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Master's Thesis

Data-driven marketing in B2B companies from a resource-based theory perspective

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ABSTRACT

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Data-driven marketing is a novel phenomenon, which is not yet widely discussed in the academia especially in the B2B context. The purpose of this study is to deepen the understanding and knowledge of the topic by offering insight of what kind of resources and capabilities are required in B2B organizations to apply data-driven marketing. In addition, this study aims to understand the perceptions of data-driven marketing in B2B companies as well as the benefits and challenges of it. The empirical section of this study was conducted as a multiple-case study by interviewing in total nine marketing directors and managers from five different companies with various backgrounds in data-driven marketing. The study was exploratory in nature and non-standardized interview was selected as the data collection method.

The findings of this study demonstrate that data-driven marketing is perceived as a function to make smarter decisions and to optimize the marketing activities. The most critical resources and capabilities required in an organization are the technological solutions, understanding of data, the culture and the leadership in the organization as well as the analytical and technical know-how of the employees. The findings also indicate that the collaboration between marketing and sales departments is vital to apply data-driven marketing in B2B companies. The study identified several benefits and challenges of data-driven marketing for example understanding the customers even better and the lack of vital technologies and culture in the organizations.

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Datalähtöinen markkinointi on uudenlainen ilmiö, jota ei ole vielä laajasti käsitelty akateemisessa ympäristössä erityisesti B2B-kontekstissa. Tämän pro gradu -tutkielman tarkoitus on syventää tietämystä ja ymmärrystä aiheesta erityisesti siitä, millaisia resursseja ja kyvykkyyksiä B2B-organisaatioissa tarvitaan datalähtöisen markkinoinnin soveltamiseen. Lisäksi tutkimuksen tarkoituksena on ymmärtää B2B-yritysten näkemyksiä datalähtöisestä markkinoinnista sekä sen hyödyt ja haasteet. Tutkimuksen empiirinen osa toteutettiin monitapaustutkimuksena haastattelemalla yhteensä yhdeksää markkinointijohtajaa sekä -päällikköä viidestä eri yrityksestä, joilla on erilaisia taustoja datalähtöisen markkinoinnin käytössä. Tutkimus oli luonteeltaan havainnoiva ja aineistokeruu toteutettiin ei-standardoituna haastatteluna.

Tämän tutkimuksen tulokset osoittavat, että datalähtöinen markkinointi mielletään toiminnoksi, jonka avulla voidaan tehdä älykkäämpiä päätöksiä ja optimoida markkinointitoimenpiteitä. Organisaation tärkeimmät resurssit ja kyvykkydet ovat yrityksen teknologiset ratkaisut, datan ymmärtäminen, organisaation kulttuuri ja johtajuus sekä työntekijöiden analyyttinen ja tekninen osaaminen. Tulokset osoittavat myös, että markkinointi- ja myyntiosastojen välinen yhteistyö on välttämätöntä, jotta B2B-yrityksissä pystytään soveltamaan datalähtöistä markkinointia. Tutkimuksessa havaittiin useita datalähtöisen markkinoinnin hyötyjä ja haasteita, esimerkiksi asiakasymmärryksen syventäminen ja puutteelliset teknologiaratkaisut sekä yrityskulttuuri.

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Laura Lemmetty

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1 INTRODUCTION

This thesis covers the novel phenomena of data usage in marketing purposes from a resource-based theory point of view. This chapter will serve as the introduction for the thesis in which first the background and the research gap of this study is introduced. Secondly, the research questions and objectives are discussed. The introduction includes also the theoretical framework, key definitions and research strategy of the thesis. Lastly, the delimitations as well as the structure of the thesis are presented.

1.1 Research background

According to Kumar (2015) the marketing discipline is constantly evolving and developing towards an integrated approach where efficiency and effectiveness play a key role. The changes in customers media usage and the need to increase firm's value through customer engagement have affected the discipline of marketing. The need for more efficiency and effectiveness in marketing have raised the demand for utilizing data in marketing (Wedel and Kannan 2016).

Data is everywhere and today data is playing an increasing role in organizations and the amount of data collected nowadays is enormous and the data usage is increasing with a huge velocity (Järvinen 2016; Kumar 2015). The emerge of data and analytics are raising new opportunities for marketers as well as challenging them. Data for marketing purposes has been used for decades but in the digital era it has become "the oil" of business. (Wedel and Kannan 2016, 1)

Kumar et al. (2013) emphasize also the importance of data-based decision making in marketing to explain firms' decisions and actions to the board member. Marketing managers are facing the lack of credibility in the boardroom since marketing is usually seen as cost centric rather than a value driving action. By harnessing data to explain marketing decisions and proving the importance of marketing, will give credibility by the board member and will help them to see marketing as a value driving action.

Marketers are being challenged by the information overload, which is well beyond the capacity of the firms to fully understand and turn it into meaningful insights (Day 2011). The studies of Amado et al. (2017) and Wedel and Kannan (2016) also show that one of

the key reasons for utilizing data is to enhance the decision making in marketing. McAfee and Brynjolfsson (2012) explain that the challenges of using data in organizations include the leadership, talent management, technology, decision making and culture of the company. Organizations are craving for the right resources and new kind of capabilities to be able to apply data-driven marketing.

According to Orlandi (2016,157) today's marketing professionals are facing the problem, how to manage the deluge of data, which is caused by "fragmented marketing channels and the environment in order to make sense, understand and respond to the changing environment". The digital era has created a massive volume of available data for firms (Leeflang et al. 2014) and it is challenging the traditional marketing capabilities (Day 2011).

According to Wedel and Kannan (2016, 97) organizations "may have invested too much in data capture and storage, but not enough in analytics". This indicates that organizations are missing valuable resources and capabilities. Additionally, companies might not yet know how to evolve in implementing right skills and processes to compete in a data-rich environment (Wedel and Kannan 2016).

Järvinen (2016) states also that the transformation to data-driven marketing takes time and resources. Organizations must ensure that marketer possess the appropriate skills, tools, and leadership qualities to succeed. In order to respond to the challenges in digital era, companies are forced to evaluate the needed resources and capabilities (Day 2011). Järvinen (2016) notes in his dissertation that there is a clear need in the academia and business life for further research around this topic.

1.2 Research gap

The number of earlier studies related to data-driven marketing is still too small. The author was able to find very few studies directly linked to this topic, which were published in 2018 or earlier. The research of Amado et al. (2017) about big data applied in marketing shows that the interest of such topics among the researchers have increased during the past years. Data usage in marketing context is often referred to decision making, and the importance of data usage is highlighted by the fact that firm's performance will increase by making data-driven decisions (McAfee and Brynjolfsson 2012). Researches have

acknowledged the need for providing understanding about data and analytics importance in today's marketing actions.

There are several studies of the effect of using different kind of data analytics either to improve marketing performance measurement (e.g. Kumar et al. 2013; Järvinen and Karjaluoto 2015; Järvinen 2016) or firms' performance (e.g. Germann, Lilien and Rangaswamy 2012; Wamba et al. 2016). None of these explain what data-driven marketing actually is and what kind of resources and capabilities are needed to apply it. According to Järvinen (2016) it is clear that successful data-driven marketing requires skills that are not necessary always found within the marketing organization. He suggests that the future studies need to investigate what kind of knowledge, skills and backgrounds (e.g. statistics, IT, marketing, sales) are needed for the successful execution of data-driven marketing.

Different studies discuss the ability of a company to turn the data into meaningful information and it is seen as a quite big challenge (Järvinen 2016; Amado et al. 2017). These needed abilities of an organization are examined in this thesis through a resource-based theory. The resource-based theory with its extended capability theories have been broadly studied in various contexts (e.g. Barney 1991; Barney and Hesterly 2012; Treece 2007; Day 2011) but not yet in a data-driven marketing context. According to Orlandi (2016, 157) "marketing literature increasingly emphasizes the presence of gaps in organizational capabilities and skills due to the technological and environmental changes".

The Global Review about data-driven marketing and advertising reveal that 79,6 percentage from all responses confirm that customer data is playing an important role in their marketing efforts (GDMA 2017). Moreover, General Data Protection Regulation (GDPR) (European Commission 2018) also demonstrates that the huge availability and usage of data has been recognized and that there is also a need for customer data privacy protection. The need to protect the customers is playing a huge role, when discussing the implementation of data-driven marketing. This new regulation sets also pressure for companies to acquire right kind of knowledge to meet the new regulation.

Järvinen (2016) discusses in his dissertation that companies need to be equipped with the right knowledge to be able to use analytics for their benefit. Additionally, he thinks that further research is needed in deepening the understanding of what data-driven marketing entails and in intensifying what kind of skills are necessary in an organization to be able to

execute successful data-driven marketing. Since data-driven marketing is a quite novel phenomenon this thesis will concentrate more specific on what data-driven marketing entails and what kind of resources and capabilities are needed to utilize data for marketing purposes in today's business world.

1.3 Research questions and objectives of the study

The aim of this study is to understand how Business-to-Business (B2B) organizations perceive data-driven marketing and what kind of resources and capabilities are required to apply data-driven marketing. This study will approach the main research question from a resource-based theory since according to Erevelles, Fukawa and Swayne (2016) firm's resources moderate the collection, storage and analyzing of marketing data and eventually utilizing the customer insights from it. Additionally, this study will go deeper to the topic by perceiving the current knowledge on how B2B organizations apply data in their marketing activities and what kind of capabilities are needed. This study will concentrate on interviewing a selected group of today's marketing professionals from various industries and from various backgrounds regarding data-driven marketing to answer this problem.

The previous studies have been strongly concentrating on the correlation between data usage in decision making and firm's performance. There is a need for a more exploratory and open-ended approach to understand what the current understanding about data-driven marketing in the business world is and what kind of resources are needed. In today's data-rich environment it is essential to understand the role and potential of data in marketing activities to be able to do data-driven decisions and eventually to enhance firm's performance.

The main research question which this thesis aims to answer:

What kind of resources and capabilities are required in B2B organizations to apply data-driven marketing?

The main research question is divided into following sub-questions:

How do firms perceive and apply data-driven marketing?

Why data-driven marketing is applied?

What kind of resources and capabilities are identified regarding data-driven marketing?

What are the benefits and challenges related to data-driven marketing?

1.4 Theoretical framework and key definitions

The theoretical framework of this thesis summarizes the key concepts of this study. Figure 1 illustrates the theoretical framework and the relationship between the different concepts. These key concepts of this study are briefly discussed in this sub-chapter and explained more detailed in the theoretical section.

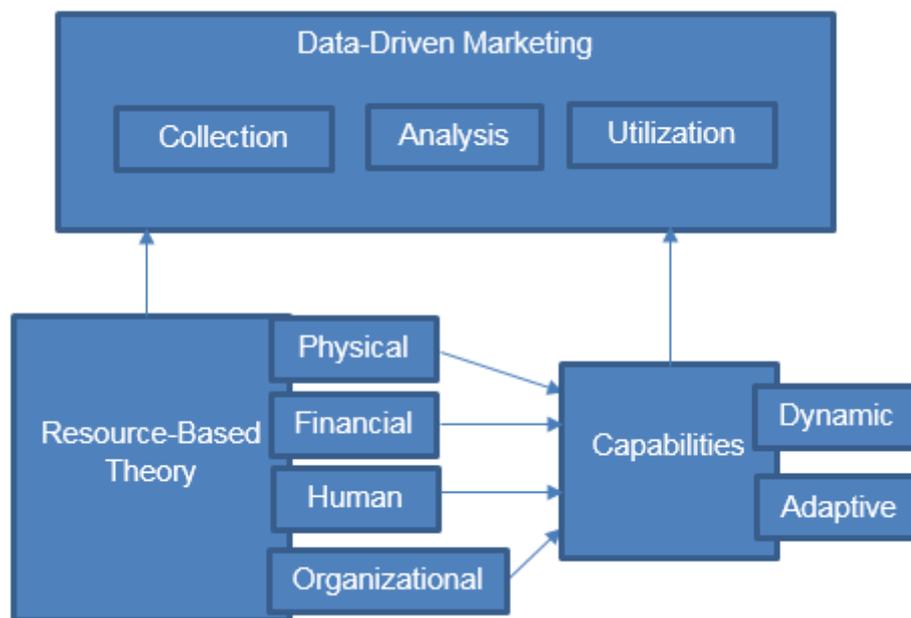


Figure 1. Theoretical framework

Data-driven marketing is seen as a customer centric process, which helps organizations to understand their customers, make better decisions and optimize their marketing activities according to the insights of data. Data-driven marketing consists of collecting, analyzing and utilizing the insights of data. (Kumar et al. 2013, Erevelles, Fukawa and Swayne 2016; Järvinen 2016; Wedel and Kannan 2016; Carnevali, Margulies, and Sangster 2017)

Data collection consists of different practices in an organization to capture vital external or internal information from various sources (Järvinen and Kariluoto 2015).

Data analysis are the methods used to turn the collected information into meaningful insights (Wedel and Kannan 2016).

Data utilization consist of the different practices to exploit the analyzed insights for measuring and optimizing the marketing operation (Kumar et al. 2013).

Resources are tangible and intangible assets of a company, which can be valued, traded and utilized different purposes of the company. These resources can be categorized into four categories: physical, financial, human and organizational. (Barney 1991; Barney and Hesterly 2012)

Physical resources cover all the physical technologies used in a company. These are such as the company's factory and equipment e.g. different software technologies. (Barney and Hesterly 2012)

Financial resources consist of all the money of the company (Barney and Hesterly 2012).

Human resources include the training, experience, judgement, intelligence, relationships and insight of an individual person (Barney and Hesterly 2012).

Organizational resources cover a group of individuals. It consists of the organizational structure, culture and the reputation of the company. (Barney and Hesterly 2012)

Capabilities are company's assets, which clue the resources of the company together and enables the company to take full advantage of those resources (Day 2011; Barney and Hesterly 2012).

Dynamic capabilities concentrate on an inside-out perspective in which the company utilizes its existing assets to sense, seize and respond to the external opportunities and threats (Day 2011; Teece 2014; Orlandi 2016).

Adaptive capabilities concentrate on an outside-in perspective in which the company proactively responds to the changes of the external environment by adjusting accordingly to the insights of the markets (Day 2011).

1.5 Research strategy

Data-driven marketing is a quite novel phenomena and it has not yet been researched broadly and it is still not quite clear to the academia what it entails (e.g. Järvinen 2016). Moreover, since the aim of this study is to gain deeper knowledge and understanding of a quite unknown phenomenon and what kind of resources and capabilities are required, a qualitative research design was chosen, which is exploratory in nature.

Exploratory research is used when the aim is to gather deeper understanding and knowledge about a phenomenon. It is also the right choice when the precise nature of a problem is not fully understood, and the study aims to find reasons behind it and understand what is happening. Moreover, exploratory research will help to identify courses of action since the main problem is hard to define. (Hirsjärvi, Remes and Sajavaara 2009, 132-133; Saunders, Lewis and Thornhill 2012, 171; Malhotra and Birks 2003, 63)

The advantage of an exploratory research is that it is very flexible in nature and adaptable to changes. The studied problem might be in the beginning quite broad, but it will narrow down while the research progresses. Additionally, in exploratory research the researcher must be willing to change the direction of the study as a result of new data and insight. (Gauhari and Gronhaug 2010, 55-56; Saunders, Lewis and Thornhill 2012, 171; Malhotra and Birks 2003, 63)

There are different options to execute an exploratory research. The data can be collected through interviewing experts of the specific topic, conduct in-depth individual interviews or perform focus group interviews (Saunders, Lewis and Thornhill 2012, 171). Ghauri and Gronhaug (2010, 55-56) and Saunders, Lewis and Thornhill (2012, 171) agree that the research plan of an exploratory research need to be relatively unstructured since the research problem is badly understood.

Unstructured interviews give an in-depth overview about a phenomenon and it gives the interviewee an opportunity to freely speak about the topic (Saunders, Lewis and Thornhill 2012, 375). Yet, this study will use a combination of unstructured and semi-structured interview to make sure the topic will be broadly covered. Semi-structured interviews contain a list of themes, which will be covered at some point of the interview. There might

be also some key questions listed related to the theme, but the order of the question might vary depending on the flow of the conversation. Additional questions may arise during the conversation. (Saunders, Lewis and Thornhill 2012, 374-375)

The B2B companies in Finland were selected as the context for this study. One reason for this is that B2B and Business-to-Consumer (B2C) marketing differ considerably. Since data-driven marketing is not studied that much yet, it makes sense to choose either B2B or B2C marketing to focus and gain deeper understanding in that specific field. This study is going to take a quite broad perspective of selecting the case companies. Meaning that the study is not going to concentrate on a specific industry in the B2B context. This enables the possibility to gain a broad view of the perceptions and the execution of data-driven marketing between different B2B companies.

Additionally, another reason for selecting B2B organizations is that they have a real 360 view of their customers, since the purchase process is longer, and the relationship is deeper between B2B companies and their customers than in the consumer business. Furthermore, even though B2C companies are slightly ahead in data-driven approach in marketing, the author's own interest lies still in the B2B market. For example, in Data Master's (2017) report the interviewed companies are mainly concentrating to the B2C market even though some of them offer also services in the B2B market. Additionally, companies focusing on the B2B market are struggling to respond to the global competition in using the modern marketing methods (Yrittäjät 2018). Moreover, the study conducted by Analect (2016) about the current state of data-driven marketing in Finland indicate that B2B companies experience data-driven marketing more challenging than B2C companies. Therefore, it is interesting to find out how data-driven marketing is actually perceived in B2B companies.

1.6 Delimitations

There are certain delimitations, which affect the adequacy of this thesis. First the context of this thesis is limited to Finnish B2B organizations from various backgrounds. This scope includes companies from several industries, which have different backgrounds in data usage in marketing to gain a broad understanding of the various perceptions of data-driven marketing. This thesis aims to find similarities and differences from the companies to provide future research directions as well as novel knowledge about the phenomenon.

Additionally, this study recognizes that the marketing agencies and other partners play a key role in some of the organizations data-driven marketing. Their perspective is not included in this study, since this thesis aims to gain a solid overview of the current understanding about the topic between B2B companies. Moreover, data-driven marketing and the required resources are examined from the marketing department point of view even though it is recognized that other departments are as well strongly involved in the processes.

Finally, since data-driven marketing is still a quite novel phenomenon the study takes a broad position towards the topic. The topic will be covered from a general level without focusing on any specific functions to gain enhanced overview of the phenomenon. Because of these above-mentioned delimitations and the small sample size, it is evident that these results cannot be statistically generalized especially since one of the aims of this study is to find future research directions.

1.7 Structure of the study

The structure of the thesis is carefully planned, and this study is divided into two sections which consist of the theoretical and empirical part. Each part is divided into chapters and this thesis consists of six chapters. The first chapter serves as an introduction for the thesis. It introduces the background of the study as well as the main objectives and research questions. The theoretical framework and key definitions of the thesis is presented as well as the delimitations, research strategy and context of the thesis.

The second and third chapter represent the theoretical section of the thesis. The second chapter covers the existing literature of data-driven marketing, which will include why data-driven marketing is used and developed and how data is collected, analyzed and eventually utilized. The third chapter takes a closer look of the resources-based theory as well as the different required capabilities. The theory is largely based on Barney's thoughts about resource-based theory which consists of physical, financial, human and organizational resources.

Chapters four and five constitute the empirical part of the thesis. Fourth chapter focuses on the research design and methods. It explains in detailed the research approach and

design, data collection and analysis as well as the reliability and validity of the thesis. It includes also brief presentations of the case companies. Chapter five presents the analysis and findings of the study.

Finally, the discussion and conclusions of this study are covered. This chapter summarizes the findings and explains the theoretical contribution and managerial implications of the study. Lastly, it clarifies the limitations and provides future research directions.

2 DATA-DRIVEN MARKETING

Marketing can be defined as a process to identify, satisfy and bring added value to customers in return to gain value from the customers and to achieve business objects (Hollensen 2010; Kotler, Armstrong and Opresnik 2018). Data-driven marketing is a way to utilize “data to inform and optimize the ways through which these marketing activities are carried out” (Kumar et al. 2013, 332). Data provides insights about the customer buying behavior which marketers translate then into competitive advantage (Erevelles, Fukawa and Swayne 2016).

Data for marketing purposes has been used for decades, but in the digital era it has become “the oil” of business. The systematic utilization of data in marketing can be tracked to be started around 1910. At that time Charles Coolidge Parlin collected information of the markets to exploit it for advertising purposes and many companies followed his example by establishing a commercial research department. (Wedel and Kannan 2016)

According to Wedel and Kannan (2016, 100) data usage in marketing has developed in the 20th century in three stages. Firstly, data usage in marketing started with “the description of observable market conditions through simple statistics”. After that, “the development of models to provide insights and diagnostics using theories from economics and psychology”. Lastly, “the evaluation of marketing policies, in which their effects are predicted, and marketing decision making is supported using statistical econometric approaches”. Kumar et al. (2013) agree that systems and models for assisting the decision-making process in marketing have already existed in the 20th century. Kotler (1966) has already in the 60’s recognized the problem of data usage in marketing. At that time executives have been struggling to collect the right marketing information.

In the last two decades the availability of data in the digital age has grown tremendously (Wedel & Kannan 2016). “The volume of business-related data is ever-increasing, and it comes from fragmented sources with high level of granularity and it is difficult to analyze” (Orlandi 2016, 157). The explosive growth of available data has enabled new opportunities for marketers. Traditional communication is being expanded with the digital channels and solutions. Whereas marketers once invested significant efforts in gaining

customer feedback, today they are struggling with the overload of information coming in from various channels. (Day 2011)

Data has become more central in marketing decision making processes. Marketers are shifting from pure intuition and experience-based decision making towards fact and data-based decision making (McAfee & Brynjolfsson 2012; Orlandi, 2016). Järvinen (2016) argues that this can be seen as a transition towards scientific marketing since marketers start to rely more on statistical analysis. Wedel and Kannan (2016, 108) believe that data usage in marketing enables organizations to gain insight about their “marketing performance, maximize the effectiveness of their marketing activities and optimize firm's return on investments”. Järvinen (2016) adds that a significant number of literatures has discussed the marketer’s inability to demonstrate the marketing departments contribution to business performance.

The access to the knowledge, which is provided from the insights of data, give marketers the possibility to make decisions based on facts (Kumar et al. 2013). Both Kumar et. al (2013) and Kozlenkova, Samahan and Palmatier (2014, 10) state that marketing is seen as “an accounting expense regardless of its long-term effects” and marketing managers are facing the lack of credibility in the boardroom. This helps the marketers to prove their importance and assists the organization to see marketing as a value driving action. Yet, the biggest challenge is to collect the necessary data and to convert the usable data into meaningful insight (Kumar et al. 2013).

According to a study conducted in 2012 by Columbian Business School and the New York American Marketing Association (Roger and Sexton 2012) 91 percent of marketing leaders believe, that one of the key factors of having a successful brand is to make data-driven marketing decisions. Moreover, among the respondent’s all Chief Marketing Officers (CMO’s) agree to this. From the respondent’s 29 percent report that they do not have enough customer data and 39 percent say that the data they collect is not real time enough. Two out of five marketers highlight that they are not able to turn their data into actionable insight. The quantity of data is not the key problem instead the marketers do not know what to do with the huge amount of data, which they have available. (Roger and Sexton 2012)

Erevelles, Fukawa and Swayne (2016) and Wedel and Kannan (2016) acknowledge that data-driven decisions and the insights about customer buying behavior will give the

organizations a competitive advantage, which affects also positively on their financial performance. In addition, the findings of Järvinen (2016) indicate that the “real value is determined by an organization's ability to process the available data into meaningful insights and act upon those insights to continuously improve the results”. In order to respond to these above-mentioned challenges in digital era, companies are forced to evaluate the needed capabilities. To be able to keep up with the digital transformation cross-functional coordination should be adopted between marketing and other departments. (Leeflang, Verhoef, Dahlström and Freundt 2014)

Carnevali, Margulies, and Sangster (2017) state that data-driven marketing can be also seen as a customer centric approach. Järvinen (2016), Wedel and Kannan (2016) and Kumar et al. (2013) agree to this since according to them one of the main purposes of using data in marketing is to gain insight and to understand the organizations' customer even better. According to Wedel and Kannan (2016) utilizing data into meaningful insight consists of collecting, managing and analyzing data. The data collection consists of multiple methods to capture data from different sources (Järvinen and Kariluoto 2015). The collected data is then analyzed into meaningful insight with the help of data analysis systems (Järvinen 2016; Chiehyeon et al. 2018). Figure 2 demonstrates the data-driven marketing process, which is modified based on the findings of Järvinen and Kariluoto (2015) and Chiehyeon et al. (2018). The different sections of the data-driven marketing process are presented in their own sub-chapters.

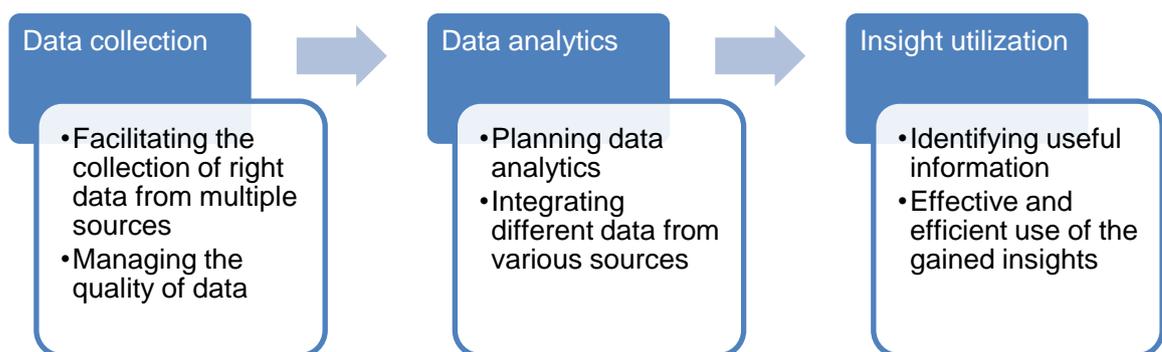


Figure 2. Simplified data-driven marketing process (edited from Järvinen and Kariluoto 2015, 124; Chiehyeon et. al 2018, 109)

2.1 Data collection

In today's digital era data is everywhere. Orlandi (2016) highlights four characteristics of data in today's digital era: the ever-increasing volume, the fine-grained nature of the data, different sources of data (e.g. web, social media, mobile application etc.) and data is produced and potentially analyzable in real-time. These factors have to be acknowledged in regarding to data collection.

There has been significant evidence of changes on customer search and choice behaviors as well as the growing power of different channels (Day 2011). Marketing related data can be generated by customers, which help the organizations to understand them even better (Chiehyeon et al. 2018). Customer data can be collected from various sources since the interaction between the customers and the companies have increased through digital channels. For example, clickstream data is collected from the website traffic (e.g. e-mail, search engines, social media links), navigation paths and the behavior of website visitors. (Järvinen and Kariluoto 2015)

Wedel and Kannan (2016) present different types of data collection. Most commonly the business-related data is observable, which can be collected from different channels. Additionally, surveys such as Net Promoter Score (NPS) are being used to assess customer satisfaction. The administration of such surveys has become easier with the constantly developed technological solutions. Additionally, the quality of data should be well managed in order to gain correct insights and advance the data analytics (Chiehyeon et al. 2018).

The data usage in marketing has been empowered by the collapsing costs of collecting, storing and analyzing of data. Additionally, data storage has become easier because of the evolved technology (Kumar et al. 2013). The easy wireless connectivity has led to the increasing use of different digital technologies. This means that the amount of data, which companies are able to collect is enormous. Data is "generated by systems for tracking costs, operations, customers, and sales in ever-finer detail, as well as newer digital sources like website visits, social network, and public records available on the Internet. These rich records are being enhanced with advanced analytics and predictive modeling to forecast future outcomes". (Day 2011, 184)

2.2 Data analytics

Wedel and Kannan (2016, 108) define marketing analytics “as the methods for measuring, analyzing, predicting, and managing marketing performance with the purpose of maximizing the effectiveness and return on investments (ROI)”. The findings from Järvinen’s (2016) dissertation reveal, that data-driven marketing and digital analytics are interconnected. Data-driven marketing requires the use of digital analytics. Moreover conversely, the use of digital analytics encourages marketers to make data-driven decisions. Wedel and Kannan (2016) agree that analytics is needed in order to make data-driven marketing operations successful. Järvinen’s (2016) findings also shows that marketers are planning their marketing activities in more data-driven manner than before. Marketers evaluate their tactics and customers based on the analyzed information. Yet, Wedel and Kannan (2016) highlight that companies are investing too much on the data capturing and storing, but not enough in analytics.

The findings of Järvinen (2016) shows that companies are moving away from traditional campaigning into running different marketing campaigns at the same time. This is accomplished through marketing analytics, which enables the testing and modifying of the campaigns. Data analytics, based on the behavioral customer data collected from different digital sources, allows the pattern matching between customers and noncustomers. This enables the organizations to identify segmentations for behavioral targeting by utilizing personalization. (Wedel and Kannan 2016)

Especially digital analytics helps marketers to analyze the customer purchasing journey from their first interaction to the moment when the sales deal is closed. This enables marketers the possibility to identify, which marketing activities are affecting customers purchasing decision, estimate their relative contributions to sales impact, and attribute value to them accordingly. (Järvinen 2016)

2.3 Insight utilization

Today's age of digitalization allows organizations to utilize the huge amount of customer data to gain insight and “understanding of their customers’ product usage, purchasing

decisions and service positioning”. Additionally, these insights enable organizations to measure and monitor the interaction between the brand and the customer, which gives valuable insight about the customer purchasing journey and their motivations. This helps to identify what kind of activities eventually affect the purchasing decisions. The easy access of customer data gives the organizations the possibility to tailor their services and product based on their customer needs and to optimize their marketing activities accordingly. (Kumar et al. 2013, 332; Järvinen 2016)

2.3.1 Marketing measurements and metrics

As previously discussed, marketing department struggles to gain credibility by the board members. Data-driven approach can tackle this challenge with measurable marketing targets and metrics. Marketing goals need to be measurable and one suggestion is that marketing manager should start with sales related goals. This way marketers are more likely to demonstrate the real benefit of their marketing actions to the top management. Data-driven marketing enables marketer the possibility to harness data into measurable insight. (Kumar et al. 2013, Järvinen 2016)

Studies show that marketers struggle to demonstrate the contribution of marketing activities to business performance (e.g. Kumar et al. 2013; Kozlenkova, Samahan and Palmatier 2014). Järvinen (2016) argues that marketing performance measurement is dependent on three organizational conditions: (1) the design of a metrics system, (2) the measurement process, and (3) the firm’s resources. One of the challenges, which organizations are facing in the digital era is that organizations are not sure how to measure certain activities and how to benefit the results of those measurements.

2.3.2 Customer purchasing journey and personalization

Järvinen (2016) highlights that data usage in marketing is a great way to monitor how marketing activities are affecting customer behavior. Moreover, it also enables the possibility to track, which activities are linked to the customer purchasing decisions. Customer purchasing journey identification and personalization of marketing content are one of the main reasons why data is utilized in marketing. According to Järvinen (2016)

the previous studies show that behavioral targeting and personalization of marketing content lead to the improved efficiency of marketing activities.

According to Lemon and Verhoef (2016) customers purchasing journey consists of multiple touch points through the interaction of companies and customers. The customer purchasing journey consists of the following touchpoints need recognition, consideration, search, choice, ordering, payment, consumption, usage, engagement and service requests. Utilizing the data insight and having marketing metrics an organization is able to identify these different touch points as well as the whole customer purchasing journey (Kumar et al. 2013).

Successful content marketing creates value for target customers, which is improved by personalization of the content to the specific needs of customers. Personalization of the content calls for data-driven approach since it requires actionable data about customer preferences and interests. This approach does not only benefit the organizations from a performance point of view, but it also benefits the customers in a sense that they will receive more suitable marketing content. (Järvinen 2016)

3 RESOURCE-BASED THEORY

Resource-based theory is a theoretical framework to understand how firms can achieve competitive advantage and how they are able to sustain that advantage over time through the acquisition of and control over resources (Eisenhardt and Martin, 2000). Kozlenkova, Samahan and Palmatier (2014, 18) state that the “motivation for using resource-based theory in various marketing contexts offers a compelling framework to integrate multiple, dissimilar resources to explain synergistic, differential effects on performance and the contingencies associated with each”.

Firms’ resources include everything assets, capabilities, organizational processes, firm attributes, information, knowledge etc. These are controlled by a firm enabling it to develop and implement strategies, which improve the firm's efficiency and effectiveness. Resources are tangible (e.g. factories, products, technology) and intangible assets (e.g. brands, reputation, intellectual properties, networks), which can be valued and traded. Additionally, resources consist of “capabilities, which are the glue that brings these assets together and enables them to be deployed”. Thus, capabilities alone do not enable a firm to conceive and implement its strategies, but they enable the use of resources to do so. These resources can be categorized into four categories: *physical, financial, human and organizational*. (Day 2011, 185; Barney 1991; Barney and Hesterly 2012)

Physical resources include the technologies and platforms used in an organization, which enable the collection, storing and analyzing of data (Erevelles, Fukawa and Swayne, 2016). *Financial resources* include all the money, which the organization has in use (Barney and Hesterly 2012). Barney (1991) describes that the *human resources* includes the training, experience, judgement, intelligence, relationships and insight of an individual. Erevelles, Fukawa and Swayne (2016) add that in a data-driven context the human capital consists especially of the insights of data scientist and strategist, who know how to capture information from customers’ activities and extract insights from it. *Organizational resources* cover the organizational structure, which enables the firm to transform insights into actions. Organizational resources include also the culture of the organization, which plays a huge role in applying data-driven marketing (e.g. Wedel and Kannan 2016, Kumar et al. 2013). Firms may need to transform their organization and business processes to be able to act based on the insights gained from data. (Barney and Hesterly 2012, Erevelles, Fukawa and Swayne 2016)

One of the biggest issues in applying data usage in marketing is to adapt an organizational data culture, which fosters data-driven decision making (Kumar et al. 2013, Wedel and Kannan, 2016). Järvinen (2016) agrees that the organizational culture has major implications on the successful usage of data in marketing. A data-driven culture leads to the effective use of data and better marketing decisions. It also encourages marketers to learn and optimize their activities, which will eventually improve the performance of a firm. Barney (1991) highlights that it is hard to copy organizations with a unique and valuable culture, which has developed from the early stages of a firm's history. This is the case with today's startups. The empirical findings of this study show that startups have the data usage and measurability in their backbones.

Moreover, Järvinen (2016) points out another issue regarding the organizational culture in data-driven marketing. The organization needs to cooperate and endorse cross-functional teamwork between different departments such as marketing, sales and IT to be able to effectively use data-driven approach in marketing (Data Masters 2017). The findings of Järvinen's (2016) dissertation highlight the benefits gained from an inconspicuous cooperation between different departments. It was found to increase the productivity of sales and marketing departments and improve the quality of leads.

Resource-based theory suggest that these tangible and intangible resources of an organization "facilitate its performance and competitive advantages, when the resource is valuable, rare, imperfectly imitable and exploitable" (Erevelles, Fukawa and Swayne, 2016, 898). A resource can improve firm's performance and enhance competitive advantages in case the recourse is *valuable*. Barney (1991) argues that resources are valuable, if they utilize the opportunities and neutralize the threats in the firm's environment. Erevelles, Fukawa and Swayne (2016) adds that a resource is valuable when the resource generates such value to the customers which competitors cannot achieve. In addition, the resource needs to be *rare*, which means that it is unique among firm's current and potential competitors. Firm cannot enjoy competitive advantages, if a large number of companies are able to benefit the same resource. (Barney 1991; Erevelles, Fukawa and Swayne 2016)

According to Barney (1991) firms are able to gain competitive advantage through valuable and rare organizational resources. However, for a firm to be able to gain sustained competitive advantage the resource needs to be something that the others cannot imitate.

Imperfectly imitable indicates according to Erevelles, Fukawa and Swayne (2016) that the resource is not easily copied. Barney (1991) adds that there are three main reasons why the resource is imperfectly imitable. First explanation could be the unique historical conditions of a firm. Second reason could be that the resource is causally ambiguous and lastly the resource could be socially complex.

According to Erevelles, Fukawa and Swayne (2016, 898) “an *exploitable resource* enables a firm to take advantage of the resource in a way that others cannot”. This means also that a firm must be organized in a way that they are able to fully exploit their resources and capabilities (Barney, 1991). According to Kozlenkova, Samahan and Palmatier (2014, 3) “poor organizational processes, policies and procedures” may reduce a resource’s potential to enhance firm’s performance. The organization acts as an “adjustment factor”, which either enables or prevents a firm from fully utilize the potential of its resources.

According to Day (2011, 186) organization, which want to obtain deep market insight, need to have an outstanding “ability to continuously sense and act on emerging trends and events in their market”. Such kind of organization possess a strong “market-driven leadership that shapes an open and inquisitive culture”. In such organizations, every employee of the organization is sensing the hidden problems and opportunities. Organizations need to acquire and develop their resources and capabilities to be able to respond to the rapidly changing market conditions. Yet, Barney (1991) notes that not all aspects of firm’s resources and capabilities are strategically relevant. Some of these resources might even prevent a firm to implement some valuable strategies and reduce effectiveness and efficiency of the firm. Organizations need to comprehend this and evaluate, which resources and capabilities are essential, and which might harm the strategies. Järvinen (2016) adds that organizations must ensure that they possess the appropriate skills, tools, and leadership qualities to succeed. The management board should be also patient and allow marketers to make mistakes during the process.

Kozlenkova, Samahan and Palmatier (2014) have studied resource-based theory in marketing context from a market-based resources view, which they characterize with features such as building brands, relationships and knowledge. Resource-based theory is often used in marketing context to explain the needed investment. It gives the researchers an opportunity to explain the long-term effects on marketing investments. Kozlenkova, Samahan and Palmatier (2014,11) state that market-based resources concentrate more frequently in intangible and complementary capabilities, whose effect on company’s

performance may be more significant than the effects of tangible resources. “Complementarity means that the benefits from a resource can be leveraged to another resource”. Compared to tangible resources, the benefit of using intangible resources is that they are more unique, which makes them hard to copy, they can be used in many ways and it is easier to redeploy them after a change. Markets are changing into a service- and knowledge-based economy in which the intangible resources play an even more important role. When a resource is intangible and complementary, it is difficult for a competitor to copy it. (Kozlenkova, Samahan and Palmatier 2014)

According to Day (2011) organizations need to develop and acquire right kind of capabilities to be able to customize and optimize certain marketing activities as well as take advantages of the growing amount of different marketing channels. The organizations need to keep up with the tremendous development of the technologies empowered by customers. The increasing amount of media, channel and customer touch points are widening the marketing capability gap of organizations. Organizations need to make sure they possess the right kind of capabilities to be able to keep up with the continuously changing environment.

3.1 Dynamic capabilities

Dynamic capability theory was formulated based on the resource-based theory since it did not explain how capabilities were developed and adapted according to the external changes. Capabilities of an organization are difficult to imitate and value since they are strongly rooted to the processes, organizational culture and the operations of an organization. Capabilities consist also of the cumulative learning and tacit knowledge. (Day 2011)

Dynamic capabilities are firm’s ability to respond to changes (Erevelles, Fukawa and Swayne, 2016). According to Teece (2007) dynamic capabilities are such that can “continuously create, extend, upgrade, protect and keep relevant the organizations unique asset base”. Akter, Wamba, Barrett and Biswas (2018) add that dynamic capabilities enable firms to integrate, build and reconfigure internal and external competencies to address rapidly changing environments.

Teece (2014) describes the main functions of dynamic capabilities with three different characteristics. One feature is the sensing of the environmental changes by scanning, searching and exploring across the markets. Second feature is responding to the changes by combining and transforming available resources in new and different ways or adding new resources through partnerships and acquisition. Last feature is the selection of the organizational configuration and business model for delivering value to customers and then capturing the economic profit.

Day (2011) adds that dynamic capability is not an ad hoc solution to a problem, but a repeatable and deeply embedded set of skills and knowledge exercised through a process. It enables the firm to stay synchronized with the market changes and ahead of competitors. Additionally, Day (2011) argues that dynamic capabilities concentrate on an inside-out perspective in which the organization looks first in the firm's own assets and then concentrates on the market. This means organizations use their incorporate skills and knowledge to modify their existing resources and create new value out of those. If a firm wants to use customer insight to understand customers behavior, it needs to enhance dynamic capabilities. (Erevelles, Fukawa and Swayne 2016)

Dynamic capabilities can take different kind of forms depending on the market. They are generally information-based, tangible or intangible processes, which enable firm to harness its other resources more efficiently and therefore enhance the productivity of those resources (Kozlenkova, Samahan and Palmatier 2014). When the industry structure is stable, the dynamic capabilities remind traditional conception of routines, which are complicated, detailed and analytical processes, that rely extensively on existing knowledge and linear execution to produce predictable outcomes. In industries, which structure is blurring, dynamic capabilities are simple, experimental and unstable processes, which rely on quickly created new knowledge and interactive execution to produce adaptive but unpredicted outcomes. (Eisenhardt and Martin, 2000)

Dynamic capabilities enable a firm to develop their market knowledge by sensing, seizing and responding to new opportunities (Orlandi 2016). Sensing capabilities are an essential ability in applying data in marketing since according to Orlandi (2016) sensing refers to the capability of discovering new opportunities. In data-driven marketing the aim is not to discover new opportunities, but to discover new customer purchasing behavior and learn more about the customers (e.g. Järvinen 2016, Kumar et al. 2013). Seizing capabilities are required to exploit the insight gained through sensing. Responding capabilities refer to

the ability to take actions in response to the insight which is generated from the available customer data. Eisenhardt and Martin (2000) add that dynamic capabilities cover also the innovation of new processes, which is essential especially in the first steps of data utilization in marketing since organizations need to change and develop their traditional way of working to be able to gain the needed insights from the market.

3.2 Adaptive capabilities

Adaptive capabilities in contrast to dynamic ones are more an outside-in approach in which everything starts with the market. It starts with the customers; how are they behaving? How are they changing? What new do they need to have? Adaptive capabilities are firms' competences to respond proactively to the changes of the external environment by capturing even weak signals from customers behaviors and upcoming needs. The ability of an organization to capture customer activities and to reveal the hidden insights is leading the development of adaptive capabilities. Data-driven marketing requires adaptive capabilities to exploit the insight gained from the market. (Day 2011, Erevelles, Fukawa and Swayne 2016)

Erevelles, Fukawa and Swayne (2016) argue that both dynamic and adaptive capabilities are needed to be able to create value for the customers in various marketing channels. Data-driven marketing enables this value creation as a result of improved decision making. Adaptive capabilities are needed to make rapid adjustments based on the information gained from the market. Improved anticipation drives adaptive capabilities, which enhances the companies' ability to proactively respond to the constantly evolving market environment. This enables the organization to make rapid adjustments to the organizations own processes. (Day 2011)

According to Day (2011, 187) adaptive capabilities, which allow the firm to anticipate "trends and events before they are fully apparent and then adapt to those effectively", are essential for today's marketing. The deluge of data pressures marketing organizations to develop new kind of skills and capabilities to be able to respond to the demands of the changing environment. Vigilant market learning, adaptive market experimentation and open marketing skills are essential to close today's marketing capabilities cap. From these capabilities especially, vigilant market learning is one of the key skills in data-driven

marketing since one of the main aims of data usage in marketing is to extract deep market insight (e.g. Järvinen 2016, Kumar et al. 2013).

Vigilant learning capabilities help companies to anticipate the upcoming changes in the environment. To be able to develop such kind of skills the companies need to shift their behavior from reactive to a sense-and-respond approach. This means that decisions are driven by the signals of the current customer needs and behavior. Vigilance is an emphasized state of awareness which is characterized by curiosity, alertness and willingness to act on partial information. Vigilant market learning is an accurate capability for data-driven marketing since it requires high level of willingness to dive deep into the lives of current and upcoming customers and understand how they behave and respond to firm's marketing activities without any preconceptions. Moreover, it requires an open-minded approach to the hidden needs and the ability to sense and act on weak signals. (Day 2011)

3.3 Data-driven capabilities

In today's data-rich environment strong analytical capabilities are needed which can adapt, manage and innovate with the market and technology developments (Teece, 2014). Akter et al. (2018) discuss the needed analytical capabilities in big data environment. They found that analytical capabilities can be categorized into three different dimensions: technology, talent and information capabilities.

According to Akter et al. (2018) technology capabilities refer to the potential and ability of the analytical infrastructure. It consists of connectivity, compatibility, modularity and privacy. *Connectivity* focuses to the capability of linking and analyzing data from various sources. *Compatibility* refers to the real time decision making by using a variety of different technologies and analysis. *Modularity* indicates to the flexibility of an analytics platform to develop different kind of dynamic models focusing on the changing opportunities. *Privacy* refers to the ability to offer a safe and protected environment for the customer information. Moreover, technology capabilities enable a firm to develop and implement the technical aspects of data usage in marketing activities. It is essential to build and enhance technology capabilities of a firm to be able to adapt to the changing environment. (Akter et. al 2018)

Information capability covers the organizations ability to provide complete, correct, well-formed and current information, which is tailored to the needs of the company. The quality of data-driven decision making of an organization depend on the ability to manage needed information and data. Lastly, talent capabilities are related to the analytical skills and knowledge of a professional. These skills can be separated into technical knowledge, technology management knowledge, business knowledge and relational knowledge. To leverage data in marketing, firms must recruit and retain talented employees. Even though the technologies play a huge role in analytics it is important to have the right talent to provide solid insight. (Akter et al. 2018)

Moreover, the analysts of the organization should be equipped with statistical, contextual and cognitive skills, which enable them to turn data into meaningful insights. Analysts should be able to make critical decisions by utilizing predictive models to acquire and retain customers. (Akter et al. 2018) The findings of Akter et al.'s (2018, 12) study show that the organization with "robust technology capability may be able to sense that talent capabilities must be seized simultaneously to gain the full benefit of data".

4 RESEARCH DESIGN AND METHODS

The aim of this study is to gain an in-depth understanding and increase knowledge about data-driven marketing. This study aims to understand how B2B organizations perceive data-driven marketing and what kind of resources and capabilities are required to apply it. Since data-driven marketing is a quite novel philosophy and there is not much scientific research about it in academia, a qualitative research was chosen to add knowledge and open new future research topics about it. Moreover, this study is exploratory in nature and is conducted as a multiple-case study.

4.1 Research approach and design

Hirsjärvi, Remes and Sajavaara (2009, 161;164) describe qualitative research method as a way to understand the real world. Qualitative research, which is exploratory in nature, suits well for this kind of study since the precise nature of the problem is not fully understood and the study aims to find reasons behind a phenomenon and to add understanding of what is happening (Hirsjärvi, Remes and Sajavaara 2009, 132-133; Saunders, Lewis and Thornhill 2012, 171; Malhotra and Birks 2003, 63). This type of study will also help to identify course of actions since the main problem is hard to define (Malhotra and Birks 2003, 63). Additionally, it aims to develop further hypothesis, research topics and deepen the knowledge of the phenomenon (Yin 2014, 10-11).

As already discussed in the introduction chapter the advantage of an exploratory research is that it is very flexible in nature and adaptable to changes. The studied problem might be in the beginning quite broad, but it will narrow down while the research progresses. Additionally, in exploratory research the researcher must be willing to change the direction of the study as a result of new data and insight. (Gauhari and Gronhaug 2010, 55-56; Saunders, Lewis and Thornhill 2012, 171; Malhotra and Birks 2003, 63)

Multiple-case study was chosen since the aim is to study the perception of data-driven marketing and needed resources and capabilities in B2B organizations in Finland. The case companies were chosen based on the researcher's prior knowledge and interest towards these companies. Moreover Yin (2014, 24) highlights that case study should be used when the aim is to gain in-depth understanding of a contemporary phenomenon.

Moreover, to demonstrate the external validity of a case study following tactic should be evaluated. When executing single case study, a comprehensive theory should be gathered to demonstrate the external validity of a research. When conducting a multiple-case study, the replication logic should be used to demonstrate the validity of a case study. (Yin 2014, 45) This also verifies that multiple-case study is the right selection for this study since data-driven marketing is not yet a widely researched phenomenon and there is no comprehensive theory, which could be used to demonstrate external validity. This kind of approach is called an inductive approach in which the data of the research is collected first and then the background theory is developed based on the result of data collection. This provides the opportunity to develop a framework and gather deep insights into the actions and challenges embedded in the evaluation of data-driven marketing. Additionally, it provides structure and flexibility to ensure the coverage of key themes while adapting to anticipating insights. (Saunders, Lewis and Thornhill 2012, 146)

According to Saunders, Lewis and Thornhill (2012, 171) there are different options to execute an exploratory research with an inductive approach. The data can be collected through interviewing experts of a specific topic, conduct in-depth individual interviews or perform focus group interviews. Ghauri and Gronhaug (2010, 55-56) agree that the research design of an exploratory research need to be relatively unstructured since the research problem is badly understood.

4.2 Data collection

The case companies for this study were selected based on the following criteria. First criterion was that the companies are operating in Finland and that they operate in B2B environment. Secondly, the aim was to find case companies, which are in different stages of benefiting data-driven philosophy in marketing to gain a broader view about the phenomenon. This was assessed based on the researcher's prior knowledge about the companies. The researcher has been familiar with three of the case companies by working for them before conducting this study.

Data collection was conducted via interviewing marketing directors and managers of the case companies. Interviews were selected as a data collection method since it is most

suitable for a research when the phenomenon is not well known and badly understood (Hirsjärvi, Remes and Sajavaara 2009, 207). Moreover, in an exploratory research Saunders, Lewis and Thornhill (2012, 377) suggest conducting a qualitative interview in which an inductive approach is adopted to assist the development of background theory. Yin (2014,106) adds that interviews are insightful, and they provide explanations and personal views on the researched topic, which is essential for this study to understand the perceptions, attitudes and meanings of the phenomenon.

A combination of semi-structured and unstructured interviews, which is called non-standardized interview, was selected as a data collection method for this study. Saunders, Lewis and Thornhill (2012, 374-377) state that most commonly in an exploratory research unstructured interview is used to gain an in-depth overview about the studied phenomenon. This gives the interviewee an opportunity to freely speak about the topic. Yet, a semi-structured interview is also used in exploratory research to make sure that certain important topics are covered. Semi-structured interview contains a list of themes, which will be covered at some point of the interview. There might be also some key questions listed related to the theme, but the order of the questions might vary depending on the flow of the conversation. Moreover, additional questions may arise during the conversation. Additionally, according to Yin (2014, 73-75) in a successful case study the researcher needs to ask good questions, stay adaptive and have a firm perception of the topic being studied. Based on these factors this study was conducted as a non-standardized interview to make sure the topic will be broadly covered and discussed.

Interviews were conducted to various companies from different industries to gain a broad perspective about the topic of this study. Some of the companies have been conducting data-driven marketing much longer than others and some are just novice in this field. This is also one reason why non-standardized interviews were conducted to make sure to gain broad answers also from those interviewees, who are not that familiar with the phenomenon. Additionally, both interview types one-to-one and group interviews were conducted in this study. Group interview is used in non-standardized interviews to explore the studied topic through a group discussion, which the researcher facilitates.

Study goal was to interview both marketing directors and managers to gain a comprehensive overview of the studied topic. Marketing directors examine the topic from the management point of view and marketing manager observe data-driven marketing from an operative perspective. The sample consisted of five case companies and nine

interviewees. The interviews of Company A, B and C were conducted as group interviews, which consisted of two or more participants and the interviews of Company D and E were executed as one-to-one interviews and other group interviews. Data was collected between June and November 2018. Table 1 represents the interviewed persons position as well as the industry in which the organization operates, the length and the method used to conduct the interviews.

Table 1. Interview details

Company name	Interviewees	Position	Industry	Length (min)	Interview method
Company A	Interviewee 1	Growth Marketer	SaaS	60 min	Face-to-face group interview
	Interviewee 2	Customer Marketing			
Company B	Interviewee 3	Marketing Manager	Wood Manufacturing	43 min	Face-to-face group interview
	Interviewee 4	Marketing Coordinator			
	Interviewee 5	Customer Group Manager			
Company C	Interviewee 6	Communication Director	Technology	33 min	Face-to-face group interview
	Interviewee 7	Marketing Manager			
Company D	Interviewee 8	Head of Demand Generation	Ecommerce	44 min	Face-to-face one-to-one interview
Company E	Interviewee 9	Director, Marketing and Communication	Information Technology	45 min	Telephone one-to-one interviews

4.3 Research context

The case companies of the study are described briefly in this sub-chapter. As the aim of this study is to gain a deeper understanding about B2B organizations perception of data-driven marketing and what kind of resources and capabilities it requires, the researcher aimed to identify diverse case companies with different background in the B2B context. The case companies were identified from the researchers own network and prior knowledge about the companies. One interviewee was identified during the study in which one interviewee from another company suggested him as a suitable candidate for this kind of research. All case companies represent different industry sectors (Table 1.) and have various backgrounds regarding their knowledge and experience in data-driven marketing.

Company A is a Finnish startup company, which was founded in 2013 and it operates in the SaaS business. The company provides a platform for other businesses to help them to prospect in a data-driven way. The turnover of the company is 2 million euros and it employs 150 employees worldwide. The company is quite advanced in data-driven marketing compared to other interviewed organizations, but in their own words they could benefit the data-driven approach even more. They do not have any specific marketing strategy since the marketing manager does not believe in any long-term planning. The business world is so hectic and changing rapidly, which is why the company makes their decisions based on the current status of their business. They have one long-term goal in marketing, which is that in couple of years pure marketing-driven business will produce most of the revenue. Moreover, they believe that since they are selling a software to enhance prospecting based on data, they are in a quite cutting-edge position for applying a data-driven approach in marketing. They have huge amounts of data and datapoints in their own software, which they can also utilize in their own marketing activities.

Company B is a Finnish family owned wood manufacturing company founded in 1909 and it operates in the panel, sawn timber and plywood industry. The turnover of the company was 270 million euros in 2017 and it employs 1062 employees worldwide. Their marketing strategy is guided based on the overall strategy and the strategy of specific divisions. The company is a novice in data-driven marketing, and in their own words' they benefit data way too little, could do much more.

Company C is a technology company originally founded in Germany in 1847 and has been operating in Finland since 1898. The company provides technology solution in various industries. In Finland the turnover of the company was 250 million euros and it employs 540 employees in Finland and in the Baltics. The interview was done interviewing the Communication Director and Marketing Manager of Finland and focusing only in the Finnish market. The global marketing strategy is affecting the local marketing strategy in Finland as well as the strategy of the different business areas. The company is also a beginner in data-driven marketing, but they have already decided that one of their objectives is to be more data-driven in the future and they have already started planning the implementation of suitable processes and tools, which their parent company is partly offering to them.

Company D is a Finnish startup company, which was founded in 2011. The company works in the ecommerce industry offering their customers a solution, which enables them to deliver their customers a personalized shopping experience. Company's turnover was 9,4 million euros in 2017 and it employs 41 employees in Finland. They are also quite advanced in data-driven marketing compared to the others. The organization's aim is to measure everything they can in marketing, which requires the right usage of data. Their marketing strategy is also business driven and it is very goal oriented. All the functions have different kinds of measurable goals in different areas and the aim is to have a strong linkage between marketing, sales and the support functions.

Company E is founded in Canada in 1976 and it operates in the Information Technology industry. The company started operations in Finland in 2012 through an acquisition. Since in this survey the focus is in the Finnish market the interview was done to the Marketing and Communication Director of Finland. The company's turnover was 368 million euros in 2017 and it employs over 3 700 employees in Finland. Their marketing strategy is based on the business goals. In their own words they are not that well applying data in marketing even though they have different kind of goals, metrics and measures. They have already a strong will to utilize data in marketing, but they are lacking the right kind of resources and capabilities to be able to apply a data-driven approach in marketing.

4.4 Data analysis

According to Saunders, Lewis and Thornhill (2012, 547) the analysis of non-standardized data requires classification into categories, which is why a thematic analysis approach was chosen for this study. Thematic analysis enables the development of a comprehensive description of the collected data and the identification of all aspects of the studied phenomenon. A thematic analysis is a suitable choice in a research, which adopts an inductive approach. (Caswell 2003, 244-246) Braun and Clarke (2006) categorizes the thematic analysis into six phases, which are followed in analyzing the results of this thesis: familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes and producing the final account of the findings.

All the interviews were recorded to ensure the reliability and quality of the collected data and the audios were then transcribed into text versions. After transcribing the interviews, the text of each interview was read through and summarized as well as pre-categorized in an excel sheet to get an overview of the content. The themes were identified from the pre-categorization and reviewed. The analysis was completed manually to support the closeness of the data.

4.5 Reliability and validity

The quality of a case study research can be evaluated according to Yin (2009) with four tests: *construct validity*, *internal validity*, *external validity* and *reliability*. The first test, construct validity, can be increased by using multiple sources of evidence, establishing a chain of evidence and having the key informants reviewing draft case study report (Yin 2009, 41). The first tactic of construct validity is fulfilled in this research since multiple sources of evidence were used by interviewing several B2B companies. Secondly, for establishing a chain of evidence citations should be used, the circumstances of the study should be revealed and the link between the research questions and the conclusions should be evident (Yin 2009, 123). The chain of evidence is well established in this study. Sufficient citations are used to expose the basis of the case study database. The circumstances of the data collection are indicated e.g. the time and interview method of the interviews are revealed. Overall this study follows the principle of linking the research

questions and the final conclusions together. Yet, the last tactic of construct validity is not carried out since the case study report is reviewed only by the researcher of the thesis.

According to Yin (2009, 42-43) internal validity should be recognized when causal relationships are being studied. Internal validity is not a concern in this study since this study does not aim to explain why X leads to Y, but rather to understand data-driven marketing and what kind of resources and capabilities are related to it. The third test, external validity, is evaluated in multiple-case studies by using replication logic, which test the generalizability of the immediate case study (Yin 2009; 41,43). In this thesis the research methods as well as interview questions are presented clearly, which indicates that this study could be replicated with the exact same case companies. However, it is important to note that this study is exploratory in nature and a non-standardized interview was conducted and depending on the answers of the interviewees additional questions might have appeared.

Lastly, the reliability is measured by the repeatability of the same case study. The goal is to be sure that if another researcher would conduct this same case study all over again with the same procedures, the researcher would end up with the same findings and conclusions. The aim is to minimize faults and biases. The suitable tactics to increase reliability of a study are the use of case study protocol and the development of a case study database. (Yin 2009, 45) The database of this case study was formed with a thoroughly planned data collection. The interviews were well pre-planned and before conducting an interview the list of themes was provided in beforehand to the interviewees. To increase the reliability of this thesis all interviews were recorded and afterwards transcribed before analyzing the results.

5 FINDINGS

The results of the case companies' interviews are presented in this chapter. Firstly, the chapter takes a closer look at the interviewee's perceptions of data-driven marketing and how it is applied in B2B context. The second part covers the resources and capabilities required for applying a data-driven approach and lastly the benefits and challenges of data-driven marketing are presented.

5.1 Data-driven marketing

When asked about the definition for data-driven marketing, all interviewees agree that one of the key features of data-driven marketing is to collect data and make decisions based on the gained insight. Data-driven marketing is also seen as a clear trend and as a part of the increased digitalization and the opportunities, which emerge with it. One interviewee highlights that marketing should be based on knowledge of how you are positioned regarding to the competitors, understanding the customers situations and where your organization is going. These decisions should be made in an organization based on facts.

It is also interesting to note that the answers varied slightly based on the background of the interviewees. One of the interviewees concentrates on the marketing activities of their existing customers so she highlights that data-driven marketing is clearly a customer-centric approach. She adds that data usage in marketing enables the right timing of their marketing activities – to reach the right person at the right time. Both representatives from Company A agree that the insight from data help to optimize and modify their marketing activities for their next campaigns.

“Data-driven marketing is nothing without the actual actions based on the insights. So, you analyze the data and then you change your behavior based on the results. It's not enough if you just say that you are data-driven, but you still continue to execute the same things and you are not changing and developing your activities. That's not data-driven marketing.” (Interviewee 2, 2018)

Data-driven marketing is seen as a very structured process in which the organization knows what kind of data is collected, where it is stored and how to utilize it. Marketing is not seen data-driven, if an organization has data here and there and someone sometimes looks at it and makes a report out of it. In a data-driven approach it is important to collect and analyze such data, which the managers and directors can base their decisions on. Data-driven marketing brings reliability to the actions of the organizations' marketing department. With the help of data, organizations would have the correct and right insight on what activities work and which do not. This enables more confident decision making and the managers would not have to rely on guesses based on their past experience.

Moreover, data-driven marketing is seen as an enabler for comparison between organizations' marketing activities. The insights from data, help organizations to compare how they performed regarding to the previous activities and more importantly to understand why they performed the way they did. Data-driven marketing is continuous development, improvement and optimization of marketing activities. For example, in the past websites were updated roughly every second year, nowadays companies are constantly updating and optimizing their websites in real time.

Interviewee 8 has an engineering background and he has always been fascinated by combining engineering and business approaches. In his opinion, in data-driven marketing the marketing activities should be seen from an engineer perspective.

"...the activities are seen as a machine or a process which consist of certain features, so you are able to see how the different feature work and where the bottlenecks are located." (Interviewee 8, 2018)

The aim of data-driven marketing organizations is to define measurable processes from their activities. The activities can be optimized only after those activities are measurable and the results are visible. Interviewee 8 has always highly endorsed that everything in marketing should be measurable, but after seeing the power of public relations and branding he agrees now that everything cannot be measured, and that marketing is a combination of science and art.

Moreover, data helps marketers to find the right target groups and target their activities more precisely to certain segments. The Communication Director of Company C sees this also as a small challenge since in traditional marketing it has been more acceptable to

shoot marketing activities in a sense that a little bit everything to everyone and hope that the messages will reach at least some relevant persons. In today's data rich environment, the organizations need to think more precisely what the needs of a specific target group are, what are the goals of the marketing activities and how to find the right content for their target audience. The Communication Director adds that to some extent the execution of marketing activities will be more complex with a data-driven approach. The data-driven approach requires a strong background research in a sense that the organizations must know their customers as well as are able to define the different segments.

Additionally, data-driven marketing is strongly linked to different kind of marketing technologies. Marketing automation system is one of these technologies, which allows companies to store data, plan marketing activities, automated some features and eventually track the behavior of the person's receiving emails or visiting the company's website. This technology is highly linked to a data-driven approach to gain even more precise and targeted data as well as being able to track prospect and customer behaviors. All participants agree that the different technology solutions have a big role in data-driven marketing. In addition to the broad understanding of the organization's customers, the available tools, which enable a data-driven approach, are one of the foundations in order to be able to apply a data-driven approach in marketing.

5.1.1 Motives for applying data in marketing

Most of the interviewees conceive data-driven marketing important and one of the startup companies considers it very important and as the foundation of their marketing. The findings show that generally marketing is seen as a separate function, whose operations are not measurable. When talking about the organizations' revenue marketing departments have to be able to show how valuable their work is for the organization (e.g. Kumar et al. 2013; Kozlenkova, Samahan and Palmatier 2014). It is also highlighted that it depends much on the organization's objectives if data-driven marketing is seen important. Yet, it is seen in the three companies, who are not that broadly applying data-driven marketing, as the future direction of marketing. The organizations need to have a clear reason why they want to start applying data-driven marketing and the aspiration needs to come from the top management to be able to successfully execute data-driven marketing. Too often organizations rush into applying new trends without thinking of the ultimate reason for why they want to do it.

Even though data-driven marketing is seen slightly more important in the consumer marketing than in B2B marketing, the author was able to identify the main motives for applying data in B2B marketing. Based on the findings of this study, the usage of a data-driven approach in marketing has five main motives, which are interconnected with each other and presented in figure 3.

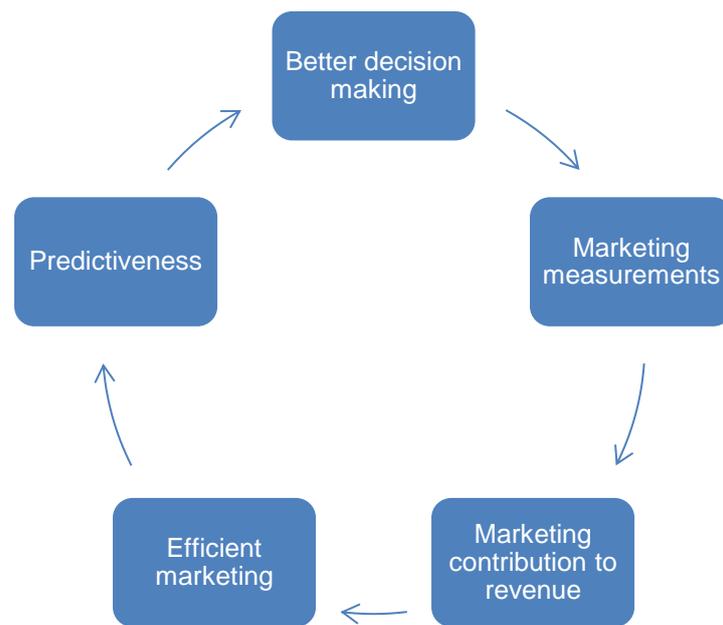


Figure 3. Motives of applying data-driven marketing

First one of the key motives for applying data in marketing is to make better and smarter decisions based on facts gained from the insights of marketing data. Data helps the organizations to understand their customer behaviors, which leads the organization to make better decision based on the insights. Additionally, to be able to enhance decision making, marketing needs to have measurable metrics. This goes well in line with Kumar et al.'s (2013) and Järvinen's (2016) thoughts about the importance of measurability in data-driven decision making. All interviewees see marketing measurability as one of the main motives for applying a data-driven approach in marketing.

Marketing contribution to organizations revenue is also highlighted as one of the main motives to apply data in marketing. In traditional marketing it has been impossible to calculate the marketing return on investment and to demonstrate marketing contribution to organizations revenue. Interviewee 8 points out that especially in startups measurability is

in their DNA since startups need to be constantly able to show their results for their investors. Especially in marketing it is difficult to demonstrate why for example they should hire a new marketing person instead of a sales person. For a sales person it is easier to calculate and demonstrate their return on investment.

Data-driven marketing is also seen important since different kind of marketing measurements are increasingly coming into use and a data-driven approach would help organizations to utilize those measurements. Additionally, measuring marketing activities and being able to show the effectiveness of marketing in actual and clear figures would bring credibility to marketing between the board members and help them to see marketing as a value adding function. This would also help the marketing department being able to argue when discussing about the yearly marketing budget.

The efficiency in marketing motivates also the interviewees to adopt a data-driven approach in marketing. Most of the participants agree that it enables precise action towards the intended target group effectively and efficiently in a sense that organizations are able to achieve better results with less amount of money, once you know whom to approach and how.

“It is interesting to see what this (data-driven marketing) brings to the evaluation of marketing budgets and how well we are able to track, what kind of benefits have we achieved and how well the money is invested.” (Interviewee 6, 2018)

Interviewee 2 highlights that data-driven approach enables the right timing of marketing, which increases the efficacy of marketing activities.

“If the right timing in marketing is not in place customers quite rapidly push the unsubscription button and then the communication between the organization's marketing department and the customer ends. Data-driven marketing is important in terms of reaching the right customers at the right time with a relevant message.” (Interviewee 2, 2018)

Data-driven marketing enables also the possibility to enhance the planning and predictiveness of marketing. Marketing should be smart in a sense that organizations are not only concentrating on the figures and evaluation of the past campaigns and executed marketing activities, but also evaluating and looking forward to the upcoming trends of the

market. Data enables the companies to sense what is happening in the market. Interviewee 6 adds to this that data-driven marketing enables organization to find new target groups and segments.

5.1.2 Data collection

The findings of this study show that all the companies collect plenty of data from various sources. Most commonly the data is collected from different digital sources as well as from more traditional data sources such as different events, interactions with the customers and surveys. All the organizations of this research are collecting some kind of behavioral data. The most typical source of behavioral data is collected from the organization webpages, social media and from different send outs for example newsletters and invitation. Based on this behavioral data the marketing department can execute lead scoring and segmentations as well as make various analysis about the effectiveness of their marketing activities.

Those organizations, which have a marketing automation tool in use, collect all the behavioral data of their prospects and customers to their marketing automation tool. This kind of data is collected from their digital sources such as website, emails, webinars and social media. There are various examples what kind of data is collected from the organizations' websites for example how often a person visits their website, what kind of content do they review, when was the last time the person visited the website and when is the last time that the visitor has been converted on the website. Similar data is collected from the send outs for example what kind of emails has a person received, when have they opened those mails, what kind of content have they contained, how many emails have a person received, has the person taken part on any webinars or events of the organization. Moreover, the results show that organizations have also terrifying precise personal information available about their website visitors for example what kind of activities the visitors have done at what time and in which location, the name and email address of the visitor, with what language would the person like to be contacted, is the person unemployed, a student or an existing customer of the organization and in which industry does the person work in. Though, of course not all the available data is used. It depends on the organizations aim what kind of data they want to collect and analyze further.

The interviewees, which do not have a marketing automation tool in use, agree that they collect also basics statistics from their websites regarding the behavior of the website visitor even though they would not have a marketing automation tool. Some of the respondents use Google Analytics and others have a globally build solution for that. The organizations are also collecting data from where the website visitors are coming from and what kind of keywords are the persons using once they end up at the organization's webpage. On top of these, data is also collected from the payed advertisements such as how many persons have seen the advertisement and what is the click through rate of the advertisement. However, Company C has just recently renewed their website to a totally new platform, which should serve the customers even better and is more responsive than the previous platform to different kind of marketing automation and data-driven action. This indicates also that Company C has recognized the opportunities of data-driven marketing and want to benefit those.

Company A is in the Software as a Service business and they are also collecting data from their own software and utilizing that in their marketing and sales activities. They are collecting data about the usage of their software among their existing customer. The behavior of the customers is tracked and based on the insights the organization can react and contact the customer on the right time in order to prevent customer losses. Additionally, they are able to track when the customership has started, what are the roles of the different users, when is the last time they have used the software, how often have the customers visited their software, what have they clicked on et cetera. The aim is to understand how the customers are adopting their system and how the organization could support and engage them even better.

Furthermore, all the interviewed organizations are collecting different kinds of customer satisfaction data and most commonly the NPS surveys are used. Additionally, the interactions between an organization and a customer or a potential customer are collected in the Customer Relationship Management (CRM) system of the organizations. For example, meetings, phone calls and discussions between the sales person and the customers are registered in the common CRM system as well as the potential leads from fairs and events. Organizations are also collecting feedback from their own events through different kind of surveys to improve their operations. All the collected customer specific information is stored in the organizations CRM system. On top of the basic customer data some of the interviewed organizations collect information such as how many phone calls did the organization made, how did they win the customer, who were involved in the

decision making, when do they pay and how much more was the organization able to sell them. Interviewee 8 highlights that in B2B organizations it is crucial to remember that the data is only as good as it is documented into the systems. It is important that everyone who are involved in the data collection will document it in the same way.

“...self-evident which is sometimes totally forgotten for example from out sales persons. So, if you do not document some data in the system, the system does not know that it has happened. For example, we arrange a lot of events, but if we do not remember to tell the system that these people participated on our event the ROI of the event will show really bad.” (Interviewee 8, 2018)

Afterwards it is then always a discussion between marketing and sales that what happened and why the return on investment of the event looks so bad. It is interesting to note that the startups of this study indicate this same challenge. They are struggling to qualify some of the data in their systems and to explain other colleagues why the qualified data in the systems is important. The other interviewed companies mention this as well but do not see it as such a challenge as the startups. This is probably because they are not yet fully utilizing their available data, thus they do not yet see the data quality as an issue.

One organization is also collecting data about the demo requests through their website. Based on that data and the data from their CRM systems they are able to calculate in financial figures how much marketing department is inflicting to the organization. Couple of the interviewed organizations are also buying some externally collected data for example researches about trends and specific industry insights as well as some contact data. One organization is doing a substantial amount of customer surveys to get a broad understanding of their customers. All these surveys are collected and analyzed manually.

Some of the organizations are missing some critical tools for example marketing automation system, which is why the variety of the collected data is quite narrow. One organization has outsourced marketing automation functions to their partner. Their company's strict data privacy regulations do not yet allow the usage of a marketing automation tool. The organizations, which do not have any marketing automation tool for data collection, are using most commonly Google Analytics for collecting data from the website and different email marketing tools for collecting data from different send outs e.g. how many recipients opened the mail or what was the click through rate. In Company D

the data collection is quite manual, and personnel bounded. The employees need to check manually if a contact is in a specific segment and they are also manually collecting data for lead scoring. The organization is clearly in a need for more automated functions.

“I am sure that some marketing functions and activities are crossing in a sense that some of our people are doing the same work twice.” (Interviewee 9, 2018)

5.1.3 Data analytics

The finding of the interviews show that the organizations emphasize that the value of analytics lies in the ability to track and measure the results of different marketing activities. The collected marketing data is saved in specific databases and the different marketing and sales tools provide a few basic analytical visualization options. Most of the interviewed organizations use the standard analytics provided from different system such as marketing automation, CRM, Google Analytics and email marketing tools. Yet, additional excel sheets and Business Intelligence (BI) tools are utilized in the two startup companies Company A and D to further analyze the results of a specific campaign, event or marketing activity. Interviewee 8 points out that the further analyzation of the results in BI tools is still quite manual. Usually the further processed information in Company D case is related to the firm or the user of their services.

“...such information could be for example from where the user has come, how has she or he behaved, how often has the user visited or website, what kind of contract does the customer have, how many employees do they have, this kind of basic enriched CRM data.” (Interviewee 8, 2018)

Based on the organizations' collected data the marketing department is able to analyze various marketing activities depending on their aim. For example, the collected behavioral data can be used to analyze the right content of the emails for a specific target group. The open rates and click through rates show how well the audience responded to the email and if they found the content interesting. Based on the results the content of the emails is optimized and tested to find the most successful content for specific campaigns. By analyzing the behavioral data organizations can develop further existing segments and find new target groups. For example, Company A is able to identify on what topics the website visitor is interested based on the visitor's behavior on their website. Based on that

information the contact person can be categorized into a specific segment and the organization is able to target the contact with the right kind of content.

The findings show that all the interviewed companies are at the moment analyzing behavioral data related to the content of their send outs and the website traffic of the organizations. Company C highlights that they have taken good first steps in terms of analytics. Based on their collected data they are able to identify what kind of content interest the audience.

“We are able to analyze the functionality of for example our newsletters, how well are we reaching our target audience, how many open the newsletter, how much interest does the content evoke in the receiver. Based on these quite light analytics we are then planning our next newsletters.” (Interviewee 7, 2018)

Company C has just updated their website entirely to be able to serve their target groups even better and to serve as platform for marketing automation and other data-driven features in the future. This illustrates that with the help of data analytics, organizations try to analyze and visualizes the collected behavioral data into an understandable form from which they are able to make conclusions and learn to understand their customers even better. Additionally, Company C uses a media platform which collects the external data about the organization from external sources. Based on that data the tool makes analysis on how, who and with what kind of tone media is talking about the specific organization. The tool also shows for example how well the media responses to the organizations press releases. They have not yet been able to benefit more advanced analytics in a sense that they would be able to identify and capture the interested people and turn them into prospects and eventually to customers.

On top of the analysis provided from different tools and organizations own analysis, Company B has partly outsourced their data analytics. They explain that the third parties are doing the data collection and the reports about the results of a specific campaign, in their own words the “technical analysis”. Afterwards the organization will make their own analysis and conclusions based on the results of the reports. Yet, they do it together with the third party since they rarely have the comparison figures of their industry to know if the campaign went well or not.

Furthermore, Interviewee 1 clarifies that in marketing automation system the analyses of the collected data is facilitated by the provided possibility to determine goals for specific campaigns for example certain messages will be send to the target groups based on their behavior after a certain time period. Example of different aims of the campaign of Company A are to get an ex-customer turn back to a customer and analysis the campaign success based on how well the aim was achieved measured in percentages. Company A concentrates mainly on single campaigns' results and does not analyze the whole overview of different campaigns. The results of a single campaign are then reflected on the previous campaigns. After the reflection the marketer are able to make conclusions what worked better this time and where they could improve.

As shown in the previous chapter most of the interviewed organizations are collecting customer satisfaction through NPS surveys. Company A has utilized automation functions in analyzing and further processing their NPS survey results. In case a customer scores between zero and six as a result of the survey the key account manager of the specific customer gets an automated notification about it. If the customer scores nine or ten as a result the system transfers them automatically to an evaluation page, where the customer is encouraged to evaluate the organization.

Moreover, Company E does a wide face-to-face standardized customer satisfaction survey three times a year to their preselected main customer. This survey serves as a measure for the customer satisfaction and based on the feedback from the customer the organizations tries to figure out what will be the next steps in the future for this specific customer. The analyzing of these results is made manually, and Company E does not have any automated functions to visualizes the results. Additionally, Company E uses a social media advertisement tool called Smartly, in which the organization is able to follow what kind of posts resonates in between the company's employees and how the posts are shared. From the results the organization is able to analyses what kind of posts perform the best.

5.1.4 Utilization of insights

Based on the analyzed behavioral data, the insights are utilized in various ways. These findings were categorized into three main aspects, which are presented in figure 4. All the interviewees are utilizing their gained insights to optimize their exciting content as well as

developing new content. Based on the analytics of the organizations' website usage, the organizations are able to optimize the content to respond to the requirements and interest of their website visitors. This applies also to the content of newsletters and invitations as well as events and webinars. Insight utilization for content marketing is clearly the easiest and simplest ways of utilizing the behavioral data and it requires only basic analytics and understanding of the figure.



Figure 4. Utilization of marketing insights

Furthermore, the insights are used for understanding the organizations customers as well as potential customers. Yet, this is not that deeply applied in all the interviewed companies. The results show that all the organizations are utilizing data to some extent to segment and target their customers with their marketing activities. Yet, Companies A and D are ahead in this since they are the only ones who have at the moment the right kind of technology and know-how for such utilization. Company C aims to utilize the marketing insight even further in the future to identify new target groups. They have already utilized programmatic buying, which helps the company to identify and find in what kind of websites their target groups are located by analyzing the traffic of their website. They found out that surprisingly their IoT target group was found at the car websites.

The analyzed insights enable the organization to identify their customers journeys and help the organizations to understand their customers even better. This enables the

organization to develop their marketing activities according to their customer needs. This understanding is utilized to develop lead scoring models, which means giving points to certain contacts based on their behavior on the organization's website as well as the response to the organizations marketing activities. The scoring model varies between the organizations depending on what kind of behavior the organizations value the most. The scoring is usually based on for example what kind of content the contact reviews and how many different contents has the contact already reviewed. Different kinds of content will gain different points regarding to the lead scoring model of the organization. After the contact has gained enough points and it has turned into a sales qualified lead, it will be handed over to the sales representative.

Companies A and D are further in this than the other organizations. Company E states also that they are utilizing lead scoring, but it is done manually, and it is not automatically calculated based on the contacts behavior. Additionally, Company A utilizes their own software data in scoring the leads based on to which organization the contact email address is linked and that way they enrich their marketing data. Company C is aware of lead scoring models and they have already done some background work for it, but they are still missing the right kind of technology to be able to efficiently utilize lead scoring. In the interview of Company B, the lead scoring topic did not occur in the interview.

Additionally, the marketing insights are utilized for developing different kinds of marketing performance measurements. These measurements enable organizations to compare marketing channels and activities and to calculate marketing performance in financial figures. All the interviewed companies are able to compare their marketing channels and some activities as well, but the startup companies Company A and D are slightly further in the comparison of different marketing activities. They are continuously and systematically improving their marketing activities as well as learning from it.

“Reporting on a weekly basis, we can say quite fast if for example a campaign or an event was successful or not. We try straightaway understand why the campaign was not successful, why the figures look like this.” (Interviewee 8, 2018)

Company B utilizes the insight from their social media channels to evaluate, which channel and what kind of post are most effective ones regarding to the number of follows, likes, comments and shares. Based on that information they have been able to identify that Instagram is the most effective channel for them. Company E is also doing

comparison between different campaign, but it is still mainly manual work and it is not yet as systematic as Interviewee 9 would like it to be. In Company A the organization gathers the insights from various sources to understand why the campaign or event performed as they performed. The insights are utilized to learn and develop their way of working to be able to make smarter decisions next time. The easiest measurements for the evaluation if an event was good or not are for example how many customers the organization met and how many new customers did the organization acquire during the event. Of course, in the traditional businesses it is harder to measure the amount of acquired customers from one event in case the organization sells for example physical products or expensive projects.

Most of the companies have simple marketing measurements to measure how different marketing activities went, but the startups Company A and D have also actual financial figures. Company B does not have any specific marketing measurements and in their own words they are missing the marketing ROI measurement. They follow only basic website, social media and newsletter statistics. They are doing quite much based on the hunch how for example an event went. The next steps in Company C would be to gain more systematic way of working, which could increase and ease the measurability.

Based on the collected and analyzed data Company A is able to demonstrate how much money the organization gains purely from marketing activities. They are measuring it in a way that once they identify a sales qualified lead through their marketing activities, they hand it over to sales. If there are not any open or past cases with that specific potential customer, it can be seen as a lead, which was identified and nurtured purely through marketing activities. The organization has also a provision model for the marketing employees, which is engaged to this before mentioned measurement. Additionally, it is interesting to note that according to Company A these pure marketing sales come from organic sources and not from payed advertising. They also follow these kinds of potential customers behavior to understand how this specific segment behaves on their website.

In Company D the marketing insights effect most crucially the budgeting of their marketing activities. The company plans their strategy for each quartal in which they make decisions on an organizational level, where they should budget their money. For this reason, they have to know for example which marketing channels work well, and which not, to be able to explain their budget needs.

Company B highlights that their business is not that hectic that they would have to adjust their way of working right away based on the insight of data. Since the decision-making process of their customers might last even five years the operations need to be examined closer every few years what works and what not.

“Of course, to clear issues such as to the results of NPS we react straight away, but mostly the issues are something in which we cannot effect for example our prices.” (Interviewee 4, 2018)

In Company E the customer feedback is utilized immediately. In their organization they have specific Key Performance Indicators (KPI), which tell the organization as traffic sign in which direction the customer is going. This information is utilized in the organization to evaluate if the customer is doing fine and if there are any actions required in regard to the customer. In comparison to others Interviewee 9 highlight that they have a strong will to be able to predict the future with the help of a data-driven approach in marketing. Currently some insights are utilized to predict for example what should the organization do next time, what kind of articles should they release and what do they want to tell from specific products. Yet, all the insight utilization is done manually.

One of the interviewed organizations says also that they have learned from their previous mistakes in analyzing relevant data. Previously they were mainly analyzing from where their contacts are coming and how many demo requests they have gotten, and these were the main things which guided the organization, in Interviewee 1’s own words, to the wrong direction. Based on these results the company was doing mainly content marketing from which they got a substantial amount of demo requests, but those requests did not end up into actual sales. The organization realized based on the data that this is not the correct way of working and they decided to concentrate in brand marketing. The Company A also identified with the help of data that they receive demo request but no-one in their organization was responding to those requests. Based on this observation the organization recruited a person who is responsible that the company reacts to each request. Additionally, Company B learned from the website visitor behavior insight that their pictures on their website was believed to be links, which they were not at the time.

“The insight of data has taught us what we are doing wrong and helps us to develop out marketing activities and channels.” (Interviewee 3, 2018)

5.2 Required resources and capabilities

By examine the perception of data-driven marketing and the way organizations are applying a data-driven approach it can be noted that following resources and capabilities are essential. The results are discussed based on Barney and Hesterly (2012) four resource categories: *physical, financial, human and organizational*. The required capabilities are discussed together with the human and organizational resource. Author's main findings are illustrated in figure 5.



Figure 5. Findings of required resources and capabilities

First, in the *physical resources* the technological aspect is one of the most essential part when applying a data-driven approach in marketing. One of the interviewees illustrates that the technologies are the core of data-driven marketing.

“...if the right tools and system are not in place and they are not integrated together it is difficult to execute any data-driven approach in marketing.” (Interviewee 1, 2018)

The most commonly used technology solutions from a data-driven marketing approach are CRM and marketing automation systems. Those are the systems in which the customer and marketing data are most frequently stored. Additionally, to be able to apply a data-driven approach these systems need to be integrated and there must be a possibility to transfer and combine information together between these systems. Moreover, the marketing automation system is linked to the website of the organization and depending on the system it is as well connected to the social media channels to be able to track the visitors' movement and to identify them once they give their contact information e.g. email address. Additionally, with the marketing automation system organizations are able to track their advertisements which are done for example in Google Ads.

On top of these core tools the organizations, who have not any marketing automation system in use, have listed other tools as well. These are for instance Google Analytics and Ads, email marketing tools e.g. eMarketeer, different media tracking tools such as Meltwater and Smartly. Based on these findings the assumption could be made that marketing automation tools could be a solution for reducing the number of different software tools, increasing the efficiency of marketing and would minimize the need of manual work as well as the risk of double work. Additionally, Company A has one channel in which all the customer satisfaction surveys are coming and everyone in the organization is able to see those.

All the interviewed organizations have a CRM system in use, but only two of five interviewed companies have a marketing automation system. The representatives of Company C say that they have already started the process of implementing a marketing automation tool, which is already globally in their organization in use. Company E has outsourced some marketing automation features since their organizations privacy policy does not allow to acquire such tool internally. Company B did not indicate any plans on taking a marketing automation tool into use.

Moreover, the Director of Marketing and Communication from Company E sees artificial intelligence and machine learning strongly as a part of a data-driven marketing activities in the future.

“Since mainly all our data collection and analyzing is done manually I am sure that somewhere we go across of each other and we are doing double work, which we

could avoid with the help of machine learning. This would make life much easier since it could help to give some consistent answers.” (Interviewee 9, 2018)

Secondly, when talking about the *financial resources* of the organization it can be noted that the support of management team is vital. If the management team does not understand and support data-driven marketing, the departments of the organization might not get the needed financial support. Without financial resources organizations are not able to acquire the right kind of systems as well as capabilities to their organizations and train their existing employees.

Thirdly from the *human resource* perspective, the right kind of capabilities are the most essential feature as well as the amount of available human resources. The amount of human resources is seen especially challenging in two organizations. The Communication Director of Company C sees data-driven marketing as a function, which will eventually increase the workload of their marketing department.

“...when actually data-driven marketing means a lot more work load to marketing because of all the identified target groups and the required right kind of targeted content to them.” (Interviewee 6, 2018)

This indicates also that content creation know-how is a necessary skill in data-driven marketing as well as creativity. Creativity in a sense of content creation and in developing the data-driven processes further. Data-driven marketing requires also comprehensive way of thinking, which means that the marketing departments should not be focusing only in single marketing activities. They should be able to see the big picture; how different activities are linked to each other and how to make entireties for example around different events.

Organizations need to possess people who understand how to benefit data, understand the organizations business as well as the customers. This kind of know-how is the key in successful data-driven marketing. The right kind of understanding and the will to develop the operations need to be in place. Additionally, a common aspiration of measuring everything that can be measured is important in data-driven marketing. The right kind of people must have on top of these qualities also technical know-how. It is essential for these people to understand how to set up a data-driven process from the technological

solution point of view as well as have understanding about the analytical figures, what information is related to each other and the ability to interpret the results correctly.

“There needs to be also an understanding how to get out certain figures. A certain kind of pedantry is required to be able to analyses and to like going through the numbers in detail.” (Interviewee 1, 2018)

Companies A and D have clearly managed to acquire the right kind of talents and the Interviewees 1 and 8 evidently understand data usage in marketing quite well and are able to train the employees in the startups. Companies B, C and E are missing the right kind of person in their organization who would be able to lead the organizations towards applying a data-driven approach in marketing. Company E had a marketing analyst until last summer who build the organization different aggregations based on data and also trained the employees to utilize the systems in the right manner. The person left the company last summer and after that the organizations ability to benefit data has taken a slide setback. Nowadays they are mainly concentrating on analyzing the already executed campaigns. Additionally, in Company C they believe that after they have the right tools in use, they are able to increase the needed know-how and understanding in their organization quite fast. In their own words they are currently missing strong data-driven marketing know-how.

Outsourcing is used in Companies B, C and E and it is mainly because of the lack of human resources as well as the lack of certain capabilities. Company B uses outsourcing, because of the lack of human resources. Outsourcing is used for maintaining and optimizing the websites, content creation, Google Ads advertisements and following the analytics. According to the representatives it is interesting to not how different marketing agencies see data-driven marketing.

“Some of them see data-driven marketing as pure data, numbers and harsh marketing others are more visual and creative. They do not speak anything about metrics, but only from learning from them.” (Interviewee 4, 2018)

Company C has outsourced the programmatic buying and the representatives also agree that in the future, once they start applying data-driven marketing even more, they probably need to outsource some content creation because of the lack of human resources. Company E has outsourced the marketing automation functionality since they are not yet

allowed to acquire such a system internally. The partner does some campaigns for Company E.

Additionally, in Company A the representatives have slightly different thoughts about outsourcing resources or capabilities. According to Interviewee 1 they are doing all marketing inhouse and he does not see that they would need any help from outside the company.

“Of course, some extra human recourse would be helpful, but it takes time and a lot of micro managing to familiarizing a new person to our way of working especially to the data-driven way of working.” (Interviewee1, 2018)

Instead Interviewee 2 thinks that external consulting would be necessary especially in defining the customer segments and their needs as well as in defining the customer journey.

“...this would help us to gain some structure to our way of working. It would be nice to have some views and sparing from an external person.” (Interviewee 2, 2018)

Moreover, the training of the employees is essential in data-driven marketing. It is vital to be able to explain in an understandable way to the employees why the data collection and the quality of the data is so important and how it will benefit the employee in their work. Organizations need to train and educate their employees the right kind of understanding what data-driven approach means and how does it help the employee in their job. The results would not be sustainable if the managers just command the employees to change their way of working. Especially in marketing it is essential to discuss why some activities and content worked and how they are able to see it from the numbers.

“It is possible to train people to this way of thinking. The development on our personnel mindset has been enormous. Our people have started to understand how different things can be measured and how important it is that everyone is committed to this.” (Interviewee 8, 2018)

Lastly, the *organizational resources* create a foundation for data-driven marketing. It is impossible to fully benefit data if the management of the organizations is not supporting

the idea. Everything starts with the support of the management and the organizational structure of the companies, which enables a data-driven approach. It is important that the data-driven approach should be visible throughout the organization and all departments should be aware of it. The right kind of understanding is required from all the departments and the will to understand data. In data-driven marketing the marketeers need to be close to the business, so they have an understanding what kind of customers the organization has and what they are interested in. This helps the dialog between the different departments and bring up the problems and success factors.

Furthermore, data-driven marketing is strongly connected to sales and the commitment of the sales department is vital for being able to apply a data-driven approach in marketing. The commitment of the sales department is required in order to help the marketing department to understand and target the right segments with the right kind of content since the sales persons are usually the once who know the organizations customer the best. Their effort is also needed in keeping the information of the customer in the CRM system updated. Additionally, customer support functions play an important role in the data collection and documentation. Usually customers contact the support functions first when they have a problem with the organization's product or service. Therefore, it is essential that this information is stored accordingly so marketing and sales functions are aware of the issues and can take it into account in their operations.

Additionally, the culture of the organizations' needs to support data-driven approach. The startups Company A and E have been able to apply data-driven marketing almost from the foundation of the companies. Of course, it takes a while to build up all the needed processes and it takes a great deal of learning and development, but still the startups have the measurability in their DNA. In compered to the big and old corporations it takes a lot more effort to rebuild and change the rooted culture. This means developing a new mindset in the organization, changing the way of working and thinking. The culture of the organization should support the scalability of the data-driven way of thinking.

Moreover, strong leadership is required in applying data-driven marketing. Since in B2B marketing the human input is required in collecting the data, because everything cannot be collected automatically from digital channels. One relevant example of this are the fairs, events and meetings. If the employee does not document to their CRM system the information where they met a contact person and what they discussed about, it is impossible to gain actual understanding of the success of an event or a fair. This

complicates the possibility to gain a whole overview about a customer e.g. what kind of activities and contact has the organizations had with the customer.

Additionally, common rules and guidelines in the organizations are vital. This way everyone knows what kind of data needs to be collected, how it needs to be analyzed, how does our data-driven process and the system work and what are everyone's roles. Similarly, it is important to note that shifting into data-driven way of working takes time and the results of digital marketing will be visible around six months after execution.

5.3 Benefits and challenges

This chapter combines the different benefits and challenges identified regarding data-driven marketing and the required resources and capabilities. One of the most distinct benefit of data-driven marketing is the increased efficiency of marketing. This is accomplished due to that data-driven marketing helps the organizations to increase their understanding of the customers, which helps to identify the right marketing activities for the right target groups. By analyzing their behavior, the organization is able to target them with the right kind of content at the right time. This increases the organizations ability to understand at what stage of the customer is on their customer journey and this way to respond to the customer needs correctly.

Additionally, data-driven marketing enhances the ability to make smarter decisions. This increases the marketing departments ability to support the sales organization even better with such decisions, which will help the sales representatives in their work and eventually increase sales. Furthermore, data-driven marketing enhances lead generation, which helps the sales people to focus on the right kind of contacts. Data-driven approach also improves the organizations ability to know what kind of tactics and technics help in which kind of situations and problems. The whole organization benefits from it since this eventually improves the turnover of the organization.

Moreover, data-driven marketing also enables the measuring of marketing activities, which helps the marketing department to calculate the revenue for their marketing activities as well as the return on investments. This enhances the facilitation of the marketing budgeting and helps to argument the need of a specific budget to the

management team. Besides, data-driven marketing helps organization to adopt a customer-centric approach and increases credibility of the organization externally.

“One of the benefits of data-driven marketing is that it helps the organization to look nicer to the customer which enhances credibility” (Interviewee 1, 2018)

Most of the identified challenges are resource and capability related. One of the biggest challenges is to find and develop the right kind of skills, mindset and understanding. Additionally, two organization highlight as a big challenge the training of the people, who use the vital systems, but are not necessary part of the operational execution of data-driven marketing. It is challenging to train the people to understand why the quality of the data is so important and how data usage benefits them in their work. One company highlights the interpretation of the analytical results as one challenge.

“The analytical results can be interpreted in so many different ways, one person gets out something else than the others.” (Interviewee 3, 2018)

Despite the available data in B2B business it is challenging to identify and define the customer journey. The customers of B2B organizations have usually several persons deciding about a new purchase or a product. It is seen as a huge challenge to identify who these people are and how many of them the organization has to reach with their marketing activities.

There is a big challenge to keep the data quality in an appropriate level. At least couple companies indicate a challenge of training people for the appropriate use of the systems and documentation of data. Another challenge related to data itself is that the data gets old extremely fast and it needs to be processed continuously. Additionally, the revenue calculation is a challenge in some businesses since the purchasing decision process might take several years, which means that the result of one specific event might be only visible at that time.

Moreover, the lack of clear action plans is seen challenging in the operational level of marketing. Data-driven marketing is something to which everyone must be committed, and it should be a part of every day work. Additionally, some of the organizations are struggling if they should do everything inhouse or if they should outsource some resources related to data-driven marketing.

The lack of physical resources is also seen as a challenge since some of the organization highlight that they are missing the right kind of technological solution, which hinders them of apply data-driven marketing further. Additionally, one challenge is that the different systems are not necessary integrate with each other, which increases the work load of the employees. It is also time consuming since the employees need to bounce from one system to another. Another challenge related especially to CRM systems is the fact that some employees of the interviewed organizations see CRM as a reporting system and not as a customer relationship management system. This increases the challenge of being able to train the employees to use the tool correctly. Additionally, one interviewee sees as a challenge to trust sometimes the hunch and not only the figures.

“Another challenge is that sometimes you just have to forget the figures and go with the hunch. It is difficult to know when you can rely on the numbers and when not.” (Interviewee 8, 2018)

6 DISCUSSIONS AND CONCLUSIONS

The last chapter summarizes and discusses the main empirical findings of this research and connects them to the existing theory. Additionally, the theoretical contribution as well as the managerial implication of this work are discussed. Finally, the limitations and future research directions are presented and evaluated.

6.1 Summary

The aim of this study is to understand what kind of resources and capabilities are required in B2B organizations to apply data-driven marketing. This chapter will summarize the main findings from the previous chapter and reflect the existing theory to the findings. To be able to answer the main research question of this study the sub questions need to be discussed.

How do B2B organizations perceive and apply data-driven marketing?

Why data-driven marketing is applied?

First the perception of data-driven marketing of the organizations are summarized and reflected to the existing theory. Additionally, the motives for applying data-driven marketing are discussed simultaneously. Previous studies indicate that data is used to enhance the decision making in marketing (e.g. Amado et al. 2017; Wedel & Kannan 2016). Also this study shows that data-driven marketing is perceived as a function, which enables organizations to make smarter decisions based on the insight of data as well as measure and optimize their marketing activities. Data-driven marketing is at its simplest form, collecting feedback from the customer and improving the company's marketing activities according to the feedback. At its most advanced form, data-driven marketing enables the marketing department to measure their activities with actual financial figures and with those figures marketing department can demonstrate their contribution to the revenue of the company.

Data-driven marketing enables the marketing department to prove their importance and demonstrate the facts for the required budgets as well as their strategic decisions. Kumar

et al. (2013) agree to this since they see data-driven approach in marketing as utilizing data to inform and optimize the traditional marketing activities. Moreover, data-driven marketing is seen as the future direction of marketing, which provides critical insight about the marketing activities of an organization. Yet, it is interesting to note that the organizations who do not yet apply data-driven marketing that intensively, they see a data-driven approach as a way to understand the customers even better and respond to their needs. In the other hand the organizations who have been applying data usage in marketing longer see it as a way to measure their activities and provide actual evident in figures about the marketing departments contribution to the revenue of the organization.

The main motives for utilizing data in marketing are mainly the same, which are also identified in the literature. The objectives are to understand the customer and their needs even better, to be able to measure and optimize the marketing activities as well as being able to point out the marketing departments contribution on the organization's revenue (e.g. Germann, Lilien and Rangaswamy 2012; Wamba et al. 2016). Additionally, in this study the credibility between the board members is also an important motive for utilizing data in marketing (e.g. Kumar et al. 2013).

Based on the mindset towards data-driven marketing and the know-how about it the five interviewed the companies can be arranged in to three different categories: *novice*, *beginner* and *advanced* data-driven marketing user. *Novice* are the organizations, who see data-driven marketing important, but have not yet given any additional thoughts on systematically applying it. *Beginners* are the ones, who have a strong will of applying data-driven marketing and have taken already their first step towards it e.g. outsourcing marketing automation features or started planning the system implementation. Additionally, the beginners see that data usage in marketing is the future of the organizations and it needs to be applied to some extent in the organizations. *Advanced* data-driven marketing users are the ones, who apply a data-driven approach in their everyday work and are already measuring their marketing activities systematically. These companies have already the required core resources and capabilities in place.

Furthermore, the findings indicate that the data-driven marketing process consist of the collection, analysis and utilization of the data insights. Different kind of data is collected from different sources. Most commonly the data sources are digital, but in B2B companies the human input is also required to document the discussions between the sales person and the customer and to indicate the success of different events. The data analysis of the

organizations is mainly handled through organizations different technological tools. Additional excel sheets and BI tools are used in the startup companies. If the aim of the organization is to gain other than basic analytical results, additional analytical and technical knowledge is required to understand what kind of data is required and how the wanted figures are gained. Lastly, the key data utilization objects are content marketing, understanding customers and marketing performance measurements. The insight of data is utilized in content marketing to optimize and personalize exciting content as well as to develop new content for the customers by understanding their needs and behavior. The understanding of the customers enhances the segmentation and targeting of the customer. Additionally, the organization is able to utilize the gained insight to identify customer journeys and developing a lead scoring model. Furthermore, the marketing performance measurements enable companies to compare marketing activities and channels, calculate the return on investments and evaluate the marketing department's impact to the organization's revenue.

What kind of resources and capabilities are identified regarding data-driven marketing?

First, the findings reveal that data-driven marketing is not only concerning the marketing department of the organization. The mindset and the culture of the whole organization should support the execution of data-driven marketing. This goes well in line with Järvinen's (2016) thoughts that the culture has a major impact on the usage of data in marketing and that data-driven culture leads to effective use of data and better marketing decisions. Additionally, the history of the companies effects the quality of their resources (e.g. Barney 1991), which was also visible in the findings of this research. The younger startup companies have been able to apply the right kind of culture and acquire the right kind of capabilities straightaway from the start, in compared to the bigger and older companies.

Additionally, in B2B organizations the sales departments have a huge role especially in the data collection phase since not all relevant data can be collected from digital sources. The organizational support starts from the management team of the organization to gain the needed financial resources. The organization must cooperate between different departments to effectively use a data-driven approach in marketing (e.g. Järvinen 2016; Data Masters 2017). Certainly, before even starting the planning to apply data-driven marketing, the reasons and objectives need to be clarified and defined precisely first, why the organizations wants to apply a data-driven approach in their marketing. In order to

gain the support of the management team, all of the board members need to fully understand why data-driven marketing is important and how it should be applied. Additionally, the support is vital to gain the required financial support for acquiring the needed technological solution, talents and training the employees.

Furthermore, the physical resources e.g. the technological solutions (Erevelles, Fukawa and Swayne 2016) used for marketing purposes must be integrated together to support the correct data flows and minimizing manual work. The findings reveal that the most commonly used systems in data-driven marketing are the marketing automation system and the CRM systems. Even though only advanced data-driven marketing users have a marketing automation system in use, all of the interviewees have highlighted the importance of such systems, which work as a centralized database for the collected marketing data and enhances marketing activities through automated functions. Additionally, in order to successfully utilize the technological solution, the data-driven marketing processes need to be specified. With clearly defined processes, everyone involved knows their role in the process, understands the reason why something is done in a specific way as well as how the data flows from place to place and what the insights tell the organization.

Most crucial human capabilities required in data-driven marketing are the analytical way of thinking and technical knowledge in a sense of understanding how the data behaves, what is required to gain specific insight and what is required to set up all the needed systems with the right integrations. Additionally, it is important to have enough employees throughout the organization to be able to handle the data collection, analytics and utilization of insight. Furthermore, content creation skills are required from the personalization point of view. Once the organization gets to know their customers and their needs even better the customer segments will be more specific and the organization must be able to provide them personalized messages to fully utilize data-driven marketing and improve their marketing activities.

Moreover, as discussed in chapter 3.1 dynamic capabilities are essential in data-driven marketing (e.g. Orlandi 2016; Eisenhardt and Martin 2000). The findings of this research demonstrated that sensing, seizing and responding to new insight are important capabilities when applying data-driven marketing. Additionally, based on the empirical results the adaptive capabilities in an organization (e.g. Day 2011; Erevelles, Fukawa and Swayne 2016) are as important as dynamic capabilities. Adaptive capabilities enable

organizations to do rapid adjustments (e.g. Day 2011), which is needed if an organization is for example executing campaigns simultaneously. Rapid adjustments are required to improve the campaigns continuously.

What are the benefits and challenges of applying data-driven marketing?

Most of the benefits are identified already in the companies' perceptions of data-driven marketing. The main benefits and challenges are listed in the figure 6.



Figure 6. Identified benefits and challenges of data-driven marketing

The most remarkable benefit of data-driven marketing is that it enables the possibility for an organization to make smarter and better decisions relying on facts. This is accomplished by understanding the customers and their needs even better. The data usage in marketing gives the company access to the insight of the behavior of the customers, which enables the organization to understand them better and improve their marketing activities accordingly. Additionally, a data-driven approach in marketing benefits the companies to measure their marketing operations. This enables eventually the marketing department to demonstrate their value in actual financial figure.

The biggest challenges are the lack of the correct tools, the right kind of culture and the commitment of the employees. The lack of the correct tools and culture (e.g. McAfee and Brynjolfsson 2012) are mainly the problem of the novice and beginner companies. Since

the advanced users have been applying a data-driven approach almost from the foundation of the companies they have these features already in place. The commitment of the employees is seen as a challenge in all of the interviewed companies, but especially those, who are further in data-driven marketing, highlight this as a big challenge.

6.2 Theoretical contribution

This research contributes to the data-driven marketing literature, which is still a quite novel phenomenon even though data usage in marketing can be traced back to the beginning of 20th century (e.g. Wedel and Kannan 2016). The findings about data-driven marketing agrees to Kumar et al. (2013) conclusion that a data-driven approach is a way of utilizing data into inform and optimize the existing marketing activities. Additionally, this study increases the exciting knowledge about the phenomenon by revealing the B2B companies' perceptions about data-driven marketing since most of the examples in the exciting literature are about B2C companies (e.g. Erevelles, Fukawa and Swayne, 2016). This study reveals also the most important physical, financial, human and organizational resources required in data-driven marketing.

Furthermore, the findings of this study suggest different challenges related to applying data-driven marketing. Yet, this study agrees to the previous literature (e.g. Kumar et al. 2013; Järvinen 2016; Wedel and Kannan 2016) findings of the benefits and opportunities of data usage in marketing. Moreover, this study contributes to the existing theory of required resources and capabilities in marketing (e.g. Kozlenkova, Samahan and Palmatier 2014; Day 2011) by adding the specific abilities required to apply data in marketing activities. Additionally, the study indicates the need for organizational support and the commitment of different departments to be able to successfully apply data-driven marketing, which verifies Järvinen's (2016) suspicions about it.

6.3 Managerial implications

This thesis provides important information for companies, who are interested in applying a data-driven approach in marketing. As discussed in the summary, the author was able to

rank the interviewed companies into three different groups based on their resources and capabilities regarding to data-driven marketing: *novice*, *beginner* and *advanced* data-driven marketing user. The planning of data-driven marketing is easier when companies are able to identify their own baseline based on their current resources and capabilities.

The *novices* are the ones, who know that a data-driven approach can be applied in marketing and think it is to some extent important, but do not yet have any plans to utilize data. The novice collects some data from basic systems (e.g. Google Analytics) follows the statistic of it and applies some of the results to improve their marketing operations. This is not done in a systematical manner and most commonly external partners are used in these functions. Yet, the full understanding of data usage in marketing is missing. Additionally, most or all of the critical resources and capabilities are missing e.g. required technology, culture, commitment and know-how.

Beginners are the ones, who see data-driven marketing as an opportunity enabled as part of the increased digitalization and the future direction of marketing. These companies have a strong will to apply a data-driven approach and they have already taken the first steps towards it by recognizing and starting to plan the implementation of the most vital physical resources. They are still doing a great deal of manual work (e.g. lead scoring and segmentation) and all their data-driven functions are quite disconnected from each other. The systematical way of working is missing, and external partners are used in some functions. The beginners are lacking the necessary tools and integrations between them as well as the vital culture and commitment of their employees. Additionally, some analytical and technical capabilities are missing.

Advanced data-driven marketing users have already most of the required resources and capabilities in place. They are applying data in their everyday marketing operations and aim to measure almost everything they can. Additionally, they have the necessary systems in use and these systems are integrated together, which enables the enrichment of the collected data from different sources. These companies are utilizing automation features in their processes e.g. lead scoring and utilizing data for their segmentation. Moreover, they are able to measure some marketing activities in actual financial figures and can point out what functions in data-driven marketing work well and where are the so called “bottlenecks” of the process. Yet, these companies are struggling with the commitment of other departments regarding the data collection and quality.

Based on the empirical findings certain guidelines were identified for the companies to follow when starting to apply data-driven marketing. First, clear objectives and goals need to be defined, why the marketing department wants to apply a data-driven approach and how it will support the other functions in the company. This helps the communication of the new process and commitment of the employees. It is important that each participant in the process understands the objectives and benefits of applying a data-driven approach in marketing as well as their own role in the process. Additionally, it is suggested that the companies should start from simple and small marketing activities before reforming the entire marketing operation into data-driven. One of the basic aims could be to start to understand a certain segment of the organization even better and then scale the process to other segments as well.

The findings also indicate that one of the key resources is to have at least one person in the company who knows how to apply a data-driven approach in marketing. This person should have analytical capabilities and technical understanding in a sense that how to set up the right technological solution and integrations. Additionally, it is vital to understand how the data flows in different systems, what kind of data is required and how it needs to be collected and analyzed to gain certain results. The acquisition of such workforce straight in the beginning facilitates the applying of data-driven marketing.

Furthermore, an intermediate version of a data-driven marketing process should be planned for the chosen marketing activities to enable the optimization of those activities. It is important the data-driven marketing process is through measurable and executed in a systematical manner. Systematic way of working enables the measurability between marketing channels and activities, which helps the optimization of those activities. After the processes are measurable it is possible to improve the process.

Additionally, it is vital to acquire the right kind of technological solutions with the correct integrations to enable the data-driven marketing. The findings indicate that the core systems in data-driven marketing are a CRM system and a marketing automation system. After an intermediate version of companies' data-driven marketing process is defined it will be easier for the company to evaluate what systems will be the right selections for their usage.

At the beginning of the data-driven marketing journey companies might face the issue, if they should outsource some resources and capabilities or not. Some resources and

capabilities can be outsourced such as human resource in terms of content creation. Yet, most essential resources and capabilities should be possessed internally in the company to enable the continues development in data-driven marketing and full understanding of the company's business.

Moreover, strong leadership and common guidelines are required throughout the process to build a data-driven culture in which everyone understand the role and the benefits of data as well as their own important role in the process. In addition, after utilizing data-driven marketing for a while companies can start shifting to measure their activities in financial figures e.g. measuring the contribution of marketing to the revenue or measuring the return on investment of a certain marketing activities. Yet, it is important to remember that in a data-driven approach companies should only collect and analyze such data, which the managers and directors can base their decisions on to optimize and improve the marketing operations.

6.4 Limitations and future research

This study consists multiple limitations, which are mainly caused by the context. This research context is limited to B2B organizations operating in Finland. Additionally, the empirical findings explain only the companies' marketing departments perceptions about the topic and does not cover the whole organization. The marketing agencies are also out of the scope even though they are strongly related to some of the companies' data-driven marketing.

Another limitation involves the sample size of this study. Although the study was conducted as a multiple case study the sample size was relatively small. Further research is still required even the results of this research are supposed to be generalizable for B2B companies. Moreover, since one of the objectives of this research was to find future research directions and broaden the understanding this study does not focus too deeply into any specific function of data driven marketing.

Since this research was limited to the perspective of the B2B companies marketing department, future research could concentrate on the other departments of the organizations as well as to the customers or the partners (e.g. marketing agencies)

perspective. Additionally, since the topic of this research is covered quite broadly the future research could focus on more precisely in certain benefits or technologies used in data-driven marketing. Lastly, as the results show that the B2B organizations are facing significant challenges and changes to successfully apply data-driven marketing. Future research could tackle these challenges by increasing the knowledge of how such a change can be managed and what it takes from the organizations.

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APPENDICES

Appendix 1: Interview questions (in Finnish)

Taustatiedot:

Yritys:

Henkilön nimi:

Rooli yrityksessä:

Mitkä asiat vaikuttavat teidän markkinointistrategiaan?

- Millä perusteilla tällä hetkellä toteutate markkinointia?

Mitä teidän mielestänne datalähtöinen markkinointi on?

- Missä määrin teette tällä hetkellä datalähtöistä markkinointia?
- Kuinka tärkeäksi koette datalähtöisen markkinoinnin?

Motiivit ja tavoitteet datan hyödyntämisessä markkinoinnissa:

- **Miksi hyödynnätte dataa markkinoinnissa?**
- Mihin hyödynnätte datalähtöistä markkinointia? / Mihin voisitte mahdollisesti hyödyntää?
- Millaisia tuloksia toivotte saavuttavanne datalähtöisen markkinoinnin myötä?
- Onko datalähtöistä markkinointia tehty alusta alkaen vai onko se vasta viime vuosien aikana tullut mukaan?

Toteutus:

- **Miten toteutate tällä hetkellä datalähtöistä markkinointia?**
 - Toteutateko datalähtöistä markkinointia koko organisaation tasolla vai vain jossain yksiköissä, kampanjoissa, projekteissa jne?
 - Mistä tietolähteistä/kanavista keräätte tietoa?
 - Millaista tietoa keräätte? Miksi?
 - Ostateko jotain dataa ulkopuolelta?
 - Mihin hyödynnätte tätä tietoa?
 - Miten keräämänne tieto säilötään?
 - Mikäli eri lähteisiin, niin keskustelevatko nämä lähteet toistensa kanssa? Onko sille mielestänne edes tarvetta?
 - Miten analysoitte keräämäänne tietoa?
 - Tuleeko kaikki kerätty data keskitetyksi, jollekin alustalle?

- Oletteko mallintaneet datavirtoja markkinoinnin näkökulmasta millaan tavalla?
- Miten tulokset vaikuttavat toimintaanne?
- Miten mittaatte näitä toimintoja?
- Oletteko mahdollisesti hankkinut jotain tietotaitoa tai osaamista ulkopuolelta/kolmansilta osapuolilta/partnereilta? Millaista?
- Millaiset tulevaisuuden suunnitelmat teillä on datan hyödyntämisen suhteen?

Tarvittavat muutokset yrityksessä:

- **Mitä datalähtöisen markkinoinnin toteuttaminen mielestänne edellyttää yrityksiltä?**
 - Mitä näistä edellytyksistä teillä on jo?
 - Mitä edellytyksiä teiltä vielä puuttuu?
- Miten datalähtöinen markkinointi näkyy teidän organisaatiossanne?
- Mitä muutoksia olette joutuneet tekemään hyödyntääksenne datalähtöistä markkinointia?
- Kuinka toimintakulttuuri, resurssit ja järjestelmät on saatu tukemaan datan virtaamista oikeisiin paikkoihin?

Datalähtöisen markkinoinnin onnistuminen:

- **Mitkä asiat ovat mielestänne tärkeimpiä ratkaisevia tekijöitä datalähtöisen markkinoinnin onnistumisessa?**
- Missä asioissa olette onnistuneet, kun olette lähteneet toteuttamaan datalähtöistä markkinointia?
- Mitä olette oppineet?

Hyödyt:

- **Mitä hyötyjä koette saavanne datalähtöisestä markkinoinnista?**

Haasteet:

- **Mitkä asiat koette haastaviksi datalähtöisen markkinoinnin toteuttamisessa?**