customize neither a link to the survey nor questionnaires' design. As a result, It may look questionable to recipients and affect their decisions regarding participation in the survey. The main reason why the company went with the free account is budget constraints PrimerDigital has.

Although it was clear that these limitations may profoundly affect the number of participants of the conducted survey, they were inevitable due to limited resources and timeframe of the research.

### **4.3 The minimal set of digital marketing tools and channels needed for achieving the company's marketing objectives**

In order to define the minimal set of the most suitable digital marketing techniques for the company, it is necessary to clearly define marketing objectives the company currently has, and then align them with the findings from the conducted research.

As was mentioned at the beginning of this paper, the management of the company has defined the three main objectives. Among them were the following:

1. Rise Brand awareness among the scientific community and boost brand visibility.
2. Attract new visitors to the website and encourage them to try trials of products to grow sales.
3. Maintain a strong relationship with existing customers to rise advocacy of the brand and, as a result, reinforce the company's brand image on the biotechnological software market.

As can be seen from above, the objectives are quite broad and unmeasurable at all. According to Chaffey and Ellis-Chadwick (2016, 196-198), by applying the SMART concept to such broad objectives, it is possible to make them more specific and precise. The acronym stands for Specific, Measurable, Achievable, Realistic, and Timely (Chaffey & Ellis-Chadwick 2016, 673). As a result, with the help of the concept, PrimerDigital's objectives were defined as follow:

Objective 1: Rise Brand awareness among the scientific community:

- Increase the number of brand advocates by 10 percent within four months.
- Increase the number of shares of content, posts and marketing emails by 10 percent within four months.

Objective 2: Boost organic and paid visibility of the company on different search engines:

- Increase the number of organic/paid visitors from search engines by 10 percent within four months.

Objective 3: Attract new visitors to the website:

- Increase the overall number of visitors by 10% within four months.

Objective 4: Encourage visitors to try services and products (conversion from visitor to lead):

- Increase the number of trial downloads by 10% within four months.

Objective 5: Encourage visitors (who tried product) to purchase:

- Achieve a 10% lead to consumer conversion.

Objective 6: Encourage further purchases:

- Increase the number of repeat purchases by 10% within four months.

Objective 7: Maintain a strong relationship with existing customers:

- Increase the number of positive Feedbacks from customers by 10% within four months.

Since the objectives are clarified, it is time to align them with the relevant digital marketing techniques. Table 13 sum up digital marketing activities that required for achieving the mentioned above objectives.

Table 13. Digital marketing techniques needed for achieving PrimerDigitla’s marketing objectives

Objective	Digital marketing activities and techniques needed to achieve the objectives
Objective 1 (Rise Brand awareness)	<ul style="list-style-type: none"> <li>- Social media marketing – Helps to establish a presence on social media in order to communicate with the scientific community.</li> <li>- Content Marketing – is needed to provide valuable content that people would share.</li> <li>- Email marketing- is vital for nurturing loyal customers who would advocate the brand in the future.</li> </ul>
Objective 2 (Boost organic and paid visibility of the company)	<ul style="list-style-type: none"> <li>- SEO- optimization of the website’s pages will make it more valuable for search engines’ ranking algorithms and more relevant to people’s search queries.</li> <li>- Content marketing – with the help of quality content we can attract visits from different sources including search engines.</li> <li>- PPC - allows targeting a specific customer segment by particular keywords or personal data.</li> </ul>
Objective 3 (Attract new visitors to the website)	<ul style="list-style-type: none"> <li>- Content marketing/ Search Engine Marketing/ Email Marketing/ Social Media Marketing. These techniques combined will help to deliver new visitors to the website.</li> </ul>
Objective 4 (Increase visitor to lead conversion)	<ul style="list-style-type: none"> <li>- Content marketing- content such as Testimonials and Case study will work the best to convince visitors to try the product.</li> <li>- Social media publications and SEM help to promote the content.</li> </ul>
Objective 5 (Increase lead to consumer conversion)	<ul style="list-style-type: none"> <li>- Email marketing automation (welcome and follow up program) combined with right educative content is the best option for increasing conversion.</li> <li>- Content marketing provides content that will support email marketing efforts.</li> </ul>
Objective 6 (Increase the number of repeat purchase)	<ul style="list-style-type: none"> <li>- Content marketing should provide personalized content for email campaigns.</li> <li>- Email marketing (re-engage email program). Personalized loyalty program and email automation will help to increase the number of repeat purchases.</li> </ul>
Objective 7 (Maintain a strong relationship with the customers)	<ul style="list-style-type: none"> <li>- Social media and Email are good for getting close to customers, having a two-way dialogue is needed not only for retention but for building and maintaining long-term relations with customers.</li> <li>- Content Marketing- news about articles, webinars, content for a loyalty program.</li> </ul>

As can be seen from the table above, achieving each of the motioned above goals requires applying a particular combination of different approaches rather than a single unique technique. Therefore, none of the methods such as Content marketing, Search engine optimization, Email marketing, Social Media marketing, or PPC should be ignored in this plan.

To make this set more effective and precise, we need to combine the findings from the competitor analysis, the company's customers preferences, and literature review findings regarding effectiveness in terms of ROI. As a result, we will have the following set, where the order shows the priority:

#### Content marketing

Content marketing has the top priority for the company because the content plays an essential role for almost all digital marketing techniques the company needs for achieving its goals. In terms of the content marketing matrix classification, the company should focus on Educative, Convincing, and partly Inspirational type of content. Specifically, different kinds of guidelines and manuals, case studies, testimonials, tutorials, and webinars. To make the content easy to consume it should have the form of video or short articles. Such a set of content will cover all stages of the sale funnel and will be sufficient to support other communication channels. Moreover, having the right content on the website positively affects SEO efforts that are important for increasing the company's organic visibility.

#### Search engine optimization

Since most of the traffic within the sector came from search engines, SEO should be considered as the second most crucial technique within PrimerDigital's digital marketing arsenal. By doing SEO, the company may achieve not only organic visibility on most of the search engines and increase traffic to the website but also attract better quality visitors who are more likely to become loyal to the company.

#### Email marketing

Another vital element of PrimerDigital's marketing plan should be Email marketing and marketing automation. This channel is suitable for communication not only with customers but with prospects as well. Also, it allows using so-called email sequences that will guide leads through the sale funnel and will help to establish and maintain relationships with customers. Such sequences require a perfectly crafted and personalized content.

Whereas for existing customers the company needs to develop a Personalized loyalty

programs and Feedback forms, for newcomers it should be welcome and follow up programs combined with educational content and questionnaires that are important for revealing product related issues and the most effective marketing channels.

#### Social Media marketing

Based on the findings from the research, the most suitable social media for the company are YouTube, LinkedIn, and Research Gate platforms. Whereas YouTube should be used for publishing video content regarding products or the company, professional social networks such as LinkedIn, and Research Gate are suitable for posting text-based articles and for communication with followers.

Despite the benefits social media marketing may provide to the company, it has some drawbacks as well. Specifically, as the research indicates, comparing to the mentioned above digital marketing techniques, social media marketing has lower ROI and requiring a lot of resources for constant maintenance. Bearing in mind these issues and the budget limitations the company has, for PrimerDigital, social media should be considered as an extra option for the plan.

As an alternative option for social media, the company may use a combination of its website and Email marketing. Whereas the former will play the role of a content hub, the latter is useful for communication purposes.

#### PPC

The pay-per-click promotion also demonstrates a low return on investments. On top of that, it requires professional skills to make an advertisement campaign efficient. Thus, the best way for the company is to use paid promotion technique on an occasional basis rather than have it as a permanent part of the digital marketing plan. Moreover, to make an ad campaign efficient, the company should outsource the task to a professional marketing agency. Such an approach allows making the campaign not only efficient but less expensive and less resource-consuming in the long run.

The above-determined set of digital marketing techniques should be sufficient for achieving all seven marketing goals the company currently has. Therefore, this set will be used as a starting point for developing a digital marketing plan for PrimerDigital.

## **5 Development of digital marketing plan for PrimerDigital**

To develop a digital marketing plan for PrimerDigital, the author of this study used the conceptual framework presented in subchapter 2.9 (figure 16). Since the framework is based on PR Smith's SOSTAC® model, the overall structure of the plan was inherited from the model. Specifically, the structure of the digital marketing plan includes the following sections:

- Situational analysis
- The company's marketing objectives
- Strategies needed for achieving the objectives
- Tactics and actions for each of the selected strategies
- Set of KPI to control the efficiency of the plan
- Implementation schedule of the plan
- Appendices.

The following text outlines in detail the information each section of the plan outlines, and actions taken by the author at each stage of the development process. The final version of the developed plan can be found in the appendices section of this paper (appendix 14).

### **Situational analysis**

The first section of the plan is Situational analysis which considers all aspects of the digital environment the company operates. Specifically, the company's current activities regarding digital marketing, its competitors' tactics and approaches regarding digital marketing, a portrait of an ideal customer to be targeted, and the set of the most suitable digital marketing channels and tools for the sector. Along with that, this section includes a SWOT analysis that sums up the strengths and weaknesses of the company regarding digital marketing and provides an overview of factors that may affect the company's digital marketing success.

In essence, the situational analysis is kind of summary of the information obtained from the competitor analysis, the survey with the company's customers, review of PrimerDigital's online marketing activities, and insight regarding PrimerDigital's customer combined with the SWOT analysis of the company. Therefore, the author distilled the most crucial data and outlined the outcome within this section.

### **Objectives**

Whereas situational analysis is based on the outcomes from the conducted research, marketing objectives were defined by the management of the company at the beginning of the study. Specifically, the management wanted to Rise Brand awareness among scien-

tific community and boost brand visibility, attract new visitors to the website and encourage them to try trials of products, grow sales, maintain a strong relationship with existing customers to rise advocacy of the brand, and reinforce the company's brand image on the biotechnological software market. Since such objectives were too broad, to make them more specific, measurable, and achievable, has been used the SMART objectives concept. As a result, this section provides a clear set of objectives for further achievement.

### **Strategies**

In this section were defined strategies that the company should follow to succeed in its digital marketing endeavor. Among them were the three main strategies, that play a role of backbone for the plan, and two optional ones that should be implemented either partially or in full dependently on the company's marketing budget size. Specifically, Content strategy, Search Engine Optimization and website adjustment strategy, and Email marketing and marketing automation strategy were the main three, whereas Social media marketing and Paid promotion strategies were optional. Such a set of strategies should be sufficient for achieving all the objectives the company has.

### **Tactics and actions**

Tactics and actions section, along with specific activities for each of the defined strategies, provides recommendations on resource allocation and tools needed for the strategies' implementation. Also, the section includes some metrics that should be continuously controlled to measure the effectiveness and impact of each strategy separately. The summary of intermediate metrics can be found in the appendices section of the plan.

### **Control**

Whereas the KPI defined previously allows to find out what works best for the company and what doesn't work, the metrics from this section helps measure the effectiveness of PrimerDigital's online marketing plan in general and understand if the marketing objectives are achieved. In total, it was nine KPI that presented in the form of a table, where along with an explanation of what should be measured was provided a set of sources of the data needed for the assessment. Also, the section provides information about how often and how long the company should track and measure changes in the defined key performance indicators. Precisely, as the time horizon for the control, has been determined a four months period, where the monitoring of KPI should take place every two-week interval.



### **Implementation schedule of the plan**

The last but not least is the Implementation schedule section. The implementation schedule has the form of the Gantt chart that sums up the task needed to be accomplished to achieve PrimerDigital's marketing objectives. Specifically, it highlights starting points and deadlines for 17th tasks over the four months. Also, the tasks were grouped by colors, where color indicates a strategy to which tasks belong.

Since the moment the plan was developed, neither the marketing budget nor the number of people involved in the implementation phase was clear, the compiled implementation schedule is rather preliminary and needs to be adjusted according to the allocated resources when they are clear.

## 6 Discussion

This chapter provides an overview of the research findings in the form of answers to the research questions, defined at the beginning of this paper. Along with that, it presents the project outcome as well as the result of the implementation phase, the author's reflection on learning from the project, and conclusions and recommendations for further development.

### 6.1 Answers for the research questions

Although the main research question of this paper was formulated as "How to create an effective digital marketing plan for a Finnish startup company with a limited budget?", the author decided to break it down to the following sub-questions:

- Which digital marketing techniques, tools, and tactics currently exist?
- Which digital marketing techniques are most cost-effective?
- Which digital marketing techniques, channels, and tactics are most suitable for the biotech sector?
- What is the minimal set of digital marketing techniques, tools, and channels needed for achieving the company's marketing objectives?

Such an approach was needed to answer the research question fully and to create an effective digital marketing plan for the commissioning company. While in most cases of developing a digital marketing plan for companies answering the first three sub-questions would be sufficient, in case of PrimerDigital, due to budget limitations the company has, finding the minimal set of digital marketing techniques was the essential part of the research as well. The following text sums up the findings of the research and provides the answers to each sub-question defined above.

As it turned out to be, there are six digital marketing techniques that companies used in their digital marketing arsenals in 2018. Among them are Search engine marketing (SEM) that includes Search engine optimization (SEO) and Pay-per-click advertising (PPC), Content marketing, Social Media Marketing (SMM), Affiliate marketing, and Email marketing. Each of the techniques has its purpose and allows achieving a particular set of marketing objectives. The Customer lifecycle concept (CLC) described in detail in subchapter 2.3 depicts how they should be applied through different phases of a customer's relationship with an organization.

Along with that, the literature review section presents some digital marketing tools and planning models that being combined, provide an opportunity to create a sophisticated

digital marketing plan for almost any type of business. Among them were Content Marketing matrix, Social media marketing radar, SMART objectives concept, PR Smith SOSTAC®, and Smart Insights' RACE planning models.

In terms of ROI, the literature review identifies SEO, Content marketing, and Email marketing as the most cost-effective digital marketing channels. Paid advertisement techniques and SMM were rated significantly lower in this regard.

To understand what digital marketing techniques, channels, and tactics are most suitable for the biotech software sector in general, and work for the company in particular, in addition to the literature review, the author carried out the competitor analysis and the survey of PrimerDigital's customers.

According to the findings from the competitor analysis, digital marketing techniques such as Social Media Marketing (SMM), Content marketing, and Email marketing are the most commonly used in the sector. The techniques such as SEO and paid promotion (Paid Search, and Display advertising) are less popular among competitors. As most suitable communication channels for the sector, the analysis suggests social media such as Facebook, Twitter, LinkedIn, and YouTube.

As to the company's customers preferences regarding types and formats of a product-related content, the research identifies Case studies, Tutorials, or Manuals as most appropriate types, where each of these may have a form of video, short articles, or blog posts. As to the delivery channels, videos can be promoted via YouTube, whereas for the promotion of text-based materials email or the company's site suite the best.

Combining the findings on the best practices in digital marketing for the biotech software sector together with the preferences of the company's customers, the author defined the minimal set of digital marketing techniques that were aligned with PrimerDigital's marketing objectives and prioritized according to their effectiveness regarding ROI.

As a result, the minimal set of digital marketing techniques that should be sufficient for achieving PrimerDigital's marketing objectives includes the following:

1. Content marketing, with the stress on the following types of content:
  - Tutorials
  - Manuals and guidelines
  - Case studies
  - Testimonials
  - Webinars
  - Short articles and blog post.

2. Search Engine Optimization.
3. Email marketing.
4. Social Media Marketing in part of YouTube and LinkedIn, where the latter is optional.
5. PPC marketing (optional).

Based on this set and the conceptual framework defined in chapter 2.9, the author created the digital marketing plan for the commissioning company.

To understand whether the defined set of digital marketing techniques, tools, and channels were efficient and sufficient for achieving the objectives of PrimerDigital, it is necessary to implement all the parts of the plan and analyze the empirical data collected at the implementation stage.

Although the moment this paper was finished the company has implemented the developed plan only partly, it is possible to gauge the effectiveness of the plan by comparing the implementation outcomes with the company's marketing objectives defined at the beginning of this study. This comparison presented in the following subchapter.

## **6.2 The outcome from the implementation stage**

As the primary outcome of this study, the commissioning company has received the digital marketing plan that is devised to achieve the entire list of the marketing objectives defined by the management of PrimerDigital. Besides the plan, the company has received some reports that summarize key findings from each stage of the research and can be used as a guideline for conducting further customer surveys and competitor analysis.

Unlike the reports that were provided to the management of the commissioning company after each part of the research, the developed digital marketing plan was presented to the company at the final presentation event which took place on 1 of October 2018.

During the presentation, the author described in detail all the strategies and tactics the company should follow to achieve tangible results regarding marketing objectives it has. The presentation of the plan was followed by a discussion where the author made some additional recommendations regarding the time frame and resources needed for the implementation phase.

Although the presentation of the plan went successfully and none of the presented strategies was neither criticized nor denied, due to financial difficulties PrimerDigital experienced in 2018, the management of the company decided to reduce the implementation

scope of the plan. After a careful assessment of the available resources, the CEO of the company has agreed to implement only those tasks that could be accomplished by PrimerDigital's team and the author of this paper. The time frame for the implementation was defined as four months, precisely, the period between the 8th of October to the 1 of February.

As a result, the moment this paper was finished, the company has implemented the following tasks. In part of the Website adjustments and Search Engine Optimization strategy have been done improvements regarding webpages design and usability, GDPR compliance of the website, and a revision of the FastPCR-related content. Also, the site was added user registration form needed for gathering visitors' contact information, and addressed minor issues regarding SEO. Tasks such as the website's mobile responsiveness and other technology-related aspects of SEO strategy require third-party contractors. Thus they are still in progress.

In part of the Email marketing and marketing automation strategy have been done the integration of MailChimp service with the website's registration form, configured and launched email marketing Opt-in sequences, and thought out the customer database segmentation.

As to the Content marketing strategy, although most of the tasks were out of the implementation scope, the company has already accomplished tasks that were vital for the email marketing automation (Opt-in email sequence) and website adjustments part. Precisely, have been revised and refreshed the product' manuals, guidelines, and FAQs. Along with that, was designed a set of questionnaires needed for carrying out customer satisfaction surveys and getting products' feedback. Such a set of content allowed to run the Opt-in sequence that has a focus on the client's database development. Because the Content strategy was not implemented entirely, the implementation of the Customers relationship nurturing sequence, as well as the loyalty program, was postponed for 2019.

As to the implementation of the Social media strategy, since it was optional, the CEO of the company decided to make only some visual changes of the PrimerDigital's YouTube channel. The content published on the channel remains to be the same.

To understand if the mentioned above efforts were effective for the company is necessary to analyze which out of seven marketing objectives defined earlier in this paper (subchapter 4.3) PrimerDigital has achieved so far.

The first objective the company was hoping to achieve was rising brand awareness among the scientific community. Alternatively, as was stated in subchapter 4.3 – to increase the number of brand advocates by ten percent within four months, as well as to increase the amount of shared content, marketing posts, and marketing emails by ten percent within the same period. Since the achievement of these goals solely depends on digital marketing activities that were out of the implemented scope, these goals have not been achieved yet.

Objective number two and three were the attraction of new visitors to the website and boosting brand visibility on search engines. Specifically, objective two implied an increase of the overall number of visitors for ten percent within four months, whereas objective three involved at least ten percent increase of visitors (organic and paid ones) that came directly from search engines within the same four-month period.

As can be seen from PrimerDigital's Google Analytics data (appendix 12, figure 1), in the period between June-September, the average number of the website's visitors was around 3.2 thousand people per month, whereas for the implementation period (October-February) the average number of site's visitor is 4.7 thousand per month. Comparing these data, we can see that the company has achieved a 46 percent increase in the number of website visitors per month. As to the visibility on search engines, this goal has been made as well. As can be seen from the breakdown of website traffic sources (appendix 12, figure 2), in the period between June and September, search engines sent 8.5 thousand people or 66.1 percent of all traffic to the website, whereas in the period between October and February, this number is 13.8 thousand people or 73.1 percent of overall traffic. Hence, the average number of visitors per month has increased by 61 percent, which is six times more than the expected outcome. Since Paid promotion was out of the implementation scope, all the traffic from search engines is purely organic.

The next objective (Objective 4) was to encourage visitors to try services and products (increase visitor-to-lead conversion), or as it was stated in subchapter 4.3 – to increase the number of downloads of FastPCR trial by ten percent.

According to Google Analytics data (appendix 12, figure 3), there were 749 downloads of the software between the first of October and the first of February, whereas in the period from the beginning of May to the beginning of September visitors downloaded the software 722 times. Comparing these data, we may see that the number of FastPCR downloads has risen only by 3.74 percent instead of the expected 10 percent. The main reason why the increase was not as high as expected is a mandatory registration on the website,

which each visitor must accomplish to get the link for the software trial downloads. Although such an adverse effect was entirely predictable, the benefits the user registration provides are more important for the company.

As to the visitor-to-lead conversion, because the old architecture of the website allowed visitors to download the trial anonymously and multiple times, it is not possible to calculate the conversion for any period before the implementation. However, due to adjustments of the website made during the implementation period, now calculation of the conversion rate is possible. To do that the company needs to know two variables from Google Analytics – the number of unique pageviews of the FastPCR page, and the number of people accomplished registration process. The current visitor-to-lead conversion is 13.4 percent (appendix 12, figure 4). From now on the company may easily track this indicator.

Objective number five was to encourage visitors who already tried the trial to purchase the full version of the product (achieve 10% lead-to-consumer conversion). Unfortunately, this objective has not been completed yet. As the primary tool for accomplishing the goal was chosen email marketing automation. Specifically, during the implementation period were tested out two different sets of messages, where the main difference between each was emails' release schedule, emails design, and topics of letters. Although open rate in both cases was quite high (appendix 12, figure 5), according to the management of the company, the conversion remains the same as before the implementation. Considering that both cohorts showed quite close results, instead of making further adjustments of the letters, the company should try adding to the messages appealing content such as testimonials, tutorials, and case studies. To do that it is necessary to implement the Content strategy entirely as soon as possible.

Objective six was to increase the number of repeat purchases by ten percent within four months. For achieving such a result, first of all, the company should have implemented the customer's relationship nurturing sequence presented in the Email marketing strategy, and also perform the content strategy in full. Since these tasks were out of the implementation scope, this objective has not been achieved yet.

The last objective of the company was to maintain a strong relationship with existing customers. Currently, with the help of email marketing (Opt-in email sequence), the company has established a two-way communication channel with FastPCR users. Thanks to this channel, the company receives feed-backs on the product (appendix 12, figure 6) and stays in touch with people who are willing to share their experience. Although those people are not customers yet, their suggestions help improve the product and reveal issues

that the website visitors have experienced. As a result, objective seven can be considered as partly achieved. To achieve it in full the company should run the loyalty program which was out of the implementation scope.

Since the implementation required a massive groundwork regarding analysis of customers' behavior and the product purchase process, besides mentioned above outcomes, the company has also received a detailed description of customer journey and sales funnel, which can be used by the company as an instrument allowing to track and measure indicators affecting customer conversions at different stages of the funnel.

Even though the initial plan was implemented only partially, as was shown above, the developed digital marketing plan turned out to be quite effective, and during the four-month implementation period, the company has already received a number of positive outcomes.

As a result, the management of PrimerDigital has appreciated the importance of digital marketing for the company in general and has considered not only a full accomplishment of the developed digital marketing plan by the end of 2019 but also scaling it for the rest of the company's products and services. Along with an appreciation of the accomplished research, the CEO of the company has valued the author's contribution to the implementation of the developed plan and provided to the author a Thank-you letter.

### **6.3 Research validity and reliability**

While the term reliability refers to replication of research results in case of following the same research design and the same research approaches, validity refers to the appropriateness of the used methods. As a result, both, reliability and validity are critical for assessment of the quality of the conducted research. (Saunders & al. 2016, 202.)

Although this research is focused on the particular phenomenon at the specific company (Case study) and, as a result, the findings are not expected to be the same for any other company operating on the same market, the research findings should be replicable at least for the company under research. To make it possible and to establish the quality of this research, the author has undertaken approaches and techniques described further in the text.

First of all, this paper provides a detailed explanation of the research design, context of the research, and methods used for the data collection and analysis. Along with that, it provides an accurately written research documentation, which covers all the stages of the



conducted research. Moreover, the instruments and data sources used for the data collection and data analysis in this research are free to use and are available for anyone who wishes to repeat the process. Finally, the list of questions used for the survey and the assessment form used for competitor analysis is attached as a part of this paper as well.

The assessment form used at the competitor analysis stage has a clear and easy to use structure. Along with that, it provides detailed instructions on how to accomplish examinations of different online entities and identifies which information should be collected at each step of the analysis.

As to the questionnaire for the customer survey, it was written in the way that all participants would understand the questions in the same way. For this matter, the list was approved by management of the company and checked and corrected by an English native speaker who has no background relevant to digital marketing or the topic under research. Also, to make the process transparent and easy to repeat, along with the questionnaire, this paper provides the names of the online services being used.

Although the measures mentioned above make the process of the data collection and analysis transparent, and allow replicating the process with the similar results (Saunders & al. 2016, 202-205), it is important to note, that, due to the possible changes in the online landscape in general and in the examined online entities in particular, there might be some differences in the outcomes.

As the second factor defining the research quality is the research's validity, it is essential to describe the measures taken to address the validity issues as well.

In this study, due to the mixed method research design, the validity of findings was ensured by Triangulation technique. The idea behind this approach is that data collected from different sources should support each other (Saunders & al. 2016, 170, 173, 270).

Specifically, the outcome from the conducted competitor analysis reinforces the findings from the literature review and supports the initial proposition made at the stage. The conclusions of the conducted customer survey also underpin the data obtained earlier. Precisely, they not only correlate with the theories explored in the literature review phase but, to some extent, support conclusions made at the competitor analysis phase. Therefore, although the number of the survey's participants was quite small (7 people out of 350 invited) and the results could not be considered as the generalized opinion of the majority of

PrimerDigital's customers, these findings were considered as valid and applicable for the case.

Along with that, the author used Participant or member validation technique, which also helps to increase the validity of the research. This method is based on the review of the research data by participants or members, with the following confirmation of the data accuracy (Saunders & al. 2016, 207). Particularly in this research, the method was used in the following way- after accomplishing each part of the study, the author has provided a report with findings to the commissioning company in order to allow the management of the company to review and critic the outcomes and to get an approval running the next stage of the research. Along with the findings, such reports provided detail explanations of the process by which the data were collected and analyzed.

One more validity issue addressed in this research is different forms of researcher and participant biases. To eliminate participant bias the survey and the competitor analysis were conducted entirely anonymously and without promising any rewards or benefits to participants. As to researcher bias, to reduce it, the author has provided a number of screenshots verifying the findings, and used SurveyMonkey platform's embodied analytical tools for data analysis. As a result, while anonymity allowed to get unbiased and honest answers, the screenshots and tools ensured the transparency of the data collection and limited the probability of deliberate distortion of the collected data. (Saunders & al. 2016, 203, 244, 714.)

Combined the discussed above basic principles of reliability and validation techniques, the author has established the high quality of this research.

#### **6.4 Personal reflection on the learning from the project**

As was mentioned at the beginning of this paper, besides delivering value to the company, the author was hoping to deepen his theoretical knowledge regarding digital marketing and apply it throughout a practical context. In other words, the author perceived this thesis writing process as a win-win solution for both, the company and himself. Whereas for the company this research allowed to achieve its marketing objectives and business goals, for the author, accomplishing of the research was an excellent opportunity to reach his personal academic goals. Among them were obtaining skills in digital marketing planning, conducting a comprehensive analysis of competitors and the company regarding digital marketing, creating and launching email marketing campaigns, conducting of customer satisfaction surveys and gathering product feedbacks, and finally, mastering project

management skills that are vital for developing a digital marketing implementation schedule which would allow to deliver results to the company on time and on budget.

All those learning goals have been successfully achieved by the author during this project. Along with that, the budget limitation that the company had, allowed the author to try himself in the role of digital marketing manager. As a result, he has obtained a real working experience which comprised not only close work with the management of the company but also interactions with third-party contractors and the company's clients. Also, the financial difficulties the company had during this research has provided an excellent opportunity to discover a set of free to use professional digital marketing tools and services that can be used by the author in the future.

## 6.5 Conclusions and recommendations for the future

Considering all mentioned above, we may conclude that the author indeed created the effective digital marketing plan for the company, broadened his knowledge and risen skills regarding digital marketing planning, and has gained valuable work experience from the implementation phase. By this, he has successfully achieved all the goals of this research. Table 14 sums up the research outcomes in the form of comparison of the achieved results with the research objectives defined by the author at the beginning of this work.

Table 14. Research outcome vs. research objectives

Research objectives		Outcome
Objective 1	Create an effective digital marketing plan for the company.	The objective is achieved
Objective 2	Rise personal knowledge and skills regarding digital marketing to a new level.	The objective is achieved
Objective 3	Try to apply obtained knowledge in real life context to gain new skills and working experience.	The objective is achieved
Objective 4	Deliver value to the company throughout helping to achieve some of its marketing goals.	The objective is achieved

Since the management of PrimerDigital has appreciated the accomplished work and decided to implement the rest of the developed digital marketing plan in 2019, the author has provided for the company the following recommendation for further development.

First and foremost, the company should focus all its efforts on the full implementation of the Content and Email marketing strategies. By doing so, the company will be able not only to increase brand and product awareness among the scientific community but also will increase the number of brand advocates and improve the lead-to-customer conversion. Moreover, implementation of customers relationship nurturing sequence in part of email marketing will help to increase the number of repeat purchases and maintain strong relationships with customers in the future. All these efforts will ultimately lead to an increase in the company's sales.

Although the company has already made lots of improvements regarding its website, it still needs some adjustments. Hence, it is vital to accomplishing all tasks regarding the SEO strategy as well. What is more important, is that the company should conduct an SEO audit regularly in the future.

Besides that, it is recommended to monitor any changes happening within the market and conduct a competitor analysis at least twice a year. Also, the company should leverage its customer database and conducts customer satisfaction surveys regularly. Such an insight may not only help find new market opportunities, but also find new ideas for the content strategy, develop strong connections with the customers, and continuously develop products and services according to the marketing needs.

The last recommendation is to employ a person who would be exclusively responsible for digital marketing within the company. Preferably, such a person should be an English native speaker with a biotechnology background. In this case, along with the general management and implementation of digital marketing tasks, such a person could handle content creation and text editing tasks.

Along with the recommendations given above, the author has developed a schedule that outlines the steps the company should take in the future to achieve its marketing goals entirely (appendix 13). The outlined set of tasks implies employment of at least one person who has experience in digital marketing and is capable of implementing this work. Also, as a timeframe for the implementation, the author chose four months. By following the schedule, the company will be able to complete the developed digital marketing plan fully and accomplish the list of the marketing goals defined earlier.

## References

An, M. 2017. State of Inbound 2017. HubSpot. (PDF) URL: <http://vasvalch.com/mktg-school/State-of-Inbound-2017.pdf>. Accessed 17 April 2018.

Agius, A. 2016. 10 Metrics to Track for Social Media Success. URL: <https://www.socialmediaexaminer.com/10-metrics-to-track-for-social-media-success/> Accessed 10 July 2018.

Allen, O. 2018. How to Write Catchy Email Subject Lines: 19 Tips. URL: <https://blog.hubspot.com/marketing/improve-your-email-subject-line> Accessed 18 August 2018.

Beets, L. 2018. 5 Things Highly Committed Content Marketers Do Better [New UK Research]. URL: <https://contentmarketinginstitute.com/2018/01/committed-marketers-uk-research/>. Accessed 25 March 2018.

Beets, L. & Handley, A. 2017a. B2B content marketing: 2018 Benchmarks, Budgets, and Trends—North America. URL: <http://contentmarketinginstitute.com/2017/09/research-habits-content-marketers/>. Accessed 29 March 2018.

Beets, L. & Handley, A. 2017b. B2C content marketing: 2018 Benchmarks, Budgets, and Trends—North America. URL: <http://contentmarketinginstitute.com/2017/12/marketing-teams-b2c-research/>. Accessed 29 March 2018.

Bosomworth, D. 2015a. The Content Marketing Matrix. URL: <https://www.smartinsights.com/content-management/content-marketing-strategy/the-content-marketing-matrix-new-infographic/>. Accessed 5 April 2018.

Bosomworth, D. 2015b. The Social Media Marketing Radar. URL: <https://www.smartinsights.com/social-media-marketing/social-media-strategy/social-media-marketing-radar>. Accessed 8 April 2018.

Businessdictionary 2018. Digital Marketing definition. URL: <http://www.businessdictionary.com/definition/digital-marketing.html>. Accessed 5 February 2018.

Burney, K. 2016. The Most Effective Marketing Channels for Your B2C Business URL: <https://trackmaven.com/blog/most-effective-marketing-channels-b2c/>. Accessed 1 March 2018.

Cisco 2017. Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016–2021 White Paper. URL: <https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>. Accessed 10 March 2018.

Chaffey, D. 2015. Digital Business and E-Commerce Management Strategy, Implementation and Practice. Sixth edition. Pearson Education, Edinburgh Gate.

Chaffey, D. 2017. Introducing RACE: a practical framework to improve your digital marketing, URL: <https://www.smartinsights.com/digital-marketing-strategy/race-a-practical-framework-to-improve-your-digital-marketing> . Accessed 25 February 2018.

Chaffey, D. 2018a. What is Digital Marketing? A visual summary. URL: <https://www.smartinsights.com/digital-marketing-strategy/what-is-digital-marketing/>. Accessed 5 February 2018.

Chaffey, D. 2018b. What is customer lifecycle marketing? URL: <https://www.smartinsights.com/ecommerce/web-personalisation/what-is-lifecycle-marketing/> . Accessed 5 February 2018.

Chaffey, D. 2018c. 10 reasons you need a digital marketing strategy in 2018. URL: <https://www.smartinsights.com/digital-marketing-strategy/digital-strategy-development/10-reasons-for-digital-marketing-strategy/>. Accessed 13 May 2018.

Chaffey, D. 2017. What percentage of businesses have a digital marketing strategy? URL: <https://www.smartinsights.com/digital-marketing-strategy/percentages-businesses-digital-marketing-plan/>. Accessed 29 November 2017.

Chaffey, D. & Ellis-Chadwick, F. 2016. Digital Marketing, Strategy, Implementation and Practice. 6th edition. Pearson Education Limited. Harlow.

Chaffey, D. & Jones, R. 2017. Managing Digital Marketing in 2017, Best practices for integrating digital technology, marketing and advertising to fuel business growth. Olympia. London. (PDF).

Chaffey, D. & Smith, PR. 2013. Emarketing Excellence, Planning and optimizing your digital marketing. 4th edition. Routledge. Abingdon.

Charlesworth, A. 2015. An introduction to a social media marketing. Routledge, Abingdon.

Collins A. & Conley M. 2017. Video Marketing: The Complete Guide to Creating a Video Marketing Strategy. URL:<https://blog.hubspot.com/marketing/video-marketing>. Accessed 6 May 2018.

Cowman, S. 2017. Marketing Plans guide. (PDF) Smart Insights. URL:<https://www.smartinsights.com/advice/marketing-plans-guide/>. Accessed 11 May 2018.

Coles, L. 2015. Marketing with Social Media: 10 Easy Steps to Success for Business. Wiley. Milton.

Contentmarketinginstitute 2017. What Is Content Marketing? URL: <https://contentmarketinginstitute.com/what-is-content-marketing/> . Accessed 3 April 2018.

Davis, B. 2016. Three key charts from our 2016 Email Marketing Census. URL: <https://econsultancy.com/blog/67734-three-key-charts-from-our-2016-email-marketing-census/>. Accessed 25 February 2018.

Dean, B. 2018. Google's 200 Ranking Factors: The Complete List (2018). URL: <https://backlinko.com/google-ranking-factors>. Accessed 20 April 2018.

eMarketer 2017. Releases New Worldwide Ad Spending Estimates. URL: <https://www.emarketer.com/Article/eMarketer-Releases-New-Worldwide-Ad-Spending-Estimates/1016621>. Accessed 24 April 2018.

eu.idtdna.com 2018. Integrated DNA technologies Website. URL:<https://eu.idtdna.com/> Accessed 2 July 2018.

Eurofins Genomics 2018. Posts on the company's social media accounts. URL: <https://www.linkedin.com/company/eurofinsgenomics> ; <https://twitter.com/genomicseurope?lang=ru> ; <https://www.facebook.com/EurofinsGenomics/> . Accessed 29 July 2018.

- Forbes 2014. Five Important Digital Marketing Elements To Consider  
URL:<https://www.forbes.com/sites/thesba/2014/10/13/five-important-digital-marketing-elements-to-consider/#32d982da3a3e>. Accessed 10 May 2018.
- Franz, A. 2014. What's the Difference: Journey Map or Lifecycle Map? URL:<http://customerthink.com/whats-the-difference-journey-map-or-lifecycle-map/> . Accessed 7 February 2018.
- Francois, G. 2018. Top 12 competitor analysis tools you should be using. URL:  
<https://www.talkwalker.com/blog/top-competitor-analysis-tools>  
Accessed: 1 May 2018.
- Frischling, E. 2017. How to Measure Top-of-Funnel Content: Key Metrics, Explained.  
URL:<https://insights.newscred.com/how-to-measure-top-of-funnel-content/> . Accessed 10 April 2018.
- Fishkin, R. 2013. Weighting the Clusters of Ranking Factors in Google's Algorithm - White-board Friday. URL: <https://moz.com/blog/weighting-the-clusters-of-ranking-factors-in-google-analytics-whiteboard-friday> . Accessed 20 April 2018.
- Google 2018. Project Strobe: Protecting your data, improving our third-party APIs, and sun-setting consumer Google+. URL: <https://www.blog.google/technology/safety-security/project-strobe/> . Assessed 8 October 2018.
- Hayes, A. 2018. The State of Video Marketing in 2018 [New Data]. URL:<https://blog.hubspot.com/marketing/state-of-video-marketing-new-data> . Accessed 5 May 2018.
- Hangwon 2014. Just The Stats: The Science of Marketing Video Engagement. URL:  
<https://www.singlegrain.com/video-marketing/just-stats-science-video-engagement/>. Accessed 7 May 2018
- Hootsuite 2018. Metrics library. URL: <https://help.hootsuite.com/hc/en-us/articles/215121277-Metrics-library> Accessed 7 February 2018.
- Hogg, S. 2018. Customer journey mapping: The path to loyalty. URL: <https://www.thinkwithgoogle.com/marketing-resources/experience-design/customer-journey-mapping/>. Accessed 7 February 2018.



Hodkinson, M. 2017. Why Consistency is Key for your Content Marketing. URL: <http://www.influenceagents.com/blog/why-consistency-key-content-marketing>. Accessed 10 April 2018.

HUBSPOT 2018. Digital Marketing for Beginners: Guide for Small Businesses Getting Started with Digital Strategy. URL: <https://offers.hubspot.com/beginners-guide-to-digital-marketing> Accessed 18 August 2018.

Hughes, J. 2018. How to Conduct an SEO Audit of Your Website. URL: <https://www.elegantthemes.com/blog/tips-tricks/how-to-conduct-an-seo-audit-of-your-website>. Accessed 20 April 2018.

Investopedia 2016. Chatbot, Definition of 'Chatbot'. URL: <https://www.investopedia.com/terms/c/chatbot.asp#ixzz5CvFkt3K1> . Accessed 17 March 2018.

Jolly, W. 2018. The 6 Most Effective Types of Social Media Advertising in 2018. URL: <https://www.bigcommerce.com/blog/social-media-advertising/> . Accessed 25 April 2018.

Kim, L. 2016. What Is PPC? Learn the Basics of Pay-Per-Click (PPC) Marketing. URL: <https://www.wordstream.com/ppc>. Accessed 22 April 2018.

Kingsnorth, S. 2016. Digital Marketing Strategy: An integrated approach to online marketing. Koganpage. Philadelphia.

Kissmetrics 2010. A Beginner's Guide to Successful Email Marketing. URL: <https://blog.kissmetrics.com/beginners-guide-email-marketing/> . Accessed 5 May 2018.

MailChimp 2018. Email Marketing Benchmarks. URL: <https://mailchimp.com/resources/research/email-marketing-benchmarks/#>  
Accessed 18 August 2018.

McDonald, M & Wilson, H. 2011. Marketing plans: How to Prepare Them, how to use them. 7th edition. Wiley. West Sussex.

Mendez, J. 2017. 5 Types of Video Content Perfect for Each Stage of the Customer Journey. URL: <https://contentmarketinginstitute.com/2017/03/video-content-customer-journey>. Accessed 7 May 2018.

McGill, J. 2017. How to Develop a Content Strategy: A Start-to-Finish Guide  
URL: <https://blog.hubspot.com/marketing/content-marketing-plan> . Accessed 3 April 2018.

MOZ 2014a, The beginners guide to SEO. URL: <https://moz.com/beginners-guide-to-seo>.  
Accessed 18 April 2018.

MOZ 2014b. Beginners guide to SEO: Chapter 10, Measuring and tracking success. URL:  
<https://moz.com/beginners-guide-to-seo/measuring-and-tracking-success>. Accessed 18  
April 2018.

MOZ 2017. On-Site SEO. What is on-site SEO? URL: <https://moz.com/learn/seo/on-site-seo>. Accessed 19 April 2018.

MOZ 2018a. What is SEO. URL: <https://moz.com/learn/seo/what-is-seo>  
Accessed 18 April 2018.

MOZ 2018b. What is a SERP feature? URL: <https://moz.com/learn/seo/serp-features>.  
Accessed 18 April 2018.

Murray, M. 2018. SEO Marketing Strategy: Tips for Success in 2018. URL: <https://content-marketinginstitute.com/2018/01/seo-marketing-strategy/>. Accessed 19 April 2018.

NetGenesis corp. 2000. E-Metrics, Business Metrics For The New Economy. (PDF)  
URL: <http://www.targeting.com/wp-content/uploads/2010/12/emetrics-business-metrics-new-economy.pdf> . Accessed 8 February 2018.

NetMarketShare 2018. Search Engine Market Share.  
URL: <https://www.netmarketshare.com/search-engine-market-share.aspx?qprid=4&qpcus-tomd=0> . Accessed 19 April 2018.

Page, A. 2018. Facebook Remarketing vs Google Remarketing. URL:  
<http://www.spotstudio.net/blog/conversion-rate-optimisation/facebook-remarketing-vs-google-remarketing> . Accessed 26 April 2018.

Patel, N. 2015. Digital Marketing Made Simple: A Step-by-Step Guide. URL:  
<https://neilpatel.com/what-is-digital-marketing/>. Accessed 10 February 2018.

Patel, N. 2018a. Content Marketing Made Simple: A Step-by-Step Guide URL: <https://neilpatel.com/what-is-content-marketing/>. Accessed 3 April 2018.

Patel, N. 2018b. SEO Made Simple: A Step-by-Step Guide URL: <https://neilpatel.com/what-is-seo/>. Accessed 18 April 2018.

Patel, N. 2018c. How To Create a Killer Email List From Thin Air (A Beginner's Guide) URL: <https://www.crazyegg.com/blog/killer-email-list/> . Accessed 13 June 2018.

PR Smith marketing success 2017. SOSTAC® Planning URL: <http://prsmith.org/sostac/>. Accessed 29 November 2017

Primer Biosoft 2018. Posts on the company's social media accounts. URL: <https://www.facebook.com/premierbiosoft/> ; <https://www.linkedin.com/company/premier-biosoft/?originalSubdomain=ru> ; <https://twitter.com/premierbiosoft> . Accessed 29 July 2018.

Pulizzi, J. & Barrett, N. 2009. Get content get customers: Turn Prospects into Buyers with Content Marketing. McGraw-Hill. New-York.

Rouhiainen, L. 2014. 101 video marketing tips and strategies from small businesses. ISBN-13: 978-1494770020 (ISBN- 10:1494770024).

Rouhiainen, L. January 2018. Teacher. How to start: Company Analysis Document. Haaga-Helia University of Applied Sciences. How to start a social media consultant business. COM8HH011-14 course's materials. Helsinki.

Rouse, M. 2016. AI (artificial intelligence), Definition. URL: <https://searchenterpriseai.techtarget.com/definition/AI-Artificial-Intelligence>. Accessed 11 March 2018.

Ryan, D. 2014. Understanding Digital Marketing, Marketing strategies for engaging the digital generation. Third edition. Kogan Page Ltd. London.

SAS 2017. Digital Marketing, What it is and why it matters. URL: [https://www.sas.com/en\\_us/insights/marketing/digital-marketing.html](https://www.sas.com/en_us/insights/marketing/digital-marketing.html) Accessed 5 February 2018.

Saunders, M., Lewis, P. & Thornhill, A. 2016. Research Methods for Business Students. 7th ed. Pearson Education Limited. Edinburgh Gate.

Sarcona, C. 2018. Part 1: Organic vs PPC in 2018: The CTR Results. URL: <http://www.zerolimitweb.com/organic-vs-ppc-2018-ctr-results-best-practices/>. Accessed 14 April 2018.

Searchengineland 2010. What Is Search Marketing? URL: <https://searchengineland.com/guide/what-is-sem>. Accessed 18 April 2018.

Searchengineland 2014. What Is Social Media Marketing. URL: <https://searchengineland.com/guide/what-is-social-media-marketing>. Accessed 16 April 2018.

Searchengineland 2017. What Is SEO / Search Engine Optimization? URL: <https://searchengineland.com/guide/what-is-seo>. Accessed 19 April 2018.

Selders, S. 2018. Why Video Matters to Marketing. URL: <https://www.webpagefx.com/blog/general/why-video-matters-to-marketing/>. Accessed 7 May 2018.

SimilarWeb.com 2018. Market Intelligence Solutions. URL: <https://www.similarweb.com/>. Accessed 2 July 2018.

SmartInsights 2018. Content Marketing Planning Template, (PDF) URL: <http://hubs.ly/y0kmx70> Accessed 6 April 2018.

Smith, PR. 2018. SOSTAC® Guide To Your Perfect Digital Marketing Plan. PR Smith Marketing. eBook: Kindle.

Smith, A. & Anderson, M. 2016. Online Shopping and E-Commerce. URL: <http://www.pewinternet.org/2016/12/19/online-shopping-and-e-commerce/>. Accessed 25 March 2018.

Stelzner, M. 2017. Social media marketing industry report: How Marketers Are Using Social Media to Grow Their Businesses. Social Media Examiner. (PDF).

Stein K. 2016. 4 Free Tools to Analyze Your Social Media Competitors. URL: <https://www.socialmediaexaminer.com/4-free-tools-to-analyze-your-social-media-competitors/> Accessed: 1 May 2018.

- Sullivan, D. 2010. Does SEM = SEO + CPC Still Add Up? URL: <https://searchengineland.com/does-sem-seo-cpc-still-add-up-37297>. Accessed 22 April 2018.
- Tasner, M. 2018. Six Digital Marketing Trends To Watch In 2018. URL: <https://www.forbes.com/sites/forbesagencycouncil/2018/01/30/six-digital-marketing-trends-to-watch-in-2018/2/#58b7b9946393> Accessed 11 March 2018.
- Tintup. 2016. What is User Generated Content (and Why You Should Be Using it). URL: <https://www.tintup.com/blog/user-generated-content-definition/> . Accessed 24 March 2018.
- Trabelsi, C. 2014. Facebook Ads vs Google AdWords – the Facebook Targeting Advantage. URL: <https://www.crazyegg.com/blog/facebook-ads/>. Accessed 26 April 2018.
- Trimble, C. 2015. Why online video is the future of content marketing. URL: <https://www.theguardian.com/small-business-network/2014/jan/14/video-content-marketing-media-online>. Accessed 6 May 2018.
- Tripura, K. 2018. Digital Marketing Trends You Can Expect To See This Year. URL: <https://www.forbes.com/sites/forbesagencycouncil/2018/02/06/digital-marketing-trends-you-can-expect-to-see-this-year/#3512a2c7fc67>. Accessed 10 March 2018.
- Vartanian. T, 2011. Secondary Data Analysis. Oxford: Oxford University.
- WYZOWL 2018. The State of Video Marketing 2018. (PDF). URL: <http://info.wyzowl.com/state-of-video-marketing-2018-report> . Accessed 6 May 2018.
- Woorank.com 2018. SEO Analysis Tool to Improve Website Traffic, Conversions and Usability. URL: <https://www.woorank.com/> Accessed: 2 Jul 2018.

## Appendices

### Appendix 1. List of specific concepts, terms, and acronyms

“**Conversion rate** - Percentage of site visitors that perform a particular action, such as making a purchase” (Chaffey, D. & Smith, PR. 2013, 588).

“**Digital marketing** - digital marketing is at the heart of e-business – getting closer to customers and understanding them better, adding value to products, widening distribution channels and boosting sales through running e-marketing campaigns using digital media channels such as search marketing, online advertising and affiliate marketing which we will explain later in this chapter” (Chaffey & Ellis- Chadwick 2012, 328).

“**Digital business strategy** - Definition of the approach by which applications of internal and external electronic communications can support and influence business strategy” (Chaffey 2015, 654).

“**Digital marketing plan** - A plan to achieve the marketing objectives of the digital business strategy” (Chaffey 2015, 654).

“**Digital media channel** (digital channels) - Different forms of digital media used for online promotion such as affiliate marketing, paid search and display advertising” (Chaffey, D. & Smith, PR. 2013, 589).

“**Ideal customer** - Preferred customer who is targeted due to their potential for a profitable relationship” (Chaffey, D. & Smith, PR. 2013, 592).

**PR Smith’s SOSTAC®** - Marketing planning framework. SOSTAC® stands for situation analysis, objectives, strategy, tactics, actions and control (Smith 2015).

“**Search-engine optimization (SEO)** - A structured approach used to increase the position of a company or its products in search-engine results according to selected keywords” (Chaffey 2015, 661).

## Appendix 2. Competitor analysis form

### a. Lasse Rouhiainen's company assessment form (Rouhiainen January 2018)

COMPANY INFORMATION		DATE
<p><b>Example</b></p> <p>Name Sector Location Years in business</p> <p>Main product Typical client</p> <p>Main marketing activities</p> <p>Main marketing objectives</p> <p>Biggest challenge</p>	<p><b>COMPANY INFORMATION</b></p>	
<p><b>Example</b></p> <p>Website</p> <p>Website content Website traffic</p> <p>Google search company name search product + location</p> <p>Facebook YouTube Twitter <u>Instagram</u></p> <p>Other</p>	<p><b>ONLINE PRESENCE</b></p>	

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### b. The modified version of Lasse Rouhiainen's company assessment form (adapted from Rouhiainen January 2018)

Company's overview	Date of assessment:
<b>Name</b>	Name of an examined company
<b>Sector</b>	The sector in which a company operates
<b>Estimated Employees</b>	The number of employees/ sizes of a company
<b>Location</b>	A company's location
<b>URL</b>	A company's web address
<b>Main product</b>	A main product or service a company provides
<b>Typical client</b>	Typical consumer of a company
<b>Clients' interests</b>	Interests of a company's clients
<b>Main digital marketing activities</b>	Company's online presence and digital marketing activities it makes. e.g., Social media, digital marketing techniques.

<b>Website Content</b>	Types of content a company provides on its website
<b>Paid Ads.</b>	If the company uses PPC ads.
<b>Comments (Summary)</b>	A summary of the findings from the examination outlining the set of digital marketing tools an examined company uses.

Company's detail analysis

## 1. Website

### Website overview

Based on visual examination, briefly describe how a website looks like and what impression it makes on a visitor.

### Website's content

Based on visual examination, describe the types of content a company provides on its site.

### Google search results

By making queries with relevant to company keywords analyze a company's position in the search engine result page.

### Website tech. issues analysis ([www.woorank.com](http://www.woorank.com))

Make an analysis of a company's website by Woorank service to find out possible issues the site has regarding SEO. Also, to understand if a company has a presence on social media, if it has its own blog, which the technology the website has, and gauge average website traffic.

### Overall analysis of website and breakdown of website traffic by sources ([Similarweb.com](http://Similarweb.com))

Find out the necessary information about a company such as the size of a company, location, and typical clients. Also, to understand website traffic sources, social media insight, audience insight, and if available, the average duration of a visit, number of pages per visit, and bounce rate.

## 2. Social Media analysis

### Facebook

Based on visual examination, briefly describe how a website looks like and what impression it makes on a visitor, understand the number of followers a company has and the way a company uses it, including topics of posts and the means of interaction with users. By using LikeAlyzer tool, understand the type of content a company provides, the frequency of posting, the average length of posts, a company's social media behavior, and engagement rate.

### Twitter

Understand how long a company has a presence on the platform, how much followers it has, and the way a company uses Twitter. Additionally, based on twitonomy.com analysis understand what the number of likes/retweets for the company's most popular posts is



**LinkedIn**

Visually examine a company's LinkedIn profile, to understand how much followers it has and the purpose/way a company uses the platform.

**YouTube**

Visually examine a company's YouTube profile, to understand how much followers it has, the purpose/way a company uses the platform. Briefly describe the quality of posted video content, and check if a company's profile has the following key elements: full information about the company, a trailer that briefly describes what a visitor may find on the channel, company's logo, cover image, links to other platforms where a company has presence, and playlists.

**3. Email marketing and newsletter subscription**

Analyze the breakdown of a company's website traffic with the help of Similarweb analysis to understand if Email makes an impact on it. Also, examine the website to find out if a company provides newsletter subscription, or requires personal information in exchange for content.

### Appendix 3. The findings from the conducted competitor analysis

Figure 1. IDTdna’s sign-up form (eu.idtdna.com 2018)

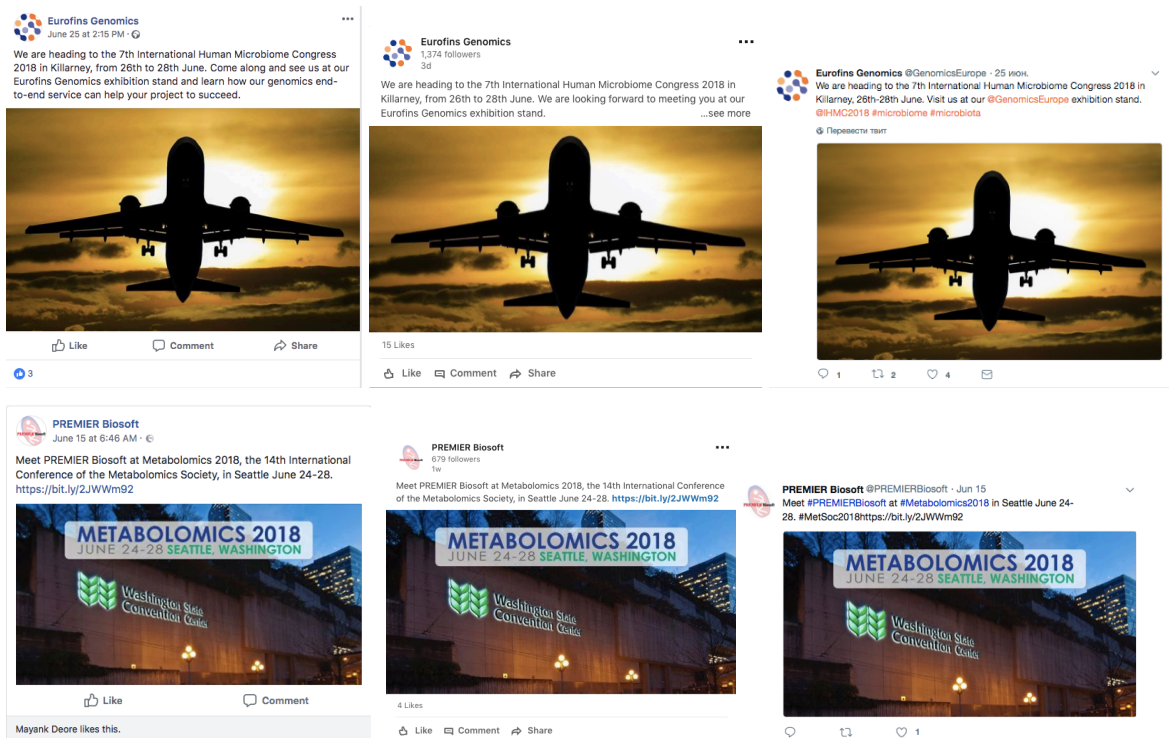


Figure 2. Example of competitors’ posts on Facebook, LinkedIn, and Twitter (Primer Biosoft 2018; Eurofins Genomics 2018)

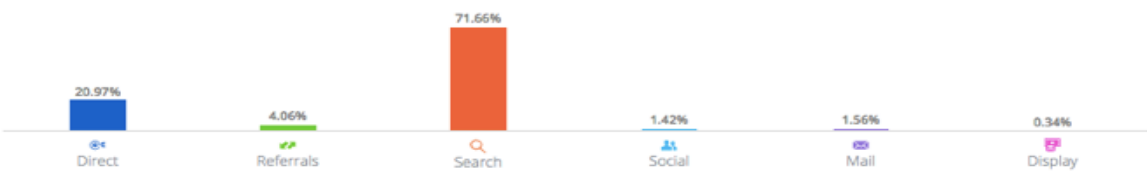
## Appendix 4. The breakdown of the competitors' website traffic by sources

(adapted from similarweb.com 2018)

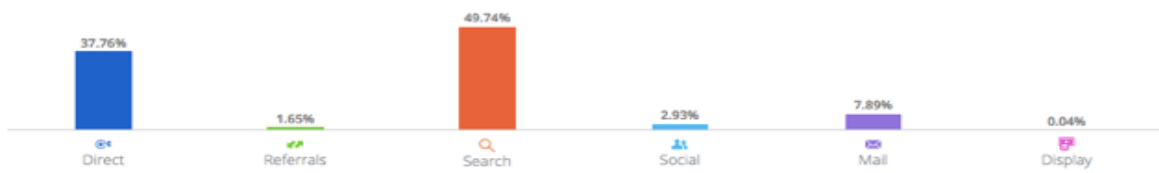
### 1. Eurofins Genomics



### 2. Thermo Fisher Scientific



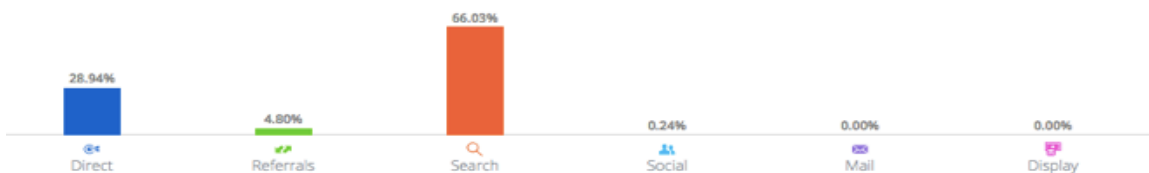
### 3. Integrated DNA technologies



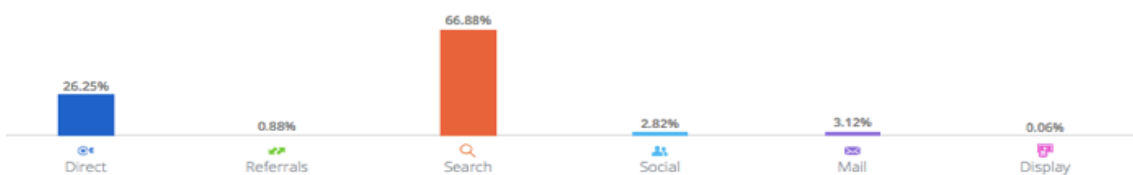
### 4. Genesig



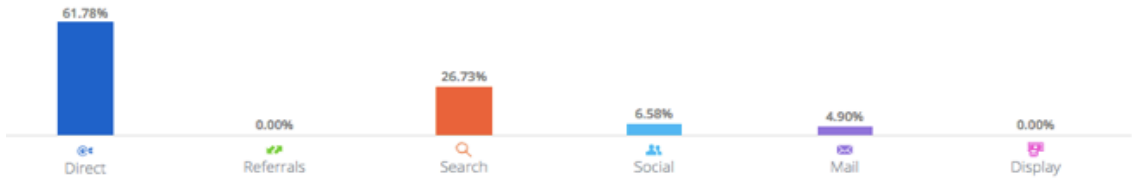
### 5. Eurogentec



### 6. Premier Biosoft



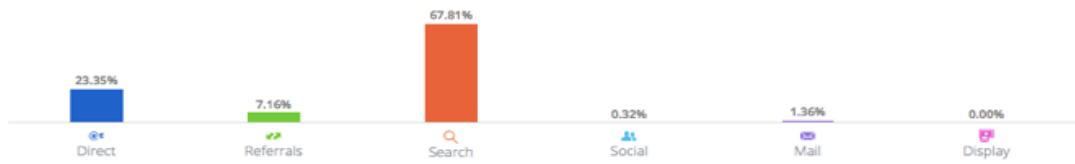
### 7. DNA Software



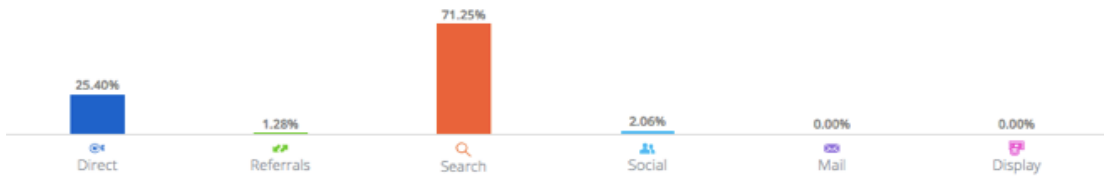
### 8. GenePattern



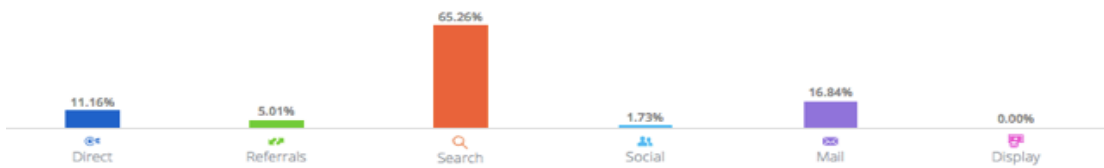
### 9. Qiagen bioinformatics



### 10. OLIGO Primer Analysis Software



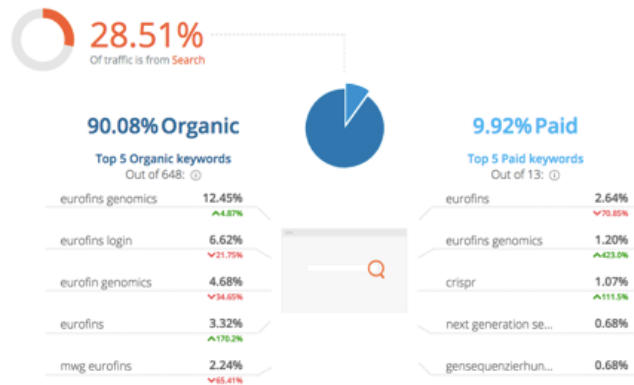
### 11. Unipro U-gene



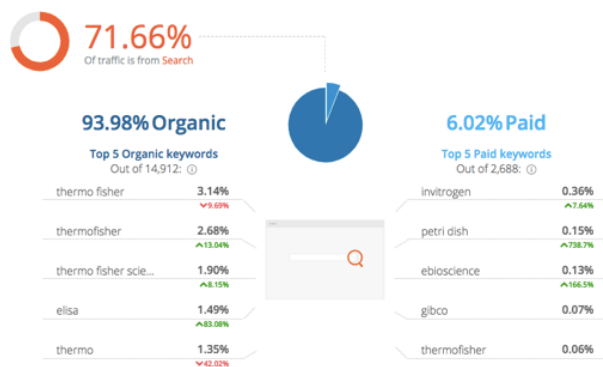
## Appendix 5. The breakdown of the competitors' search engine traffic

(adapted from SimilarWeb.com 2018)

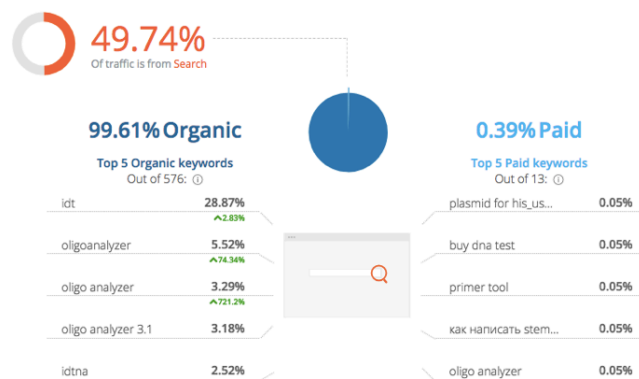
### 1. Eurofins Genomics Search



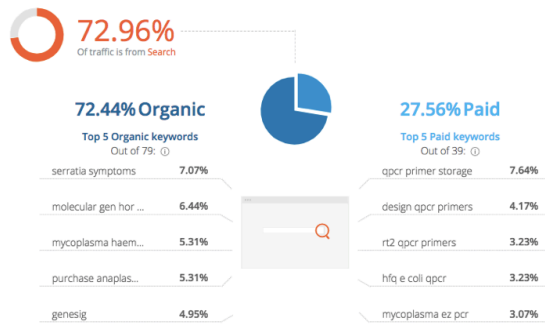
### 2. Thermo Fisher Scientific Search



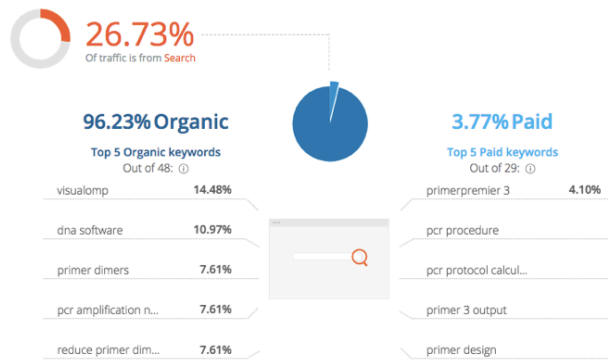
### 3. Integrated DNA technologies Search



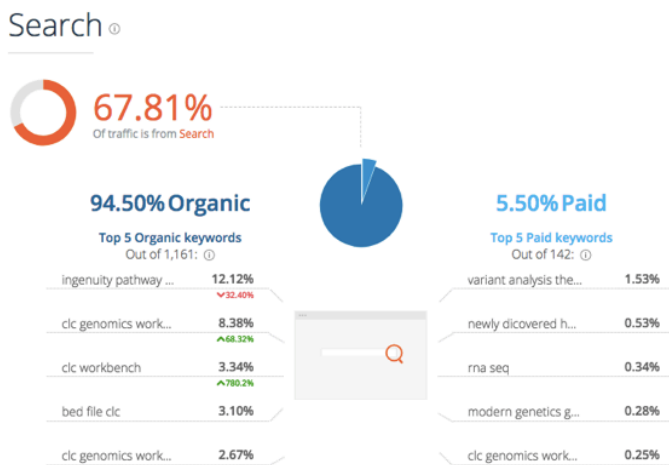
#### 4. Genesig Search



#### 5. DNA Software Search



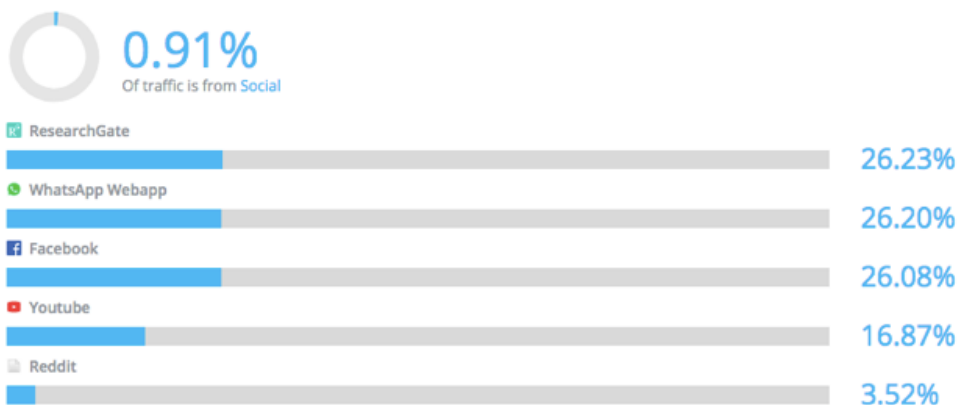
#### 6. Qiagen bioinformatics Search



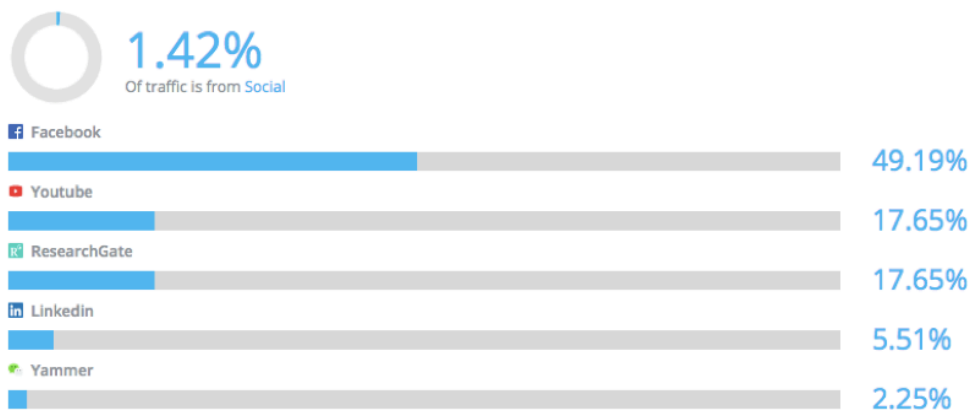
## Appendix 6. The contribution of social media to the competitors' website traffic

(adapted from SimilarWeb.com 2018)

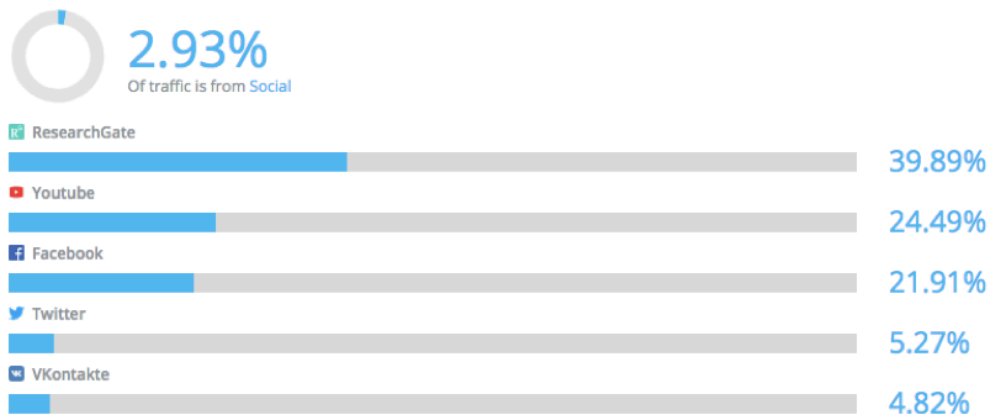
### 1. Eurofins Genomics



### 2. Thermo Fisher Scientific



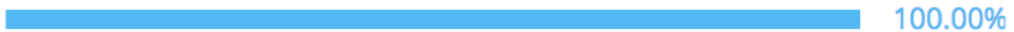
### 3. Integrated DNA technologies



#### 4. Genesig



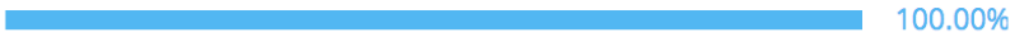
LinkedIn



#### 5. Eurogentec



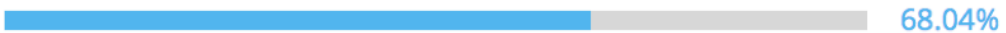
LinkedIn



#### 6. Premier Biosoft



ResearchGate



Facebook



Dxy.cn



Youtube



Vkontakte



#### 7. DNA Software



Stack Overflow



ResearchGate



Youtube



Stack Exchange



quora





### 8. GenePattern



Facebook



### 9. Qiagen bioinformatics



Twitter



Youtube



LinkedIn



### 10. OLIGO Primer Analysis Software



ResearchGate



### 11. Unipro U-gene



Reddit



ResearchGate



Facebook



Vkontakte



Youtube



**Appendix 7. The Literature review's figures (CONFIDENTIAL)**

**Appendix 8. List of questions for the survey (CONFIDENTIAL)**

**Appendix 9. The design of the survey's Invitation letters (CONFIDENTIAL)**

**Appendix 10. MailChimp statistic of the email campaigns (CONFIDENTIAL)**

**Appendix 11. SurveyMonkey results of PrimerDigital's customer survey (CONFIDENTIAL)**

**Appendix 12. Google Analytics data regarding the implementation phase (CONFIDENTIAL)**

**Appendix 13. The implementation schedule for 2019 (CONFIDENTIAL)**



**Appendix 14. Digital marketing plan for PrimerDigital (CONFIDENTIAL)**