MASTER THESIS

MSc. in Business Administration
June 2017

THE INDIVIDUAL & ORGANIZATIONAL FACTORS INFLUENCING THE IMPLEMENTATION OF

DATA-DRIVEN MARKETING

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Master thesis
Master of Business Administration
Faculty of Behavioural, Management & Social Sciences (BMS)
University of Twente

Title: The Individual and Organizational Factors Influencing the Implementation of Data-Driven Marketing.
Date of submission: 23 - 06 - 2017
Date of colloquium: 30 - 06 - 2017

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Information is the oil of the 21st century, and analytics is the combustion engine.

Peter Sondegaard, Senior Vice-President Gartner Inc.

Executive summary

The world produces every day 2.5 quintillion bytes of data. Of those data, 90% is unstructured (Dobre & Xhafa, 2014). To become of value for companies, Big Data must be analyzed and structured. Big Data analytics is increasingly becoming popular as tool to improve organizational efficiency (Sivarajah et al., 2017), inter alia it is used for marketing purposes. That is why many organizations implement Data-Driven Marketing for marketing purposes. Prior research provides a lot of implementation models, but all of them are focused on IT projects in general. When implementing Data-Driven Marketing, the IT department is of course involved, but many others are too. For example, E-commerce, Marketing, or Data departments can be involved. As the implementation of Data-Driven Marketing is totally different from the implementation of general IT projects, there is a need for a specific model for the implementation of Data-Driven Marketing.

Big Data refers to large volumes of data being created by people, tools and machines and is to derive real-time business insights. It requires new, innovative technology to collect, host and process. Data-Driven Marketing is collecting and connecting large amount of online data with traditional offline data, rapidly analyzing and gaining cross-channel insights about customers, the bringing that insight to market via a highly-personalized marketing campaign tailored to the customer at his/her point of need (Teradata, 2016).

This study aims at developing an appropriate model that describes the individual and organizational factors influencing the implementation of Data-Driven Marketing within organizations. It will do so by developing a conceptual model based on prior literature. After that, the conceptual framework will be tested using a two-round Semi-Delphi method. In the first round, five experts that implemented Data-Driven Marketing in an organization are interviewed. Based on those interviews, the conceptual model is updated. The updated model is used in the second round of the Semi-Delphi study. In this round, two experts from within the same organization are being interviewed. The results of these interviews are again used to update the conceptual model.

The results of this study present an accurate model for the implementation of Data-Driven Marketing within organizations that describes individual and organizational factors that are of influence on the different processes of the implementation of Data-Driven Marketing. The findings of this study are an attribution to the current literature on Data-Driven Marketing and implementation models. Besides that, it can be used by organizations that want to implement Data-Driven Marketing and marketing agencies that help organizations by implementing Data-Driven Marketing.

Preface

Dear reader,

This master thesis is the last part of my Master in Business Administration at the University of Twente. After finishing my Bachelor of International Business Administration at the University of Twente, I decided to continue my education. In the last year, I have gained additional and in depth knowledge into the field of strategic marketing and information management. The combination of doing research and working along with marketing professionals in the field, has led to a unique experience in which I learned a lot.

First, I would like to thank my supervisors Dr. Efthymios Constantinides and Dr. Sjoerd de Vries. Both made me enthusiastic about digital marketing and the use of data in the field of marketing during my bachelor education. I am grateful that they want to supervise me during this master thesis project. Thank you both for guiding me through the entire process of developing this thesis. Your constructive feedback and support have helped me bringing this thesis to a higher level.

Furthermore, I would like to thank the people of Datatrics and the people within the other companies in the Green Orange Holding. Their extensive knowledge into the field of Digital Marketing have brought me additional insights. I would like to especially mention Maarten Evertzen and Marije Wessels for their continuously support.

Besides them, I would like to say thank you to the anonymous interviewees who took the time to tell me about their experiences and knowledge.

Lastly, I am grateful for my close family and friends who have helped me during my studies and supported me during the development of this master thesis.

Yours sincerely,

Jelmer Pepping

Wierden, June 11, 2017

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1. Introduction

The purpose of this first chapter is to introduce the reader to the topic of this study. In the first section the motivation for identifying the organizational and individual factors influencing the implementation of Data-Driven Marketing are given. Section 1.2 explains why the objective of this study is to develop an accurate model. Furthermore, it will present an outline of this study and describe the research process. In section 1.3 and 1.4 the research problem and the research questions are outlined. The last two sections explain the relevance of this study for both the scientific world and for organizations.

1.1 RESEARCH MOTIVATION

Big Data analytics is increasingly becoming popular as tool to improve organizational efficiency (Sivarajah et al., 2017). This not strange, because the world produces every day 2.5 quintillion bytes of data. Of those data, 90% is unstructured (Dobre & Xhafa, 2014). With so much data available, the challenge of analyzing Big Data raises. Big Data must be analyzed and structured so it can be of value for organizations. Inter alia Big Data, the digital marketing world is changing. Many large organizations have created their own data departments and sometimes those are even represented in the board. Nowadays, AT&T has a senior vice president of Big Data, EBay has a vice president of global customer optimization and Caesars Entertainment has a chief analytics officer. This underlines the enormous value of Big Data for organizations. Many pure players like Bol.com and Coolblue have their own marketing and data department(s). Nowadays, many large organizations have their own marketers and data scientists. Therefore, it is assumable that the added value of Data-Driven Marketing increases.

When an organization wants to implement Data-Driven Marketing, this is influenced by several individual and organizational factors. Inter alia inadequate staffing and skills, lack of business support, and problems of database software are mentioned as potential barriers in prior research (Russom, 2011). A recent study by Accenture, mentioned that security and budget are also challenges of Big Data success. Other research found privacy, security, data governance, data and information sharing, cost/operational expenditures & data ownership as the most important challenges (Sivarajah et al., 2017).

Most of the studies that developed an IT innovation adoption model are focused on traditional IT innovation projects (Hameed et al., 2012.; Frambach & Schillewaert, 2002.; Rogers, 1983.; Davis, Bagozzi & Warshaw, 1989.). The implementation of Data-Driven Marketing on the other hand requires a collaboration between the IT department, the marketing department, and sometimes even a data department (Davey, 2015). This differs between organizations, because the area of data-driven marketing is relatively new. This study will try to fill the gap in the current literature by developing a model focused on the implementation of Data-Driven Marketing within organizations. A specific model for this is important for a few reasons: (1) the area of Data-Driven Marketing is relatively new, (2) in contrast to traditional IT projects, Data-Driven Marketing has stakeholders in IT, Marketing, E-commerce, and Data departments, (3) a more specific model can be used as a practical manual for managers that want to implement or are implementing Data-Driven Marketing.

1.2 RESEARCH OBJECTIVES

The objective of this study is to develop an accurate model describing the organizational and individual factors that influence the implementation of Data-Driven Marketing. First, the motivation of this study is described and the research gap is identified. Next, the research objectives, the research goal and research questions are outlined. After that, a model will be proposed based on the existing literature in the theoretical framework. After that, the model will be tested using a two-round Semi-Delphi study. In the first round, five experts will be interviewed regarding their experience and knowledge about the implementation of Data-Driven Marketing. After their feedback is processed in the proposed model, the second round of the Delphi study will be carried out. The second round consists of interviewing two people within the same organization that recently implemented Data-Driven Marketing. The results of the two rounds will be used to alter the proposed conceptual model. In the end a valid model that describes the organizational and individual factors that influence the implementation of Data-Driven Marketing within organizations will be developed. The model is based on the one hand on prior research of scientists and on the other hand on the experience of experts in the field. A schematic overview of the research process is shown in figure 1.

1.2.1 Thesis outline

This first chapter is mainly to introduce readers to the topic and this study. In the second chapter the literature review is outlined. In chapter 3 the research methodology is described. Next, the results of the study are outlined in chapter 4. In the last chapter, number 5, a conclusion will be drawn and the outcomes will be discussed. Besides that, the contributions to theory and practice are described and some advice for future research will be given.

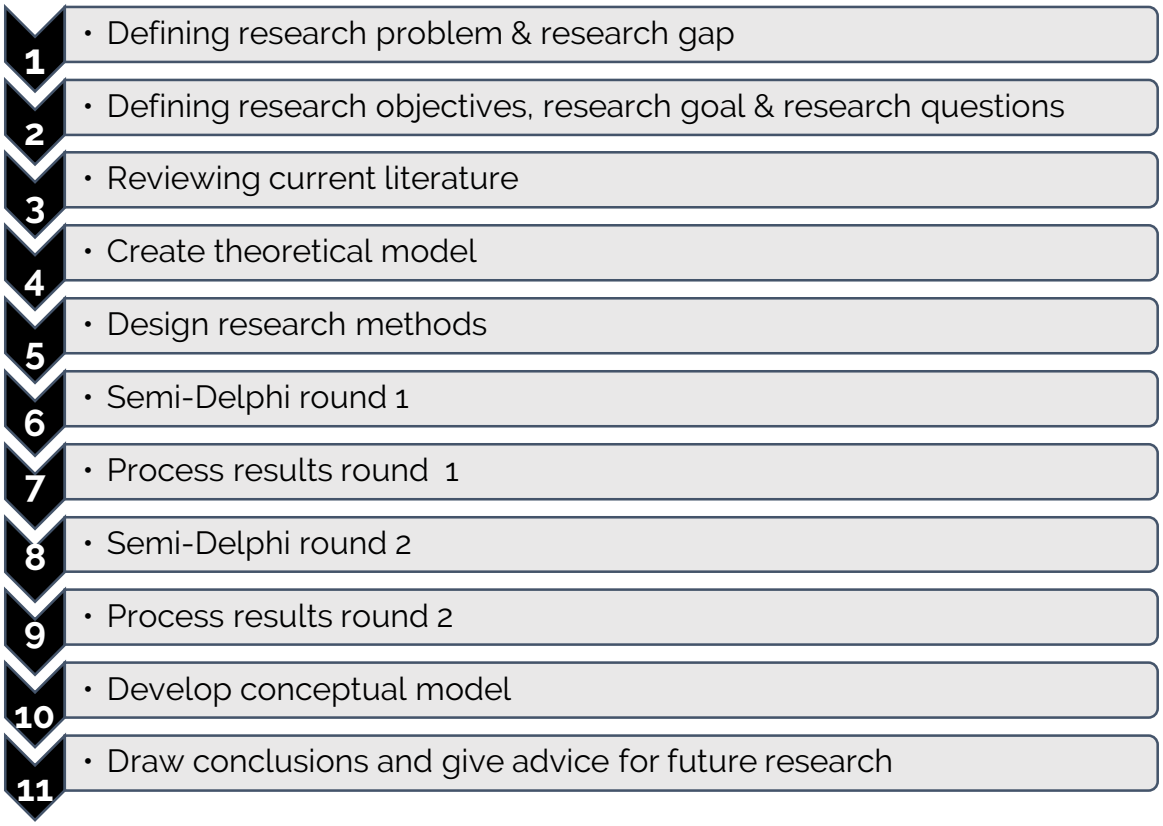

Figure 1. Schematic overview research process

1.3 RESEARCH GOAL

The research goal of this study is to develop an accurate model that describes the individual and organizational factors influencing the implementation of Data-Driven Marketing within organizations.

1.4 RESEARCH PROBLEM AND RESEARCH QUESTIONS

To fulfill the research goal, the following research problem needs to be solved:

What are the organizational and individual factors influencing
the implementation of Data-Driven Marketing within organizations?

To solve this research problem, answers will be given to the following research questions:

1) How can the concepts 'Big Data' and 'Data-Driven Marketing' be defined?
2) What are the organizational factors influencing the implementation of data-driven marketing within organizations?
3) What are the individual factors influencing the implementation of data-driven marketing within organizations?

1.5 RELEVANCE

This study is both relevant for the scientific world as for organizations.

1.5.1 Scientific relevance

Prior research claims that: “Big Data is possibly the most significant “tech” disruption in business and academic ecosystems since the meteoric rise of the Internet and the digital economy” (Agarwal & Dhar, 2014, p. 443). This underlines that Big Data is of high influence nowadays. The current literature focuses on the implementation of general IT projects. However, the implementation of Data-Driven Marketing differs because it has more stakeholders. It is often a cooperation between the IT department, the marketing department, and sometimes a data department (Davey, 2015). This study will contribute to the current literature by developing an implementation model specifically for the implementation of Data-Driven Marketing.

1.5.2 Practical relevance

This study will focus on the individual and organizational factors influencing the implementation of Data-Driven Marketing within organizations. The outcome of the study will give a useful overview for organizations that want to implement Data-Driven Marketing. Besides that, it will give digital marketing agencies insights in the individual and organizational factors that are important for their their clients during the implementation of Data-Driven Marketing. This can help them better understand how their customers make decisions. Ultimately, digital marketing agencies can learn how to change their products and/or services to positively influence the individual and organizational factors influencing the implementation of Data-Driven Marketing.

2. Literature review

The purpose of this chapter is to outline the prior knowledge regarding factors influencing the implementation of Data-Driven Marketing. First, the main concepts 'Big Data' and 'Data-Driven Marketing' are defined. Furthermore, the different types and forms of usage of the main concepts are described. In section 2.5, conceptual models for the process of general IT innovation adoptions are studied. In the following two sections, individual and organizational factors influencing the implementation are outlined. Furthermore, ethical thresholds for Data-Driven Marketing are given. In the last section, a conceptual framework for the implementation will be proposed.

2.1 THE HYPE: BIG DATA

The American Marketing Science Institute, a leading organization for marketing research, proposed five big themes as priorities for research within 2016 - 2018. One of them is described as "Delivering integrated, real-time, relevant experiences in context" (MSI, 2016, p. 6). They propose that firms should develop systems in where they can serve customers at every touchpoint on the customer journey (MSI, 2016). Delivering integrated, real-time, relevant experiences in context can be done using Big Data. Big Data is a trending buzzword in both the academic world as the practical world.

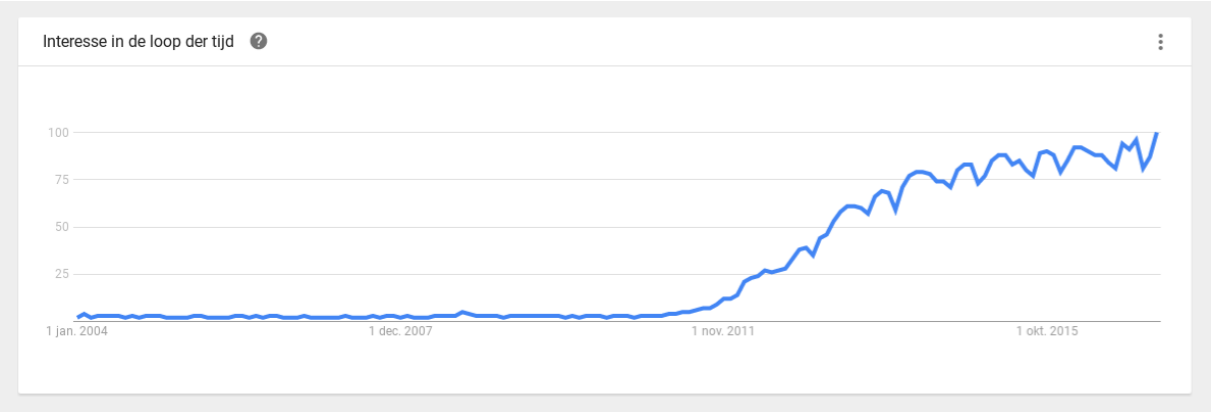

Figure 2. Interests to 'Big Data' according to Google Trends, retrieved on 16-02-2017

Big Data and Data-Driven Marketing are both very timely in organizations nowadays. Recent research shows that 'digital transition' is one of the next priorities on more than half of the executive planning's in the study. A founding is that almost all respondents (96%) think that Data-Driven Marketing will result in the same or less resources and budget (2Bmore, 2016).

Executives are even anxious for the consequences if Data-Driven Marketing will not be implemented. Almost 80% thinks that they will miss the connection with their customers. However, it should be mentioned that 13% thinks that nothing will happen in the two coming years if they do not implement Data-Driven Marketing.

If so many executives have a digital transformation and Data-Driven Marketing as one of their priorities, and almost everyone thinks that it will not cost more than their current marketing efforts, why are so many marketing practices organizations still not Data-Driven? This study will focus on this question by investigating the individual and organizational factors that influence the implementation of Data-Driven Marketing.

2.2 DEFINING BIG DATA

As the introduction above would suggest, Big Data is defined in different ways. Even the definitions of leading enterprises show differences. IBM defines Big Data as "Every day, we create 2.5 quintillion bytes of data — so much that 90% of the data in the world today has been created in the last two years alone. This data comes from everywhere: sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals to name a few. This data is Big Data." Summarizing, Big Data is all the data that comes from the technologies people use. Gartner has a more global definition of Big Data: "high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation." Additionally, this definition focuses more on the possibilities of Big Data instead of where it is coming from. Ernst & Young says that Big Data refers to "the dynamic, large and disparate volumes of data being created by people, tools and machines. It requires new, innovative, and scalable technology to collect, host and analytically process the vast amount of data gathered in order to derive real-time business insights that relate to consumers, risks, profit, performance, productivity management and enhanced shareholder value." Where Gartner said that 'we' create data, suggesting that data is only created by people, Ernst & Young included tools and machines as well.

In academic literature, the definitions of Big Data are more consistent. Very often it is described using the four V's: variety, velocity, volume, and veracity (Gandomi & Haider, 2015; Saha & Srivastava, 2014; Wang, et al., 2014):

- The **variety** of forms of data is very large. Big Data can include personal information, transactions, responses on newsletters, customer service, external profile data and online data such as web statistics, e-mail statistics, social media, IP-tracking / fingerprints / cookie and mobile applications (2bMore, 2016).
- The **velocity** of data is all about the analysis of the Big Data that is being created. Already in 2016 there were around 18.9 billion network connections, which is almost

2.5 connections per person. All these connections generate data and those can be analyzed. For example, the New York Stock Exchange captures 1 terabyte of trade information during each transaction.

- The **volume** of data increases of course every week, day, minute and even every second. IBM suggests that 40 zettabytes of data, which is equal to 43 trillion gigabytes, will be created by 2020. This is an increase of 300 times from 2005. Out of this can be estimated that the world creates 2.5 quintillion bytes a day. Most of this data is stored by companies. In the United States, most of the companies have at least 100 terabytes of data stored.
- The **veracity** of data is all about the trustworthiness of the Big Data used. IBM found that 1 out of 3 business leaders do not trust the data they use for decision-making. This is not strange, as the same study found that poor data quality costs the US economy around 3.1 trillion dollars per year.

Besides those 4 v's that are often mentioned, newer studies mention two new V's: value & variability (Gani, et al., 2016):

- The **value** of data in the original form is usually relatively low compared to its volume. However, this value can be increased by analyzing large volumes of data. This defining attribute of Big Data is introduced by Oracle.
- The **variability** of data refers to the variation in the data flow rates. Often, the velocity of Big Data is not consistent. It has peaks and troughs. Complexity is comprehensive to variability and is all about the fact that Big Data are generated through a myriad of source. This reinforces the challenge to connect, match, cleanse and transform data retrieved from different sources. This defining attribute of Big Data is introduced by SAS.

The most recent studies added again three new V's: visualization, validity, and volatility (Owais & Hussein, 2016; Ducange et al., 2017):

- The **visualization** of data refers to making the overwhelming amount of data understandable, readable and usable.
- The **validity** of data refers to the correct usage. It is highly correlated with veracity but also considers data integrity. Valid data is the key for right decisions.
- The **volatility** of data is about the retention policy of data and the time it should be stored for future usage.

All the nine V's are schematic summarized in figure 4.

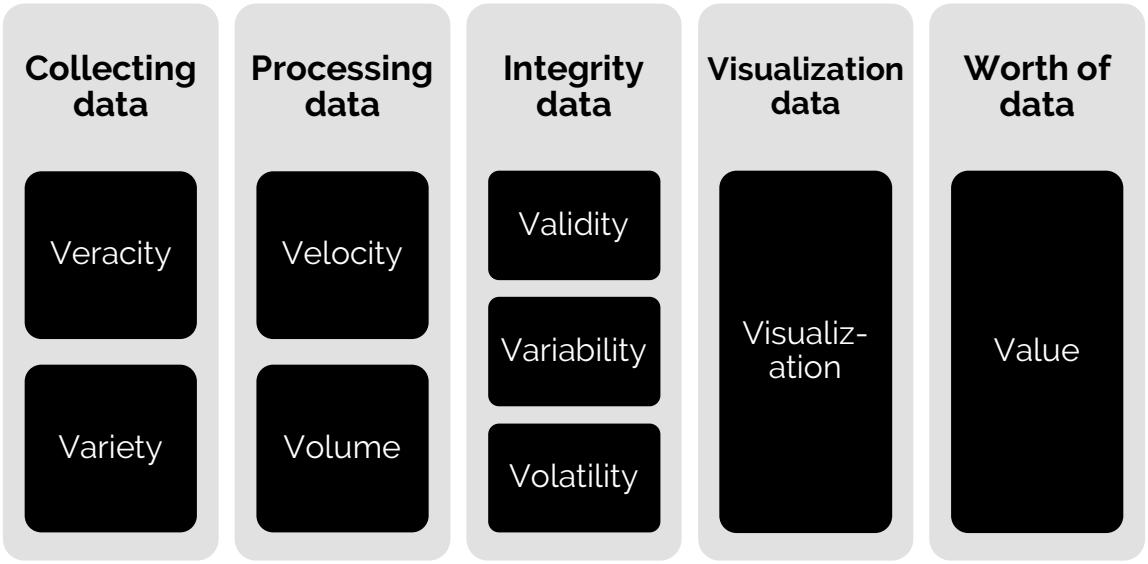

Figure 3. Schematic overview of the 9 V's of Big Data, adapted from Owais & Hussain (2016)

Bernard Marr is one of the most respected voices when it comes to Big Data in businesses. He says the basic idea behind Big Data is "everything we do is increasingly leaving a digital trace (or data), which we (and others) can use and analyze to become smarter" (Marr, 2015). With smarter, he mainly points at the fact that companies use data to work faster, more efficient and more effective.

In this study the definition of Ernst & Young will be partly used, mainly because it explains the use of the word 'Big' in the term 'Big Data'. Big Data are large volumes of data being created by people, tools and machines. Big Data requires new and innovative technology to collect, host and process the amount of data gathered in order to derive real-time business insights.

2.3 TYPES OF BIG DATA & USAGE

One of the V's, variety, underlined already that there are many different forms of Big Data available. Recent research highlighted the ten most used types of data within organization: structured data, semi structured data, complex data, event data, unstructured data, social media data, web logs and clickstreams, spatial data, machine-generated data, and scientific data. Examples and the percentages of usage are outlined in table 1.

The ten major areas in which Big Data is used is outlined in table 2. Within this study, the focus lies on companies that use Big Data to better understand and target customers. They do so by bringing together data from several sources as websites, transactions, social media, weather predictions, etc. This mainly refers to the first major area, but also partly to understanding and optimizing business processes and performance optimization. Of course, the business process of targeting customers is being optimized, while Big Data is used for understanding and targeting customer. Besides that, also the performance of customer targeting is optimized.

Table 1. Types of data, adapted from Russom (2011)

Type of data	Exempels	Percentage of usage
Structured data	Tables, records	92%
Semi structured data	XML and similar standards	54%
Complex data	Hierarchical or legacy sources	54%
Event data	Messages, usually in real time	45%
Unstructured data	Human language, audio, video	35%
Social media data	Blogs, tweets, social networks	34%
Web logs and clickstreams	Click tracking	31%
Spatial data	Long/lat coordinates, GPS output	29%
Machine-generated data	Sensors, RFID, devices	28%
Scientific data	Astronomy, genomes, physics	6%

Table 2. The 10 major areas in which Big Data is used (Marr, 2015)

	The 10 major areas in which Big Data is used
1.	Understanding and Targeting Customers
2.	Understanding an Optimizing Business Processes
3.	Personal Quantification and Performance Optimization
4.	Improving Healthcare and Public Health
5.	Improving Sport Performance
6.	Improving Science and Research
7.	Optimizing Machine and Device Performance
8.	Improving Security and Law Enforcement
9.	Improving and Optimizing Cities and Countries
10.	Financial Trading

2.4 DEFINING DATA-DRIVEN MARKETING

Marketing is defined as "the activity, set of institutions, and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners, and society at large" (American Marketing Association, 2008). Nowadays, it becomes more and more important that marketing managers can justify the money they spend and show the value of their marketing efforts for the business. This can be easily done when using Data-Driven Marketing. When using data, the outcomes and the money spend are more easily clarified. However, prior research back in 2010, studied 252 firms capturing 53 billion dollars of annual marketing spending. It was found that less than 20% actually do Data-Driven Marketing and use metrics for measurement in their day-to-day marketing activities. These firms have significantly better financial and market performance relative to competitors (Jeffery, 2010).

The are many kinds of Data-Driven Marketing. In this study, Data-Driven Marketing is defined as the process of collecting and connecting large amount of online data with traditional offline data, rapidly analyzing and gaining cross-channel insights about customers, and then bringing that insight to market via a highly-personalized marketing campaign tailored to the customer at his/her point of need (Teradata, 2016). To specify Data-Driven Marketing for this study more specifically, Data-Driven Marketing within this study will focus on the personalization of the customer experience by targeting individual marketing segments using internal and external integrated data across platforms.

Compared to traditional marketing, Data-Driven Marketing is personalized instead of generalized, and in many cases automated instead of manual. This automated process is of course not done by people, but by computers. Additionally, in many cases machine learning is used for the optimization of Data-Driven Marketing. Therefore, the implementation of Data-Driven Marketing is in this study seen as an IT innovation.

2.5 ADOPTING DATA-DRIVEN MARKETING

The adoption of Data-Driven Marketing is by 30% of the organizations seen as a problem instead of an opportunity, mainly because it is hard to manage from a technical viewpoint (Russom, 2011). The process of adopting an innovation in organizations takes place in different stages. The process is widely recognized as a process consisting of three phases: initiation, adoption-decision and implementation (Tornatzky et al., 1990; Rogers, 1995; Hameed et al., 2012). Those three phases take place on two levels: organizational and individual.

Based on these three phases and two levels, more recent research of Hameed et al. (2012) proposed a conceptual model for the IT innovation adoption process in organizations. The model is a combination of the diffusion of innovation (DOI) model (Rogers, 1983), the Theory of Reasoned Action (TRA) (Fishbein & Azjen, 1975), the Technology Acceptance Model (TAM)

(Davis, 1989), the Theory of Planned Behaviour (TPB) (Ajzen, 1991), and the TOE framework (Tornatzky & Fleischer, 1990). Besides that, Hameed et al. (2012) adds two new attributes: the CEO characteristics and user acceptance attributes.

The innovation adoption on an organizational level consists of two phases: the initiation phase and the adoption decision phase. Within the initiation phase, activities relate to raising awareness of the innovation, attitude formation of adoption, and the proposal for adoption (Rogers, 1995; Gopalakrishnan & Damanpour, 1997). In the adoption decision phase the idea is accepted and evaluated from a strategic, technical and financial perspective (Gopalakrishnan & Damanpour, 1997).

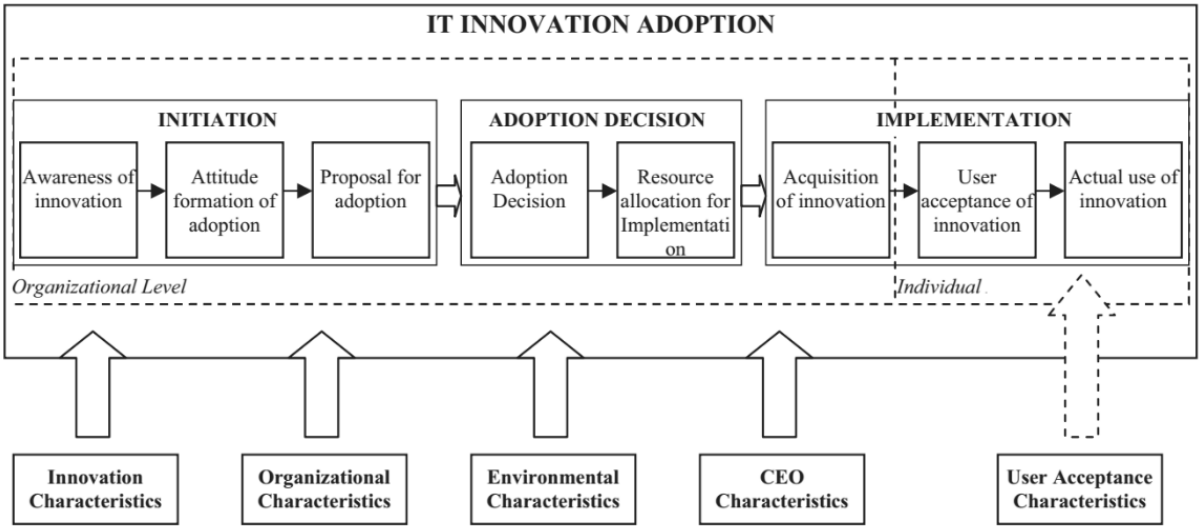

Figure 4. Conceptual model for the process of IT innovation adoption (Hameed et al., 2012)

The innovation adoption on an individual level consists of one phase: the implementation phase. Within the implementation phase it is mainly about the acceptance of the innovation by users and the continued actual use of the innovation (Rogers, 1995). At the start of the implementation, during the acquisition, also the CEO of the organizations plays an important role.

A comparable study also combined several theories from others into a new model (Frambach & Schillewaert, 2002). In the study the innovation adoption on an organizational level and the innovation adoption on an individual level are literally split into two models. The organizational model, shown in figure 6, consists of five phases: awareness, consideration, intention, adoption decision, and continued use. The first three phases are comparable with the initiation phase of the model of Hameed et al. (2012) in figure 5. The fourth phase 'the adoption decision' is also one of the phases in the model of Hameed et al. (2012) in figure 5, but both are influenced by different factors. The last organizational phase of Frambach & Schillewaert (2002) is the actual use of the innovation. This is a difference

with the model of Hameed et al. (2012) as they consider resource allocation and acquisition of the innovation before the actual use. Looking at the influencing factors both models use factors as innovation characteristics and environmental characteristics. Frambach & Schillewaert (2002) introduce different factors as supplier marketing efforts, social network, and adopter characteristics. Compared to Hameed et al. (2012) they do not include CEO and organizational characteristics.

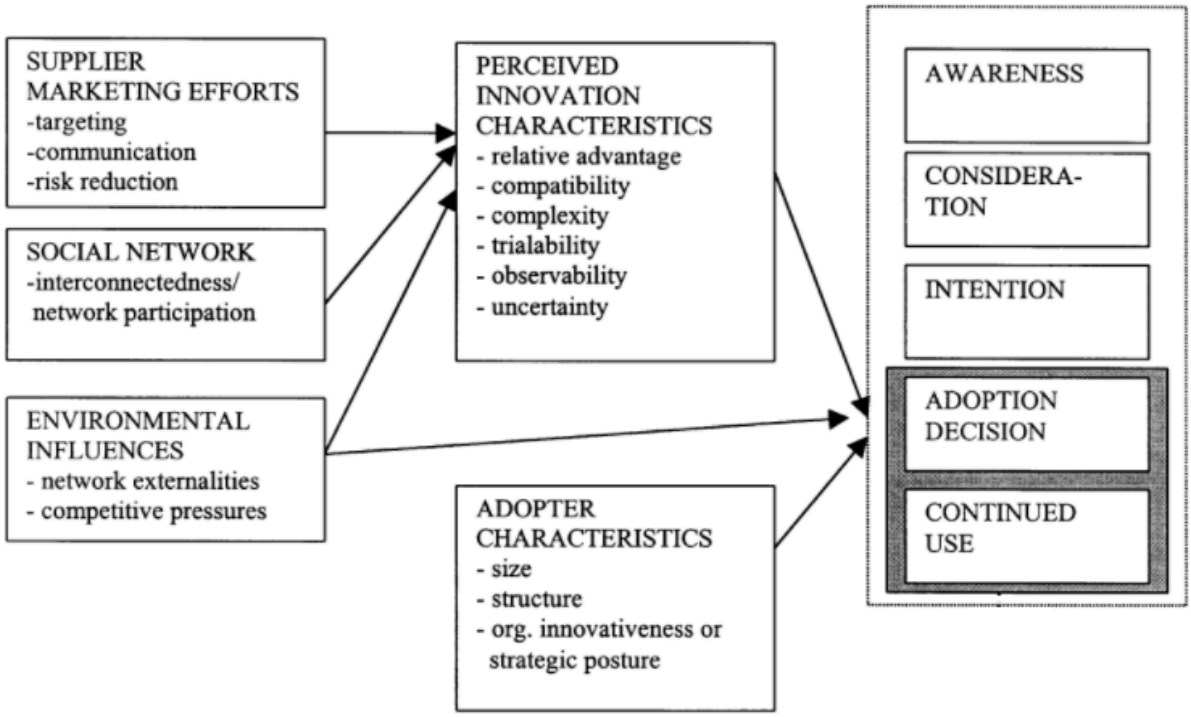

Figure 5. Conceptual framework of organizational innovation adoption (Frambach & Schillewaert, 2002).

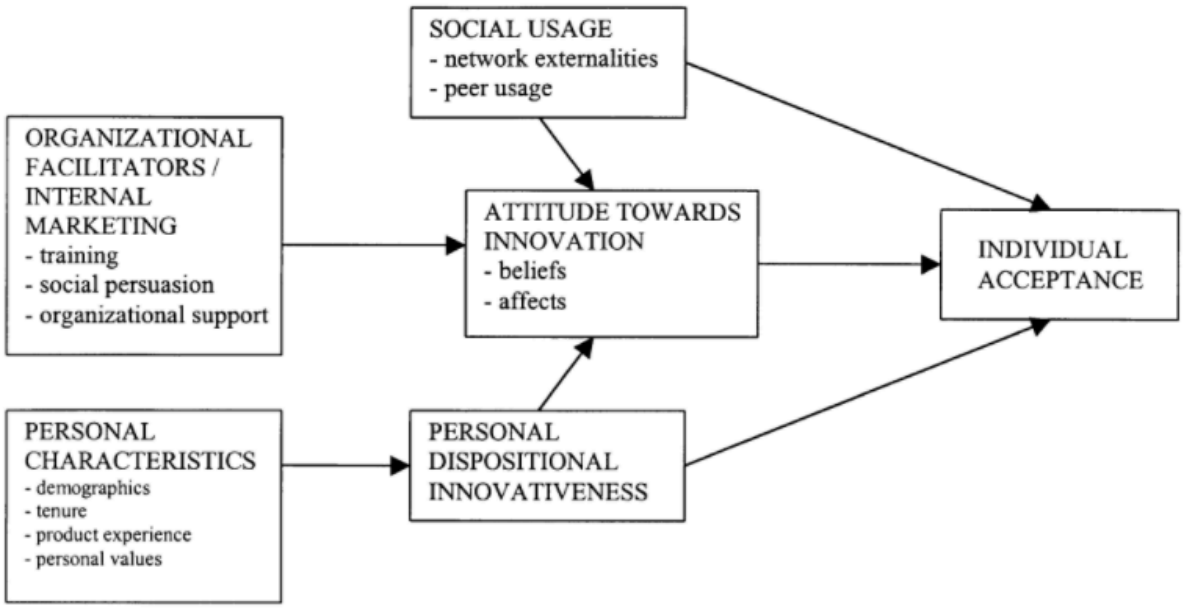

Figure 6. Conceptual framework of individual innovation acceptance (Frambach & Schillewaert, 2002).

Where Hameed et al. (2012) sees the individual innovation adoption as user acceptance and actual use, Frambach & Schillewaert (2002) consider much more factors influencing this. The model (figure 7) proposes social usage, attitude towards innovation, and personal dispositional innovativeness as influencing factors of individual acceptance. The attitude towards the innovation is influenced by organizational facilitators / internal marketing, social usage, and personal dispositional innovativeness. This personal dispositional innovativeness is influenced by personal characteristics as personal values, product experience, tenure, and demographics.

2.6 ORGANIZATIONAL DATA-DRIVEN MARKETING ADOPTION

As mentioned before, the organizational adoption of Data-Driven Marketing consists of several phases. During the first phase, the initiation phase, organizations should ask themselves three important questions before they invest in Big Data (Gopalkrishnan et al., 2012):

- What is the business problem or organizational goal?
- Given the goal, is the available data suitable?
- What is the return on investment on Big Data?

Those three questions can make the decision-making process for organizations clearer. Out of experience, prior research concludes that the decision-making process is different and requires managing trade-offs (Gopalkrishnan et al., 2012).

First of all, organizations should be aware of the innovation. Teradata, a global leader in analytic data platforms, found in their survey that Data-Driven Marketing often does not have a funding priority and that there is a lack of consensus that Data-Driven Marketing is important (Teradata, 2015).

Jeffery (2010) found two organizational characteristics why Data-Driven Marketing and marketing measurement are so difficult for many organizations; (1) the internal processes do not support a culture of measurement, and (2) they also do not have an infrastructure to support Data-Driven Marketing and marketing metrics. Besides this, the study concluded that marketers are overwhelmed with data and do not know where to start measuring to drive real results. A shocking fact is that 55% of the managers in the study reported that their staff does not even understand metrics such as NPV and CLTV (Jeffery, 2010). Other organizational characteristics that often are challenges during the initiation stage are the lack of talent to run Big Data and analytics on an ongoing basis, inefficient processes, limited organizational support and a lack of strategy (Dun & Bradstreet, 2016).

Speaking of resource allocation, many companies lack some essential conditions for implementing Data-Driven Marketing. The lack and timeliness of data, the lack of

appropriate CRM database, the integration with existing systems, and the integration of data and channels are outlined as the most important missing conditions. Furthermore, competences, tools, the embedding within the organization and its strategy are mentioned as conditions that many organizations still lack (2Bmore, 2016; Teradata, 2015; Accenture, 2014). Besides those more practical challenges, the budget for investing in Data-Driven Marketing is also widely known as one of the main factors influencing the adoption process (Accenture, 2014; Dun & Bradstreet, 2016; GoDataDriven, 2016).

During the acquisition of the innovation, at the start of the implementation phase mainly CEO characteristics are important. Prior research stated: "One of the biggest challenges facing marketing managers today is the lack of credibility in the boardroom, with 73 percent of CEOs reporting a lack of trust in the marketing department's ability to generate sales and increase customer conversion, demand and market share" (Kumar et al., 2013, p. 330). As the involvement of the CEO and other managers is important, this can be a big challenge during the adoption process of Data-Driven Marketing. In a survey of GoDataDriven, a Dutch Big Data Science and Engineering firm, only a bit more than half of the respondents said that Big Data is playing a strategic role within the management team of their organization. The same study shows that the most important factors for a successful implementation of Big Data are a clear vision and support from the management of the company (GoDataDriven, 2016).

Another summarized all the organizational challenges during the adoption process of Data-Driven Marketing in five themes that are mainly important: leadership, talent management, technology, decision making, and company culture (McAfee et al., 2012).

2.7 INDIVIDUAL DATA-DRIVEN MARKETING ADOPTION

Several studies on IT innovation adoption mention individual factors influencing the implementation. Hameed et al. (2012) combines the most popular frameworks in the field and tested factors. They found that the attitude towards use, the experience of the user, and financial incentives are the most influential user acceptance factors. Furthermore, the perceived usefulness, self-efficacy, and facilitating conditions are significant influencing factors. The most important factor, attitude towards use, is further studied. Rogers (1995) found five attributes that play a key role in an individual's attitude towards use of innovations. The five attributes mentioned are relative advantage, compatibility, complexity, trial ability and observability of the innovation.

In more practical research, prior research found that inadequate staffing or skills are the biggest potential barriers to implementing Big Data analytics (Russom, 2011). This underlines that the knowledge and skills of individuals are important during the implementation. Other skill-related barriers include challenges with designing the architecture of Big Data analytics and challenges with making Big Data usable for end users.

2.8 ETHICAL THRESHOLDS FOR DATA-DRIVEN MARKETING

Nowadays, all kinds of human activities and decisions, such as dating, shopping, education, cybersecurity, voting, and terrorism prevention, are being influenced by Big Data predictions. Ms. Kuneva, EU Commissioner for consumer protection, said during her keynote speech at a roundtable meeting on data collecting, targeting and profiling in Brussels in 2009: "Personal information is the new oil of the Internet and the new currency of the digital world." (Bloem et al., 2013, p. 6). Big Data provides many options for business, governments and individuals, but there are also ethical thresholds involved.

Nowadays, there is more Big Data than ever in the history. Big Data in these days is organic, because it represents the messy digital representation of reality. This is the result of individual's actions, sensory data, and other measurements creating a digital image of our reality. This also called datafication (Cukier, 2013). Many people do not know what kind of data is collected or what I can used for. This is already an ethical disadvantage, speaking of knowledge and free will. The upcoming Internet of Things makes the distance between person's knowledge and free will and other person's source of information and power even larger (Zwitter, 2014). The reach of Big Data is potentially global, and this leads to an imbalance in power between several stakeholders benefitting mostly large agencies with the know-how to generate intelligence and knowledge from information. Additionally, Big Data analyses emphasizes correlations over causation. "We become more vulnerable to having to believe what we see without knowing the underlying whys." (Zwitter, 2014, p. 3).

Prior research concluded that the current privacy protections that are focused on managing personally identifying information are not enough when "secondary uses of Big Data sets can reverse engineer past, present and even future breaches of privacy, confidentially and identity" (Richards & King, 2014, p. 393). Recent research proposed four high-level principles to inform the establishment of legal and ethical Big Data norms (Richards & King, 2014):

- *Recognize privacy as information rules*

As the amount of personal information gathered from people is increasing, the need for rules and regulations about this transformation is also increasing.

- *Recognize that shared private information can remain confidential*

Often it is thought that once information is shared and given, it is not private anymore. Understanding that this is not the case, helps to understand how to align privacy expectations with the growing secondary uses of Big Data analytics.

- *Recognize that Big Data requires transparency*

Transparency makes sure that individuals feel more safe and want to share more personal information. Additionally, transparency can help to prevent abuses of institutional power.

❖ *Recognize that Big Data can compromise identity*

Predictions using data can be risky for compromising identity. Organizations can identify, categorize, modulate and even determine who we are before we make up our own minds.

Besides Brussels and the academic world, in a survey almost 70% of the respondents totally agrees that business should handle data gathering in an ethical way (GoDataDriven, 2016). Recent surveys provided evidence that companies also see security and privacy as one of the major challenges when they want to implement Data-Driven Marketing (Accenture, 2014; 2bMore, 2016). In one survey, even almost half of the responding companies see data security challenges as one of the obstacles preventing marketing from becoming more Data-Driven (Teradata, 2015). However, only 6% of the companies sees it as one of their top three marketing challenges for their organization (2bMore, 2016).

2.9 CONCEPTUAL FRAMEWORK FOR THE IMPLEMENTATION

In the previous sections, prior literature on IT innovation adoption models is outlined. Besides that, more practical research focusing more on Data-Driven Marketing is researched. Based on the two described conceptual frameworks of Hameed et al. (2012) and Frambach & Schillewaert (2002), and the influencing factors found in more practical research in section 2.6 and 2.7, the model conceptual framework in figure 8 is proposed.

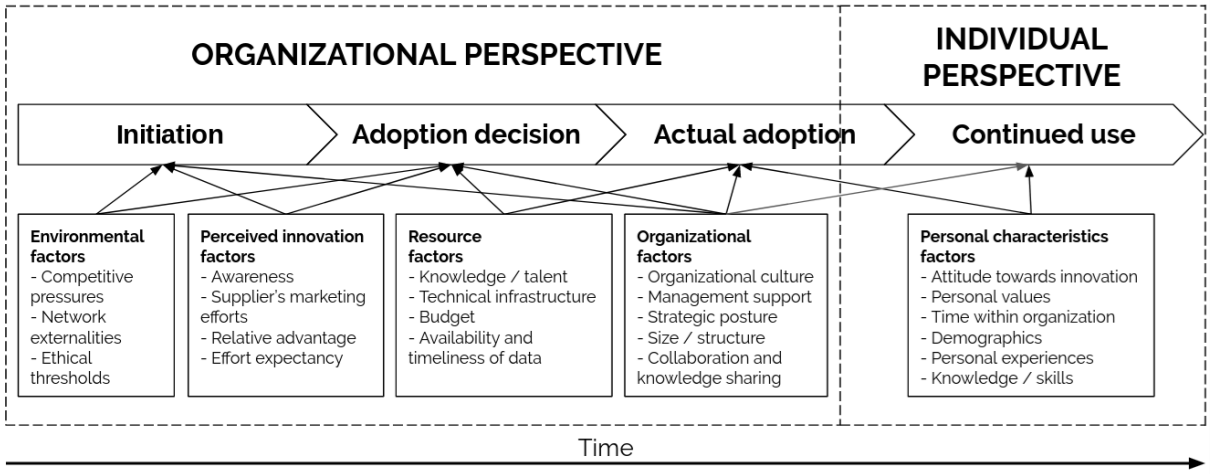

Figure 7. Proposed conceptual framework for the implementation of Data-Driven Marketing

The proposed conceptual framework focuses on both the organizational as the individual side of the implementation. The first three phases, initiation, adoption decision, and the actual adoption, mainly occur on an organizational level. Part of the actual adoption and the actual use occur on an individual level. Environmental characteristics such as competitive pressures and ethical thresholds occur during the initiation phase. Perceived innovation characteristics such as relative advantage and effort expectancy are of influence during the initiation and adoption decision phase. Organizational characteristics such as the organizational culture and management support influence the adoption decision

phase. The resource allocation is partly of influence on the adoption decision but mainly to the actual adoption. Personal characteristics as individual's personal values and personal attitude towards the innovation influence the actual adoption and actual use of Data-Driven Marketing.

The whole implementation of Data-Driven Marketing is influenced by the collaboration and knowledge sharing between departments like IT, Marketing & Data. In practice, the names of the departments can differ. Of course, in some cases also other departments like sales, service or e-commerce can be involved.

3. Methodology

Within this methodology chapter, first the reasons for choosing qualitative research methods are outlined. Next, the more specific methodological considerations are described and the reasons for choosing a Delphi study are explained. In section 3.3 and 3.4 the methods for the interviews are described. In the following section the methods of analyzing and reporting the findings during the Semi-Delphi study are described. The last section of this chapter will outline some statements about the reliability and validity of the methods chosen within this study.

3.1 QUALITATIVE RESEARCH IN MARKETING

Scientific research is used to prove hypotheses or find answers on specific questions. Qualitative research is powerful in gaining in-depth, holistic understanding of the relationship between internal culture and communication from the perspective of people within organizations (Daymon & Holloway, 2010). This makes qualitative research very useful for this study, as it focuses on the individual and organizational factors influencing the implementation of Data-Driven Marketing within organizations. Quantitative research for this study is considered, but is not the best choice, as it will probably result in more general findings. One of the criticisms of qualitative research is that it is often too impressionistic and subjective, and therefore difficult to replicate or generalize (Daymon & Holloway, 2010). The interest of this study is not replication and the interest lies in specific settings. The problem of generalization is recognized; however, the findings of this study can probably be partly generalized. The interviewee in this study work in different industries and therefore can be seen as a representation of Dutch organizations.

The first step is in this study to build an accurate theoretical framework, based on the existing literature. The literature needed for this theoretical framework was mostly gathered online using Scopus, Web of Science, ScienceDirect and Google Scholar. The journal in which the article was published and the number of citations were taken in consideration while deciding to use the article. Furthermore, in some cases the year of publication was taken in consideration, because of the fast-changing environment. Based on this literature framework, a conceptual model is used for the second part of this study. In this part experts are being interviewed.

3.2 METHODOLOGICAL CONSIDERATIONS

The goal of this study is to define the organizational and individual factors influencing the implementation of Data-Driven Marketing within organizations. To understand processes and define the organizational and individual factors, qualitative research methods are used. Qualitative research is primarily exploratory research and is used to gain an understanding of underlying reasons, opinions or motivations. Data collection methods within quantitative research vary between unstructured interviews and participant observations. Typically, the sample size is small, so the researcher can dive deep into the topic.

First, expert interviews are considered. Expert interviews give insights in a person's special knowledge and experiences. Prior research concluded that the validity of the data collected with the use expert interviews depends on the quality of experts (Dorussen, Lenz, & Blavoukos, 2005). Therefore, this method alone is not good enough for this study, as the quality of the interviewee is questionable. The validity of expert interviews can be increased by using the Delphi method. A Delphi study is considered as research method as this method focuses also on the judgment of experts (Habibi et al., 2014). However, the Delphi method checks findings twice, or even more times, to come to a consensus at the end. Coming to a consensus is one of the requirements of the Delphi method (Habibi et al., 2014).

The Delphi method is extremely well suitable for this study. Using Delphi in expert studies where the questions are narrower and more specific in terms of subject, the result can guide the framing of further interview questions that are more specific (Okoli & Pawlowski, 2004). For example, the Delphi method is earlier used in a study where the top risk factors of a software project are identified (Schmidt et al., 2001). This is a similar research project where risks instead of influencing factors are being identified. In the first round of this Semi-Delphi study, several experts in the field will be interviewed regarding the organizational and individual factors that influence the implementation of Data-Driven Marketing. In the second round of this Semi-Delphi study, two people within the same organization will be interviewed to prove the answers given during the first round and find more in-depth answers. The combination of the two rounds in the Semi-Delphi provide on one hand the insights from different experts and on the other hand deep insights from within organizations.

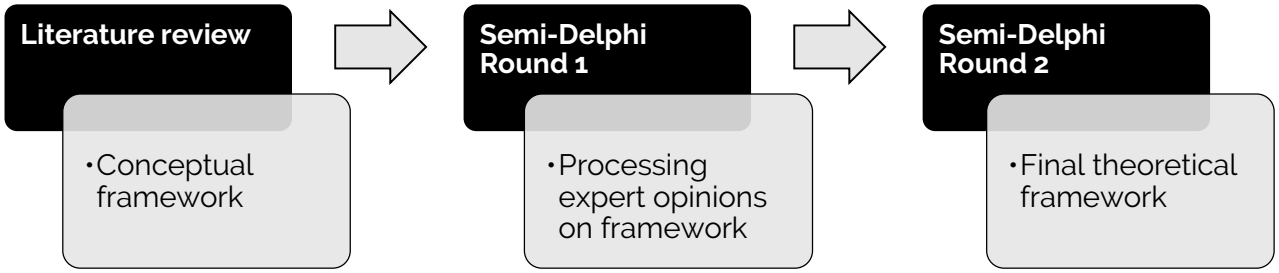

Figure 8. Methodological process of the Semi-Delphi study

3.3 FIRST ROUND: EXPERT INTERVIEWS

3.3.1 Selecting participants

Participants for this study are selected based on their knowledge and experience regarding the topic. Furthermore, the company they work for need to have implemented Data-Driven Marketing not long ago. Participants are contacted via the professional network of the external supervisor and/or are customers of the company that collaborated in this study.

For confidentially reasons, the actual names of the participants and the companies where they work for will not be presented. The companies are described as good as possible. Pseudonyms will be used to describe the specific participants. All participants were responsible for Data-Driven Marketing within the organization they work for.

Table 3. List of interviewee

Pseudonym	Interviewee position	Company information
Arthur	Digital marketeer	Garden furniture manufacturer
Benjamin	Owner	Maternity care company
Charles	Sales, Marketing & Revenue	Single Hotel
David	Account manager	Electronics manufacturer
Edward	Manager Online Marketing	Online electric bike shop
Frederick	Project Manager	Distributor of folders
George	ICT Director	Distributer of folders

3.3.2 Collaborating company information

The participants are selected in collaboration with Datatrics B.V. Datatrics is a start-up within the GO holding and was founded in 2014. Datatrics is a SaaS platform for marketers that makes all communications of companies relevant. This increases the customer engagement and increases the online conversion. Datatrics connects all internal data sources of organizations and combines those with external data sources. Using these data, Datatrics makes 360 degrees customer profiles. The purposes of this is giving next-best-actions to marketers and making content dynamic. Content on the companies' website,

within their e-mails, and within their advertising can with the use of Datatrics made personalized to the customers' needs.

Datatrics works inter alia for Coolblue, Siemens and BP. The company has offices in Oldenzaal (NL), Utrecht (NL), and London (GB). Datatrics is part of the GO holding which consists of four companies: Datatrics, Green Orange, Brandcube & Online Publisher.

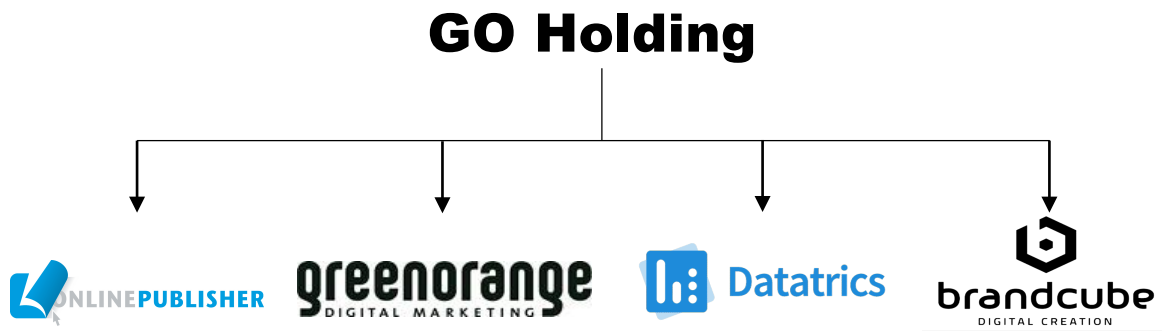

Figure 9. Overview GO Holding

3.3.2 Conducting interviews

Interviews will ideally be held face-to-face, as prior research found that telephone interviews are mainly only appropriate for short interviews, structured interviews or in very specific situations (Sturges & Hanrahan, 2004). The interviews will be quite in-depth, not short and only semi-structured.

Interviews will be held in Dutch, as this is both the mother tongue of the researcher and all the interviewee. Both the questions can be better understood by the interviewee and the answers can be better understood by the interviewer. The transcripts will be translated into English, as this is the language of this study. It could be that words, phrases, jokes and proverbs that carry meanings and concepts do not have an equivalent in another language, so translation is difficult and sometimes problematic. As research suggests, translations will be made carefully and well-considered (Filep, 2009).

The interviews consist of four parts. First, the participant will be asked several general questions. The first question is about the meaning of Data-Driven Marketing according to the participant. Following, the the participant is asked out of which phases/processes the implementation consists. Then, the participant is asked to what extent the implementation of Data-Driven Marketing is part of the strategy of the company.

Within the second part, the participant will get a large paper with the four processes from the conceptual model: initiation, adoption decision, actual adoption, and continued use. Besides that, the participant gets four times twenty-two cards with the different factors on it. The participant is asked to place the factors underneath the processes of which the participant thinks that the process is influenced by.

Within the third part, the participant is shown the conceptual model with all factors, but without connecting arrows. The participant is asked to draw lines from the groups of factors to the processes that the factors influence.

In the last part, the participant is shown the complete conceptual model. The participant is asked what the two most important changes are according to him or her. In the appendix, a complete transcript of the interviews is presented.

3.4 SECOND ROUND SEMI-DELPHI

For the second round of the Delphi study, two people from within the same organizations will be interviewed. One of the strengths of building a theory using those interviews is that the resultant theory is likely to be valid, because the theory-building process is tied with evidence that is is very likely that the resulting theory is consistent with empirical observation. A weakness is that the theory build is often narrow. However, this study is focused on a specific model. This reinforced by the conclusion of prior research that stated that in depth interviews is most appropriate in the early stages of research on a topic. As the area of data-driven marketing is relatively new and constantly changing, it can be said that research about Data-Driven Marketing is in the early stages (Eisenhardt, 1989).

The company in which the two interviews are carried out, is an organization that has implemented Data-Driven Marketing recently and in which people from multiple departments were involved. The process will be analyzed using interviews with people that were involved in the implementation.

3.5 ANALYZING & REPORTING FINDINGS

The data within this study consists out transcripts from the interviews held with the interviewee. During all interviews notes were made and the interviews were voice recorded. With help of the notes and recordings, transcripts of each interview were written. Mentionable is that the interviews were held in Dutch, but the transcripts are translated into English. This is done because of the language of this study. The transcripts were analyzed using qualitative content analysis. Qualitative content analysis is used to analyze textual data and can be used in any inquire in which the informational content of the data is relevant (Forman & Damschroder, 2007). This fits the goal of this study, as it is mostly used aiming at in-depth results instead of measurement.

In chapter four, which is about the results of this study the findings will be reported. The reportage stage is seen as critical for the success of qualitative research (Ritchie, Spencer, & O'Connor, 2003). Reporting findings will be done presenting and discussing quotes from the interviewees. As prior research suggested, the most representative or poignant quotes will be chosen. Furthermore, quotes from a range of interviewee will be included to make the findings as reliable as possible (Anderson, 2010).

To come to conclusions, underlying themes will be identified. The underlying themes will be presented and compared with the findings in the existing literature outlined in the theoretical framework.

3.6 RELIABILITY & VALIDITY

Reliability is defined as “The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable” (Joppe, 2000, p. 1), whereas validity is defined as “the degree to which the finding is interpreted in a correct way” (Kirk & Miller, 1986, p. 20). It can be easily summarized: reliability refers to the stability of findings, and validity refers to the truthfulness of findings (Altheide & Johnson, 1994).

The reliability of this study is not bad, neither perfect. One of the limitations of this study, which decreases the reliability of this study is that the interviewees of this study are all Dutch and that they do mainly work for Dutch companies. A reproduction of the study in other countries can result in different results. Furthermore, a reproduction of this study with more interviewees will make the study more reliable.

The validity of this study can also be described as not bad, neither perfect. The validity of this study decreased because of the fact that the interviews are held in Dutch and afterwards translated into English. There can be misinterpretations of the meanings of the interviewees, so this decreases the validity.

4. Results

The purpose of this fourth chapter is to present the results of this study. The results of both rounds of the Semi-Delphi study are outlined. First, the results of the five expert interviews are outlined. Mainly, the results will focus on the card sorting parts of the interviews. Besides the card sorting parts, attention is given to the opinions of the interviewees in terms of the proposed model. Next, the results of the second round of the Semi-Delphi study will be presented.

4.1 RESULTS FIRST ROUND SEMI-DELPHI STUDY

In the first round of the Semi-Delphi study five experts were interviewed. The interviews started with three general questions to get in the sphere of the subject. Questions were asked regarding the meaning of the concept 'Data-Driven Marketing', the processes of the implementation, and the extent to which the implementation of Data-Driven Marketing part of the strategy of the organization.

4.1.1 Testing single factors

In the first card sorting round interviewees were asked to put the 22 cards under the processes they think that the factors are of influence on. The results per interview can be found in the appendix. This round was mainly used to check if the single factors are of influence. In figure 10 the results of the five interviews in total can be seen. The darker the color of the factor, the more often it was put underneath the corresponding process. For example, the attitude towards innovation, competitive pressures, and organizational innovativeness are the factors that influence the initiation process the most, according to the interviewees. The factors with the darkest color were put four times underneath the corresponding process. The factors with the lightest color were put twice underneath the corresponding process. Three factors were not put more than once under a process. Therefore, *Network externalities*, *Personal values*, and *Personal experiences* were removed from the proposed model. For the interviews in the second round those factors were not used.

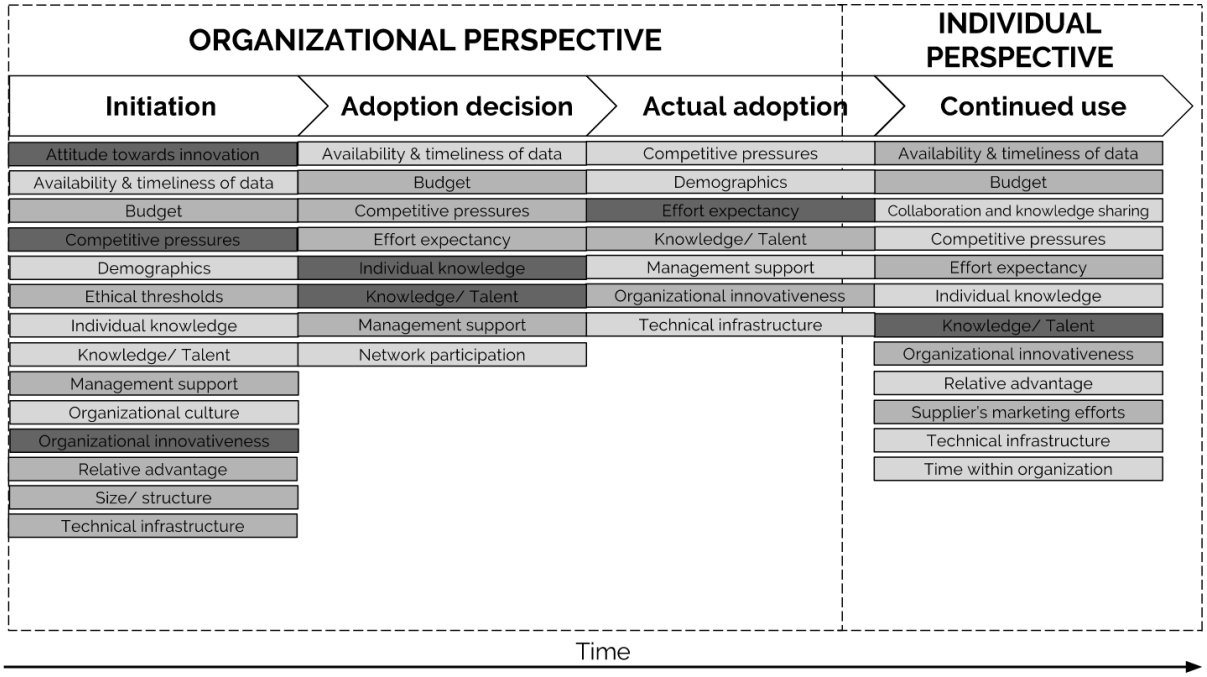

Figure 10. Semi-Delphi study round 1: results card sorting 1

4.1.2 Testing groups of factors

In the second card sorting round interviewees were asked to draw lines from the groups of factors to the processes they think that the groups of factors are of influence on. In table 4 the results of the second card sorting round in the first round of the Semi-Delphi study are shown. The numbers in de table indicate the number of interviewees that stated that the corresponding group of factors influences the corresponding process. The words 'Yes' and 'No' indicate if the theoretical framework concluded if there was a relation. For example, three out of five interviewees stated that environmental factors influence the initiation process. This is reinforced by the theoretical framework.

The *initiation process* is according to four out of five interviewees influenced by the perceived innovation factors. Furthermore, three out of five interviewees stated that the process is influence by environmental factors and resource factors. Only two interviewees staid that the organizational factors and personal characteristics factors are of influence on the initiation process.

The *decision process* is according to four out of five interviewees influenced by the environmental factors. Furthermore, three out of five interviewees stated that the process is influence by resource factors and organizational factors. Only two interviewees staid that the perceived innovation factors and personal characteristics factors are of influence on the decision process.

The *adoption process* is according to two out of five interviewees influenced by resource factors and organizational factors. Furthermore, one out of five interviewees stated that the process is influence by perceived innovation factors and environmental factors. None of the interviewees said that the personal characteristics factors are of influence on the adoption process.

For the *process of continued use,* every group of factors was named twice in five interviews. Therefore, all groups of factors are according to the interviewees of equal weight of influence on the process of continued use.

Table 4. Semi-Delphi study round 1: results card sorting 2

Factors/ Processes	Initiation	Decision	Adoption	Continued use
Environmental	**Yes - 3**	**Yes - 4**	**No - 1**	**No - 2**
Perceived innovation	**Yes - 4**	**Yes - 2**	**No - 1**	**No - 2**
Resource	**No - 3**	**Yes - 3**	**Yes - 2**	**No - 2**
Organizational	**Yes - 2**	**Yes - 3**	**Yes - 2**	**Yes - 2**
Personal characteristics	**No - 2**	**No - 2**	**Yes - 0**	**Yes - 2**

If three or more experts stated that there is a relationship between the factors and the process, the relation is indicated as valid. If two experts stated that there is a relationship between the group of factors and the process, the fact if there was a relationship found within the theoretical framework counts. If there is only 1 or none expert that said that there is a relationship, it will be concluded that there is no relationship.

4.1.3 The updated conceptual model

In the last part of the expert interviews in the first round of this Semi-Delphi study, interviewees were given the possibility to make maximal two changes. Most of the proposed changes are already incorporated in the new model. For example, two interviewees stated: "Resource factors also influence the initiation process'. As shown in figure 11, this relation will be incorporated into the new model. Three out of five interviewees stated: "Perceived innovation factors also influence the process of continued use". As more than half of the experts stated this, this relation will be incorporated into the updated model.

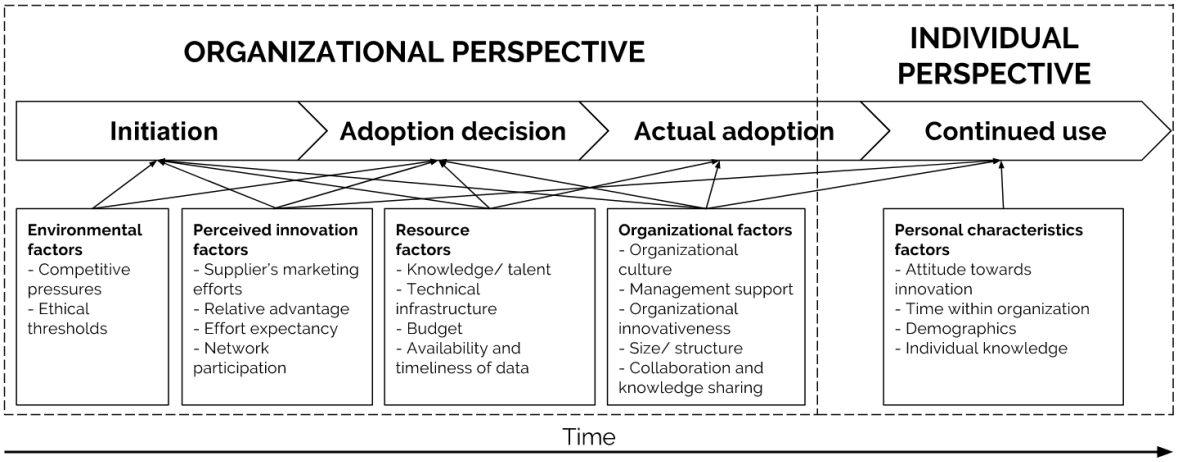

Figure 11. Updated conceptual framework implementation of Data-Driven Marketing

4.2 RESULTS SECOND ROUND SEMI-DELPHI STUDY

In the second round of the Semi-Delphi study two interviews were held. The two people were interviewed that were responsible for the implementation of Data-Driven Marketing within a large Dutch organization. The organization's operations include delivering weekly door to door folders. A few years ago, they started to offer a comparable service online.

4.2.1 Testing single factors

Again, first the single factors were tested. The results of the two interviews together can be found in figure 12. The light grey factors were placed under the corresponding factors by one interviewee. The dark grey factors were placed under the corresponding factors by both interviewees. All nineteen factors have been used, so no further factors need to be removed.

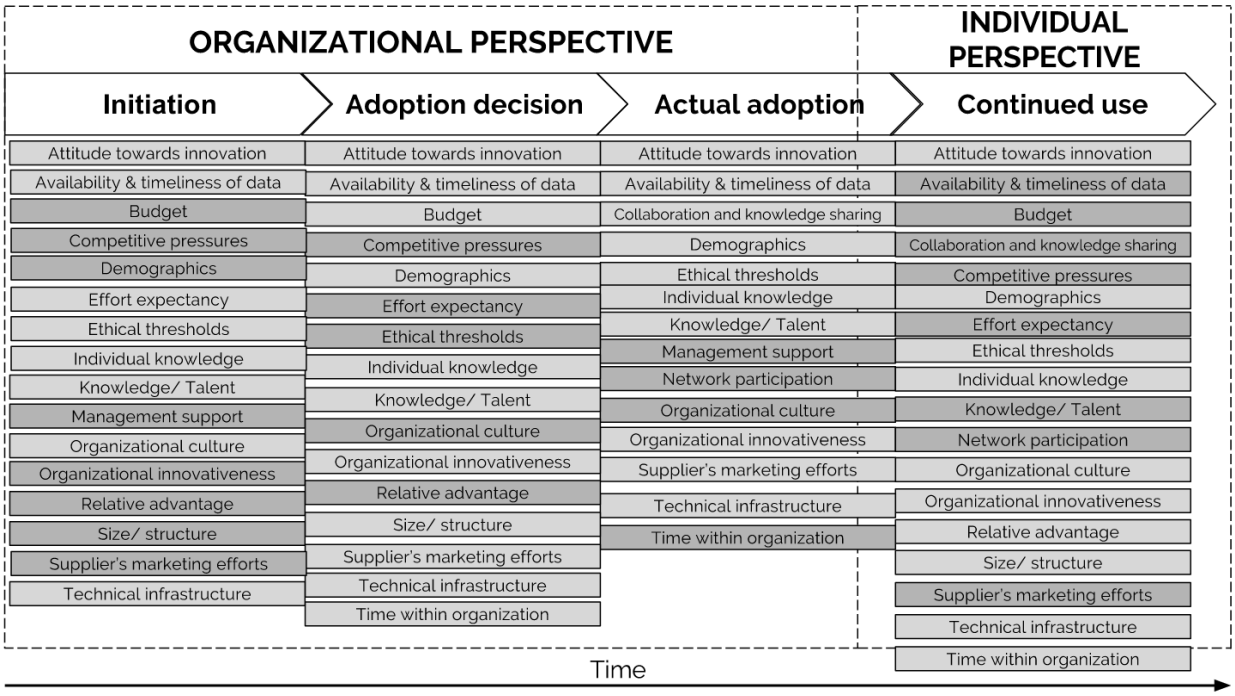

Figure 12. Semi-Delphi study round 2: results card sorting 1

4.2.3 Testing groups of factors

Like in the first round of the Semi-Delphi study, in this second round the groups of factors are again tested. To get a reliable overview of the relations between the groups of factors and the processes, the total of seven interviewees is considered. The total results of two rounds can be found in table 5. The numbers in de table indicate the number of interviewees that stated that the corresponding group of factors influences the corresponding process. For example, five out of seven interviewees stated that environmental factors influence the initiation process.

Table 5. Semi-Delphi study round 1: results card sorting 2

Factors/ Processes	Initiation	Decision	Adoption	Continued use
Environmental	Yes - 5	Yes - 6	No - 1	No - 2
Perceived innovation	Yes - 5	Yes - 3	No - 2	No - 3
Resource	No - 5	Yes - 4	Yes - 3	No - 4
Organizational	Yes - 3	Yes - 4	Yes - 3	Yes - 4
Personal characteristics	No - 4	No - 1	Yes - 3	Yes - 4

The *initiation process* is according to five out of seven interviewees influenced by environmental factors, perceived innovation factors, and resource factors. Furthermore, four out of seven interviewees stated that the process is influence by personal characteristics factors. Only three interviewees said that the organizational factors are of influence on the initiation process.

The *decision process* is according to six out of seven interviewees influenced by the environmental factors. Furthermore, four out of seven interviewees stated that the process is influenced by resource factors and organizational factors. Three interviewees said that the perceived innovation factors are of influence. Only one interviewee stated that personal characteristics factors are of influence on the decision process.

The *adoption process* is according to three out of seven interviewees influenced by resource factors, organizational factors, and personal characteristics factors. Furthermore, two out of seven interviewees stated that the process is influence by perceived innovation factors. Only one interviewee said that environmental factors are of influence on the adoption.

The *process of continued use* is according to four out of seven interviewees influenced by resource factors, organizational factors, and personal characteristics factors. Three interviewees said that perceived innovation factors influence the process. Only two interviewees stated that environmental factors are of influence on the continued use.

When four or more interviewees said that there is a relation between the factors and the process, the relation is accepted. When three interviewees stated that there is a relationship between the group of factors and the process, the fact if there was a relationship found within the theoretical framework counts. When only two or less interviewees stated that there is a relation between the group of factors and the process, the relations will not be included in the final model. The final theoretical model can be seen in figure 13.

4.2.3 The final conceptual model

In the last part of the interviews, interviewees were shown the updated model in figure 11 and given the opportunity to make maximum two modifications to the model. The following statements were made:

- "Resource factors do not influence the actual adoption process." - Frederick
- "Personal characteristics factors also influence the initiation process." - Frederick
- "Personal characteristic factors also influence the initiation process" – George

As shown in table 5, the relation between the personal characteristics factors and the initiation process is already proposed after card sorting round 2. The relation between resource factors and the adoption process is removed, as it is suggested by the expert and only three out of seven experts initially said that there is a relationship between those.

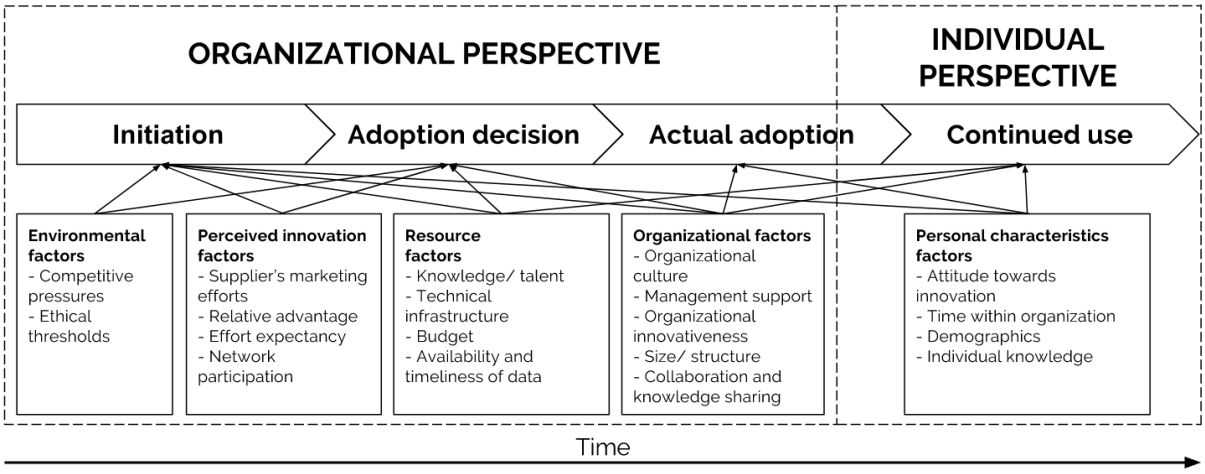

Figure 13. Final conceptual framework implementation of Data-Driven Marketing

5. Conclusion & discussions

In this final chapter conclusions will be drawn out of the results. Furthermore, the results will be discussed. First, the three researcher questions outlined in chapter 1 will be answered. Ultimately a solution will be given to the formulated research problem. Next, the conclusions of the results will be critically discussed. The third and fourth section will discuss the practical implications and theoretical implications, respectively. Lastly, the several limitations of this study will be outlined and an advice for future research will be given, partly based on those limitations.

5.1 CONCLUSION

The research problem formulated for this research is as follows:

What are the organizational and individual factors influencing the implementation of Data-Driven Marketing within organizations?

This research problem is supported by three research questions:

- *How can the concepts 'Big Data' and 'Data-Driven Marketing' be defined?*
- *What are the organizational factors influencing the implementation of Data-Driven Marketing within organizations?*
- *What are the Individual factors influencing the implementation of Data-Driven Marketing?*

5.1.1 Defining Big Data and Data-Driven Marketing

As outlined within the theoretical framework, the terms Big Data and Data-Driven Marketing are in the current literature and by large organizations defined in various ways, sometimes even contradicting. The term 'Big Data' raises mainly questions about the use of the word 'Big'. It is questionable when something is just data and when something is Big Data. Therefore, this study adapted a definition that explains where Big Data comes from, for what purposes it is used, and what the word 'big' means in Big Data. The definition of Ernst & Young is simplified. It can be concluded that Big Data refers to large volumes of data being created by people, tools and machines and is to derive real-time business insights. It requires new, innovative technology to collect, host and process. This definition is supported by the various interviews carried out during this research.

As Big Data is used for a wide variety of business insights, this term is quite broad. It can relate to financial data, data related to laws, sport performance data, etc. Within this study, Big Data relates to data about consumers and is used to personalize marketing campaigns and target individuals or specific segments.

As specified within the theoretical framework, Data-Driven Marketing is collecting and connecting large amount of online data with traditional offline data, rapidly analyzing and gaining cross-channel insights about customers, the bringing that insight to market via a highly-personalized marketing campaign tailored to the customer at his/her point of need (Teradata, 2016). Within this study, by Data-Driven Marketing, is meant the personalization of the customer experience by targeting individual marketing segments using internal and external integrated data across platforms.

5.1.2 Organizational factors influencing the implementation

Based on the theoretical framework and the Semi-Delphi study can be concluded that there are several organizational factors influencing the implementation of Data-Driven Marketing. To increase the ease of use, the factors that were found are grouped.

Environmental factors as competitive pressures and ethical thresholds influence the process in which Data-Driven Marketing is initiated and the process in which the decision will be made if Data-Driven Marketing will be implemented.

Perceived innovation factors include the supplier's marketing efforts, the perceived relative advantage of the innovation, the expected effort that the organization needs to fulfill for Data-Driven Marketing, and the extent to which the network of the organization is participating. These perceived innovation factors influence mainly the initiation and the decision process.

Resource factors include more general resources as knowledge and talent regarding Data-Driven Marketing, but also more specific resources as budget, a technical infrastructure, and the availability and timeliness of data. Those factors influence again the first two processes of initiation and decision, but also the process of continued use. As Data-Driven Marketing is an innovation that can be developed continuously, resources are needed to do so.

Organizational factors as support of the management team, the organizational culture, the extent to which the organization is innovative in general, the size and structure of the organization, and the extent to which people within the organization collaborate and share knowledge influence every single process during the implementation of Data-Driven Marketing.

5.1.3 Individual factors influencing the implementation

Besides organizational factors, also individual factors influence the implementation. This study found that personal characteristics of employees have an important impact on almost all process within the implementation, except for the process in which the decision

is made. The individual factors include a person's attitude towards innovation in general, the time that he or she works in the organization, a person's individual knowledge regarding Data-Driven Marketing, and demographical data.

5.1.4 The framework for implementing Data-Driven Marketing

During the initiation process, there are a lot of factors of influence. All groups of factors influence this process and therefore it is a process that need to be carried out carefully. The decision process in which a decision will be made if Data-Driven Marketing will be implemented within the organization, there are a lot of factors of influence has well. This is the stage in which mainly the organizational perspective is important. During this process, less attention need to be given to personal characteristics factors. In the next process, the actual adoption, organizational factors and personal characteristics factors are mainly important. Therefore, from an organizational perspective attention need to be given to factors such as for example knowledge sharing and collaboration and support from the management team. From an individual perspective, attention need to be given to the personal attitudes of employees towards the innovation and the individual knowledge. Once Data-Driven Marketing is implemented within the organization, the process of continued use will start. As the final conceptual framework in figure 13 shows, resource factors, organizational factors, and personal characteristics factors are important to acknowledge.

5.2 DISCUSSION OF FINDINGS

First, the results present a nice overview of the different factors that are of influence on the implementation of Data-Driven Marketing within organizations. It can be easily used by organizations. However, one should consider that this study did not focus on finding new factors. Only factors that were found in prior research were tested. Additionally, in the final there is no distinction made between the factors in terms of importance. It would be great to know for researchers and organizations which factors are most important and which factors are less important. As this study did not research the importance of factors, it could be a great idea for future research.

Next, the factors that influence the implementation from an individual perspective can be difficult to interpret. All interviewees were managers that were responsible for the implementation. Employees in lower functions can experience the implementation in a different manner. Therefore, the results of this study regarding the influencing factors from an individual perspective are highly relevant for managers that implement Data-Driven Marketing themselves, but less relevant for employees in lower functions.

Furthermore, conclusions were drawn based on the number of interviewees that answered the same. In a lot of cases, the opinions of interviewees differed. For example, it was

concluded that a group of factors influences a process when three out of seven interviewees said that there is a relationship and the literature review supported this. This choice was made, because the individual knowledge of interviewees is questionable. The quality of the literature review is estimated higher than the knowledge of one single person.

Next, this study aimed at finding relations between factors and processes but did not aim at finding the relations between the several processes. However, the answers of the interviewees suggest that the implementation is not a linear process, as the framework in figure 13 suggests. Interviewee Frederick said for example: “we are experimenting with the possibilities of all data.” This suggests that continuously new things are being initiated, decided on, adapted and used. This is reinforced by interviewee Benjamin, who said “… continuously update your marketing activities…”. Therefore, a more accurate framework might be the one presented in figure 14. Within this framework, the infinitive loop is visualized, suggesting that the implementation of Data-Driven Marketing is a continues process in which new parts are constantly initiated, decided on, adopted, and used. It is interesting to test this suggestion in future research.

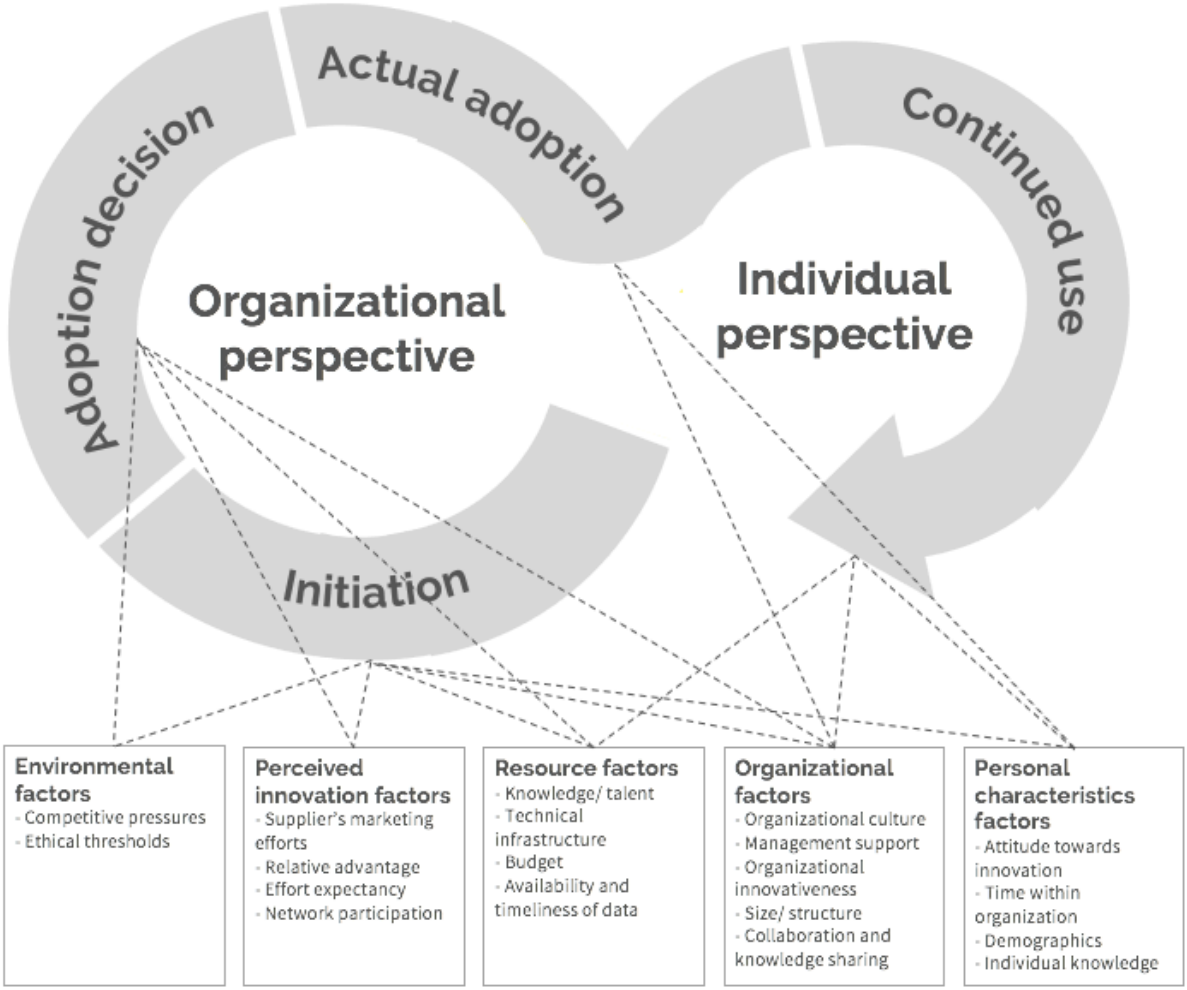

Figure 14. Possibly more accurate framework for the implementation of Data-Driven Marketing

Lastly, the combination of using the knowledge of researchers in the theoretical framework and using the knowledge of experts during the Semi-Delphi study, make the results of this study an adequate mix of knowledge of scientists and experts.

5.3 PRACTICAL IMPLICATIONS

The results of this research have several practical implications. There will be made distinction between implications for organizations in which Data-Driven Marketing will be implemented and organizations that implement Data-Driven Marketing into other organizations.

For organizations that think about implementing or organizations that are implementing Data-Driven Marketing, this study has several implications. The framework that is developed in this study can be used to raise awareness within the organization about the factors to influence the implementation of Data-Driven Marketing. By being aware of the things that are influential, the organization can adapt more easily. Especially the individual factors that influence the implementation are nice to know for managers and directors.

The results of this study have implications for organizations, such as marketing agencies and software organizations, that implement Data-Driven Marketing into other organizations. The final framework that is developed within this study can be used to understand the importance of several factors that influence the implementation. In this way, organizations can adjust their products or services to fulfill the needs of their customers. Furthermore, they know better how to help their customers with implementing Data-Driven Marketing within the organization.

5.4 THEORETICAL IMPLICATIONS

The findings of this research have important theoretical implications. The results are an extension to the current literature available around the research topic of using data for marketing purposes. Where the current literature focuses mainly on implementation models of general IT projects, this study focused on a specific model for the implementation of Data-Driven Marketing. A specific model for the implementation of this innovation is important, as a successful implementation depends on a lot of different factors as shown in figure 13. As Davey (2015) already found, the implementation of Data-Driven Marketing within organizations is a cooperation between several departments in an organization. This makes the implementation different from other IT innovations. Therefore, it can be concluded that a specific model for the implementation of Data-Driven Marketing is useful for further development in the future.

5.5 LIMITATIONS & FUTURE RESEARCH

As every other study, this study has limitations that need to be considered when interpreting the results.

The research method used in this study is the Semi-Delphi method. Normally, in the Delphi method all interviewees are interviewed twice or more to give them the chance to see answers of others and change their answers. Within this study, in the second round there are different people interviewed than in the first round. This is done because of the time limitation of this research. If all interviewees were interviewed twice, only three experts could be interviewed. By using different interviewees in the second round of this study, a total of seven experts have been interviewed. A study in which the experiences and knowledge of seven experts are used is considered as more reliable than a study in which the experiences and knowledge of only three experts are used. Researchers need to take this limitation into account when using the results for future research.

As this study was carried out in the Netherlands, all the interviewees that participated within this study are Dutch. Besides that, the headquarters of the companies the interviewees work for, are all located in the Netherlands. This is a limitation of this study. Future research can build on this study and increase the reliability of the outcomes by using interviewees from other geographical areas.

Another limitation is that all interviewees recently implemented Datatrics, which is a Data-Driven Marketing tool. Of course, other Data-Driven Marketing can be implemented in many other ways. This is a limitation, which researchers need to understand. Future research can increase the reliability of the outcomes by using interviewees that implemented Data-Driven Marketing in other ways.

This study tested if factors influence a certain process during the implementation of Data-Driven Marketing. However, it did not test how it influences a certain process. For example, this study made clear that the size/ structure of a company influences all four processes during the implementation of Data-Driven Marketing. However, this study did not test if it is for example easier to implement Data-Driven Marketing within a small company or a large company. Future research can focus on these kinds of questions.

Furthermore, in this study there are different organizations involved. Therefore, the results differ between interviewees. To get a more specific model, future researchers can use specific kinds of organizations. When interviewing employees from similar organizations, the results of the interviews can be more equal.

Lastly, even though the researcher did his best to cover all relevant literature, it is impossible to cover all literature in the field. Future researchers are encouraged to try to add more relevant literature to the theoretical framework.

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Appendix

I TRANSCRIPTS OF SEMI-DELPHI ROUND 1 INTERVIEWS

I.I Interview Arthur

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

That's so incredibly broad. I can say something now, but maybe tomorrow I say something different. It's actually, that you measure and collect things systematically, that you use as input for your choices. And that the whole decision-making process is also automated. So, for example, you register things about your audience and convert a particular algorithm that takes decisions and makes it automated.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

First just a whole exploratory phase. We have something great, we would like to use it. Because we think we can approach the target group much more personally and more specifically, and show relevant content. Then you get into a process in which they wonder what the advantage of it is and what it yields. If you're through there, you come in a process of having new software. And then you'll explore together what you can do and what's possible. If you pass that phase, you'll get questions like what should we do, what can we achieve, what has it brought to us, and what do we learn. And that's kind of the phase where are in now. We use it, we do all kind of things, but we still doubt if we should do things differently? Should we adapt our workflow? Because it requires some changes within the organization.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

Not at all. We have a number of pillars, including inspiring the audience. But how to do so is not strategically determined. We made the choice: if we want to inspire people, we only

inspire people with things that are interesting or fun for them. If you like aluminum furniture, and the other of plastic, and the other wooden, or a whole romantic style or whatever, then you want to inspire someone with the right furniture. Preferably with something that someone has seen, with a relative, or a derivative thereof, or whatever. So we said: if we want to inspire people, what we've strategically determined, then this is probably the best route, because we can show something to each person individually. It is thus not strategically anchored.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 22 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

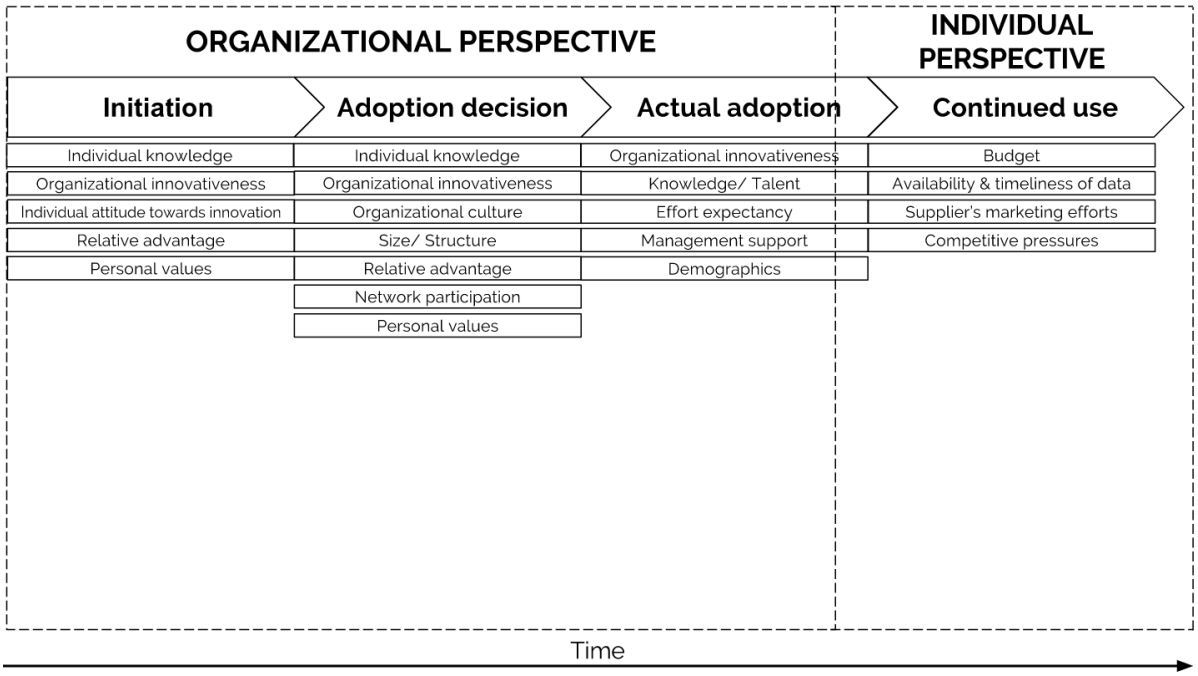

Figure 15. Results interview Arthur – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

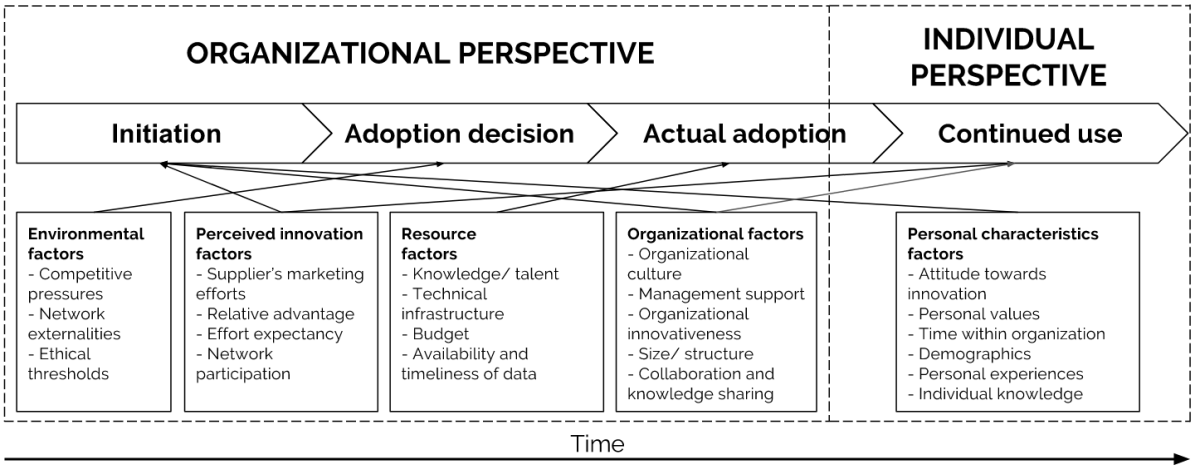

Figure 16. Results interview Arthur – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Environmental factors also influence the process of continued use.

Perceived innovation factors also influence the process of continued use.

I.II Interview Benjamin

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

I relate it a bit to a growth mindset, the growth hacking principle. So, you'll direct a business continuously based on numbers. So, there are no longer monthly reports or quarterly reports, which I usually used. Nowadays, we look much more into data. I make my colleagues much more aware of the amount of data we have and we analyze it as much as possible. In many cases, it is also just proof of what we are doing. Some things work, but some things do not work. And being open and honest in it, making you much more data-driven than you used to be. Before, a creative campaign was much more prepared, a campaign launched, during the campaign you were sending a lot of data, but you could not really change it, you had bought the media, you had already planned so much budget for banners, so much budget for Facebook campaigns, so modifying during the campaign was caused a lot of trouble. This data-based process, allows for much closer cooperation with other departments, and you can continuously update your marketing activities throughout the year and that works very well.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

I would say a part of preparation / orientation, so indicate above all what the relative advantage is of data-driven marketing, why should you go from big campaigns 2/3 times a year to a continuous process? So especially changing the mindset of colleagues. In the case of our company, that was relatively easy. Our director has been a bank director, and has always been used to using a lot of numbers, and he very much likes it. So he is not a very creative person. The idea that he should let go of creative campaigns was not a very big problem for him. He thinks using data is much more fun to do, because it gives him much more control than using long larger creative campaigns.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

Nowadays very important. Very important, because we know that competitors are really large corporates, much more sophisticated, much slower, and they therefore run behind, With a data-driven approach, we quite fast knew that this allows us to switch a lot faster. We are already a relatively small organization considering the market. The market has just many larger organizations, and it often involves organizations that provide maternity care as a sub-service. Our company only provides one particular service. We think it's very important because we have the feeling that we can switch much faster than our competitors.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 22 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

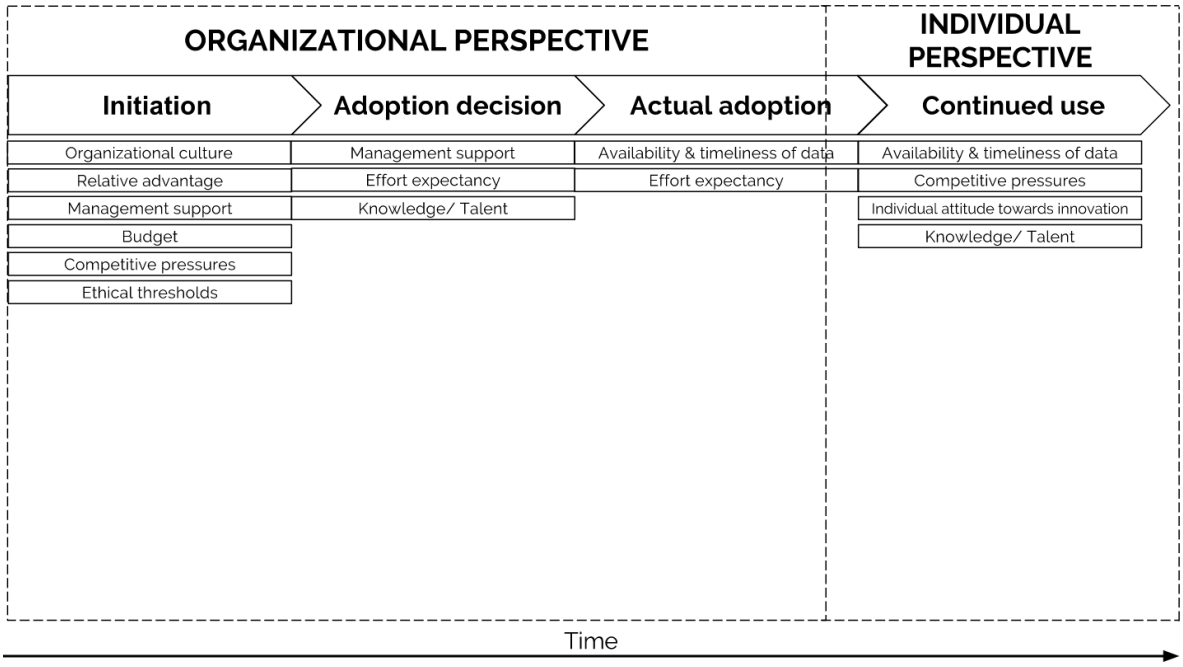

Figure 17. Results interview Benjamin – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

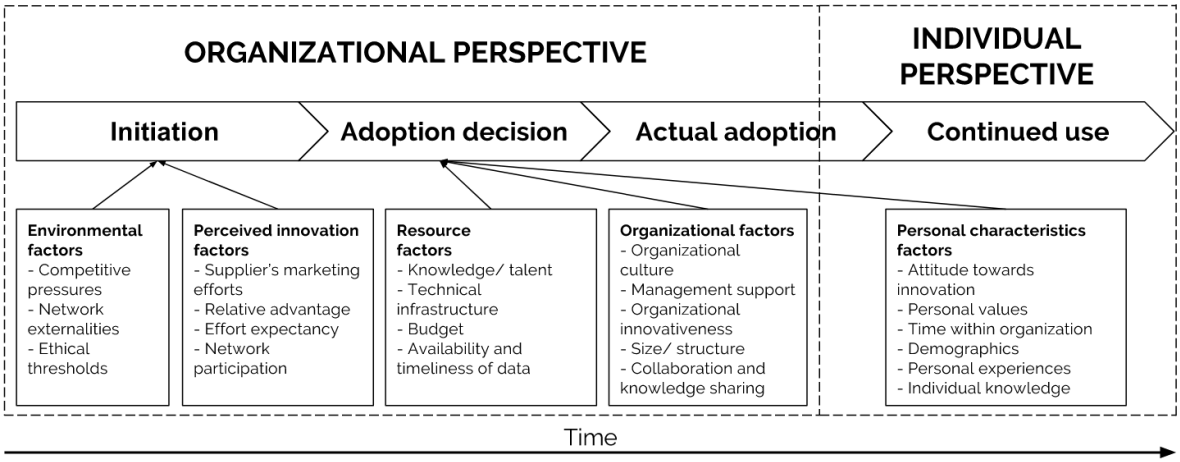

Figure 18. Results interview Benjamin – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Resource factors do not influence the actual adoption process.

Organizational factors do not influence the process of continued use.

I.III Interview Charles

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

According to me, data-driven marketing is that data will be extracted from your own website or any form. And then, with the knowledge based on the data, something will be more efficient compared to the traditional way of working.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

We started, because we want to get the most out of it. We are still in the early stages because we are not yet connected with an important data source, which ultimately will measure what it's going to do. It's really in early stages.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

Officially not yet. At the end of every year I write a marketing plan for the year to come and data-driven marketing has not yet been included this year. Well, we stated that we would like to do more online, but the use of data efficiently is not included. For next year, it is certainly included, but of course it depends on the data we can get out of it. So, the more relevant information we have, the more important it becomes in the strategy.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 22 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

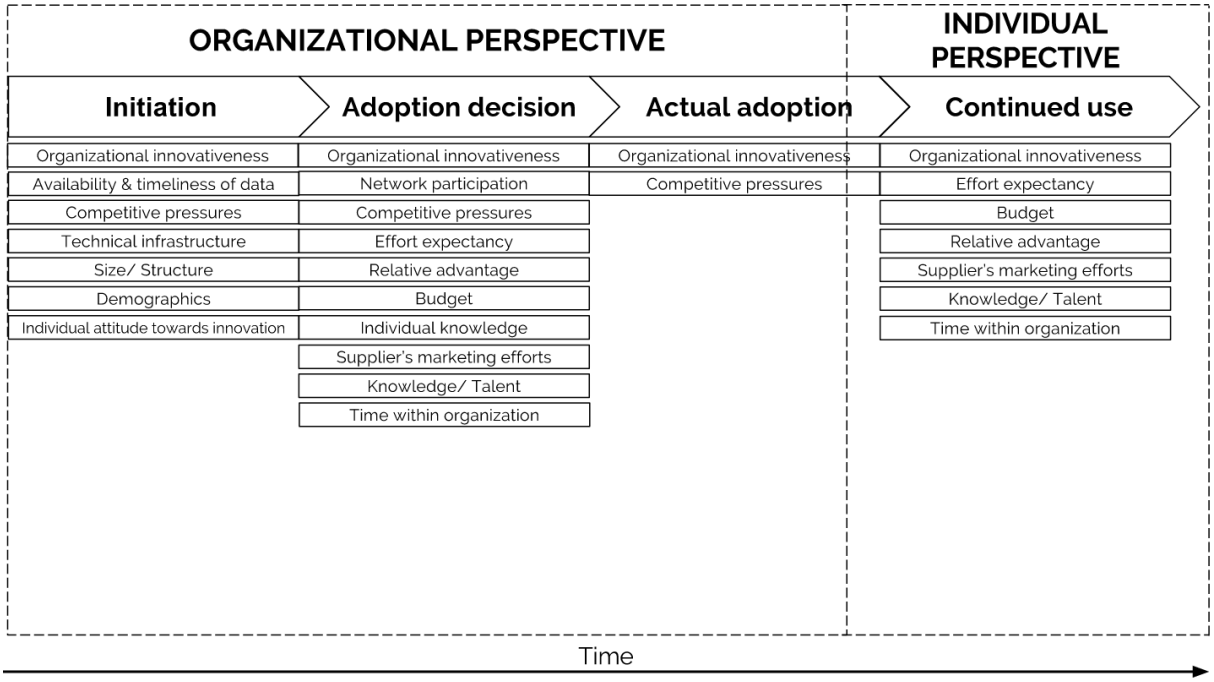

Figure 19. Results interview Charles – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

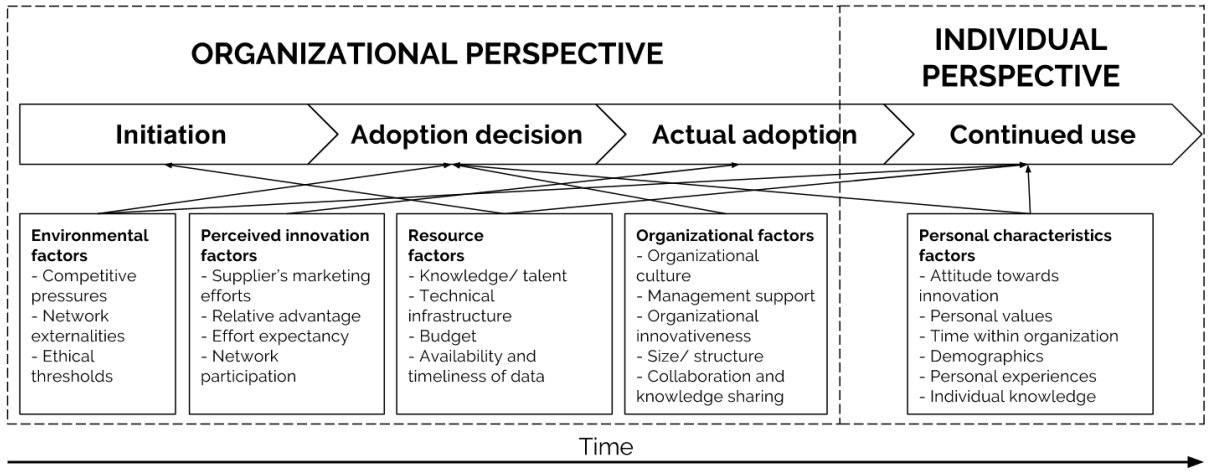

Figure 20. Results interview Charles – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Perceived innovation factors also influence the process of continued use. Resource factors also influence the process of continued use.

I.IV Interview David

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

Yes, very logical: marketing you do based on data. So not based on gut feelings, but all touchpoints, so you know where your budget needs to be, so you know what's going wrong and what's going well.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

The first phase is actually changing the internal mindset, that's quite a thing, emphasizing that it is important, emphasizing that this is the future and that you cannot avoid it. Then explain that we really need to get started. Then, some technical implementations have been done. So, for example, before we send emails from Outlook 1 for 1. Then we have implemented e-mail software so we can easily send emails to customers. Then they wanted to go to blogging, there was already a crappy page on our website, but then we really built a blog environment, so very technical. Technical things that make you able to make the next steps. The next step is to connect different datasources, so that you can make a single profile of a person. The next step is to use that data and those profiles, and that can be done, for example, using dynamic content in emails or dynamic content on those blogs. These are the steps we have been through / working with.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 22 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

It is an important part, because our products become also much more digitalized. If our products are digitalized, we must show that in our communication, and you just have to do that well. So if you look at it in this way, it's covered by the whole strategy.

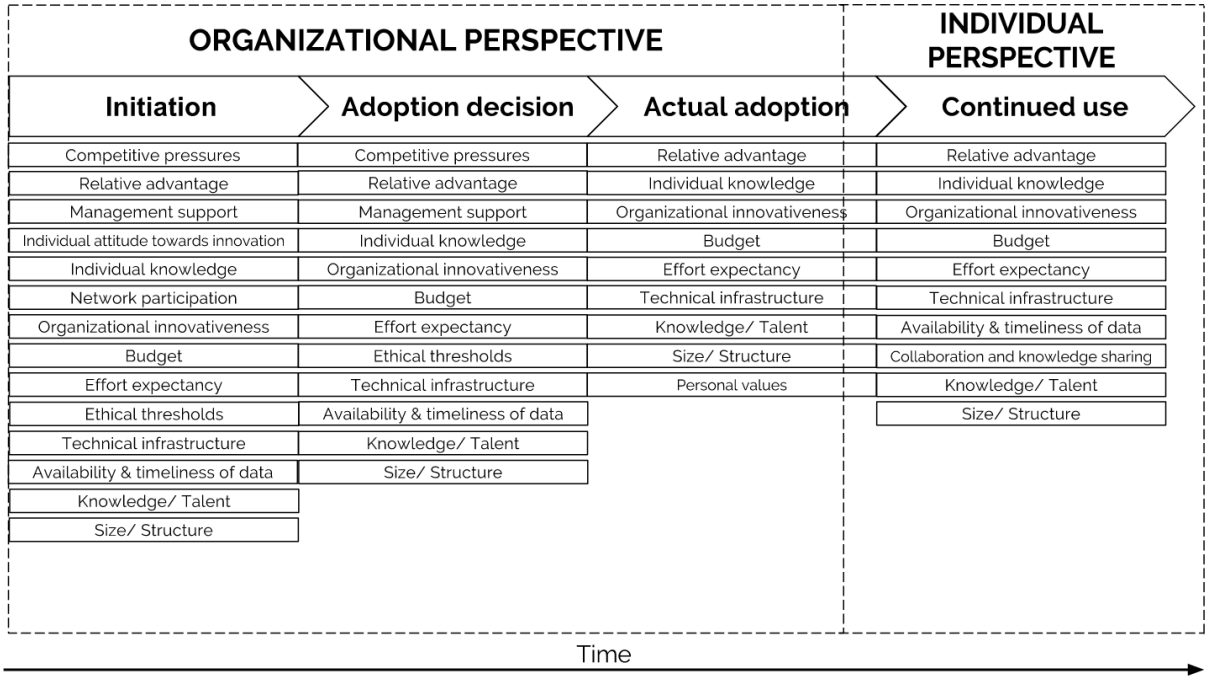

Figure 21. Results interview David – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

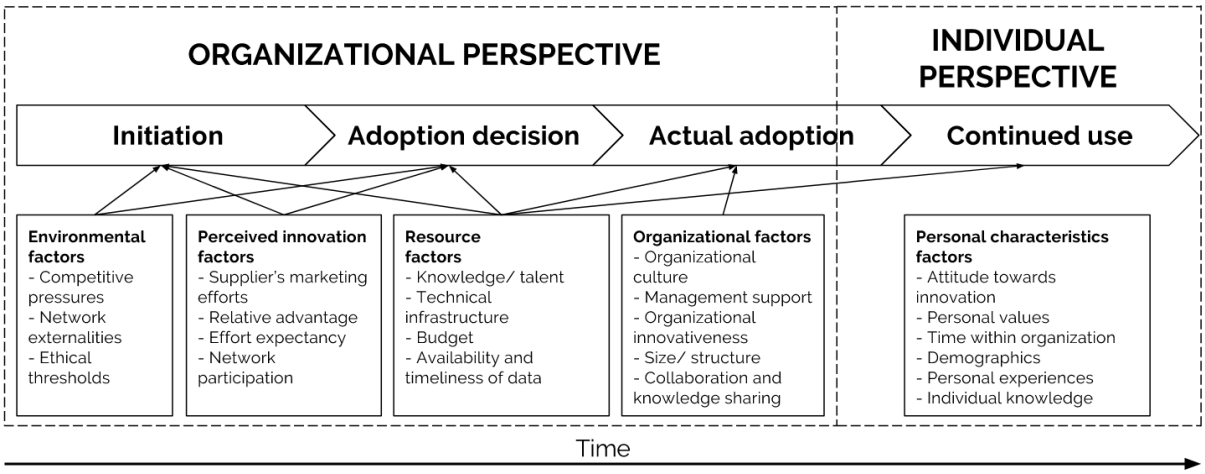

Figure 22. Results interview David – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Resource factors also influence the initiation process. Perceived innovation factors also influence the continued use process.

I.V Interview Edward

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

Data-driven marketing is smart marketing based on data sets. That could be CRM data from customers. Use that data smartly, to use the customer journey as optimally as possible by the customer to respond on it. Additionally, based on those data targeting similar target groups. That's in short my view on data-driven marketing. You can use different methods: e-mail, but also bannering, online, etc.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

In this sense, we have not yet fully implemented it. We are about to implement data-driven marketing. So we're still in a mode of what kind of data we need, what data we want to make available to that data-driven marketing.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

That will be a big part. In fact, we are a commercial organization. And we are always looking for new and smart things to use, to make our marketing smarter. Data-driven marketing is one of those.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 22 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

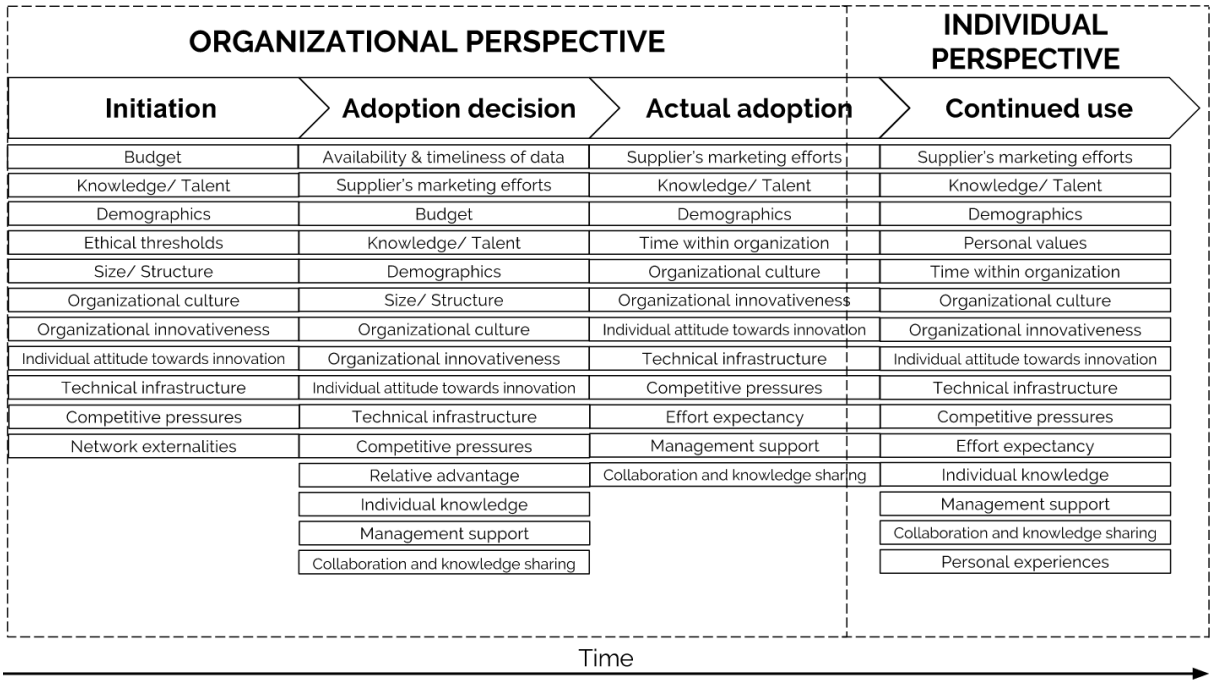

Figure 23. Results interview Edward – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

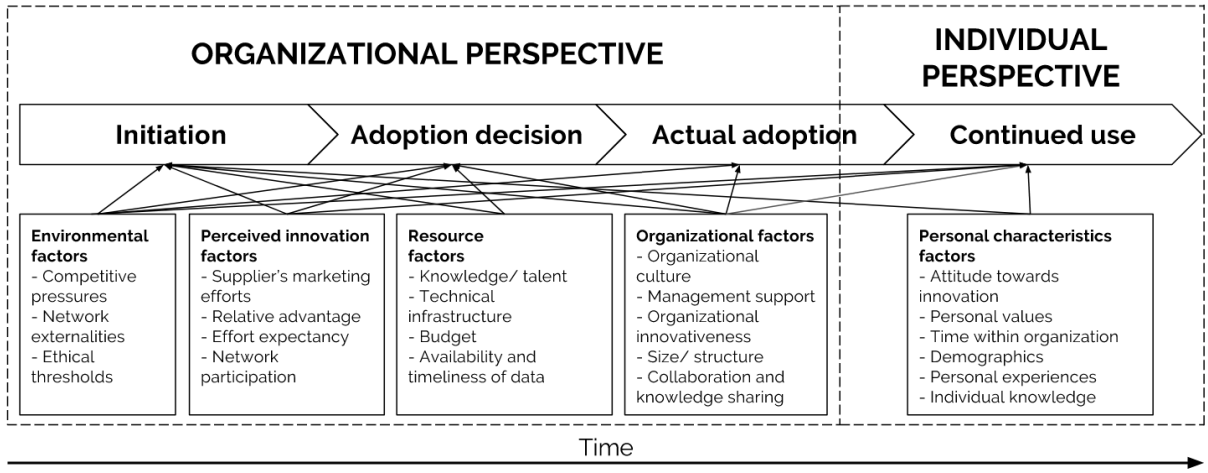

Figure 24. Results interview Edward – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Resource factors also influence the initiation process. Resource factors do not influence the actual adoption process.

II TRANSCRIPTS SEMI-DELPHI ROUND 2 INTERVIEWS

II.I Interview Frederick

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

What we did in the past, was a bit like shooting with hail on a mosquito. You are thinking about seeing something and try to approach consumers with a certain action. What we now do is primarily collecting characteristics consumers. This makes us able to shoot focused with hail. So at least you shoot with hail on an elephant, instead of on a mosquito. So that's a bit the difference. I hope, perhaps by machine learning, or at least by algorithms, that I can measure consumer behavior. And then can look based on those measurements, what kind of offer I can give customers. So that's a bit my view on data-driven marketing.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

In our case, we started with collecting data. We already had some data in our company so we added those. The only thing is that these data are still very generic. For example, chamber of commerce data. We sell and distribute leaflets, house-to-house, so we also know when someone has a sticker on his door. That's important, because at some households you can deliver the leaflets and at others not. Next, we want to see through that online platform where people look at. If I deliver a physical package, I do not see who has thrown everything away and who has actually checked the leaflets. In contrast to offline, I can measure this online. So, if you look at the phases, it starts with collecting. You collect all the people you already have and make that data set grow. Because the larger the dataset of people, the better you can predict. And then you will try to see correlations. By technique you can see if you can supply them with something they may be interested in. And we are doing that very carefully. We are now looking based on behavior if it works. Suppose I'm interested in electrical tools. Then it would be very good for a building market to send me a newsletter or send me a coupon with offers or discounts for electrical tools. We are now in the phase that we are experimenting with the possibilities of all data.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

The current earnings model of our organization is based on the distribution of physical leaflets. But we all know that we is about to change because of a number of factors: the era in which we live in terms of technology, but also the environmental lobby, and the way people take information that will change. The paper leaflet really does not go away at once, it's really going to take years, maybe it will never be gone, but the market share of paper is already decreasing. This has to do with the fact that retail is having hard times, who are going bankrupt or going to reorganize. On the other hand, you also see that those other media are being visited less frequented. Television is still very expensive, and it's also not entirely sure what you achieve with it. Online is obviously measurable and cheaper. As a result, it becomes increasingly interesting to approach consumers online. I can immediately tell you everything about 1 leaflet. So is it important for the strategy? Yes, because retailers and consumers want to have more insights

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 19 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

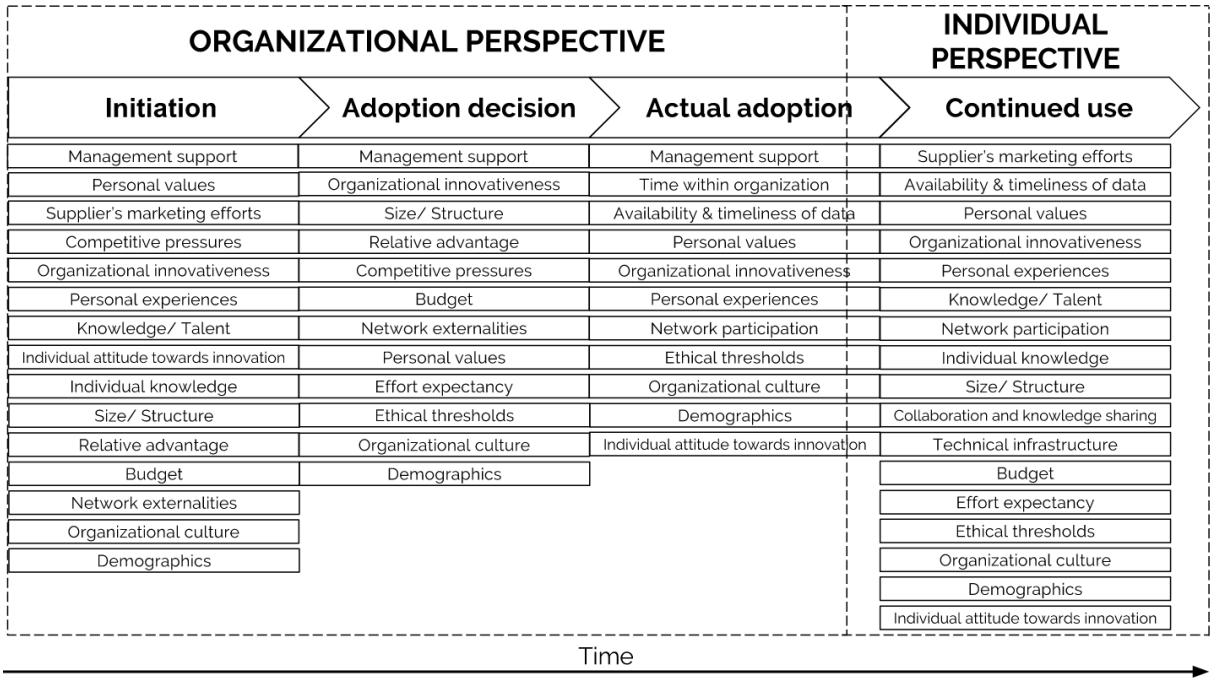

Figure 25. Results interview Frederick – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

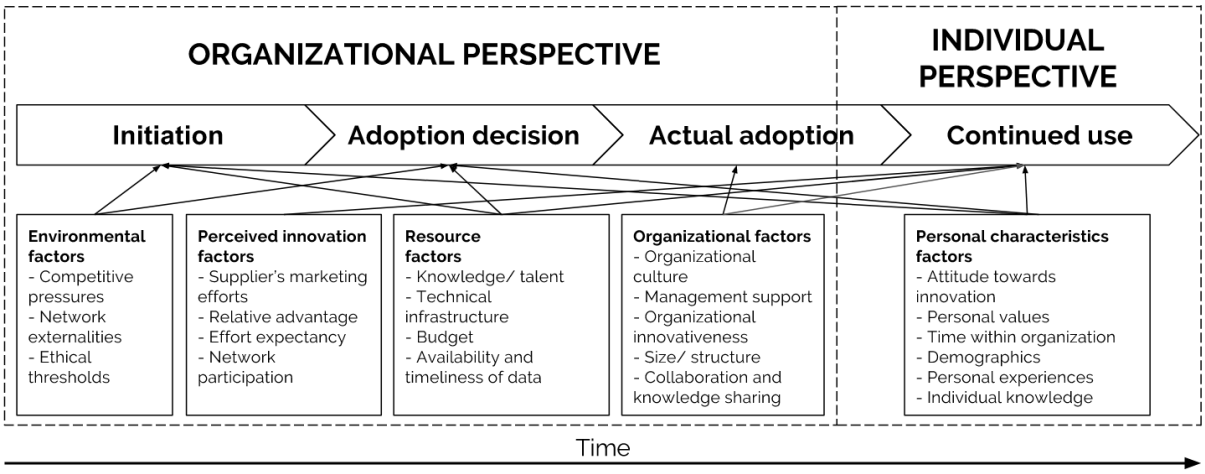

Figure 26. Results interview Frederick – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Resource factors do not influence the actual adoption process.

Personal characteristics factors also influence the initiation process.

II.II Interview George

As you have read in the disclaimer, I am doing research with the goal to identify the factors that influence the implementation of Data-Driven Marketing. We will start with some general questions. Questions are not right or wrong, it is about your experience. What means 'Data-Driven Marketing' according to you?

Marketing actions are based on insights that we can refute from the data.

Data-Driven Marketing has been implemented in the organization you work for. Out of which phases of processes consist the implementation of Data-Driven Marketing according to you?

Linking, analyzing, interpreting, rolling out, editing, and so on.

To what extent is the implementation of Data-Driven Marketing part of the strategy of the organization you work for?

In our case very much. Without data there is no right to exist in fact. We want to earn our right to exist as a digital leaflet provider this year. To earn this, the use of data is essential. Without the use of data, we cannot personalize, become relevant, and generate folder views.

[Show part of the conceptual model with only the four processes]

This are according to my literature review the four phases/processes of the implementation of Data-Driven Marketing. I will provide you with 19 small cards with on each of it factors that could be of influence on the different phases. Could you please place the cards underneath the corresponding phase? You will get every factor four times, so if you want you can place each factor underneath all four phases. Of course, you do not need to use all cards.

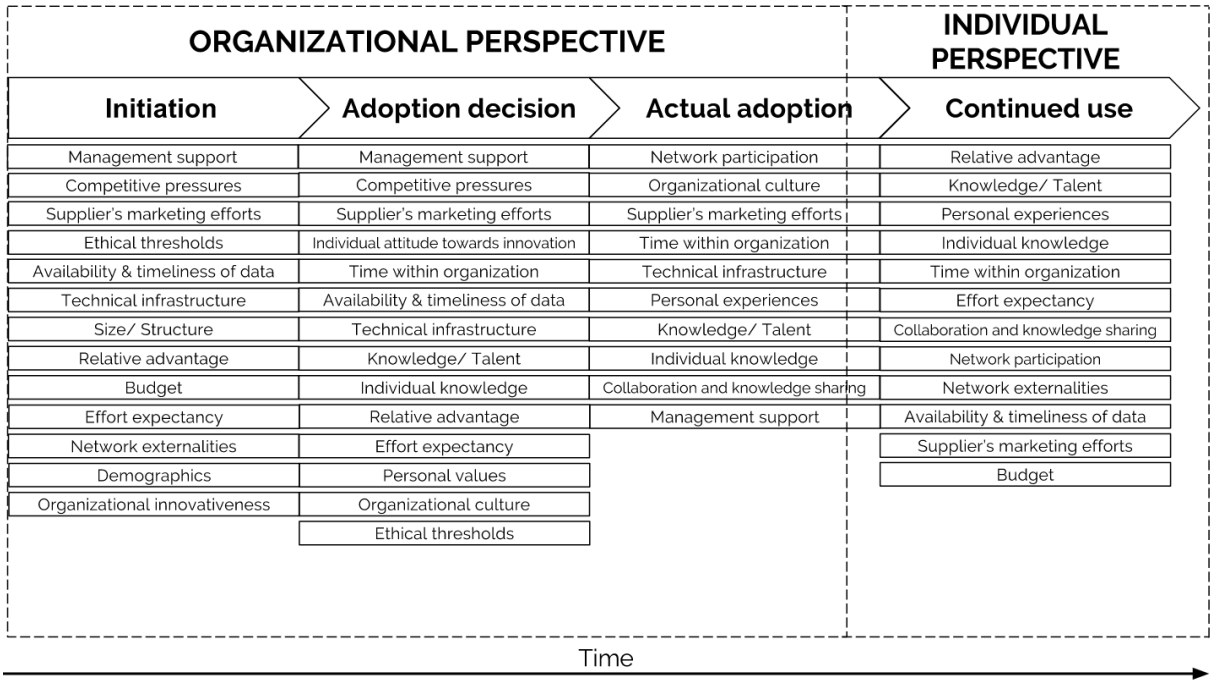

Figure 27. Results interview George – round 1

[Show conceptual model with factors but without arrows]

In this model, the factors are grouped. Could please draw lines from the groups to the corresponding phases? You can draw as many arrows as you want.

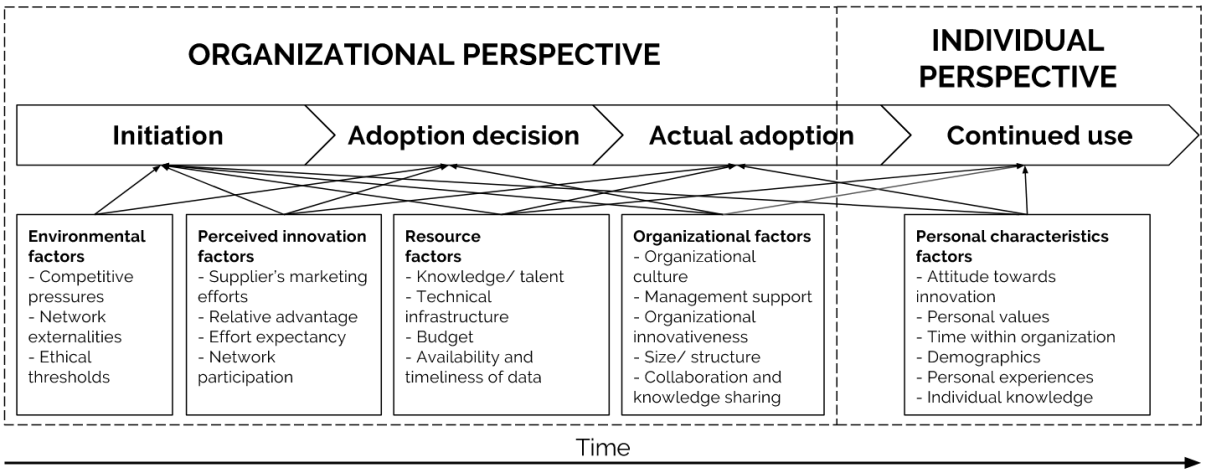

Figure 28. Results interview George – round 2

[Show complete conceptual model]

Lastly, this is the conceptual model as I developed it based on existing literature. If you could make two changes, what changes would you make?

Personal characteristic factors also influence the initiation process.