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# DIGITAL MARKETING SKILLS GAP IN BERLIN STARTUPS



BACHELOR'S THESIS | ABSTRACT

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## DIGITAL MARKETING SKILLS GAP IN BERLIN STARTUPS

The research aims to determine what kind of digital marketing skills are needed in Berlin startups and analyse how this compares with the view of marketing academics on digital marketing skills. Startups are important for the economy while they create jobs. Berlin startups are also proved to suffer from lack of local qualified workforce. Marketing is a crucial field for especially startups working in the digital industry. In these startups not only the marketing has digitalised but the whole business model.

The field of marketing suffers from exceptionally wide academic-practitioner gap. Previous study on digital marketing skills gaps points towards analytical and technical skills. These are not however clearly defined. Previously research has been mainly done using secondary data with emphasis on academic viewpoint.

The study was done using inductive method as it aims to bring out up-to-date overview and bring out the voice of practitioner field. Digital marketing skills mentioned in job advertisements to open marketing positions at Berlin startups were studied and these findings were compared to how digital marketing is presented by marketing academia in marketing text books.

From the job advertisements 10 categories of analytical and technical skills were identified: Analytics, Search Engine Marketing, Social Media, E-Mail Marketing, Ms Office, Programming Languages, Websites/Blogs, Photo Editing, Display Marketing and other. The three main skill categories that were mentioned in half or more in the job advertisements were Analytics, Search Engine Marketing and Social Media.

In the overview of marketing text books some of these same skills were identified. There is however no consensus on what areas of digital marketing are included and some books do not have a single page about digital marketing.

In the future the skill categories identified from the advertisements should be verified by a quantitative study to see if they are statistically significant. It could also be studied if the startups are able to find employees possessing these skills.

### KEYWORDS:

Digitalisation, marketing, digital marketing, startups, skills gap, academic-practitioner gap.

Iiris Kosonen

## DIGITAALISEN MARKKINOINNIN AMMATTITAITOVAJE BERLIININ STARTUPEISSA

Tutkimuksen tarkoituksena on määrittellä, millaisia digitaalisen markkinoinnin taitoja tarvitaan Berliinin startupeissa ja analysoida miten tämä vertautuu akateemiseen näkökulmaan digitaalisen markkinoinnin taidoista markkinoinnin oppikirjoissa. Startupit ovat taloudelle tärkeitä, sillä ne luovat työpaikkoja. Berliinin startupit kärsivät paikallisesta pätevistä työvoimasta. Markkinointi on keskeinen kenttä erityisesti digitaalisella alalla toimiville startupeille. Näissä startupeissa koko ansaintamalli on digitalisoitunut.

Markkinoinnin kenttä kärsii poikkeuksellisen laajasta kuilusta akateemikoiden ja teollisuuden välillä. Aikaisempi tutkimus digitaalisen markkinoinnin ammattitaitovajeesta viittaa analyttisiin ja teknisiin taitoihin. Nämä eivät ole kuitenkaan selkeästi määriteltyjä. Aikaisemmin tutkimusta on pääasiassa tehty hyödyntämällä toissijaista dataa ja se on painottanut akateemista näkökulmaa.

Tutkimus tehtiin analysoimalla ensisijaista dataa. Sillä tarkoituksena on tuoda esiin ajantasaisia tuloksia ja teollisuuden näkökulmaa. Digitaalisen markkinoinnin taidot, jotka mainittiin Berliinin startuppien avoimien markkinoinnin työpaikkojen ilmoituksissa, tutkittiin ja löydöksiä verrattiin siihen, miten digitaalinen markkinointi on esitetty markkinoinnin oppikirjoissa.

Työpaikkailmoituksista tunnistettiin 10 analyttisten ja teknisten taitojen kategorioita: Analytiikka, Hakukonemarkkinointi, Sosiaalinen Media, Sähköpostimarkkinointi, Ms Office, Ohjelmointikielet, Verkkosivut/Blogit, Kuvankäsittely, Display Markkinointi ja Muut. Kolme merkittävintä kategorioita, jotka mainittiin puolesta tai useammassa työpaikkailmoituksista olivat Analytiikka, Hakukonemarkkinointi ja Sosiaalinen Media.

Katsauksessa markkinoinnin oppikirjoihin joitakin näistä taidoista oli löydettävissä. Ei ollut kuitenkaan konsensusta siitä, mitä digitaalisen markkinoinnin osa-alueet tulisi sisällyttää ja joissakin kirjoissa ei ollut ainoatakaan sivua digitaalisesta markkinoinnista.

Tulevaisuudessa tunnistetut taitokategoriat voitaisiin vahvistaa määrällisellä tutkimuksella ja todeta onko niillä tilastollista merkittävyyttä. Voitaisiin myös tutkia kykenevätkö startupit löytämään työntekijöitä, joilla on nämä taidot hallussa.

### ASIASANAT:

Digitalisaatio, markkinointi, digitaalinen markkinointi, startupit, ammattitaitovaje, akateemisen tutkimuksen ja teollisuuden välinen kuilu

# CONTENT

<b>1 INTRODUCTION</b>	<b>6</b>
1.1 Background	6
1.2 Research Objective and Research Questions	7
<b>2 THEORETICAL FRAMEWORK</b>	<b>9</b>
2.1 From marketing to digital marketing	9
2.2 Digitalisation Creates New Business Models	10
2.3 The Gap Model	12
2.4 Academic-practitioner gap widens as marketing is digitalised	13
2.5 Digital Marketing – A Side Note in Marketing Text Books	17
2.6 Definition of a startup	19
2.7 Skills gaps in Berlin startups	19
<b>3 RESEARCH METHODOLOGY</b>	<b>21</b>
3.1 Presenting up to date practitioner viewpoint	21
3.2 Job advertisements describe digital marketing skills relevant to the startups	21
3.3 The long road to Experts	24
<b>4 MORE DETAILS ON THE ANALYTICAL AND TECHNICAL SKILLS GAP REVEALED</b>	<b>27</b>
4.1 10 Skill Categories Identified	27
4.2 Reinforcing and expanding previous skills gap research	34
4.3 Marketing Text Books vs Job Advertisements on Digital Marketing	34
<b>5 CONCLUSION</b>	<b>37</b>
5.1 Limitations and Future Research	38
<b>REFERENCES</b>	<b>40</b>

## **APPENDICES**

Appendix 1. Interview Invitation

## **FIGURES**

Figure 1. Value Chain of the Net Economy	11
Figure 2. Digital Marketer Model	15
Figure 3. 4Ps of Marketing Mix	16
Figure 4. Forms of Digital Marketing I	32

## **PICTURES**

Picture 1. Example of a Job Advertisement	21
Picture 2. Jod Advertisement Example 2.	31

## **TABLES**

Table 1. Digital Marketing Skills in Startup Job Advertisements in 2016	27
Table 2. Digital Marketing Skills in Startup Job Advertisements in 2017	28

# 1 INTRODUCTION

## 1.1 Background

Digital transformation has changed every aspect of a business (Forbes, 2016). It has created whole new business models selling digital products and services and marketing is overall digitalized. One important group of these new businesses are startups and especially digital industry startups. It is not only the business models of these new innovative companies that draw from digitalisation, but their marketing is strongly digitalised and thus the need for skilled digital marketers is pressing.

While there is a consensus that the academic-practitioner gap in digital marketing is huge and needs to be addressed (Reibstein et al., 2009, 1), there are little details on what specifically are the skills the current marketers are actually lacking as the skills identified are rather general such as oral and writing skills and technical skills (Davies et al, 2002.) and leadership, creativity (Dacko, 2006), Especially on technical skills, which are a crucial part of digital marketing know-how, there is little to no specification. The technical skills gap is proved to exist, but what exactly are these technical skills marketers don't have is not known. While university curricula are still emphasising theory, startups hiring digital marketers expect a large set of practical, technical skills to embrace this new era of digitalisation.

Startups are important to the economy while they create new jobs. European startups employ an average of 12.0 employees per startup and are planning to hire another 5.8 employees in the near future (ESM, 2016). In Germany the figures are higher, as startups employ an average of 17.6 people per startup. In Berlin, the significance of job creation is even greater as one startup employs an average of 25.2 people. (Ripsas, 2015, 5). Despite the economic importance of startups, the statistical knowledge of European startups is scarce (Ripsas and Hentschel, 2015).

Startups in Berlin suffer from lack of local highly qualified employees (Kritikos, 2016, 344). At the same time one out of every seven unemployed person has a university degree. (Brenke, 2016, 334). It is still unclear, if the unemployed people with academic

degrees fulfill the needs startups have for their employees (Kritikos, 2016, 344). To study this, the skillsets needed in Berlin startups will need to be understood. 52.6% of Berlin startups work in the digital industry (Ripsas, 2015) and this indicates a need for digital marketers.

Marketing field suffers from an academic-practitioner gap which is deeper than it usually is in other fields (Reibstein et al., 2009, 1). Based on this, it can be argued that marketing is likely a field where the startups could also find it difficult to find skilled employees.

This study aims to provide insight on what kind of skillset is expected from recent graduates applying to marketing positions in Berlin startups. To reach a deeper understanding of the issue job advertisements for these positions are analysed. The goal is to be able to identify skill categories that are relevant in today's marketing positions in Berlin startups. This is important because 50% of Berlin startups work in digital industry. Smaller startups employ only a few people and will need a person working with marketing tasks who possesses a large set of skills and expertise. This adds both to the scarce academic research on the startup phenomenon and helps to narrow down the academic-practitioner gap experienced in the field of marketing.

## 1.2 Research Objective and Research Questions

To determine what kind of digital marketing skillset is needed in Berlin startups and to analyse how this compares with the view of marketing academics on digital marketing skills. This is done by studying digital marketing skills mentioned in job advertisements to open marketing positions at Berlin startups and comparing these findings to how digital marketing is presented in marketing text books. As opposed to previous study, this study is done using primary data as in the rapidly changing field of marketing secondary data is easily outdated and aims to bring out up-to-date overview and bring out the voice of practitioner field.

The purpose of the thesis is to explore and answer the following research questions:

1. What kind of digital marketing skills are relevant for employees working in marketing positions in Berlin startups?

- 
2. How does this compare with the view of marketing academics on digital marketing skills?



## 2 THEORETICAL FRAMEWORK

### 2.1 From marketing to digital marketing

According to American Marketing Association, “marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large”. The traditionally identified marketing tools are product, price, place, and promotion. These are called the 4Ps of the marketing mix. (De Pelsmacker et al., 2010, 2-3.)

Marketing is a central field to any business and especially challenging since it is going through a significant, rapid change. The new age of marketing with technology as its driver is described as “complex, dynamic and chaotic” (Wind and Mahajan, 2002, 8). This has brought digital marketing to the centre of marketing practice. Digital marketing is defined as “the use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them” (Smith 2007, in Royle and Laing, 2013, 65). To put it more simple, digital marketing is the “marketing of products or services using digital channels to reach consumers” (Financial Times, 2016). Word-of-mouth (WOM) is “the centre of a marketing solar system” (Kimmel, 2006, 209) and there is no longer a clear distinction between online and offline media (Vernuccio and Ceccotti, 2015, 438).

While above definitions concentrate more on the marketing communications, it is recognized the digitalization does not only affect promotion but also products, pricing and distribution (Hundekar et al., 2009, 187). Digitalization creates whole new business models (Wind and Mahajan 2002, 8) and need for integrated marketing models that do not view social media only as one additional advertising channel (Hoffman and Novak, 2011, 43). E-businesses are run from manufacturing to buying and selling using the Internet. (Hundekar et al., 2009, 187). All this makes marketing a dynamic and complex field. These changes are especially visible in startups – of the startups in Berlin more than half work in the digital industry (Ripsas and Hentschel 2015, 2, 4).

The view that digital marketing has changed the whole marketing practice and should be a central element to marketing can also be questioned. Kotler et al. (2012, 167) argue that digital marketing should not be dominant but rather as one additional marketing instrument complementing other marketing activities. This can be especially relevant viewpoint for businesses that do not work in the digital industry but create value through the traditional value chain, for example by selling a physical product. The same author however recognises that technology has changed our way of living and had a considerable effect on how firms create value (Kotler and Armstrong 2014, 45). It still does not mean the value creation of all companies has changed and this factor is likely to affect the significance and role of digital marketing in the company.

## 2.2 Digitalisation Creates New Business Models

Startups in Berlin are a good example of companies that have a new type of business model and create value differently than traditional companies. 52.6% of Berlin startups work in categories such as e-commerce, software as a service and online-related services and applications (Ripsas and Hentschel 2015, 2, 4). Weiber and Kollman recognized these type of businesses based on net economy had a new method for value creation (Kollman, 2013, 46.) Net economy was created by four technological innovations: telecommunications, information technology, media technology and entertainment. These are also called the TIME markets. (Kollman, 2014, 141). Previously information was only a supporting factor to the physical value chain of a company, but now it is recognised it can produce customer and/or corporate value (Kollman, 2014, 145.).

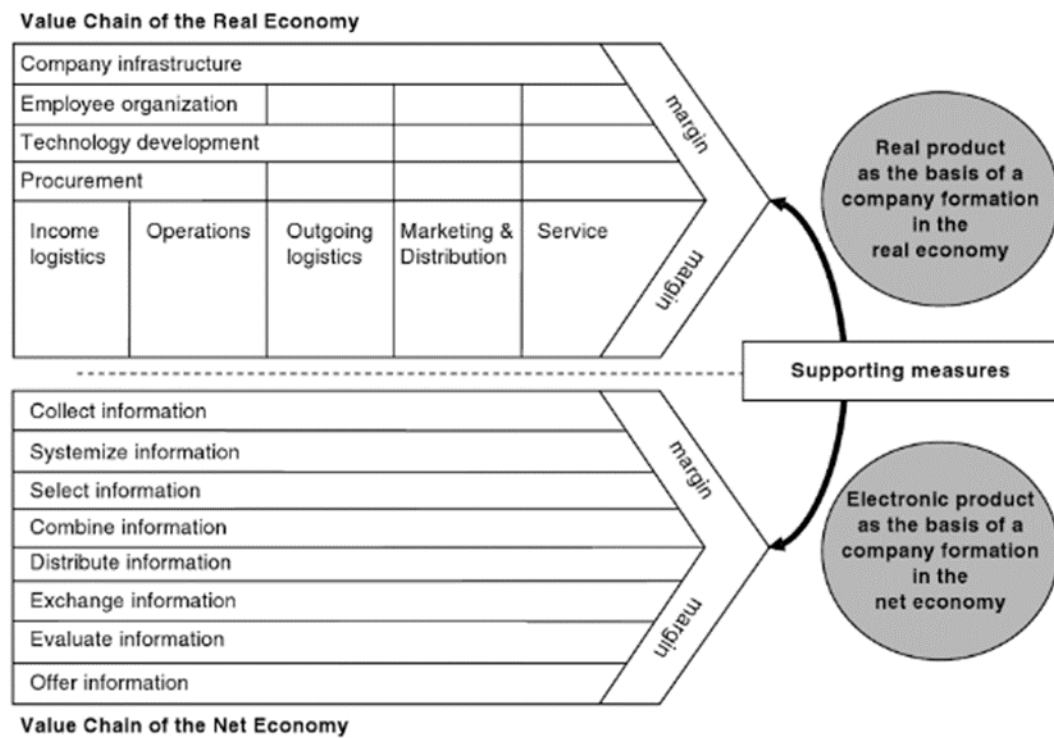
The traditional value chain is compared to the value chain of net economy, see Figure 1. In the traditional value chain, the value the customer is willing to pay for is created through physical activities. In the value chain of net economy, the value is created by electronic activities such as for example through systemizing and offering information. The companies with traditional value chain might have also electronic activities, such as a company website, and they might utilize information to analyse and support their processes. These are however just supporting factors to the physical value chain and not what creates the customer value. In the value chain of net economy, the position is

the other way around – the value is created through the electric activities and the physical value chain is a supporting measure. (Kollman, 2013, 46.)

Typical examples of companies based on net economy are Airbnb and Uber. Unlike with traditional hotel or taxi services, the value the company creates is not in the hotel rooms, cars or drivers but in providing a platform that brings together consumers offering rooms or car rides with consumers who wish to purchase them. While a traditional hotel chain can also have a website for booking their rooms, it works rather based on a traditional value chain supported by the value chain of net economy. The customer is not willing to pay extra for the possibility to book online, and thus traditional hotel companies are not companies of the net economy, or what are called in this research for clarity companies of the digital industry.

As with Airbnb and Uber connecting supply and demand can be one way for electronic value creation, but Kollman lists also providing selection or overview, transaction possibilities and communicating value (Kollman, 2014, 148). The most used search engine, Google (Statista, 2017), was invented to provide people an overview of all the information available on the internet. Companies like eBookers or Booking.com provide consumers with selection of cheapest or otherwise most suitable flights and hotels, Paypal offers consumers and businesses a safe way to purchase online and social media platforms such as Facebook, Instagram, and WhatsApp create consumer value by providing new kind of means for communication and social interaction. The new type of business models and value chain bring new challenges to the marketers working in the company. Not only do they have to know how to advertise the product or service online. If the company wants to sell a mobile app, the marketer also needs to understand how their target audiences use mobile devices. To market the product to digi-natives, they must be digi-natives themselves. Oftentimes, the digitalisation of marketing is only seen as an additional, supporting factor to traditional marketing. This approach, however, fails to acknowledge the magnitude of the change generated by digitalisation.

Figure 1. Value Chain of the Net Economy, Kollman et al. 2013, p.47



### 2.3 The Gap Model

The gap analysis has been previously used in research on digital marketing skills gap and academic-practitioner gap in marketing. The gap model was introduced by Parasuraman et al in 1985 to provide a theoretical tool for measuring the service quality. Service quality perceptions were noted to be a result of what the consumer expects versus what is the actual service quality. Unlike with goods, the consumer might result in receiving something totally different than what the company expected to deliver (Parasuraman et al., 1985, 41.). The gap model was first used for analysing gaps such as the gap between management perceptions and consumer expectations and the gap between service quality specifications and actual service delivery (Parasuraman et al., 1985, 45.).

It was noted from the beginning that the gap can be favourable or unfavourable. (Parasuraman et al., 1985, 45.). For example, an unfavourable gap would mean that the actual service delivery did not meet the service quality specifications while a favourable gap would mean that the actual service delivery exceeded these specifications. Gap

analysis can be used to only point out unfavourable gaps, such as skills required to improve innovation (Freel, 1999, 151), but often both favourable and unfavourable gaps are taken into consideration. The strength of gap analysis is that it can provide deeper insights and more actionable results than a mere survey (Davis et al, 2002, 219).

The gap analysis has been used to help closing the academic-practitioner gap in marketing by studying areas of under- and over preparedness of recent graduates in relation to their work environments (Davis et al. 2002, 218) and evaluating the marketing skills development in MBA programmes in relations to the needs of the students and practitioners (Dacko, 2006, 283). Davis et al., 2002 noted that the gap analysis can be used as an indirect indicator of student satisfaction and/or program quality. If students are found to be underprepared in some areas and overprepared in others, it is an indication that the educational product delivered may not have been appropriate for the needs of the students or their employers. (Davis et al. 2002, 218, 219.)

#### 2.4 Academic-practitioner gap widens as marketing is digitalised

Marketing, like many other fields, faces the discussion of academic research versus practical relevance (Brennan, 2004, 2). However, the gap between marketing academia and practitioners is so wide it has passed beyond the familiar discussion (Reibstein et al., 2009, 1). This is an indication of how much and how fast digitalization has changed the field of marketing. While there are differences on how central the digital marketing is viewed to marketing practice, there seems to be a consensus on the existence of the academic-practitioner gap in marketing and in digital marketing. It is hard to find any research pointing towards the gap not existing.

Studies regarding marketing skills gaps point towards the lack of technical skills (Davis et al. 2002, 222) and analytical skills (Leeflang et al. 2014, 10) as well as emphasise the strong need for marketers who can integrate digital marketing with the traditional marketing practice (Royle and Laing, 2013, 69). These skills gaps relate to the digitalization of marketing.

After proving the existence of the academic-practitioner gap, the nature of the gap should be studied, reasons for it provided and only after that possible solutions can be created (Brennan, 2004, 2). As the existence of the gap is clear, it is now important to move further into understanding and explaining the nature of the gap. While there have been

several studies exploring the gap (Davis et al., 2002; Dacko, 2006; Leeflang et al., 2014), there has only been some qualitative studies utilizing primary data such as interviews (Royle and Laing, 2013).

The data collection methods tend to emphasise the academic viewpoint. Another issue is that the data in digital marketing field become easily outdated. For example, in Dacko's research "Narrowing the skills gap for marketers of the future" the 22 key skills were identified based on marketing literature sources published between 1981 and 2005. A survey presenting these 22 skills was sent to marketing employers and marketing students in the MBA program of a leading European business school. The employers were asked to evaluate how much each of these skills should be emphasised in the marketing curricula, and how well prepared the students who had worked for them during a summer project were with these skills. The students received a survey shortly after graduation and were asked to rate to what extent these skills were emphasised in the MBA programme and rate their interest in marketing career. The 6 skills weaknesses identified were decision making, leadership, problem formulation, persuasion, creativity and negotiation. (Dacko, 2006.)

This type of study design does not necessarily bring out the skills the marketing employers themselves find most relevant. There is a possibility some skills that the employers found crucial in 2006 were not included into the listing drawn from older marketing literature.

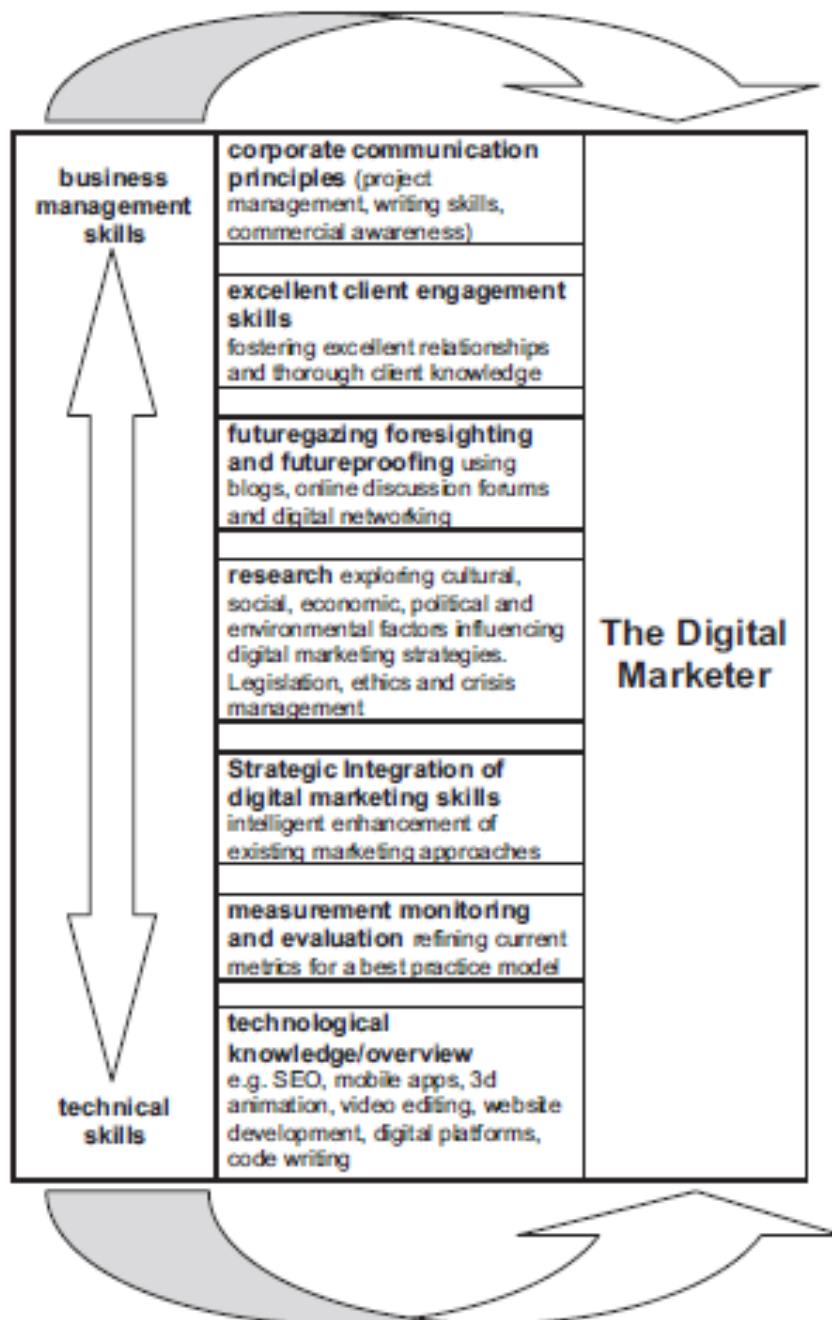
Another example of a survey study is "A Gap Analysis Approach to Marketing Curriculum Assessment" of (Davis et al, 2002). In this research recent graduates (graduated 3-5 years ago) were sent a survey that presented a list of 11 skills and knowledge areas. These 11 variables came from several sources including secondary data, a general recruiter survey and a survey of firms that heavily recruited marketing graduates. The listing produced by these sources was then circulated to marketing faculty for review and comment. The respondents evaluated both how relevant these were considering their current employment as well as how effectively they felt these skills and knowledge were delivered via their marketing curriculum. The results showed these graduates value skills over knowledge and felt they were underprepared in oral & writing skills and technical skills and overprepared in knowledge. (Davis et al. 2002, 220-221).

The method for collecting data to identify the variables to be studied in the survey was more diverse in this research of Davis et al., 2002. It does not however record if the

recent graduates managed to get employment where they wished with the skills and knowledge they had – it only tells how the skills and knowledge suited the position they were hired to. Another issue with collecting variables to be studied in a survey is that they are often not very specific. What is meant by creativity, oral skills or technical skills? What do they mean in everyday work life in a marketing position?

Royle and Laing created a Digital Marketer Model for communication industries in 2013 see (Figure 2). Gathering primary data with interviews from industry experts allows to get very detailed information, and the model created go more in depth providing examples of the skills in each category. What the model does not show is if there is a hierarchy between these categories or if all the skill categories are equally important. It is however specified in the research paper the most significant skills gap was to find employees who have strategic digital marketing knowledge and overview of the digital technology and can combine that with the traditional marketing practice. (Royle and Laing, 69, 2013). The knowledge on the nature of the digital marketing skills gap grows more precise when primary data is utilized and experts working in the field are heard.

Figure 2. Digital Marketer Model. Royle and Laing (2013, 69)





## 2.5 Digital Marketing – A Side Note in Marketing Text Books

To get an extensive view on how the role and importance of digital marketing is perceived in universities offering marketing degrees or business and similar degrees with marketing components, the curricula of the universities would need to be studied. For this research this approach would be too extensive, but to get an overview whether digital marketing is perceived as a central basic element of marketing, contents of marketing text books with general marketing, international marketing and marketing management approaches were reviewed. The approach of one text book is introduced to give an example of an approach where digital marketing is mentioned but not considered in depth. This was chosen as it was typical the books contained some content on digital marketing but not extensive content.

When looking at the table of contents, many of the text books contained only side notes or a short chapter on topics such as digital marketing (Fahy & Jobber, 2012), E-commerce (Czinkota and Ronkainen, 2013), the digital age, online marketing (Kotler and Armstrong, 2014), online retail sales and smartphone marketing (Hollensen, 2017). None of the books had extensive contents on digital marketing. The inconsistency of the digital marketing topics chosen also suggests there is no consensus on which areas of digital marketing should be considered as basic knowledge on marketing. This indicates that digital marketing is still more viewed as a separate area of marketing rather than central basic content.

One example of how digital marketing is presented in a marketing text book can be seen in the book *Marketing Communications. A European Perspective* (De Pelsmacker et al., 2010). Marketing communications, aka promotion mix is presented to include the following tools: advertising, sales promotions, sponsorship, public relations, point-of-purchase communications, exhibitions and trade fairs, direct marketing communications, personal selling, e-communications (De Pelsmacker et al., 2010, 2-3). These are presented in Figure 3.

Figure 3. 4Ps of Marketing Mix, Source:(De Pelsmacker et al., 2010, 3).

Product	Price	Place	Promotion
Benefits	List price	Channels	Advertising
Features	Discounts	Logistics	Public relations
Options	Credit terms	Inventory	Sponsorship
Quality	Payment periods	Transport	Sales promotions
Design	Incentives	Assortments	Direct marketing
Branding		Locations	Point-of-purchase
Packaging			Exhibitions and trade fairs
Services			Personal selling
Warranties			Electronic communication

It could be argued that these more traditional marketing definitions are missing on how comprehensive the digitalisation of marketing has been. Electronic communication is presented only as one part of the marketing communications mix and it is stated it “offers new ways to communicate interactively with different stakeholders”. Mobile marketing and digital television are provided as examples. (De Pelsmacker et al., 2010, 2-3). However, it can be argued that every other part of the communications mix is also digitalised.

Companies advertise online various ways. You will only need look at the newsfeed of your Facebook-profile and you see advertisements targeted at you or search for information in Google and you will find sponsored search results first. Sales promotions can also happen as well online when companies offer discounts or have a sales campaign after launching a new product. A traditional example of a sponsorship is a sports team for which a company provided training clothes and in exchange was able to build their brand awareness by printing their logo on the back of the training jacket. In the digital era, a sponsor can be a make-up brand offering their products for free to a blogger or a video blogger who then writes a good review about them or uses them in their make-up tutorial video.

Direct marketing happens via e-mail and while personal selling used to mean face-to-face contact, it might as well be the LinkedIn sales agent who writes to you in your private message box of your LinkedIn account asking if you wish to update to Premium-account. Even trade fairs can be virtual nowadays (Gard, 2014).

## 2.6 Definition of a startup

A startup is described as “an organization formed to search for repeatable and scalable business model” (Blank, 2010) and as “a company designed to grow fast” (Graham, 2012). European Startup Monitor (ESM) has a 2-part criterion for startups. Firstly, startup cannot be more than 10 years old. Secondly, it must “have an innovative/disruptive business model or technology” and/or “to aim at a significant growth in revenue and number of employees” (Ripsas and Hentschel, 2015).

## 2.7 Skills gaps in Berlin startups

Berlin is a well-known startup hub in Germany. Startups are important for the economy, while they create jobs by using new technologies and innovative business models (Ripsas and Hentschel, 2015, 1). However, Berlin has been criticized of not providing the best possible circumstances for fast growing companies (Kritikos, 2016, 339). One of the key issues is the lack of local highly qualified employees (Kritikos, 2016, 334). This is controversial considering the amount of academic unemployment in Berlin. In May 2016, the unemployment rate of people with tertiary education was 13.9% (Brenke, 2016, 335). Yet it is unclear whether the unemployed academics fulfil the needs of the startups (Kritikos, 2016, 344).

There is no field of business that does not need digital marketing, but there might be differences in how many areas of the business the digitalization pierces. Roughly half of Berlin startups work in the digital industry in categories such as e-commerce, software as a service and online-related services and applications (Ripsas and Hentschel 2015, 2, 4). These are the kind of companies Kollman described to have the value chain of net economy instead of a traditional value chain. In these startups the need for skilled digital marketing professionals is even more pressing.

Even though the startups create an average of 25.2 jobs per startup in Berlin, the number of jobs in the early stages is remarkably lower, seed-stage providing only an average of 2.5 jobs and startup stage 5.6 (Ripsas, 2015, 5). Startups are 2.8 years old in average (Ripsas, 2015, 2). This means most of the start-ups have only one person working with

marketing tasks who is expected to possess a large set of skills and expertise. This might bring in an additional challenge in acquiring the employees needed. On the other hand, in startups with more personnel more specialized skills might be needed, if one marketer is supposed to only concentrate on e.g. search engine optimization (SEO) or social media marketing.

The nature of the skills gap in Berlin startups has not yet been studied in detail. In 1999, before young innovative companies were called startups, Mark S Freel from University of Aberdeen Centre of Entrepreneurship did a research on skills gaps in startups. The results showed that small innovative firms typically experience an internal skills shortage as they are rather hire employees than use external experts (Freel, 1999, 144). In other words, employees possessing skills relevant for their business weren't available at the marketplace. It was also recognized innovative startups were likely to hire recent graduates. While the age of startup employees in Berlin is not known, the startup founders are 34.9 years old on average and startups in Germany do hire an average of 3 student workers or interns (Ripsas, 2015, 5). This gives a reason to assume the startups in Berlin would be likely to hire recent graduates if the skillset of the graduates matched with the needs of the startups.

The skills gaps recognized by Freel were technical skills followed by marketing competencies. Nowadays these two fields are overlapping, but there is still reason to expect it holds true, as digital marketing suffers from academic-practitioner gap and technical skills gap is one of the identified gaps. As digital marketing is a central field to startups working in the digital industry, it is likely what Freel discovered in Aberdeen in 1999 still holds true in Berlin in 2017.

## 3 RESEARCH METHODOLOGY

### 3.1 Presenting up to date practitioner viewpoint

This study was done by using primary data and an inductive qualitative method as opposed to previous research, where mainly secondary data and quantitative approach was used. Using primary data suits well the fields where research knowledge changes rapidly (Hirsjärvi et al, 1997, 105), like digital marketing. Previous research has also emphasised academic viewpoint, and this study aimed to go as close to the practical field and the experts working in that field as possible. Qualitative approach suited this goal well as it lets the people researched have their voice heard (Hirsjärvi et al, 1997, 165). Qualitative and quantitative study can well complement each other. Qualitative research can be used to find out what is relevant information considering the phenomenon observed. It can then later be confirmed by quantitative study whether these results can be generalized (Hirsjärvi et al, 1997, 133). This applies especially well to this study, where the qualitative method is used to bring out new, detailed information. Whether the results can be generalised can be confirmed by quantitative study in the future.

The data was planned to be collected from job advertisements and interviews with marketing experts in startups. Eventually the interviews were left out and only job advertisements were analysed. Conducting the interviews proved to be the most challenging part of the study and eventually no interviews were done. The main reasons were inability to contact directly the people to be interviewed and time limitation.. The value proposition of how the interviewees would benefit from giving the interview could have improved. Also, a shorter interview time could have been more appealing to the busy startups. After making the decision of leaving the interviews out the research objectives and research questions were adjusted to the new approach. This is described more in detail in Chapter 3.3.

### 3.2 Job advertisements describe digital marketing skills relevant to the startups

To analyse the job advertisements a method suitable for categorising and analysing information rising from the source was needed. For this thematic analysis, which is a

form of inductive method (O’Gorman and MacIntosh, 2015, 51), was chosen. Thematic analysis can be used for identifying and analysing patterns in data. (Braun and Clarke, 2006, 6).

The limitations of thematic analysis are that the themes might overlap, the researcher might not analyse the data but rather just categorize it or the themes are not consistent and coherent. In theme analysis it is also important the themes rise while analysing and are not predetermined. (Braun and Clarke, 2006, 24-25.) To take the limitations into consideration, there were no decided categories ready when the analysis started. First all job skills from the job advertisement were gathered in a table with frequencies, and only after that they were grouped into categories and the categories were named. It was not possible to totally avoid overlapping, but if there was a skill that could fit into more than one category, it was recorded and explained how the category decision for that skill was made. When all the categories were ready, a small analysis on each category and its meaning was provided to make sure the analysis wasn’t limited to only categorising.

The marketing job advertisements posted on the website [berlinstartupjobs.com](http://berlinstartupjobs.com) Marketing & Communications section were analysed in two 10-day periods both at the end of 2016 and end of 2017. The website was chosen as by search words “marketing startup jobs Berlin” the first three hits guide to this website, which means it is likely the people looking for a job will choose it, and this also means it’s a relevant site for the employers to advertise. The amount of jobs posts (26-28 posts during an observation period of ten day) also suggests the site is popular.

The purpose was to see what kind of digital marketing skills were mentioned. The requirements were gathered from both the job description part of the advertisements and from the section of expected skills of the applicants. Most of the skills were listed in the latter section, but also the skills mentioned in the job description were relevant as it describes what the responsibilities of the employee working in the position are. An example of how the skills were identified for this research can be found on Picture 1.

Picture 1. Example of a Job Advertisement. Kosonen, I., 2017.

We are looking for a SEA and Display Marketing Manager for our office in Berlin.

### About the job

- You will be responsible for planning, implementing and optimising our Google AdWords and Facebook campaigns globally.
- You plan, steer and optimise Pay per Click campaigns with respect to budget and target KPIs in our markets Germany, UK & France
- You constantly analyse the performance and come up with optimisation strategies
- You collaborate with IT & Product to employ a structured conversion optimisation process using A/B and multivariate testing of landing pages
- You work hands-on with the whole marketing team to implement a global marketing strategy
- You are responsible for the creation and presentation of quarterly/ad hoc reports, covering campaign performances
- You support, train and coach our Online Marketing interns

### Who we're looking for

- University degree in business, marketing, communications, mathematics or any related field
- 3+ years experience in SEA
- Experience in working with popular Performance Marketing tools, such as AdWords, Bing Ads and Bid Management tools
- Knowledge of Facebook Ads, YouTube ads, display and retargeting tools is a plus
- You have a high affinity for numbers and a deep understanding of Google Analytics as well as Microsoft Excel
- You have excellent communication skills and the ability to meet deadlines and prioritise workloads
- You have a good understanding of HTML and CSS
- Entrepreneurial spirit, creativity and a hands on mentality are essential to us
- This is a unique and great opportunity to show off your splendid analytical skills
- You are experienced with the MS Office package
- Fluent English language skills are mandatory, German or French are a plus

The first observation period took place between 23 November – 02 December 2016. During the period altogether 26 job advertisements were posted and all of them analysed. The second period was 22 November – 01 December 2017 and during that time a total of 28 job advertisements were posted and all of them analysed. Each analysed job advertisement had digital marketing skills mentioned – there were no advertisements for marketing jobs during the observation periods where no digital marketing skills were mentioned. The observation periods were limited to 10 days each as this time window provided a sufficient amount of job advertisements to analyse.

Although altogether 54 job advertisements were analysed, the amount is not a representative sample of all marketing job advertisements for Berlin startups and statistically significant conclusions cannot be drawn. If the results were to be generalized, a bigger sample would be needed. It was not the purpose of this observation to produce generalizable results but to bring out new information. It can then later be confirmed by quantitative methods whether the results can be generalized. However, the data can be used to determine what is repeating often in the job advertisements on a general level. The saturation theory used when doing qualitative interview analysis can also be used when analysing the job advertisements.

The saturation theory is commonly used to determine when a relevant number of interviews has been done. When the interviewees start repeating similar type of answers, it can be deducted something important about the phenomenon has been discovered (Hirsjärvi et al, 1997, 181). Similar approach is applied here. When similar skills started repeating in the observed job advertisements, it can be assumed these skills are important digital marketing skills in Berlin startups and they should be studied further to see if the results can be generalised. The job advertisements were analysed so long as most of even the less frequently mentioned skills were mentioned more than once. A 10-day observation period proved to be sufficient for this both years,

### 3.3 The long road to Experts

The interviews were planned to be done by sending interview invitations to the startups that had posted the job advertisements in November or December 2016. It was reasonable to assume that in November 2017 they would have had an employee working in that position. The supervisors of the marketing employees were planned to be interviewed.



The interviews were planned to be done as semi-structured theme interviews. There was not a pre-determined list of questions that every interviewee would have had to answer. This would have allowed also the possibility to add questions to latter interviews if in the previous interviews would have occurred some themes that were relevant but were not included in the original questions. There would have been at the beginning seven main themes. In brackets are mentioned some assisting subthemes if it would have looked in the interview situation the questions would have needed to be specified or the person would have needed to warm up before talking more freely.

1. Company background (age/business idea/how many employees/...)
2. Supervisor/interviewee background (position in the company/ education/...)
3. Overview of marketing in this company (relevance/resources/how many people working)
4. Background of the position that was open at end of 2016
5. Relevant skills for the position that was open at end of 2016
6. Background of the person that was hired to the position (education/experience/...)
7. Compare the skillset to skills you previously listed as relevant? (Skills they had/ skills they had to improve/...)

Most of the companies did not have any information on their team available online. Even if there were team members mentioned on their website they were the people in the highest and most responsible positions in the company and thus the ones least likely to have time or interest for giving an interview. If their names and photos were available on company websites there were never any contact information available. Eventually the only contact information to be found for a company online was the general phone number and/or email address. These could usually be found on the company Facebook-site, whereas the company websites usually only provided nothing or a contact form. This contact form is clearly designed for the consumers using the company's product or service. For one company providing Instagram analytics tool, filling in Instagram username was a compulsory field in this contact formula. This is a good example of how these kinds of formulas are not suitable for sending interview invitations.

Due to the lack of options, companies were sent an interview invitation email to the general company email address. An example of the interview invitation see Appendix 1. Altogether 22 invitations were sent. 4 companies were ruled out based on lack of contact details. Only one invitation was answered with a request to send more details about the

research and researcher to a person working in the marketing department, but after providing the information requested no further response from the company was received. This might indicate the value proposition to what the company would gain from participating was not appealing enough.

Further options for getting interviews could have included visiting the companies door to door without appointment or visiting a startup fair. Also calling the companies would have been an option. However, no startup fair took place in November and due to working fulltime during office hours it was not possible for the author to visit or call other companies during office hours. The long distances in Berlin presented an extra challenge considering the time available.

Leaving out the interviews the research objectives and questions had to be redefined. Originally research questions were as follows:

1. What kind of digital marketing skills are relevant for employees working in marketing positions in Berlin startups?
2. How well prepared are the employees working in marketing positions in Berlin startups with these skills? What are the areas of under- and over preparedness?

The second question had to be left out and replaced with another:

3. What kind of digital marketing skills are relevant for employees working in marketing positions in Berlin startups?
4. How does this compare with the view of marketing academics on digital marketing skills?

This led the research objectives to change accordingly.

Original research objectives:

To determine what kind of digital marketing skillset is needed in Berlin startups. To find out what skills the recently hired employees were well-prepared on and what skills they were lacking.

Final research objectives:

To determine what kind of digital marketing skillset is needed in Berlin startups. To analyse how this compares with the view of marketing academics on digital marketing skills.

## 4 MORE DETAILS ON THE ANALYTICAL AND TECHNICAL SKILLS GAP REVEALED

Based on the job advertisements, analytical skills accompanied by a wide range of technical skills are important when applying for marketing positions in Berlin startups. This supports previous research indicating digital marketing skills gaps lie in both analytical and technical skills, but it also brings out more detailed information of what is meant by analytical or technical skills. The three most important skill categories recognized were Analytics, Search Engine Marketing and Social media. Although a wide variety of different technical skills were mentioned, there was a clear tendency for the skills in these three main category to be mentioned frequently whereas some other skills, such as photo editing skills or programming language skills were mentioned more occasionally.

### 4.1 10 Skill Categories Identified

The skills that were taken into account were those strictly related to digital marketing. Skills such as social skills were not taken into account, as they are not digital marketing-specific skills. While analytical skills might not be so clearly skills only related to digital marketing, they were the skill mentioned most often and in 10 cases it was specified which digital tool is used for the analysis, and tools such as Google Analytics can be considered digital marketing tools. Thus, Analytics was a relevant skill category to be included. Moreover, as previous research pointed towards analytical skills gap it was important to see if the analytical skills could be described in more detail.

The skills were divided to 9 categories: Analytics, Search Engine Marketing, Social Media, E-Mail Marketing, Ms Office, Programming Languages, Websites/Blogs, Photo Editing and Display Marketing. Skills that didn't fit to any of these categories were listed under the category Other. These categories are analyzed one by later in this chapter. All skills can be seen in Table 1 and Table 2.

In both years there were three categories that were mentioned in 50% or more of the job advertisements. These categories were Analytics, Search Engine Marketing and Social Media. In 2016 Analytics was mentioned in 92.31% of job advertisements, Search

Engine Marketing in 76.92% of the job advertisements and Social Media in 50.00% of the advertisements. In 2017 Social Media was mentioned in 82.14% of the advertisements, Analytics in 57.14% and Search Engine Marketing in 50.00%. Also, the three categories following these three most popular categories stayed the same both years. They were E-Mail Marketing, Ms Office and Programming languages.

While the skills mentioned are specific and often relate to some specific digital tool or platform, there are still some patterns to be seen. In social media Facebook is clear leader and in all other categories Google is mentioned often. This is logical, as Google is the most used search engine (Statista, 2017). Facebook is also the most popular social media ranked by number of active users (Statista, 2017) and specialized in providing website-like business pages for companies. It seems in the category of social media and Search Engine Marketing the most wanted digital marketing skills can be deducted by checking which social medias and search engines are the market leaders.

### **Search Engine Marketing**

Inside these categories the skill definitions are specific. For example, in the category Search Engine Marketing it was in most cases specified, whether the skills related to Search Engine Advertising or Search Engine Optimization. Search Engine Optimization was sometimes divided wider into the subcategories Search Engine Optimization on page and Search Engine Optimization off page. In addition, many specific digital tools, such as Google AdWords, Bing ads and Sistrix SEO tool were mentioned. Google tools were mentioned also in other categories, especially Google analytics in the Analytics category.

### **Analytics**

As opposed to other categories, "Analytics" category mentioned only sometimes specific digital tools. In this category were recorded mentions such as "very good analytical skills", "highly analytical profile" and "an analytical thinker." The most often mentioned digital tool in this category was "Google Analytics". Also, Google Tag Manager, Google Search Console and Webtrekk customer analytics platform were mentioned. It could be also argued that for example Excel is a program/software that can be used for analytics, but as it has also other purposes, so it was recorded under "MS Office" instead.

## Social Media

In the category Social media it was quite likely for the companies not to specify the social media channels. This indicates that a marketing professional should be aware of the most popular channels. Of the ones that were mentioned, Facebook and LinkedIn were the most popular. Of other social media channels mainly single mentions were recorded.

Table 1. Digital Marketing Skills in Startup Job Advertisements in 2016.

Kosonen, I, 2017.

Skill	Times mentioned	% of all ads
<b>Analytics</b>	<b>total 24</b>	<b>92.31%</b>
Monitoring and analysing	16	
Webtrekk Customer Analytics Platform	1	
Google Analytics	5	
Google Search Console	1	
Google Tag Manager	1	
<b>Search Engine Marketing</b>	<b>total 20</b>	<b>76.92%</b>
Search Engine Marketing	1	
Search Engine Advertising	2	
Bing Ads	1	
Google AdWords	4	
Search Engine Optimization	5	
Search Engine Optimization on page	2	
Search Engine Optimization off page	2	
Sistrix SEO Tool	1	
Bid-Management	2	
<b>Social media</b>	<b>total 13</b>	<b>50.00%</b>
Social media	6	
Facebook	3	
Facebook ad	2	
LinkedIn	1	
Instagram	1	
<b>E-Mail Marketing</b>	<b>total 11</b>	<b>42.31%</b>
E-Mail Marketing	7	
Newsletter	3	
Mailchimp	1	
<b>Ms Office</b>	<b>total 9</b>	<b>34.62%</b>
Ms Office	3	
Excel	6	
<b>Programming Languages</b>	<b>total 6</b>	<b>23.10%</b>

HTML	1	
SQL	3	
PHP	1	
Python	1	
<b>Other</b>	<b>total 4</b>	<b>15.38%</b>
DRTV (direct response television)	1	
HubSpot Inbound Marketing Software	2	
Affiliate marketing	1	
<b>Websites/Blogs</b>	<b>total 3</b>	<b>11.54%</b>
WordPress	3	
<b>Photo editing</b>	<b>total 2</b>	<b>7.70%</b>
Photoshop	2	
<b>Display marketing</b>	<b>total 2</b>	<b>7.70%</b>
Display marketing	1	
Google Display network	1	

Table 2. Digital Marketing Skills in Startup Job Advertisements in 2017.

Kosonen, I, 2017.

Skill	Times mentioned	% of all ads
<b>Social media</b>	<b>total 23</b>	<b>82.14%</b>
Social media	7	
Facebook	6	
Facebook ads	1	
LinkedIn	2	
LinkedIn ads	1	
F6s	1	
Instagram	1	
Twitter	2	
YouTube	1	
WhatsApp	1	
<b>Analytics</b>	<b>total 16</b>	<b>57.14%</b>
Monitoring and analysing	14	
Google Analytics	1	
Google Tag Manager	1	
<b>Search Engine Marketing</b>	<b>total 14</b>	<b>50.00%</b>
Search Engine Marketing	3	
Search Engine Advertising	2	
Google AdWords	4	
Search Engine Optimization	3	
Search Engine Optimization on page	1	

Sistrix SEO Tool	1	
<b>Ms Office</b>	<b>total 9</b>	<b>32.14%</b>
Ms Office	2	
PowerPoint	1	
Word	1	
Excel	5	
<b>E-Mail Marketing</b>	<b>total 5</b>	<b>17.86%</b>
E-Mail Marketing	2	
Newsletter	3	
<b>Programming Languages</b>	<b>total 4</b>	<b>14.29%</b>
HTML	1	
CSS	1	
SQL	1	
programming knowledge	1	
<b>Websites/Blogs</b>	<b>total 4</b>	<b>14.29%</b>
blogs	2	
website	2	
<b>Display marketing</b>	<b>total 4</b>	<b>14.29%</b>
Display marketing	4	
<b>Photo editing</b>	<b>total 3</b>	<b>10.71%</b>
InDesign	1	
Photoshop	2	
<b>Other</b>	<b>total 3</b>	<b>10.71%</b>
DRTV	1	
Salesforce	1	
mobile push notifications	1	

## E-Mail marketing

E-Mail marketing was more popular in 2016 with mention in 42.31% of the job advertisements than in 2017 with only 17.86%. While the sample of the advertisements is small and cannot be generalized, there would be reason to study further if the trend on E-Mail marketing is falling. The skills in this category were most often referred to simply by “E-Mail marketing”. Also “Newsletter” as a form of e-mail marketing was mentioned often. Once a specific email marketing tool “Mailchimp” was mentioned.

## **Ms Office**

The program mentioned most often in category Ms Office was Excel. Excel was in both years more frequently mentioned than only “Ms Office”. Only one job advertisement mentioned specifically other Ms Office programs such as Word and PowerPoint. Sometimes Excel was mentioned when talking about analytical skills, but it was still decided to be recorded under Ms Office category as it can be used for more than only analyzing.

## **Programming Languages**

In both years a few specific programming languages were mentioned in the job advertisements. Most frequently mentioned was SQL followed by HTML. CSS, PHP and Python were all only mentioned once. While the programming languages are clearly more an occasional than frequent requirement some basics on a couple of the more popular and basic understanding on the differences on programming languages would seem to be useful when applying for a marketing position in Berlin startups. If only one would need to be chosen, it would be SQL. The universities offering marketing studies could consider these programming skills as part of their curricula.

## **Websites/Blogs**

This category is a bit overlapping with Programming languages, as programming languages can also be used when creating and working with websites. As programming languages have also other purposes, they were decided to be handled as a separate category. In this category websites were only referred to as websites and blogs and blogs. Additionally, WordPress was mentioned. WordPress can be used for both websites and blogs.

## **Photo Editing**

In the category photo editing a specific photo editing software was always mentioned and photo editing skills were never referred to as only photo editing. Once InDesign was



mentioned, in all the other cases the software referred to was Photoshop. This is again a good example on how despite a variety of skills required certain software and platforms are clearly the ones used as standard for certain tasks rather than every company just having different software, platforms and digital tools.

### **Display Marketing**

Display marketing was also one of the categories mentioned less frequently. It was mainly referred to as only “display marketing” and only once it was specified Google Display Network is to be used.

### **Other**

In the category other were recorded skills that didn't fall into any other category and were only mentioned 1-2 times in both years combined. These were direct response television (DRTV), Salesforce and HubSpot software, mobile push notifications and affiliate marketing. These skills don't seem likely to be central in most of the marketing positions, but they still might a big relevance to one certain position. As an example of this is the job advertisement for “International Head of TV Media Buying” where DRTV was mentioned as working with it is crucial skill for the person in the position. This example can be seen in Picture 2. This is not however relevant in recognizing more general digital marketing skills.

Picture 2. Job Advertisement Example 2. Berlinstartupjobs.com, 2017.

### Who we're looking for

- This role will demand the following skills:
- Highly analytical profile
- Already worked in a TV setting, used to manipulate and assess media plans and set up quarterly or yearly strategies for TV
- Knowledgeable about both Brand and Direct Response TV and used to drive performance for both
- Deeply experienced in media buying in at least one of our top markets (Germany, UK and Australia)
- Able to optimize DRTV based on performance, ideally in more than one country
- Open-minded and used to working in multicultural settings
- Strong soft skills and communication skills to interact with multiple internal and external teams
- Fluency in English is required

#### 4.2 Reinforcing and expanding previous skills gap research

Previous study has pointed gaps towards technical skills (Freel, 1999), (Davis et al. 2002), Royle and Laing (2013) and analytical skills Royle and Laing (2013), (Leeflang et al., 2014). According to the job advertisement analysis technical and analytical skills are important in marketing positions in Berlin startups. They are also partly overlapping, as analytical skills require often the use of digital analytics tools. It is clear by the job advertisement analysis that the variety of technical skills is wide and rather than talking about it as a one entity it is helpful to study the skills gap on technical skills by first identifying the technical skills more in detail and dividing them into categories. Considering the amount and variety of different skills mentioned and how frequently especially the main categories occurred, it indicates digital marketing skills are central marketing skills and not just an add-on to traditional marketing. This is reinforced by the finding that in each job advertisement analysed digital marketing skills were mentioned.

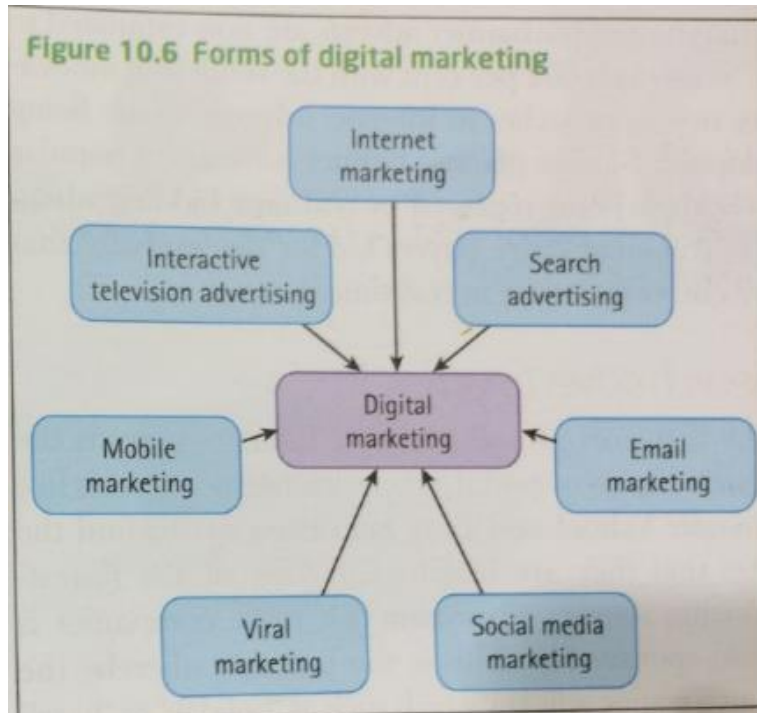
#### 4.3 Marketing Text Books vs Job Advertisements on Digital Marketing

When comparing the data from the job advertisements to how digital marketing was presented in the overview of marketing text books, a clear gap can be identified

The job advertisements reinforce the idea that digital marketing is not only an additional set of marketing tools but central to current marketing practice whereas in marketing text books only few pages are given to the topic. However, also similarities can be noticed. In most of the marketing textbooks there seems to be no clear pattern what areas of digital marketing are handled, but in their book "Foundations of Marketing" from 2012 Fahy and Jobber recognize many of the same main categories that could be identified in the job advertisements. Their idea of digital marketing skills/areas can be seen in Figure 4.

The figure Fahy and Jobber, 2012 have on digital marketing uses a bit different terminology, but similarities in categories can be noted. Search Advertising is a part of Search Engine Marketing, Social Media marketing is mentioned as well as E-Mail marketing. The other categories Fahy and Jobber recognize are Internet Marketing, Mobile marketing, Viral Marketing and Interactive television advertising which cannot be clearly combined to any of the categories identified on the jobs advertisements, partly due to differences in terminology. For example, Internet Marketing appears as a vague category.

Figure 4. Forms of Digital Marketing. Fahy and Jobber, 2012, 264



The most notable difference is that when analyzing the job advertisement, it was clear some categories were repeating frequently, and Analytics, Social Media and Search Engine Marketing could be identified as the main categories. In the marketing text books often some area of digital marketing was covered, but there was not so much of a consistency, which one. As almost all authors had included some digital marketing contents, it could indicate the change digitalization has triggered in marketing is recognized and perceived as something that should be included also in basic marketing books. There just it not yet a clear consensus on the relevant areas that should be covered or how extensive content should be included. It is also possible the digital marketing content can only be found on books concentrating solely on digital marketing, but that does not consider the central role digital marketing has in today's marketing.

## 5 CONCLUSION

This research identified analytical and technical skills to be relevant for digital marketing positions in Berlin startups. Previous research pointed towards skills gaps in analytical and technical skills, although also other skills gaps have been identified. A more specific definition of skills such as technical or analytical skills has not existed. This research managed to provide more detailed information what are the technical skills required. It also specified that analytics skills often include using digital tools for analyzing.

The research also pointed out more detailed knowledge about digital marketing skills gaps can be gained by using primary data sources. This can be also seen from previous study. One ideal data source are interviews with practitioners, but getting interviews requires time, networks, or both. However, the methods used for data collection for this study highlighted interviews are not the only primary data source available. The benefits of using primary data also include more up to date research in the rapidly changing field of digital marketing as well as bringing out the voice of practitioner field. This is needed as digital marketing has proved to suffer from an academic-practitioner gap that is wider than on other fields.

According to the job advertisements analytical skills are one of the most important skills and it might be combined with using technical tools for analytics. A lot of the skills mentioned were specific technical skills such as using different software, social media platforms or digital tools. While there was a wide variety in the skills, 10 categories could be defined. The skill categories were Analytics, Search Engine Marketing, Social Media, E-Mail Marketing, Ms Office, Programming Languages, Websites/Blogs, Photo Editing, Display Marketing and Other. The three main categories that were mentioned in half or more of the job advertisements were Analytics, Search Engine Marketing and Social Media.

Though the skills varied and included several different software, social media platforms and digital tools, it could be seen the software, social media platforms and digital tools mentioned were often those of the market leaders. Digital tools related to Search Engine Marketing were often Google tools, and Facebook being the social media platform with most users also got mentioned most frequently. Photo editing skills were never referred to as only photo editing skills, but Photoshop software was always mentioned.

When the results of the job advertisement analysis are compared to how digital marketing is approached in marketing basics text books, there is a clear gap. In marketing basics text books digital marketing is viewed as an add-on or left completely out. There is no clear consensus on what digital marketing consists of and different books handle different topics. The only thing common is that none of the books had extensive content on digital marketing.

Even if digital marketing topics such as search engine marketing are covered in marketing text books, the more relevant question is how these topics are handled in the marketing classes of universities providing business and marketing education? The wide variety of practical technical skills requires practice-oriented approach as information technology where the teaching should happen rather in IT classrooms than lecture halls. This is something that must be taken into consideration when engaging into the discussion about academic research versus practical relevance. Marketing as a field is moving towards practical fields such skills should be as natural for marketers of the future than taking blood test is for a nurse or coding for an IT professional.

If recent graduates lack the practical technical digital marketing skills when looking for employment it makes the situation especially hard for them as these skills are so tangible and clearly defined. If a job advertisement calls for team playing skills, it is easy to claim having those skills and arguing how they were developed. Skills such as Search Engine Optimization however are something one can only learn by practicing. Thus, not having these technical skills might be a bigger barrier in getting employment than other skills.

### 5.1 Limitations and Future Research

One of the main limitations of this study is that the results cannot be generalized, and quantitative study would be needed to confirm the results. As the amount of observed job advertisements is small, the skills mentioned in these job advertisements are not a statistically relevant presentation of skills in all the job advertisements of all Berlin startups. They are however a starting point for further research. Building up a survey based on skills mentioned in job advertisements of startups might bring out up to date and relevant results for skills gap study..

Studying skills in the job advertisements does not tell whether the startups are able to find employees possessing these skills. It also doesn't tell how important these skills are

in relation to other skills, knowledge or qualifications of the employee. It's possible so many technical skills are emphasized because they are easier to name than other skills or qualifications. It is proven however by previous research that an academic-practitioner gap exists, and that technical and analytical skill gaps do exist and that Berlin startups suffer from a lack of qualified workforce, there is a reason to assume that these Berlin startups suffer from a skills gap in these areas of technical and analytical skills. There surely is an indication to do further research on the topic.

Studying how digital marketing is presented in marketing basics text books does not provide a thorough understanding how marketing or digital marketing is taught at universities and what kind of skillset the graduates take with them when leaving for job market. The overview of marketing text books is also not comprehensive as there are many other text books available. It should be further studied if universities organize classes on digital marketing and what kind of skills or skills categories are covered. Doing research on the university curricula could bring out valuable information. For this research it would have been too extensive. The viewpoint of recent graduates and their employees could be also studied to analyse possible skills gaps.

For future research it could be studied as a longitudinal study how much the skills change over 5 or 10-year period. It could also be studied whether the same skills are needed in other startups in other countries or in other type of companies than startups. It would also be important to try to get interviews of the experts working in the field. To do this a better connection between marketing academia and professional field would be required. The academic-practitioner gap can also be a communications gap which prevents closing the gap. Without having connections to the practitioner field, it is not easy to get data for academic research from the practitioners.

## REFERENCES

- American Marketing Association, 2013. Available at: <<https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>> [Accessed 4 September 2017].
- Blank, S. 2010. What's A Startup? First Principles. Available at: <<https://steveblank.com/2010/01/25/whats-a-startup-first-principles/>> [Accessed 29 November 2016].
- Blumberg, B., Cooper, D. R. and Schindler, S. 2005. *Business Research Methods*. McGraw-Hill Education. Berkshire.
- Braun, V and Clarke, V, 2006. Using Thematic Analyse in Psychology. *Qualitative Research in Psychology*. Vol 3 Iss. 2. Pp. 77-101.
- Brenke, K., 2016. The Berlin labor market since 2005: strong employment growth yet unemployment remains high, incomes low. Deutsches Institut für Wirtschaftsforschung. *DIW Economic Bulletin*, Volume 6., pp. 327-338.
- Brennan, R., 2004. Should we worry about an “academic-practitioner divide” in marketing? *Marketing Intelligence & Planning* 22(5), pp. 492-500.
- Czinkota, M. R., and Ronkainen, I. A., 2013. *International Marketing*. South-Western Cengage learning.
- Dacko, S., 2006. Narrowing the skills gap for marketers of the future. *Marketing Intelligence & Planning*, Vol 24 Iss 3, pp. 283-295.
- Davis, R., Misra, S. and Van Auken, S. 2002. A gap analysis approach to marketing curriculum assessment: a study of skills and knowledge., *Journal of Marketing Education*, Vol. 24 No. 3, pp. 218-24
- De Pelsmacker, P., Geuens, M. and Van den Bergh, J., 2010. *Marketing Communications. A European perspective*. Pearson Education Limited. Harlow.
- Fahy, J. and Jobber, D, 2012. *Foundations of Marketing*. McGraw-Hill Education. Berkshire.
- Financial Times, 2016. Definition of digital marketing. Available at: <<http://lexicon.ft.com/Term?term=digital-marketing>> [Accessed 29 November 2016].
- Forbes, 2016. Top 10 Trends for Digital Transformation In 2017. Available at: <<https://www.forbes.com/sites/danielnewman/2016/08/30/top-10-trends-for-digital-transformation-in-2017/#311101f7347a5>> [Accessed 06 December 2017].
- Freel, M., 1999. Where are the skills gaps in innovative small firms? *International Journal of Entrepreneurial Behavior & Research*, Vol. 5 Iss 3, pp. 144-154.
- Gard, S. 2014. Virtual trade fairs: the future for small businesses? *The Guardian*. Available at:<<https://www.theguardian.com/small-business-network/2014/sep/18/virtual-trade-fairs-future-small-businesses>> [Accessed 4 September 2017].
- Graham, P., 2012. Startup = Growth. Available at: <<http://www.paulgraham.com/growth.html>> [Accessed 29 November 2016].
- Hirsjärvi, S., Remes, P. and Sajavaara, P., 1997. Tutki ja kirjoita. Kirjayhtymä Oy. Helsinki.



- Hirsjärvi, P. and Hurme, H., 2004. Tutkimushaastattelu. Teemahaastattelun teoria ja käytäntö. Yliopistopaino. Helsinki.
- Hoffman, D. I. and Novak, T. P., 2011. Marketing Communication in a digital era. *Marketing Management*, 20(3), pp. 36-43.
- Hollensen, S., 2017. *Global Marketing*. Pearson Education Limited. Harlow.
- Hundekar, S. G., Appannaiah, H., R. and Reddy, P. N., 2009. *Principles of Marketing*. Himalaya Publishing House.
- Kimmel, A. J., ed., 2005. *Marketing Communication. New Approaches, Technologies and Styles*. Oxford University Press.
- Kollman, T. 2013. Online-Marketing – Grundlagen der Absatzpolitik in der Net Economy. Kohlhammer. Stuttgart.
- Kollman, T. 2014. What is e-entrepreneurship? Fundamentals of company founding in the net economy. *Handbook of Research on Techno-Entrepreneurship: How Technology and Entrepreneurship are Shaping the Development of Industries and Companies*. (edit. François Thérin) Edward Elgar Publishing Limited. Cheltenham.
- Kotler, P. and Armstrong, G., 2014. *Principles of Marketing*. Pearson Education Limited. Harlow.
- Kotler, P, Keller, K. L., Brady, M., Goodman, M. and Hansen, T, 2012. *Marketing Management*. Pearson Education Limited. Harlow.
- Kritikos, A. S., 2016. Berlin: a hub for startups but not (yet) for fast-growing companies. Deutsches Institut für Wirtschaftsforschung. *DIW Economic Bulletin*, Volume 6. pp. 339-345
- Leeflang, P. S. H., Verhoef, P. C., Dahlström, P. and Freundt, T., 2014. Challenges and solutions for marketing in a digital era. *European Management Journal* 32, pp. 1-12.
- McNally, K., 1995. Corporate Venture Capital: the financing of technology businesses. *International Journal of Entrepreneurial Behavior & Research*. Vol. 1 Issue: 3, pp. 9-43.
- O'Gorman, K., MacIntosh, R., 2015. Research Methods for Business and Management: a guide to writing your dissertation. Goodfellow Publishers Ltd.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L., 1985. A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*. Vol. 49 No. 4, pp. 41-50.
- Reibstein D. J., Day, G. and Wind, J., 2009. Guest Editorial: Is Marketing Academia Losing Its Way? *Journal of Marketing*, 73, pp. 1-3.
- Ripsas, S. and Hentschel, B., 2015. European Startup Monitor – Country Report Germany 2015. [pdf] European Startup Monitor. Available at: <[http://europeanstartupmonitor.com/fileadmin/country\\_report/country\\_report\\_germany.pdf](http://europeanstartupmonitor.com/fileadmin/country_report/country_report_germany.pdf)> [Accessed 29 November 2016].
- Royle, J. and Laing, A., 2013. The digital marketing skills gap: Developing a Digital Marketer Model for the communication industries. *International Journal of Information Management*, Volume 34, Issue 2, April 2014, pp. 65-73.
- Statista, 2017. Worldwide desktop market share of leading search engines from January 2010 to July 2017. Available at: <<https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines>> [Accessed 31 October 2017].
- Statista, 2017. Most famous social network sites worldwide as of September 2017, ranked by number of active users (in millions). Available at:

<<https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users>>  
[Accessed 04 December 2017].

Vernuccio, M. and Ceccotti, F., 2015. Strategic and organizational challenges in integrated marketing communications paradigm shift. A holistic Vision. *European Management Journal*. Volume 33, pp. 438-449.

Wind, J. and Mahajan, V., 2002. *Digital Marketing: Global Strategies from the World's Leading Experts*. Wiley.

## Appendix 1 – Interview Invitation

Invitation to participate in the research project “Digital Marketing Skills Gaps in Berlin Startups”

Dear Mr/Ms,

I'm writing to you in regards to the research project Digital Marketing Skills Gaps in Berlin startups. Would you be so kind as to direct this interview invitation to the head of marketing or similar contact? Unfortunately there was not contact information to be found at the company website. I am ideally looking for the person who works as the supervisor of the person working as XXXXXX you were recruiting in (November/December) 2016. Even if no one was hired to that position, I am interested. Thank you!

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Dear Mr/Ms,

I am conducting interviews as part of a research study to increase the understanding of the digital marketing skill set needed for marketing positions in Berlin startups. Your company posted a job ad for XXXX at berlinstartupjobs.com in November 2016 and that is the reason why I am contacting you. As a marketing expert you are in an ideal position to give us valuable first-hand information.

The interview takes around 30-60 minutes and the possible dates are between 24.11-01.12.2017. If you are willing to participate, please suggest a day and time that suits you and I'll do my best to be available. I can either visit the company office in Berlin for the interview or the interview can be done via Skype. The interview is informal. I am simply trying to capture your thoughts and perspectives on the digital marketing skills as well as recruiting and employing marketing personnel in the company. The interview is done in English, as the research is also written in English.

The interview will be recorded for research purposes, but your responses to the questions will be kept confidential and anonymous, and the company or your employees will not be mentioned in the research. Your participation will be a valuable addition to our research and findings could lead to greater public understanding of digital marketing in startups and the people in the field.

If you have any questions, please do not hesitate to ask.

Best Regards,  
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