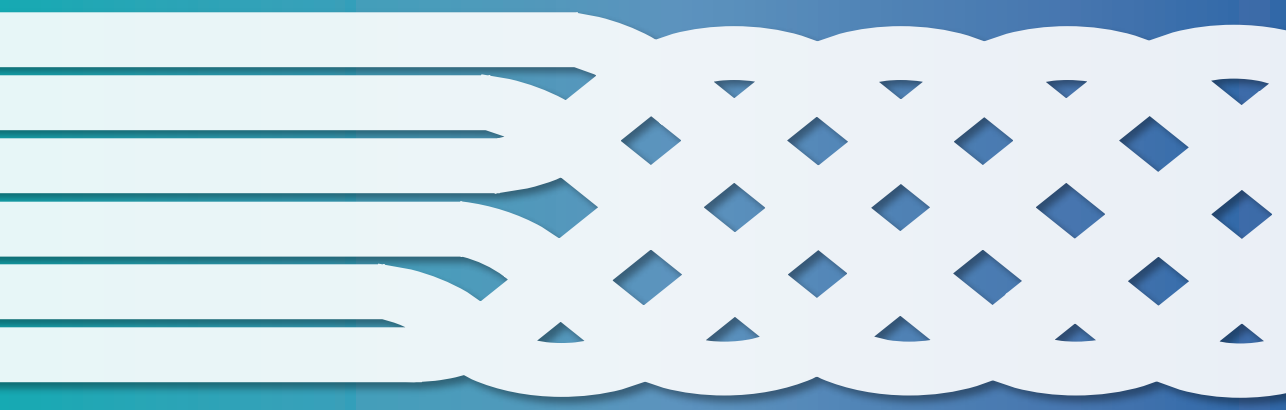
DIGITAL TRANSFORMATION OF CUSTOMER INTERACTIONS

ALIGNING MARKETING, SALES AND IT



JAN PHILIPP GRAESCH

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DISSERTATION

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Jan Philipp Graesch

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"It is difficult if not impossible to make much progress in the application [practice] without theory; conversely, it is difficult to understand the theory without knowledge of the technique."
(Diderot (1751-1765), Encyclopédie des arts)

Looking at this quote above it reflects what has always driven me, what has always been on my mind. I wanted to find a path of learning, of researching and growing that winds through the edge of practical needs and feasibility and also includes the systematics, knowledge, carefulness and rigor of science. To me, theory is nothing without practice, and practice is nothing without theory. The interesting question is which comes first.

The first time I came in contact with the beauty of the academic world was through a practice-oriented dual study program. Eger to continue researching, I applied for many positions in innovation departments within the same company to find a practical PhD position, but I was told that I could do it full-time at a university and come back when I'm done. After being employed as a sales manager, the idea of doing a PhD was like water drops hammering a hole in the mortar brick of my everyday job, although I've learned that sales is a passion of mine, and I perceived it as a relatively light profession for me. Changing the job to sales of digital products opened the window of opportunity a slit wide, where I slipped through and got offered the chance to do a PhD in parallel to my job as a - in the meantime - senior sales manager. After learning what it means for a - if you'll pardon my saying so - conservative company in a slow-moving industry to develop and sell digital products, I guess it was fortunate that I came across a posting from the Hamburg School of Business Administration (HSBA), which was looking for external doctoral students in - of all things - "Digital Transformation in Marketing and Sales". The topic hit my daily challenges like a nail on the head, as we were trying to build a new website and release new product versions without any coordination with sales during that time, so I was able to use my daily practical experience for this Dissertation. The HSBA partner program led me to the University of Twente, which was another lucky twist of fate that opened the doors to high standards of research, seminars, theories as well as access to knowledge and - not to forget - the hospitality and kindness of the Dutch.

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I also wish to thank all my fellow PhD candidates of the Chair of Product-Market Relations for the great PhD days, your feedback and motivation, during our sessions and also at the bars and cafés of Enschede.

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other was another twist of luck that had been an important part of my PhD project, because it brought a fresh breeze of fun and joy that was sometimes hard to find. So it can only be that you have to stand with me up on stage, holding my back once more as a Paranymph. Thank you very much for all this. I am already looking forward to see you finishing your project as well. I trust you will do very well.

Frank Martens

For the path I have described in the beginning, you have been the central key in making this possible and I will never forget that you provided me with this opportunity. To this day, I am still the only person in our company who has received support and time for a doctoral project that serves only my personal development. I know it was very tough for you to decide on this program, and I also remember you saying in your refreshing way: "can't you do it in less than 3 years?" You've trusted in my attitude, my capabilities and skills in doing this project in parallel to my job and not letting loose the professional goals we had. I am very grateful for this opportunity and hope it made you also a bit proud that this project came out to be successful. We met in January 2013 in Beijing the first time and until then our paths have winded up together through the duties and challenges of our profession. I deeply hope they will go further together or at least meet again, if they have to separate one day. Thank you for your confidence and support in paving my way and pushing through all the things I needed.

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Last but not least, I turn to my family and friends, who definitely are part of this result. Every hour I spent in this project is an hour I couldn't spent with you, but your trust that this time is invested worthwhile gave me the confidence to continue. Throughout this journey there were many important people, some of whom I'd like to mention personally: Dan, you always made me feel how bothersome you found the subject, but your appreciation towards my discipline let me know I was on the right track. Thanks for that and for supporting me with your native translations; Martin, your support and sympathy for my frustration also boosted my confidence, as did your professional feedback on the interview guide; Marion, my mother, I have you to thank for raising me to be confident enough to take on this challenge, for bringing me down to earth, and for being proud of what I have accomplished, regardless of the objective quality.

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Before you, dear reader, begin to read the actual results of this dissertation, I would like to thank you for your interest in this work and for taking the time to read it. During this project I've read many research articles. I have the utmost respect for those who navigate this vast environment with surefootedness, and especially for those who conduct advanced research. Therefore, I hope that by reading this Thesis you will gain new knowledge that will help you in your own research or work in Marketing, Sales, IT, or other fields, and that you will enjoy reading this Thesis. I will now move from academia back to practice to address this very issue in my daily work.

I count on you scholars to balance and support me.

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List of Abbreviations

AI	Artificial Intelligence
AIS	Association of Information Systems
AMA	American Marketing Association
AMS	Academy of Marketing Science
App	Application
AR	Augmented reality
B2B	Business-to-Business
CIO	Chief Information Officer
CMO	Chief Marketing Officer
CRM	Customer Relationship Management
CSM	Customer Success Management
eWOM	Electronic word of mouth
ICIS	International Conference on Information Systems
IOT	Internet of things
IS	Information Systems
IT	Information Technology
IT(E)	Information Technology (Enabler)
IT(P)	Information Technology (Production)
KAM	Key Account Manager
M-S-I	Marketing-Sales-IT
SVP	Senior Vice President
UGC	user-generated content
VR	Virtual reality
WOM	Word of mouth

Chapter 1

Research Background and Structure of this Thesis

1.1 Introduction

Digital Transformation[1] is a quite well known term, named the first time in an article title in 1968 (Bonačić et al., 1968) in context of physics and entered management press 20 years ago (Cartwright et al., 2003) and marketing literature about 10 years ago (e.g., Bruskin et al., 2017; van Belleghem, 2015). Although being a quite ambiguous frequently used term, Digital Transformation is still ongoing as current publications demonstrate (e.g., X. Guo et al., 2023; Hauer et al., 2021; Micallef et al., 2023). The number of publications on digital technologies and their impact on business and management have risen dramatically (Schneider & Kokshagina, 2021). The rising importance of AI in all organizational areas is ongoing and evolving (Dickie et al., 2022), which is an imminent role for Information Technology (IT) to manage. ChatGPT (2023) responds to the question of whether Digital Transformation is ongoing[2]:

> Digital Transformation is a continuous process that involves the ongoing adoption and integration of digital technologies to improve business performance and customer experience. While many organizations have already undergone significant Digital Transformation initiatives in Marketing, there is still a long way to go in terms of fully leveraging the potential of digital technologies to drive business growth and innovation.
> Digital Transformation has become a crucial aspect for organizations to remain competitive and relevant in today's business landscape. The convergence of digital technologies and the changing customer expectations has resulted in a paradigm shift in how organizations operate. Marketing, Sales, and IT organizational actors are the key stakeholders who are significantly impacted by this transformation.

The Digital Transformation of customer interactions affects the tasks of Marketing and Sales because digital technologies have changed the behavior of interactions between customers and companies (Lamberton & Stephen, 2016; Verhoef et al., 2017), blurring the boundaries between the offline and online worlds (Brynjolfsson et al., 2013; Pantano & Gandini, 2018), which gives consumers more flexibility but adds inherent complexity to established B2B established processes along the whole value chain. Accordingly, the key competence of Marketing will change to being a network integrator and facilitator (Füller, 2014) and should adapt its marketing strategies to the communication channels used by customers (Shaphali Gupta & Ramachandran, 2021). This phenomenon has given rise to the concept of omnichannel marketing and selling, which involves analyzing the numerous available channels and customer touchpoints (Barwitz & Maas, 2018; Verhoef et al., 2015). Many Furthermore, websites, big data analytics, web marketing machine learning, web analytics, but also social media marketing and marketing automation are examples of

[1] In this dissertation, some terms are indicated in capital letters. This serves to distinguish them from the trivalent terms. For instance, this applies to the terms Digital Transformation and Customer Journey, as well as Chapter and Thesis. The terms Marketing, Sales and IT are capitalized when they are addressed in general terms in this Thesis. This then includes all marketing -disciplines, -departments, -persons, -functions, etc.

[2] Please note: This is the only occurrence the author used ChatGPT or other AI for conducting this research

Digital Transformation in the sales and marketing process, and even product development as new additions to the current portfolio of physical goods could be an example. Notably, B2Bs use these channels differently, considering social media, for example, less important for customer relationship activities than other business models, but more important for channels that support customer acquisition activities (Iankova et al., 2019). Finally, the adoption of digital business models and technologies enables improved customer interaction (Ianenko et al., 2019), which is more challenging in B2B due to of the strategic relationships companies have with their customers. Price transparency, human-to-human interactions, and order size can all affect customer experience and need to be carefully managed through Digital Transformation in B2B (Angevine et al., 2021). In summary, Digital Transformation requires new touchpoints and the knowledge to use and design them with a specific focus on B2B.

Digital Transformation is about organizational transformation, which managers are reluctant to implement. As a practical phenomenon, Digital Transformation requires inter-organizational collaboration and working at a systemic level, where breaking down silos is a key component of digital leadership in developing digital strategies (Schneider & Kokshagina, 2021). Furthermore, it implies changes in organizational structures and cultures besides the elimination of silos, and the creation of collaboration (Levallet & Chan, 2018). However, many leaders show limited interest in fundamentally transforming their organizations (Andriole, 2017), even though this iterative process requires rapid adaptation (A. M. Hansen et al., 2011) and there is a common view that Sales is undergoing a major transformation (Adamson et al., 2012; Dixon & Tanner Jr, 2012; Mattila et al., 2021). Thus, Digital Transformation requires organizational transformation for which managers need support and guidance.

Digital Transformation has created practical problems, which need to be explored and solved as close to practice as possible. Studies show that there is a significant gap between the importance of this organizational design problem in practice and the research attention given to it, and that studies in organization and management research have too little practical relevance, which has been repeated for more than 20 years (Banks et al., 2021; Bartunek & Rynes, 2014; Rynes et al., 2001; van Aken & Romme, 2009). Accordingly, it is necessary to intertwine practical relevance and research in this study.

Marketing and Sales learned years ago that they needed to stop the war and collaborate with each other, and now the next player is joining that interface. Marketing and Sales have been blaming each other for execution, knowledge, and decisions, and each function has been undervaluing the other's contribution for years (Kotler et al., 2006). Even today, when Sales and Marketing teams aren't aligned, both suffer: In fact, Sales-Marketing misalignment is estimated to cost companies more than $1 trillion each year due to lack of trust and misunderstanding (Raymond, 2021). Indeed, Marketing has lost significant

influence over customer interactions (Homburg et al., 2015), has been marginalized in many organizations (Sheth & Sisodia, 2006), and has been perceived as a cost rather than an investment (Verhoef & Leeflang, 2009). Many studies have analyzed collaboration and alignment and shown its benefits (e.g. Le Meunier-FitzHugh & Piercy, 2011). Thus, we can learn from the interface between Marketing and Sales and apply or extend it to the interface among Marketing, Sales and IT, with IT becoming the third player following the Digital Transformation.

In summary, Marketing and Sales are undergoing a progressive change in their interactions with customers, using multiple digital channels, and within the organization, using digital tools and forming new working relationships. Neither academics nor managers today have a solution on how to deal with these ongoing changes, which are of high practical relevance.

1.2 Research Question

The central research question arising from the above research purpose is: **"HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTIONS DURING DIGITAL TRANSFORMATION IN B2B?"**

Given the complex and ambiguous nature of Digital Transformation, this dissertation devotes two chapters to demonstrating that this question is unanswered, and secondly, to analyzing what Marketing and Sales depend on and what they would require to cope with Digital Transformation. Chapter 2 deals with the subquestion: **"TO WHICH EXTENT ARE MARKETING TOOLS AND MARKETING DOMAINS DEPENDENT ON INFORMATION SYSTEMS?"** It examines which tools Marketing has control over and what dependencies there may be on IT developments for customer interactions. It also answers the question of whether there is a Digital Transformation in Marketing.

Knowing that IT is a central junction for Marketing and Sales managing Digital Transformation, Chapter 3 explores the subtopic of the current state of research. **"TO WHICH EXTENT HAS THE INTERFACE BETWEEN MARKETING, SALES AND IT BEEN PART OF RESEARCH?"** Research that analyzes the interface of Marketing, Sales, and IT together may be able to answer the main question. In the process of analyzing this triadic interface, it explores many conceptual studies of pairs of actors that aim at alignment.

Given that Marketing is dependent on IT-enabled technologies due to Digital Transformation and that the M-S-I interface has not been comprehensively studied, Chapter 4 asks the question: **"WHICH OF THE MARKETING, SALES AND IT ACTORS ARE RESPONSIBLE FOR CUSTOMER INTERACTIONS THROUGHOUT THE CUSTOMER JOURNEY?"** It examines that all these actors are perceived as responsible for customer interactions, dynamically differentiated in the level of perceived responsibility depending on the stage of the Customer

Journey. In light of the aforementioned complex and slow-evolving nature of B2B in terms of customer interactions, this analysis takes the approach of a B2B case study.

Consequently, the question is: **"HOW DO MARKETING, SALES AND IT INTERPLAY DURING CUSTOMER INTERACTIONS AND HOW CAN THE ALIGNMENT BE SHAPED?"** Knowing that all three actors perceive responsibilities during customer interactions, the way they already interplay, and the interventions to create alignment are the missing pieces to answer the overall research question.

1.3 Methodological Approach

Within this Thesis, qualitative research in terms of a case study conducting semi structured interviews has been chosen as methodological approach. The phenomena were decided to be explored as an in-practice problem and no grounded theory could be built upon, so interviews have been decided as the best method.

In this Section 1.3, the reason for choosing qualitative research in the form of interviews as a method using a case study approach will be explained. The reason for doing so in this introductory chapter is that it will be used in two of the following chapters, which have been published or are under review, and where this explanation falls short of the purpose of the editorial boards' requests and the generally known nature of qualitative research.

However, the methods of literature review and content analysis used in the other two chapters are explained in detail in those chapters and were only mentioned here. The literature review in Chapter 3 is the necessary prerequisite for applying qualitative research. In Chapter 2, a historical content analysis of conference proceedings has been used as an approach and resulted in a conceptual model that is understood to propose new relationships between constructs (e.g, Gilson & Goldberg, 2015). Conceptualization was deemed important to develop a novel typology of conceptual contributions that can guide academic research in Marketing (MacInnis, 2011). Accordingly, the foundation is laid at the outset through analyses for the study, with qualitative research using case studies as an approach and semi-structured interviews as a method to generate and analyze empirical data.

Qualitative research is appropriate for in-practice problems. Qualitative research is appropriate and relevant when the following aspects are taken into account: when individual case analyses are considered in the research process, and when the problem is chosen to be as concrete and practical as possible (Mayring, 2007). It is appropriate to take into account the context, to try to understand the point of view and the reasons for action of the subjects acting in it (Flick, 2014).

Qualitative Research is appropriate for exploration.

Edmondson and McManus (2007) generally distinguish whether qualitative or quantitative methods are appropriate based on the maturity of the field under study (theory or problem), as shown in Figure 1 - 1. The described level of theory maturity can be measured, for example, by the amount of available literature, models, or quantitative analyses.

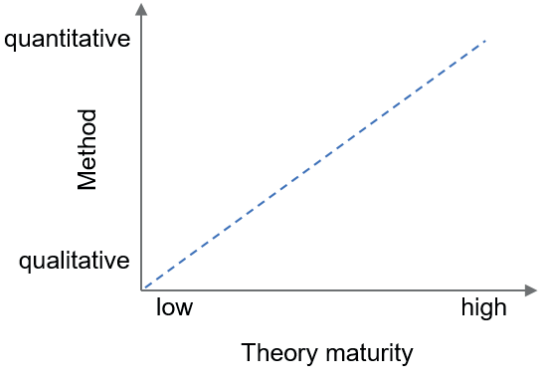

Figure 1 - 1 Methodological fit amended from Edmondson McManus (2007)

The phenomena to be studied should be as close as possible to the dotted line in terms of theory maturity and fit for qualitative research. The lower the level of theory maturity, the lower the guidelines for how statistical methods can add value. Thus, problems that are new and not yet supported by sufficient theory are particularly relevant to qualitative research. Quantitative approaches, such as using a questionnaire to address new phenomena, may lead to the analysis of random correlations and are not necessarily based on robust evidence (Edmondson & McManus, 2007; Rosnow & Rosenthal, 1996). However, problems in a field with a high level of theory maturity can be examined using a qualitative approach to qualify these experiences.

When addressing a novel question, researchers collect qualitative data opportunistically, leaving them free to pursue new insights that emerge in an interview or observation. The sample is path dependent by design. For example, subsequent interview questions (or interviewees) are determined iteratively as interesting ideas emerge in the process. This approach allows new insights and theories to take shape. Thus, in emerging fields, the inclusion of qualitative data in a hybrid design does not overcome the problems associated with the use of quantitative data (Edmondson & McManus, 2007).

The research design has to be chosen in a way that it is suitable to answer the research question and this design includes the method of data collection and data analysis (Ragin, 2011). There are basic designs of qualitative research that can be adopted or used as a guide for the study to be conducted (Creswell & Creswell, 2023). According to Flick (2014) the following five approaches for the

basic qualitative research design exist: (i) **case study,** case studies are about the precise description or reconstruction of an individual case, where an individual case is to be identified that represents the problem in a significant way including specific sampling of the respondents; (ii) **comparative study**, in comparative studies, the case is not considered entirely, but rather multiple cases with regard to specific sections, whereby the groups or experts to be compared are selected in preliminary stages and decisions are made as to which conditions can be kept constant and to what extent the complexity is to be considered; (iii) **retrospective study**, retrospective studies analyze specific events and processes retrospectively from the time of the research in terms of their significance for individual or collective processes, such as biographies that relate to the selection of relevant informants; (iv) **snapshot study**, snapshots reflect expert knowledge that exists in a field at the moment of research, with the chosen time period being comparatively short; (v) **longitudinal study**, longitudinal studies analyze a process or state of interest at multiple data collection points, revealing changes in views or actions over a relatively longer period of time. All these approaches frame the design of the research in terms of sampling and time horizon. Within these approaches, different methods for data collection and data analysis can be used or combined with each other.

According to Flick (2014), open case-oriented methods such as narrative interviews and ethnography are methodologically most appropriate for case studies. However, these can be adopted or triangulated with other methods such as semi-structured interview, group discussions and hermeneutic procedures. This is analogous to the other four approaches, although the purpose of the research generally determines the appropriate method.

According to Mayring (2015), even within qualitative research, findings can be categorized, structured, and quantified during data analysis. This structured content analysis was applied in Chapter 4, which shows the ranked results generated by scaling content analysis (Mayring, 2015). Furthermore, in qualitative research, researchers often become part of the investigation. By interacting with the research subjects, they intervene in what is happening. Therefore, it is common that not only the perspective of the researched, but also the perspective of the researcher is taken into account and included as data in the research. This part is called reflection and allows for impressions, influences and subjective observations of the researchers (Flick, 2014).

In summary, qualitative research is appropriate because the phenomena of the M-S-I interface under study are new and need to be entirely explored, as the following chapters will show. Neither for the interface itself, nor for the later introduced concept of alignment, were sufficiently mature theories or models available to be used or amended. Especially Chapter 3, which contains an extensive literature review, demonstrates this gap. In addition, the research directions of selling customer solutions and customer success management

(CSM) are relatively new. Having stated that the perspective of the researcher is taken into account, I would also like to use this chapter to reflect that I personally knew many of the interviewees and could relate to their products, environments, and problems, which helped the interviewees to explain the reasons for the problems more quickly and also helped in the interpretation of the findings. Accordingly, a research design with a case study approach can suitably represent reality to a defined extent and semi-structured interviews enable informants to describe the context comprehensively. Building on the results of this Thesis, quantitative approaches would be highly interesting to confirm or transfer the findings.

1.4 Theoretical Framework

Today's literature understands the sales process as a time-expanding process, as suggested by concepts such as customer solutions or CSM. According to Tuli et al. (2007), customer solutions is defined as "a customized and integrated combination of goods and services for meeting a customer's business needs". CSM is defined as "a long-term, scientifically engineered, and professionally directed strategy for maximizing customer and company sustainable proven value" (CS Association, 2021), as applied by scholars in the field of B2B customer interaction and selling (e.g., Prohl-Schwenke & Kleinaltenkamp, 2021). Thus, selling can be interpreted as a process of providing value-based products or services that improve customers' goal achievement (Eggert et al., 2020). Accordingly, a framework that understands selling as a process is needed for the research design. The best suitable framework is the Customer Journey, because it explains the individual stages of selling that a customer goes through. The term Customer Journey generally refers to a process or sequence that a customer passes to access or use a company's offering (Følstad & Kvale, 2018).

This chapter briefly explains the relevance, design, and theory of the Customer Journey. The reason for this introductory section is that the concept will be used as a framework in two of the following chapters. These chapters have been published or are under review, and where this explanation is not sufficient, it is due to editorial requirements of the journals and general assumed familiarity with the Customer Journey among readers.

1.4.1 Relevance of Customer Journey

The Customer Journey has become an increasingly important concept for understanding complex customer behavior, and Customer Journeys have been used more in empirical studies in recent years (Tueanrat et al., 2021). The term Customer Journey was first mentioned in the literature in 1991 and evolved into the concept we know today during the 1990s.

The Customer Journey, including its multichannels or omnichannels, are dominant fields of research that repeat their importance from the past to the present (Baxendale et al., 2015; N. Dholakia et al., 2011; Neslin et al., 2006). In recent years, the concept of Customer Journey has been widely adopted by both academics and practitioners. This interest has been driven by the new prominence of the customer-centric philosophy in the field of Marketing (Crosier & Handford, 2012; Tueanrat et al., 2021). This is true because the concept of Customer Journeys is particularly useful for matching services or products with customer expectations, not only as a means of understanding customer experience but also as a tool for designing it (Canfield & Basso, 2017).

Digital Transformation has led to a variety of new innovative touchpoints in the service environment (Majra et al., 2016). The introduction of new technologies, channels, and devices has significantly changed the way customers experience services and interact along their journey (Flavián et al., 2019). Accordingly, the Customer Journey is a useful tool to capture and focus on specific touchpoints. Companies must be aware of the new roles and interdependencies between the different touchpoints and their contributions to the customer experience in order to effectively manage the Customer Journey (Paluch & Tuzovic, 2019).

However, given the inherent complexity of the topic, companies struggle to generate the insights needed to deliver excellent experiences to their customers along the Customer Journey (Homburg et al., 2017). In an omnichannel environment, customers move freely and expect frictionless journeys across multiple channels and touchpoints (Huré et al., 2017; Melero et al., 2016). These customers have more power and control over their journeys than ever before (A. Stein & Ramaseshan, 2016). They can interact with a company at any time and in any way they want (Hübner et al., 2016). In light of the above, the concept of omnichannel Customer Journeys has gained prominence as a means for companies to understand and manage their customers (Rosenbaum et al., 2017). However, there is limited empirical work directly related to customer experience and the Customer Journey (Lemon & Verhoef, 2016).

Most importantly, the Customer Journey framework incorporates a relationship perspective that recognizes a longitudinal perspective with chronological order, rather than a snapshot at a point in time that ignores path dependencies (Verhoef & Leeflang, 2009). In this way, the dynamics of a long-term relationship between the customer and the company can be framed, meeting the demands of prevailing research interests such as customer solutions or CSM.

In summary, the Customer Journey framework exists for more than 30 years, but is still relevant for three main reasons: First, it provides a longitudinal perspective on customer interactions. Second, it considers multiple touchpoints in the omnichannel environment, either digital or analog. Third, it is a very suitable tool for framing the dynamics that exist during customer interactions.

1.4.2 Customer Journey Theory

Customer Journey analysis has its roots in both service management and multichannel management (e.g., Neslin et al., 2006). The extant literature focuses predominantly on two subtopics: the reasons for and effects of touchpoint choices in the multichannel environment (Barwitz & Maas, 2018; Falk et al., 2007). A touchpoint is defined as any point of contact or interaction between a customer and an organization where they exchange information, provide services, or conduct transactions (e.g., Dhebar, 2013). Behavioral research, meanwhile, has investigated interactions in decision making and understanding motives, trying to determine how and why customers choose a particular touchpoint (U. M. Dholakia et al., 2010; Verhoef et al., 2015). Recent studies have analyzed the results of such decisions, such as the positive or negative impact of touchpoint integration on Sales, as a basis for selectively providing the right touchpoints to customers (Cao & Li, 2015; Zimmermann et al., 2022). Overall, the findings demonstrate that companies struggle to control the customer experience and Customer Journey due to the influence of peer group customers across numerous channels (e.g., Bakos et al., 1996; Lemon & Verhoef, 2016).

Based on the current state of research, the Customer Journey is defined as a customer's interaction during the purchase cycle across a number of phases within the progression from pre-purchase through purchase to post-purchase. Each phase consists of one or more stages, which in turn contain several customer touchpoints, representing any type of interaction with the actual or potential customer, which can be with the product, the company, Marketing or the brand (Baxendale et al., 2015; Haan et al., 2016; Hanssens et al., 2014; Hanssens, 2015). Within the three main phases above are such stages as be aware, consider, evaluate, purchase, confirm, and bond, which are consistent with those in general use, for example by Edelman and Singer (2015). Much research has been directed at each of those stages, focusing on several aspects, such as the necessity of purchase, marketing activities, shopping experiences, the overall consumption experience, and repurchase (Holbrook & Hirschman, 1982; K. L. Keller et al., 2015; Pieters et al., 1995). The Customer Journey was conceptualized as a recurring loop, as shown in Figure 1 - 2, but separating the be aware stage from it, as do the recent studies of Edelman and Singer (2015) and Court et al. (2009), on the grounds that customers buying again at the same

place are already aware of its brand and consider the next product accordingly, which is certainly the case for B2B environments.

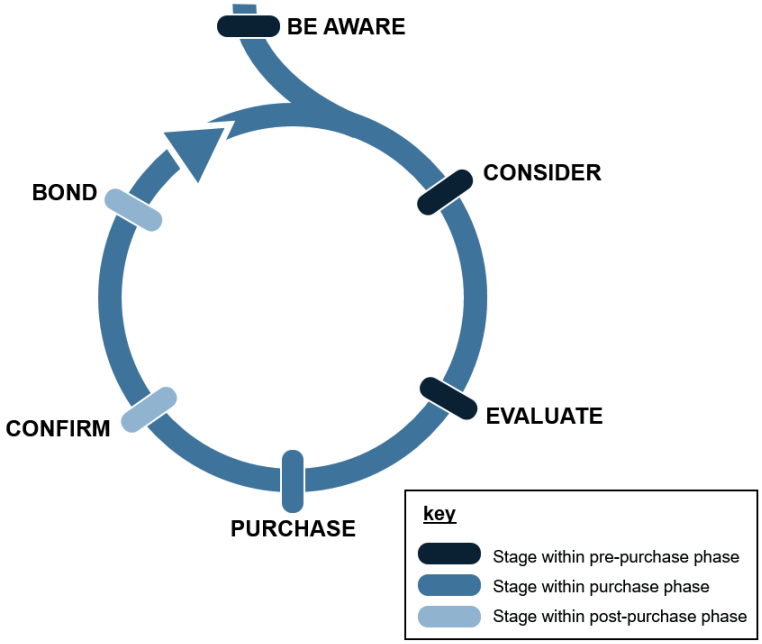

Figure 1 - 2 Customer Journey Cycle

In the following the difference between the phases is explained briefly.

Pre-purchase. The first phase encompasses all aspects of the customer's interaction with the company prior to the purchase transaction. Traditional marketing literature has characterized *pre-purchase* as behaviors such as need recognition, search, and consideration (Lemon & Verhoef, 2016).

Purchase. The second phase includes all customer interactions with the company during the purchase act itself. It is characterized by behaviors such as selection, ordering, and payment. Although this phase is typically the shortest within the journey, it has received considerable attention in the marketing literature in terms of behavior, the marketing mix, and decision making (e.g., K. L. Keller et al., 2015). *Post-purchase*. The third phase includes customer interactions with the company after the actual purchase. This phase includes behaviors such as usage and consumption, as well as service requests. In short, this phase covers aspects of the customer's after purchase experience that actually relate in some way to the company or the product/service itself (Lemon & Verhoef, 2016).

1.5 Thesis Outline

The outline of the Thesis is illustrated in Figure 1 - 3, which shows the golden thread throughout the different chapters. All the chapters shown include the research question described in detail in Section 1.3 and also illustrate the approach and contribution. It explains how the individual papers presented in the following chapters of this Thesis are related to each other and how they contribute to answering the main research question in several steps.

The research question, including several subquestions, is answered in four manuscripts, providing further results and contributions for scholars and practitioners. The overall goal is to combine practical and academic relevance. The various steps taken to answer the main research question of this dissertation are presented in individual papers. These papers were written as separate, independent pieces of research, answering different subordinate research questions on the way to the final answer to the main research question. As such, they were submitted individually to different academic conferences and journals as each individual step was completed.

Together, these individual and independent papers now form the main body of this dissertation. This satisfies the needs of readers who are only interested in specific parts of the overall work within this dissertation. Unfortunately, a certain amount of repetition and overlap is unavoidable throughout the dissertation. Especially in the introduction, the theoretical background, and the methods section. Questions 1 and 2 are answered by desk research through a literature review and content analysis of conference proceedings. Questions 3 and 4 are answered by a qualitative study, in which interviews are conducted with matched triples of Marketing, Sales, and IT actors.

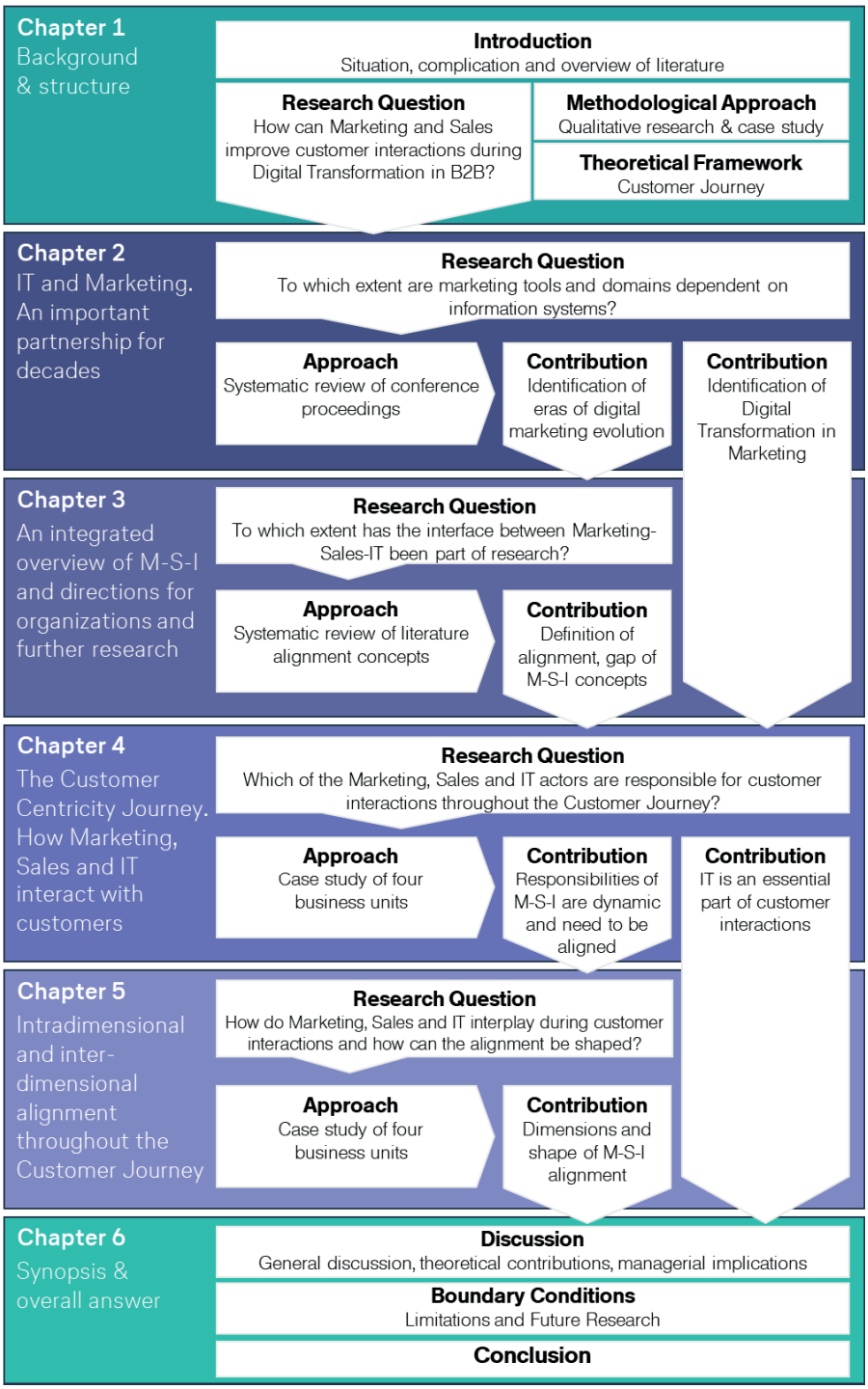

Figure 1 - 3 Thesis Outline

1.5.1 Summary of Chapter 1

CHAPTER 1 / RESEARCH BACKGROUND AND STRUCTURE OF THIS THESIS

The first Chapter 1 of this Thesis opens the research purpose as an introduction by explaining antecedents of the formulated general research question: "HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTIONS DURING DIGITAL TRANSFORMATION IN B2B?"

Furthermore, Chapter 1 provides the rationale for the chosen methodological approach and the selected framework, which will be used repeatedly in the following chapters. Overall, Chapter 1 sets the scene for the research project, while further foundations are explained in the individual chapters, of which this Chapter 1 also provides an overview, and closes with a guide to the reader.

1.5.2 Summary of Chapter 2

CHAPTER 2 / INFORMATION TECHNOLOGY AND MARKETING: AN IMPORTANT PARTNERSHIP FOR DECADES

Executive Summary:
This chapter demonstrates how the relationship between Marketing and Information Technology (IT) has evolved over time, noting that Digital Transformation is inherent to Marketing and has created Marketing domains and disciplines. The enabling technologies that have emerged from IT have had a significant impact on the development of marketing tools, and Marketing has been digitized through the adoption of these technologies over time (enabling technologies, tools used).

The purpose of this chapter is to demonstrate the impact of these enabling technologies on marketing tools in the past and present, and their potential future. It also provides guidance on the Digital Transformation taking place in Marketing and the need to align Marketing and IT.

As an approach, a content analysis of information systems and marketing conference proceedings was conducted, which provides a fresh look at the Digital Transformation of Marketing over the past 40 years and an outlook that this transformation will become even more intense.

As a result, this paper identifies four eras within the digital marketing evolution and provides insights into a potential fifth era. This chronological structure examines the impact of IT on marketing tools and, consequently, the Digital Transformation within Marketing. IT has enabled digital marketing tools across all four Digital Transformation levers: automation, customer interaction, connectivity, and data. This study has confirmed the occurrence of Digital Transformation in Marketing and that marketing tools are dependent on IT

developments.

As implications, this paper suggests that Marketing and IT should collaborate to develop new marketing tools that can be used to facilitate customer interactions and promote Marketing's control. By doing so, both parties will ensure that Marketing has the capabilities to use the tools efficiently. During the design phase of marketing tool development, technologies and tools are more than just artifacts and can be used for different purposes that may replace existing tools.

This contributes to the literature on Digital Transformation and opens avenues for future research on the alignment of Marketing and IT.

1.5.3 Summary of Chapter 3

CHAPTER 3 / DIGITAL TRANSFORMATION IN SALES AND MARKETING DEPARTMENTS: AN INTEGRATED OVERVIEW AND DIRECTIONS FOR ORGANIZATIONS AND FURTHER RESEARCH

Executive Summary:

This chapter shows that the interface between Marketing, Sales and IT (M-S-I) has not yet been studied and that the alignment of this interface is a missing piece of research. It also defines the term alignment in contrast to similar terms used in the literature, such as collaboration, cooperation and integration.

The purpose of this study is to review the M-S-I literature. The literature review was conducted using a three-step approach. The literature search yielded numerous articles, 159 of which were reviewed in depth, resulting in a set of 69 articles at the end of this step.

The results show that the interface Marketing-Sales and IT-other department has been studied intensively. The interface of all three departments has been overlooked. This demonstrates a gap in knowledge about the alignment of the M-S-I interface. Furthermore, different terms are used to describe the working relationship, namely alignment, collaboration, cooperation and integration, and this study provides definitions for these terms accordingly.

The study contributes to the Marketing, Sales, and IT literature because closing this gap is important for both researchers and practitioners to prepare for Digital Transformation.

1.5.4 Summary of Chapter 4

CHAPTER 4 / THE CUSTOMER CENTRICITY JOURNEY – HOW MARKETING, SALES AND IT INTERACT WITH CUSTOMERS

Executive Summary:

The digital touchpoints throughout the Customer Journey used by Marketing and

Sales promise responsibilities for IT. This study finds, through interviews with all three of these actors, that IT maintains responsibilities and that these are dynamically shifted between the three actors.

This chapter aims to understand the dynamics of the M-S-I interplay and who is responsible in customer touchpoints and interaction.

As an approach, interviews were conducted with matched triples of M-S-I managers, including executive directors of each business unit in a case study. By using the guiding framework of the Customer Journey, this study provides dynamic results across six stages of customer interaction.

As a result, this study provides an updated list of (digital) customer touchpoints throughout the Customer Journey. Second, it distinguishes two distinct roles for IT actors, namely production and enablement. Finally, the study shows that the responsibilities of the M-S-I actors vary dynamically at the different stages throughout the Customer Journey.

The study contributes that IT is an essential active player during the customer interaction, which exceeds the responsibilities of Marketing at some stages. Accordingly, organizations need to implement a customer-centric structure that proactively integrates all necessary actors to ensure their readiness for the entire Customer Centricity Journey.

The overlapping and shifting responsibilities of the M-S-I actors lead to the conclusion that proactive alignment in terms of customer interaction responsibility is an imminent need for customer solutions.

1.5.5 Summary of Chapter 5

CHAPTER 5 / CUSTOMER SUCCESS MANAGEMENT BY INTRA-DIMENSIONAL AND INTERDIMENSIONAL ALIGNMENT THROUGHOUT THE CUSTOMER JOURNEY - SHAPING THE MARKETING-SALES-IT INTERFACE

Executive Summary:
Based on what was discovered in the previous chapters, the dynamic responsibilities of the M-S-I actors lead to the need for alignment in terms of customer interactions among the actors. This chapter aims to understand how alignment is shaped and how it can be adjusted. It identifies dimensions and attributes for intra- and inter-dimensional alignment.

The previous chapters have highlighted that M-S-I share responsibilities dynamically throughout the entire Customer Journey, that alignment among these actors is essential for their interplay, and that there is no general instruction for managing alignment. This study presents six dimensions and 20 attributes for shaping the alignment among the M-S-I actors.

Chapter 5 aims to analyze the dynamics of the interplay within the interface of all three actors, Marketing, Sales, and IT. A review of conceptual

studies for the interface of two actors in a similar context and with a focus on interdisciplinary interplay, identifying concepts or characteristics about the interplay to transform them into the context of 3 actors.

As a qualitative approach to examine the alignment of the M-S-I interface, interviews in four business units with matched triples of M-S-I managers including executive directors of each company along six stages of the Customer Journey incorporate the dynamics of alignment in terms of customer interactions.

Through adopting, adding, and reframing, the findings reveal that existing models for alignment are still relevant, but need to be updated due to digitization and information system relevance.

As a result, a framework consisting of six dimensions and 20 attributes of alignment was created. Furthermore, three interventions to weave these 6 dimensions together offer interdimensional alignment levers.

The study contributes with this so-called COMPLY framework and can be used as a coordination mechanism to shape alignment. The implications are that aligning actors within an organization to provide a seamless experience during customer interaction is essential for managers. The exploration of the case study reveals that alignment is a necessary guiding principle for the interplay.

1.5.6 Summary of Chapter 6

CHAPTER 6 / SYNOPSIS

The final Chapter 6 of this Thesis synthesizes these individual research papers and their findings. The answers to the main research question of this Thesis are presented: **"HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTIONS DURING DIGITAL TRANSFORMATION IN B2B?"**

These answers are based on the findings of the research conducted within this Thesis, as outlined above and described in the following Chapters 2-5. Finally, these findings are discussed and the theoretical contribution and implications for both theory and practice are explained, complemented by a reflection on the boundary conditions of the findings of this research project as a whole, stating its limitations and opening related areas for further research, concluding this Thesis. Chapter 6 reflects on what the research project as a whole has achieved, what it could build on, and what it has added to the understanding of the phenomena. It even goes one step further and presents a novel, abstract idea for understanding the evolution of customer interactions.

1.6 Guidance to the Reader

The steps of this research have been presented at conferences and published in conference proceedings and academic journals over the past years. Through peer-reviewed publications at conferences and in journals, as well as presentations at scientific meetings, this work has been fundamentally improved through feedback. This entire process has provided a great opportunity to foster the development of each aspect of this work and, moreover, to share it and contribute to the field.

Accordingly, it is also a compilation of individual papers. These papers were written as stand-alone, independent pieces of research, answering different subordinate research questions on the way to the final answers to the main research question. As such, they have been submitted individually to different academic conferences and journals once that individual step has been completed. Together, these individual and independent papers now form the main body of this dissertation as separate Chapters 2-5. This meets the needs of readers who are only interested in specific parts of the overall work within this Thesis. For readers who wish to read the entire Thesis, a certain amount of repetition and overlap is unfortunately unavoidable. This mainly concerns parts of the introduction, the theoretical background and the methods section. Furthermore, Chapters 4 and 5 use the same respondents for the interview material, and consequently the methods sections are very similar.

Furthermore, it is a dissertation that tries to consistently balance practical and academic implications and approaches, and it has always been the goal to apply theory to the challenges of practice and to benefit one and the other.

Chapter 2

Information Technology and Marketing – An important Partnership for Decades

Summary:
An essential first step is to determine which customer interaction tools marketing controls and what dependencies there are on IT developments. This chapter also answers the question of whether there is a Digital Transformation in Marketing.

Publication History:
This version of this chapter, written with Prof. Dr. Hensel-Börner and Prof. Dr. Henseler was published in Industrial Management & Data Systems in the 50th Anniversary Special Issue.

References to previous publications:
Graesch, J.P., Hensel-Börner, S. and Henseler, J. (2021), "Information technology and marketing: an important partnership for decades", Industrial Management & Data Systems, Vol. 121 No. 1, pp. 123-157.

Keywords:
information technology; marketing; alignment;

Abstract:

Purpose: Enabling technologies that emerged from information technology (IT) have had considerable influence upon the development of marketing tools and Marketing has become digitalized by adoption over time. The purpose of this paper is to demonstrate the impact of enabling technologies on in sequence following marketing tools in the past, present and potential future. Furthermore, it provides guidance about Digital Transformation in Marketing and the need for alignment of Marketing and IT.

Design/methodology/approach: This study demonstrates the impact of enabling technologies on subsequent marketing tools through a content analysis of information systems and marketing conference proceedings. It offers a fresh look on Marketing's Digital Transformation over the last 40 years. Moreover, it initially applies the findings to a general Digital Transformation model from another field to verify its presence in Marketing.

Findings: This paper identifies four eras within the digital marketing evolution and reveals insights into a potential fifth era. This chronological structure verifies the impact of IT on marketing tools and accordingly the Digital Transformation within Marketing. IT enabled digital marketing tools in all four Digital Transformation levers: *automation, customer interaction, connectivity* and *data.*

Originality: This study is the first to apply the Digital Transformation levers *automation, customer interaction, connectivity* and *data* to the marketing discipline and contributes new insights by demonstrating the chronological development of Digital Transformation in Marketing via eras.

Practical implications: The sequencing of enabling technologies and subsequent marketing tools demonstrates the necessity for alignment of Marketing and IT to design new facilitating marketing tools that can be applied to customer interactions and foster Marketing control.

2.1 Introduction

Information technology (IT) and Marketing[3] are well-known disciplines and have been fields of research for many scholars. As a result of analyzing the status quo of the literature, which has focused on dedicated segments and portions of the functions, it has become necessary to adopt a macro perspective and widen the view to observe the overall picture of the Marketing and IT interrelationship. In the history of development economics, IT has been thought of as a key factor in marketing functions and plays an important role in the evolution of Marketing through its increasing influence – or as it is generally called – the Digital

[3] In this dissertation the terms Marketing, Sales and IT are capitalized when they are addressed in general terms. This then includes all marketing -disciplines, -departments, -persons, -functions, etc.

Transformation. In contrast, Marketing has been accused of losing its influence within firms and has become marginalized because decisions have moved to other departments, such as research and development, finance or strategy (Homburg et al., 2015; Sisodia, 2006; Verhoef & Leeflang, 2009). Moreover, it is apparent that marketing and sales managers are not always keeping up with digitally empowered customers (Day, 2011). However, the usage of IT tools and flexibilities in IT infrastructure are contributing factors within customer interaction and business success in creating and capturing value by managers (Benitez, Ray, & Henseler, 2018; Drnevich & Croson, 2013). Furthermore, we see that IT expedites not only marketing tools but also marketing methods by creating new enabling technologies. Hence, we see the urgent demand to identify the new role of IT in conjunction with the continually changing roles of Marketing. This new constellation and overlap of roles and tasks between the disciplines is what we call *alignment* between Marketing and IT.

So far, little attention has been paid to the roles of Marketing and IT in combination. Since both disciplines are part of a company's value creation and support function, the question becomes apparent as to why firms separate Marketing and IT from each other. Subsequently, a much debated question is whether IT is perceived as a firm's cost or investment (Verhoef & Leeflang, 2009). Following the evolution of Marketing and its tools in particular, the need for IT integration turns out to be inherently important. To gain efficient use of IT and the right fit with it, Marketing needs to know how to make use of IT-enabled marketing tools. Thus, support by and alignment with the IT discipline appears essential for marketing managers. Therefore, future marketing tools could be directly shaped to meet its needs and evolved in a shorter period of time if Marketing and IT were to collaborate more closely; we believe there is evidence for the creation of even more efficient IT-enabled marketing tools by joining forces.

The influence of enabling technologies emerging from the IT environment substantially impacts the development of marketing tools and methods. Marketing finds itself in the middle of a Digital Transformation, which IT has caused and accelerated over time. Practical examples for technologies that enabled marketing tools are the following: database management systems enabled customer relationship management (CRM) tools; internet websites enabled online marketplaces; social media applications enabled corporate influencers and so on. However, consumers have used many technologies even before they were the subject of marketing tools. Online forums (Murray & Maceli, 2017), mobile apps (Taylor et al., 2015) and social media websites (Bauer et al., 2015) are examples that Marketing currently uses as tools but had originated as user-to-user communication. Ultimately, new marketing domains such as *digital (content) marketing* (KyungOk Kacy Kim, 2015; Saura et al., 2017) and *influencer marketing* (Wiedmann & Mettenheim, 2020) arose naturally from

these technologies. Hence, IT has essentially revolutionized marketing methods by increasing marketing performance, reach and efficiency.

Researchers have studied digitally empowered Marketing over a certain period, focusing on many aspects and details. Intensified competition, opportunities and changing customer purchasing behavior (Ianenko et al., 2019) have increased the need for academic attention. Recently, researchers have shown a growing interest in the alignment of the IT function (Ricciardi et al., 2017) and its strategy (Bharadwaj et al., 2013; Coltman et al., 2015; Gerow et al., 2014) within the organization, but rarely with a focus on the marketing functions. Some scholars underline the demand for a more innovative marketing department (Verhoef & Leeflang, 2010), and there is ample research about the relationship between Marketing and other major functions besides IT (Dewsnap & Jobber, 2000). Further, academia still lacks guidance on how to align IT within the organization (Coltman et al., 2015; Matt et al., 2015) and additionally, the marketing department capability gap in terms of digitalization needs future research (Day, 2011). Moreover, scholars have found that the marketing department has been marginalized and has lost significant influence because decisions have moved to other departments (Homburg et al., 2015; Sisodia, 2006) and are influenced by the customer. Conclusively, the concept of digitally empowered Marketing and the need for alignment between IT and Marketing are central to both academia and applied praxis.

This study systematically identifies the sequencing of enabling technologies followed by marketing tools and establishing marketing domains by performing a content analysis of conference proceedings over the last 40 years. As a complete list is out of reach, we will focus on the most relevant conferences within both disciplines: The International Conference on Information Systems (ICIS) (AIS, 2020) and the Academy of Marketing Science annual conferences (AMS, 2020). These sequences have been clustered in Table 2 - 1 and were surrounded by marketing domains. The results are part of a framework contributing to Digital Transformation in Marketing. Furthermore, this study initially identifies four eras, named the Telecommunication Era, Data Managed Internet Marketing Era, User-Enabled Mobile Era, and Intelligent Networking Era, where these sequences have occurred and provide insights about a potential fifth era, which we call the Autonomous IT Era. To show coherence and the evolving need for alignment, a brief overview of the history of marketing evolution will be provided beforehand. This study is the first to apply Digital Transformation levers from other disciplines to the marketing discipline. The levers *automation, data* deployment*, connectivity* and improved *customer interaction* build essential clusters within the Digital Transformation, and we identified IT-enabled marketing tools in all four levers (Berger, 2015). We will conclude by examining the implications for academic research and marketing managers in terms of Marketing and IT alignment.

2.2 Marketing Evolution

Let us start the evolution with a simple question: what is the task of Marketing and Sales? If we had asked the same question 20 to 40 years ago, we probably would have received a different answer from today. Moreover, were we to ask this question 20 years in the future, we might get the counter-question: why do we need marketing or sales people? Through digitalization and individualization, customers become increasingly autonomous and can handle most of their sourcing without relying on one point of contact with a salesperson or marketing person. Moreover, researchers have even found an automation potential of sales tasks of approximately 40 percent (Muro et al., 2019). Subsequently, we need to discover what has changed in Marketing in recent years and also determine what Marketing is all about currently and potentially in the future.

Hence, in recent decades, applied managerial discipline and marketing practices have undergone significant changes, from their earlier focus on mass marketing followed by the industrial revolution in Western industrialized countries and moving toward segment marketing (Borch, 1957; Mallen, 1975). Segment marketing is different from mass marketing in that businesses focus on the wants and needs of the "average" customer, identifying specific segments using marketing as a planning tool (van Waterschoot & van den Bulte, 1992). Thus, scholars have long speculated that the future of managerial marketing should focus on customer-centricity rather than the average customer within a market segment (Sheth et al., 2000b), and there are several new approaches to a customer-centric marketing mix that increase customer participation (Sheth & Sisodia, 2012; Y.-L. Wu & Li, 2018). More current marketing mix approaches focus on web-based aspects, which have emerged as a consequence of various changes sourced from new types of customers, global competition and rapid development in technologies (Vassileva, 2017). As in previous marketing systems, customers are still the center of marketing activities, with the difference being that the market is operated within a cybernetic marketing system in which customer activities and business transactions can be monitored in real time (N. Dholakia et al., 2011). Observing this evolution, researchers point to content marketing to meet individual customer needs (Chaffey & Smith, 2013; Järvinen & Karjaluoto, 2015). To summarize, Marketing has changed from mass marketing to personalized marketing and uses web tools as marketing tools for customer communication.

Due to the increasing demand for digital tools, further insights are required to solve questions of responsibilities. The responsibility of new roles, e.g., the chief digital officer, who is connected to planning and deployment of Digital Transformation strategies, is unclear because functional interdisciplinary roles contradict with those of siloed disciplinary executives (Singh & Hess, 2017). However, these new roles can lead to new possibilities in the use of digital tools.

The possibilities that IT can offer are obviously much larger than Marketing can identify, let alone implement. Surprisingly, the extent to which the IT department is already aligned with marketing and sales activities and decisions has not been a field of research so far. In conclusion, this imbalance between quickly increasing IT functionalities and the need to develop digital competency in the marketing department underlines the need for alignment between Marketing and IT.

2.3 The influence of IT within the Marketing Discipline

Digitalization has introduced many IT technologies and tools, which affected the marketing and sales functions fundamentally when they were applied. This study analyzes and summarizes examples of these enabling technologies and tools accordingly. Some tools had a major impact on the marketing function and even helped in the creation of new marketing domains, which would have not been established without IT support.

Following the expected sequencing between enabling technologies and marketing tools, we will provide first a chronological overview of these analyzed components and second a structured framework that explains the interrelationship between these components. For the chronological overview, we will provide a table focusing on enabling technologies and convert the table data into chronical eras because marketing technologies arose from different enabling technologies in parallel. Furthermore, for a structure, we will use the levers *data, connectivity, automation* and *customer interaction* because these indicate Digital Transformation. Hence, we will cluster the analyzed components into these four levers.

2.4 Method

To demonstrate the correlation and development of enabling technologies and subsequent marketing tools, we aim for a chronological list. However, the field of enabling technologies and the use of marketing tools is broad. Consequently, a complete list is out of reach, and reviewing every side would be unwieldy. Thus, it is appropriate to focus on the most relevant aspects. As the exact point of time of the development of enabling technologies is not important, but rather the sequencing between both is the subject of this research, we decided to perform a qualitative content analysis of conference proceedings and focus on two relevant conferences. The International Conference on Information Systems (ICIS), which has a history of over 40 years with approximately 270 conference papers published yearly that are primarily delivered by and for academics, can be understood as a relevant IT conference (AIS, 2020).[4] To add Marketing's

[4] In exceptional cases other conferences have been used when the gap between first entry of ICIS deviates significantly from other conferences. Deviations are clearly displayed within Table 2-1.

perspective, we chose the Academy of Marketing Science (AMS) annual conference, due to its reputation in the marketing scientific community, a history of over 40 years and between 100 and 330 conference papers published yearly (AMS, 2020). These two conferences build the basis for the analysis of this study.

The conference proceedings were studied using a qualitative content analysis as follows. We chronologically screened the titles and keywords of papers of the ICIS conference proceedings (AIS, 2020) starting from 1980 as the first available source for new technologies and terms corresponding to Marketing. Furthermore, we added the earliest available reference for each new technology into Table 2 - 1. This same procedure was applied to that of the AMS annual conference proceedings starting from 1979, which were published from 2015 onwards (e.g., Gitlow & Wheatley, 2016). Then, we screened the titles of the marketing conference papers for terms such as *electronic* and *digital* plus *online* and recorded corresponding papers in Table 2 - 1 as well. Thereafter, we determined whether the papers fit into the context by analyzing all abstracts and excluded inappropriate topics accordingly as well as duplicates. For example, papers dealing with the marketing of mobile phones were excluded because mobile phones could be replaced by any other innovative good, so we focus on Marketing with and by mobile technologies. Finally, we determined marketing domains as such if a journal within the Scopus database contains the term in the title (Elsevier, 2020; Henseler & Guerreiro, 2020). Additionally, we added marketing domains that were published with definitions for marketing types stated by the American Marketing Association (AMA, 2020). Conclusively, with this method we identified enabling technologies by IT, followed by marketing tools and marketing domains.

2.5 Results

The results of this study are manifold. First, we identified 28 enabling technologies, 103 marketing tools and 8 overarching marketing domains. Second, the study identifies chronological eras containing these components. Finally, we provide a structure that explains the interrelationship of these components.

Table 2 - 1 shows the marketing tools that emerged from enabling technologies, clustered by marketing domains, if applicable, and sorted chronologically. One aspect we aimed to identify was the developed marketing domains, which are demonstrated in this table.

Table 2 - 1 Enabling Technologies, emerging Marketing Tools and corresponding Marketing Domains

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
Telecommunications	1961	(Hopner, 1961)	Telecommunications shopping	1983	(George, 2015)	
			Telemarketing	1993	(Luke, 2015)	
Speech understanding system	1996	(Kawahara et al., 1996)	Access-automated call center	1997	(Ehrlich et al., 1997)	
			IT enabled call center (ICIS) Call center (AMS)	2001 2008	(Subramanyam & Krishnan, 2001), (Wang et al., 2015)	
Data Management Systems	1987	(Sarda, 1987)	Sales control systems	1994	(Bingham & Quigley, 2015)	(Customer) Relationship Marketing "International Journal of Customer **Relationship Marketing** and Management" "Journal of **Relationship Marketing**"
ERP	1998	(Veth et al., 1998)	Data base marketing	1998	(Chopoorian et al., 2015)	
			E-CRM	2001	(Galbreath & Hoffman, 2015)	
			CRM	2002	(Kim et al., 2002)	
			B2B customer database management	2006	(Zahay, 2015)	
Cloud Infrastructures	2009	(Püschel & Neumann, 2009)	Mobile CRM	2013	(Töllinen et al., 2015)	
			Mobile sales force automation	2013	(Karjaluoto et al., 2015)	
Knowledge-based Systems	1990	(Kumar, 1990)	Knowledge-based system pricing	1993	(Mentzer et al., 2015)	
Neural Networks	1990	(Schocken, 1990)	Competitive intelligence systems	1995	(Cartwright et al., 2015)	
			Strategic intelligence systems	1995	(Festervand et al., 2015)	
			Web-based knowledge management	2003	(Liu & Luo, 2015)	
			IT in decision making	2004	(Rieger et al., 2015)	
			Online dynamic pricing	2006	(Chung, 2015)	

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
E-Mail	1992	(El-Shinnawy & Markus, 1992)	E-Mail as a method of communication	1997	(Heiser & Frontczak, 2015)	
			E-Mail survey	1998	(Flaherty et al., 2015)	
			E-Mail-marketing	2005	(Ceyp, 2015)	
Internet	1993	(Kambil et al., 1993)	Electronic commerce (ICIS)	1995	(Ives et al., 1995)	**Online Marketing** 2002 (Zugelder et al., 2015) **Internet Marketing** "International Journal of Internet Marketing and Advertising"
			Internet advertising (web-based)	1997	(Löbbecke & Powell, 1997)	
			Electronic marketing	1997	(Hair, 2015)	
			Internet shopping	1997	(A. J. Morgan & Attaway, 2015)	
			Web site adds	1998	(Sautter & Lindquist, 2015)	
			Automatic replenishment	1999	(Daugherty et al., 2015)	
			Marketplaces B2B marketplaces	1999 2001	(Dellarocas & Klein, 1999) (Yoo et al., 2001)	
			Online auction (ICIS) Internet auction (AMS)	1999 2005	(Vakrat & Seidmann, 1999) (Yang, 2015)	
			Internet related acquisitions	2001	(Ranganathan & Dadalt, 2001)	
			Online companies	2000	(Kaynama, 2015)	
			Internet-based customer service systems	2001	(Brohman et al., 2015)	
			Internet usage within B2B exchange partnerships	2001	(Boyd & Spekman, 2015)	
			E-commerce	2001	(Sudbeck, 2015)	
			Electronic catalog	2002	(Gonzalez, 2015)	
			Virtual stores (on the internet)	2005	(Diehl & Weinberg, 2015)	
			Search engine advertisement	2011	(Sun & Spears, 2015)	

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
Web caching Click-path-data	2002 2013	(Hosanagar et al., 2002) (Weinmann et al., 2013)	Data mining	2000	(Reid, 2000)	"Journal of Direct, Data and **Digital Marketing Practice**"
			Pricing based on web caching	2002	(Hosanagar et al., 2002)	
			WEB log data	2006	(Yada et al., 2015)	
Self-service Technologies	2000	(Bodendorf & Saueressig, 2000)	Technology-based self-service	2002	(Anitsal et al., 2015)	
			Self-service scanning terminal	2007	(Espina & Pérez, 2015)	
Mobile Applications	2002	(Kemper & Wolf, 2002)	Mobile commerce	2004	(Yang et al., 2015)	**Mobile Marketing** MSI 2013
			Remote service	2010	(Paluch, 2015)	
			Mobile advertising	2009	(Goh et al., 2009)	
			Mobile marketing	2010	(X. Guo et al., 2010)	
			Mobile applications	2011	(Taylor et al., 2015)	
			Digital coupons (sms)	2011	(Nakhata, 2015)	
			Freemium (ICIS) Freemium (AMS)	2012 2016	(C. Z. Liu et al., 2012) (Cziehso & Schaefers, 2017)	
			Mobile shopping	2013	(Swilley & Cowart, 2015)	
			Mobile commerce on tablet	2013	(Han et al., 2013)	
Mobile Self-service Technologies	2006	(Treiblmaier & Dickinger, 2006)	Mobile banking	2011	(Nel et al., 2015)	

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
User Generated Content (UGC)	2003 (ICME) 2008 (ICIS)	(Koskinen, 2003) (Oh et al., 2008)	Online reviews	2004	(Dellarocas et al., 2004)	**Online Marketing** 2002 (Zugelder et al., 2015) **Internet Marketing** "International Journal of Internet Marketing and Advertising"
			Online community	2006	(Landry et al., 2015)	
			Online product review	2012	(Coussement & Antioco, 2015)	
			Online product rating assessment	2014	(F. Wang et al., 2016)	
			Online discussion forums	2016	(Murray & Maceli, 2017)	
			Online recommendations and feedback	2004	(P.-Y. S. Chen et al., 2004)	
			eWOM (AMS) electronic word of mouth (ICIS)	2000 2010	(Bussière, 2015) (Lo & Lin, 2010)	
			Online user comments	2011	(Mills et al., 2015)	
			Interactive websites	2012	(X. Liu, 2015)	
			Firm-generated content	2014	(Swain & Cao, 2014)	
			Reputation management	2016	(Y. Chen et al., 2016)	
Blogs	2006	(J. J. Xu & Chau, 2006)	Blog users/Bloggers	2012	(Segev et al., 2015)	
			Sponsored blog post	2015	(Williams & Hodges, 2016)	
			Vlogs	2017	(Munnukka & Maity, 2018)	

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
Machine Learning Dynamic Time warping	2008 2014	(Ichise, 2008) (Keller et al., 2014)	Prediction of sales performance	2011	(Boso et al., 2015)	"Journal of Direct, Data and **Digital Marketing Practice**"
Artificial Intelligence	2018	(Tremblay et al., 2018)	Robotic shopping assistant	2018	(Fukawa & Huang, 2018)	
			Robo-advisor	2018	(Tremblay et al., 2018)	
			Dynamic pricing based on artificial intelligence	2019	(Beser et al., 2019)	
			Artificial intelligence in marketing	2018	(Pitt et al., 2018)	
Big Data	2014	(Hristova, 2014)	Adaptive Big Data analytics	2014	(Zhang et al., 2014)	
Social Media	2009	(Xu & Zhang, 2009)	Social media influencers	2010	(Lindsay et al., 2015)	**Social Media Marketing** 2012 (Bauer et al., 2015) "Journal of Digital and Social Media Marketing"
			Social networking	2010	(Ulusu et al., 2015)	
			Social media applications for Marketing	2011	(Tuten et al., 2015)	
			Social media analytics	2013	(Kurniawati et al., 2013)	
			Enterprise social media Corporate social media Sides	2014 2016	(Dyrby et al., 2014) (Bacile et al., 2017)	
			Managing social consumer voice	2015	(Melancon & Dalakas, 2016)	
			Purchase feature in social media	2017	(Guo et al., 2017)	
			Influential tool	2017	(Gomez et al., 2018)	**Influencer Marketing** 2019 (Wiedmann & Mettenheim, 2020)
			Influencer	2016	(Ferreira, 2017)	

Enabling technology	Year	Reference	Marketing tool	Year	Reference	Marketing domain
Wearable Technology	2015	(Deng & Christodoulidou, 2015) (Robson et al., 2016)	Digital (consumer) self-tracking	2015	(Yuksel & Milne, 2016)	Journal of "Applied **Marketing Analytics**"
			Trace data of user	2017	(Frank et al., 2017)	
Web Analytics	2013	(Paramonov et al., 2013)	Web analytics	2012	(Järvinen et al., 2015)	
			Text content analysis	2014	(Hood, 2016)	
			Text analysis of online reviews	2016	(Fresneda & Gefen, 2017)	
			Personalized advertising	2015	(Gironda & Korgaonkar, 2016)	
Internet of Things	2015	(Chmaj & Selvaraj, 2015)	Internet of things (IoTs) and marketing	2018	(Anwar, 2018)	"International Journal of **Technology Marketing**"
Augmented Reality Virtual Reality	2007 2017	(T.-Y. Liu et al., 2007) (Blazauskas et al., 2017)	Augmented reality with customers	2016	(Poushneh, 2017)	
			3D virtual shopping environments	2013	(Mann et al., 2015)	
			B2B virtual trade shows	2010	(Gabisch, 2015)	
Blockchain	2016	(Avital et al., 2016)	Cryptocurrencies	2018	(Mauri et al., 2018)	
IT Enabled Cocreation	2008	(Grace et al., 2008)	Cocreation	2007	(Campbell et al., 2015)	
			Innovation processes on the internet (cocreation)	2009	(Emrich & Rudolph, 2015)	
			Expanding cocreation	2012	(Kull, 2015)	
			Cocreating with self-service technology	2012	(Hughes et al., 2015)	
			Crowdsourcing	2012	(Simula et al., 2015)	
Crowd Funding	2013	(Zvilichovsky et al., 2013)	Crowdfunding	2014	(Boeuf & Durivage, 2016)	
			Customer participation in new product development	2015	(Morgan & Obal, 2016)	

Some tools and technologies from different domains are constructed with dependencies between each other and appear approximately at the same time. However, following the chronological appearance of the technologies and tools, we clustered those into four consecutive eras in the following, shown in Figure 2 - 1. We have named the four identified eras the Telecommunication Era, Data Managed Internet Marketing Era, User-Enabled Mobile Era, and Intelligent Networking Era and have derived insights about a potential fifth era, which we call the Autonomous IT Era. As shown in Figure 2 - 1, we have identified a chronological overlap of the eras and understand the demonstrated periods as approximated time spans.

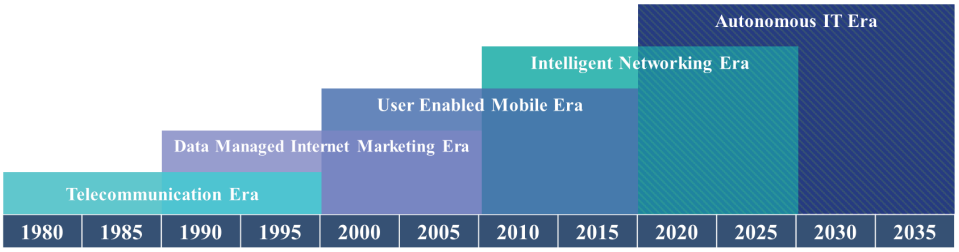

Figure 2 - 1 Eras in enabling Technologies and emerging Marketing Tools

2.5.1 Telecommunication Era

Marketing tools in the early 1980s used telephones as an enabling technology. Telecommunication in private homes started early but slowly (Hopner, 1961) and was used for selling and shopping, such as cold calls and catalog ordering during the 80s (George, 2015) and enhanced with telemarketing during the 1990s. Furthermore, speech understanding systems (Kawahara et al., 1996) enabled the use of an access-automated call center, where customers could identify and guide themselves to the responsible salesperson (Ehrlich et al., 1997). The call centers (Z. Wang et al., 2015) were further improved by integrating technologies of the later eras (Subramanyam & Krishnan, 2001).

We have identified this era as being between 1980 and 1995.

2.5.2 Success stories within the Telecommunication Era

To finalize, we provide a few examples of applied marketing tools in the business context. For instance, Novell, the former world's leader in networking, served close to 50 percent of the world's population in 11 markets. They gained this outstanding performance with advanced call centers as the only way to support this rapid growth (Costa, 1996; Fleischer, 2004). Even more interesting is that the return on investment for call centers has been identified as being greater than 20 percent. Furthermore, the W. Wrigley Jr. Company, the world's most

widely known chewing gum producer, was able to reduce their cost of selling by 1.4 percentage points by installing call centers (Prabhaker et al., 1997).

2.5.3 Data Managed Internet Marketing Era

The second era includes technologies that enabled mainly data-based marketing and firm-to-customer connectivity. IT brought enabling technologies that supported the corporation in structuring information, for example, with data management systems (Sarda, 1987), enterprise resource planning (ERP) (Veth et al., 1998), neuronal networks (Schocken, 1990) and knowledge management systems (A. Kumar, 1990). Furthermore, marketing reach was increased via e-mail communication (El-Shinnawy & Markus, 1992). With the internet as the most visible manifestation of this era, the company increased its capability to communicate with customers and collect information about customers and analyze them (Rust, 2020). Further, marketers could communicate proactively (webpages) and reactively (electronic commerce) without being manually involved in the marketing process. Thus, electronic commerce (e-commerce) with its internet advertising was established (Ives et al., 1995; Löbbecke & Powell, 1997; Sautter & Lindquist, 2015). Global Sales and Marketing were further enabled by using IT systems with a worldwide reach. Subsequently, customers have used tools such as online marketplaces, electronic catalogs, online auctions and virtual stores to reach their suppliers (Dellarocas & Klein, 1999; Diehl & Weinberg, 2015; Gonzalez, 2015; Vakrat & Seidmann, 1999; Yang, 2015). Similar tools were followed in the B2B environment (Boyd & Spekman, 2015; Yoo et al., 2001). Hence, sales power could be tremendously increased without expansion of the sales and marketing workforce. However, to use the provided IT solution efficiently, training is necessary to address the sold services and the customer messages correctly.

We have identified this era as being between 1990 and 2005, which introduced new marketing domains such as online marketing and internet marketing (Zugelder et al., 2015).

2.5.4 Success stories within the Data Managed Internet Marketing Era

Walmart, one of the largest brick and mortar retailers within the U.S., served 244 million customers online each week in 2014. Customers ordering online can rely on real-time estimated delivery dates. Walmart increased their global e-commerce sales by approximately 12% to $13.7 billion in 2016 and has spent billions in technological investments, making it one of the largest IT spenders in the entire world, competing with Amazon (Ignatius, 2017; Mohammed, 2015; Yohn, 2017).

H&M increased sales revenues by 24 percent by integrating online and in-store shopping via services that enable shoppers to pick up and return online orders in the store while also offering more flexible payment options, faster delivery and improved searches. Further, H&M increase their revenue via functionalities within digital tools such as search engines for outfits of celebrities, where H&M links similar clothes in their online shop (Hennes & Mauritz AB, 2020; Mulier, 2019).

2.5.5 User-Enabled Mobile Era

In contrast to the Data Managed Internet Marketing Era, where the corporation was using IT to reach and re-educate the customer, in the User-Enabled Mobile Era, it is the customer who gained influence through new IT solutions. In early 2000, webpages transformed from a passive medium to an active medium, where user-generated content (UGC), social media and electronic word of mouth (eWOM) became apparent (Bussière, 2015; Koskinen, 2003; Lo & Lin, 2010; J. Oh et al., 2008; Xu & Zhang, 2009). Customers could interact easily with other customers by using blogs and online communities (Landry et al., 2015; Xu & Zhang, 2009). These new possibilities were also used in the corporate context, such as sharing online reviews, ratings, discussing service problems in forums and commenting online (Chen et al., 2004; Coussement & Antioco, 2015; Mills et al., 2015; Murray & Maceli, 2017). This has led to a change in Sales and Marketing responsibilities. Previously, the customer would consult the sales manager in terms of the quality and nature of the product/service. Today, customers gather information from other customers via IT tools such as blogs, social media and reviews to consider their purchase and later spread their experiences to other customers using the same tools.

It seems to be inherent that the corporation needs to incorporate those techniques to gain control of Sales again. Inevitably, Marketing needs to align with IT to close this gap of control. However, surprisingly, firm-generated content, social media ads and purchase features in social media applications followed later, approximately 2015 (Bacile et al., 2017; Dyrby et al., 2014; C. Guo et al., 2017). Specifically, Marketing exploits social media by using it as an influential tool and pays customers to promote products from user to user or sponsors blog posts (Ferreira, 2017; Gomez et al., 2018; Segev et al., 2015).

Corresponding to this era, firms proactively invite customers to participate in innovation and new product development processes. IT-enabled cocreation allows the consumer to provide ideas, make demands or vote for product features (Emrich & Rudolph, 2015; Grace et al., 2008; Hughes et al., 2015). Moreover, marketing departments made use of digital payment methods for collecting funding capital from potential customers by using crowdfunding as a tool (Boeuf & Durivage, 2016; Morgan & Obal, 2016; Zvilichovsky et al., 2013).

Furthermore, enabling technologies such as web caching and click-path-data support Marketing through data mining and online login data by which pricing can be adjusted dynamically and websites can be improved based on click data (Chung, 2015; Hosanagar et al., 2002; Reid, 2000; Weinmann et al., 2013; Yada et al., 2015). These marketing tools are examples that have been further developed from former eras over time, indicating the overlap of the eras, as shown in Figure 2 - 1.

Further developments during this era are the invention of mobile applications and self-service technologies as enablers (Bodendorf & Saueressig, 2000; Kemper & Wolf, 2002; Treiblmaier & Dickinger, 2006). This has led to new marketing channels such as mobile marketing and advertising and new service methods such as freemium content and digital coupons and ultimately to mobile shopping and mobile commerce (Goh et al., 2009; X. Guo et al., 2010; Han et al., 2013; Liu et al., 2007; Nakhata, 2015; Swilley & Cowart, 2015). Furthermore, the customer can fulfill services now on his own via self-services, whether mobile (e.g., mobile banking), in shops (e.g., self-scanning devices, ATMs) or as a remote service (Anitsal et al., 2015; Espina & Pérez, 2015; Nel et al., 2015; Paluch, 2015).

We have identified this User-Enabled Mobile Era between 2000 and 2015, which has brought new marketing domains such as mobile marketing, social media marketing and influencer marketing (Bauer et al., 2015; Wiedmann & Mettenheim, 2020).

2.5.6 Success stories within the User-Enabled Mobile Era

Success stories with the usage of social media are assorted, for example, when Starbucks used Instagram to promote their Unicorn Frappuccino, their revenue increased by 3 percent globally and *Fortune Magazine* named Starbucks the fifth-most admired brand in the world (Gallaugher & Ransbotham, 2010; Krishna, 2018; Taecharungroj, 2017).

Likewise, the International House of Pancakes (IHOP) during a social media campaign changed its name into International House of Burgers (IHOb) for a short period in the summer of 2018, with over 30,000 users responding. IHOP's social media relevance improved after the announcement, and the number of sold burgers increased by 400 percent as a result of social media marketing (Odell, 2018).

Tesla Motor CEO Elon Musk uses Twitter as the main marketing channel. Via his regular tweets, he achieved the establishment of Tesla as the car brand most linked to topics such as electric cars and autonomous vehicles on social media, leaving behind the biggest electronic car producer, Renault-Nissan. Compared with the marketing spending necessary for professional corporate social media posts, Elon Musk outperformed his competitors by mainly using Twitter (Furr & Dyer, 2020; R. B. Hansen, 2015; Popkin, 2018).

Using the enabling technologies of self-service devices, McDonald's generated close to 5-6 percent more revenue by establishing 8,000 to 9,000 self-service kiosks, where customers can select their food on touch screens. McDonald's recognized that by the visualization and touch of desired food, customers tend to select more items than at the usual counter. In parallel, the number of necessary personnel could be reduced (Gavett, 2015; Horovitz, 2018; Zhu & Meyer, 2017).
Hence, creative social media statements and applied self-service support improve sales and marketing activities.

2.5.7 Intelligent Networking Era

In this last era, we have recognized tools with the use of new connected data and collaboration. At the end of the 2000s, the first machine learning algorithms were established, followed by artificial intelligence (AI) and web analytics in general (Ichise, 2008; T. Keller et al., 2014; Tremblay et al., 2018). These technologies have enabled Marketing to start better predicting sales performances, use automated analysis of text content, implement robo-advisory, personalize advertising in online environments and improve dynamic pricing (Beser et al., 2019; Boso et al., 2015; Fresneda & Gefen, 2017; Fukawa & Huang, 2018; Gironda & Korgaonkar, 2016). Due to sources of big data technologies, the efficiency of the tools could be further improved (Zhang et al., 2014), and by customers giving away their data such as location and heart rate using wearable technologies, marketing could be further personalized to individual consumers (Frank et al., 2017; Paramonov et al., 2013; Yuksel & Milne, 2016). The usable amount of data and technologies that can create data and process data boomed during this era and increased networking.

Further, machines were connected to cloud servers and the internet, which is called the internet of things (IOT), and could order supplies without necessary interaction of a user (Anwar, 2018; Chmaj & Selvaraj, 2015). Cloud infrastructures have made data globally available and allow marketing to use mobile CRM and automated sales force tools (Karjaluoto et al., 2015; Püschel & Neumann, 2009; Töllinen et al., 2015). Databases were improved fundamentally by blockchain technologies that brought cryptocurrencies into webshops in addition to supplying cyber security (Avital et al., 2016; Mauri et al., 2018). The field of marketing expanded via IOT, clouds and blockchain to a new area, which gained new possibilities for revenues. In conclusion, this era improved existing tools with new intelligence and brought up new tools in the virtual environment.

With further developments in hardware and software, augmented reality (AR) and virtual reality (VR) became possible, and Marketing uses those technologies to present products to customers, offer 3D virtual shopping tours or arrange virtual trade shows (Blazauskas et al., 2017; Gabisch, 2015; Liu et

al., 2007; Mann et al., 2015; Poushneh, 2017). Additionally, virtual reality enables customers to obtain a better understanding of the form and usage of products and helps Marketing explain the benefits of even products in development.

We have identified this era as being starting in approximately 2010 and believe it is still developing, which also means that complete new marketing domains have not yet emerged. We assign the described marketing tools to the domains of marketing analytics and technology marketing, as well as digital marketing.

2.5.8 Success Stories within the Intelligent Networking Era

There are various success stories using intelligent tools and networks. For example, Target Corporation, an American retail corporation, provides a mobile application (app) with over 27 million users. The application uses voice recognition, AR, VR and AI and is one of Target's main tools in personalization and customer loyalty. The app is also a source of insights into user preferences, behavior trends, and shopping habits. Through Target's digital efforts, the retailer drove sales revenue and gained new customers (Bowler & Datar, 2017; Srinivasan & Chen, 2019).

The mobile app of Sephora also uses AR and AI, providing a feature where customers can virtually try on make-up. Sephora is able to track customers' preferences online and offline and have doubled their mobile sales each year (Bornstein & McGinn, 2014).

Furthermore, Nike reported a 30 percent rise in revenue in their running division as of 2012, which they ascribe to a new digital tool. This mobile application connects with a sensor installed in running shoes to monitor speed, distance and calories. Nike expanded this technology to other activities, such as playing basketball and sleeping (Sunil Gupta, 2013).

Walmart uses artificial intelligence by automating their inventory with a robot scanning process in combination with electronic shelf labeling. This process automatically identifies out-of-stock refills and poorly selling units with the result that Walmart can adjust prices and promotions accordingly. By this measure, Walmart aims to improve their accuracy in pricing and product availability by a potential further twelve percentage points. Furthermore, Walmart plans to offer online ordered pick-ups in designated car parking lots with a maximum waiting time of three minutes (Dowd, 2019; Iansiti & Lakhani, 2020; Rebholz, 2019).

With the use of blockchain, further opportunities are within reach. For example, shipping companies such as Maersk have used blockchain technologies, and (online) retailers such as Walmart and Alibaba track the location of their shipments in real time and record data such as temperature and customs documents. Blockchain will help to track goods more efficiently, reduce fraud and secure sensible data with expected savings of a billion dollars per year

(Lal & Johnson, 2018).

With the use of big data, corporations can adjust measures to target smaller segments and even granular levels. Companies can analyze data for each invoice and cluster it by product, package, customer group, etc. An average profit-margin lift of three to eight percent by setting prices at much more granular product levels could be achieved. The use of big data analyses combined with adequate resources in Sales and Marketing could in one case increase profit margins by 20 percent (Baker et al., 2014).

In an attempt to implement UGC, Boeing started its own corporate blog but blocked all kinds of UGC, such as comments and feedback, with the result that customers perceived the blog as purely an advertising measure (Kaplan & Haenlein, 2010). On the other hand, Boeing invited airlines to be part of the design process and incorporated airlines needs accordingly. Furthermore, General Electric has established cocreation as well as provided customers with access to tools and a library. Therefore, General Electric can outsource research efforts and risks to their customers and generate an environment with benefits for both parties (Prahalad & Ramaswamy, 2004). Those examples show a variety of marketing tools using blockchain, virtual environments and cocreation with positive impacts on business performance.

2.5.9 Autonomous IT Era?

We have also identified technologies in the conference proceedings that have not yet enabled marketing tools. These technologies might change consumers' habits and enable new marketing tools in the future. Furthermore, we have studied current trends in managerial magazines to speculate about a potential fifth era.

In the manufacturing sector, marketplaces currently focus primarily on the direct purchase of standardized products. However, the development of additive manufacturing changes this logic, giving firms the opportunity to trade 3D-printing capacities instead of goods. This exchange allows firms to enhance profits and lower risks by marketing printing capacities. Such sharing of production capacities instantiates an open production system (N. Stein et al., 2019). These 3D printing production systems gain untapped business opportunities by applying blockchain technologies. Blockchain can help businesses overcome intellectual property and data security barriers. Further, new business models such as secure design marketplaces and shared factories will be possible. Businesses could also offer additional services around 3D printing and offer less costly and more customized products (Klöckner et al., 2020). Sustainability will drive additive manufacturing even further because it reduces emissions during transportation and warehousing, packaging and waste. Furthermore, a recycling industry around additives will increase 3D printing

sustainability and increase the acceptance of this technology among consumers and society. Hence, Marketing will need to allocate a complete new, digital market where customers do not buy physical goods but design instructions for 3D printers instead (Garmulewicz et al., 2018).

Additionally, neuronal networks will become more enhanced through augmented intelligence and classification technology, whereas devices can react in shorter periods to circumstances and expand the range of applications where classification technology can be used. However, during this era, devices will not compete with human thinking (Byrum, 2019). Augmented intelligence can complement multipurpose hardware and adapt to a given task. This means that machines can react to the parameters of sensors, e.g., of a wearable device, and anticipate a reaction automatically. This will enable a closer human-computer interaction and aim for real-world processes in IT (Krenzer et al., 2019). Furthermore, automated planning and intelligent (semi)automated construction of processes will become possible in the form of human-automation hybrid work (Asatiani et al., 2019; Schön, 2019). These technological developments will enable Marketing to gain more information by, e.g., parameters of wearable devices, and apply marketing methods based on augmented intelligence individually to the customer.

Moreover, 6G data connectivity will enable further opportunities such as smart implants and autonomous systems. Temporary hotspots served by drone-carried base stations or tethered balloons will improve mobility (Saad et al., 2019). This will support the use of mobile streaming and decrease the use of stationed screens such as TVs. On the one hand, this will affect TV advertising and decrease its importance, but on the other hand, screen presence and emotions of the customer can be tracked precisely, e.g., by face recognition technologies in mobile devices (Y. Guo et al., 2019).

Furthermore, systems that use predictive models to make automated decisions will increase and become more precise by using more variables (Fernandez et al., 2019). They can, for example, be used to predict credit scoring (Zhou, 2017). Prediction will enable Marketing to analyze what will appeal to customers, improve operations and provide support in making products better. Furthermore, it can be used to improve search engine advertisements and provide customers with product suggestions when typing related words (Agrawal et al., 2020). Thus, prediction will enhance marketing tools by foreseeing customer demands and preferences.

The use of RFID systems during supermarket shopping will bring new insights in terms of shelf stock and logistics but will also open the possibility of simplifying the customer checkout process in physical supermarkets (L. Wu et al., 2019). For example, automated gates will identify the contents of full shopping baskets by having customers just walk past, so customers can pay for all items without scanning them separately.

The method of transportation will change significantly, either by autonomous vehicles, which have the potential to transform urban landscapes, existing transport systems and networks or lower car ownership by increasing car sharing (Legacy et al., 2019). In both cases, the number of customer-owned transportation vehicles will decrease significantly. Sharing cars and tracking customers by using new transportation methods will enable marketing to gain new marketing tools, not limited to location- and time-adjusted advertisements but also will enable a firm to drive the customer with an autonomous car to a specific shop. In conclusion, we expect more marketing tools related to system intelligence, which can be used for (automated) customer interaction.

2.6 Structured Framework of the analyzed Components

To place the enabling technologies and marketing tools in the context of the Digital Transformation, a structured framework is required, which explains the relation between the analyzed components. Thus, we have transferred Table 2 - 1 into Figure 2 - 2 and included additional information as explained in the following.

The Digital Transformation incorporates four major levers: new *data, connectivity, automation* and digital *customer interaction*. Each lever is supported by propositions and enablers (Berger, 2015). In this study, we apply enabling technologies hereto and marketing tools and methods as propositions. The lever of data contains the availability and processing of existing and new data. Automation includes computer-aided support and self-service functionalities as well as the combination of data with algorithms. The connectivity lever contains the underlying functionalities of networking and data synchronization. Digitalized customer interaction covers direct and indirect marketing applied to customers. It is driven by developments within the other levers, which may be understood prerequisites. The Marketing Digital Transformation blends perfectly into these stated four levers.

We classified the identified enabling technologies and marketing tools into these levers accordingly, as demonstrated in Figure 2 - 2. This visualization supports the statement that the influence of IT within Marketing is manifold and contributes to several aspects of Marketing. As demonstrated by Figure 2 - 2, we find in each of the four levers essential enabling technologies and marketing tools. This figure directly shows that marketing tools are not only concerned about customer interaction but also about customer management and investigation, as at in the *data* lever. It refers to the use of data to inform and optimize the ways through which marketing managers interact with customers (V. Kumar et al., 2013). Furthermore, it demonstrates that an underlying *connectivity* is essential to reach out to customers. In the lever of *automation,* we find tools that can take over marketing actions and support in visualization.

We found that Digital Transformation is inherent not only in firms but also in essential functions such as Marketing. The profound influence of IT-enabling technologies led to marketing domains, which surround several marketing tools.

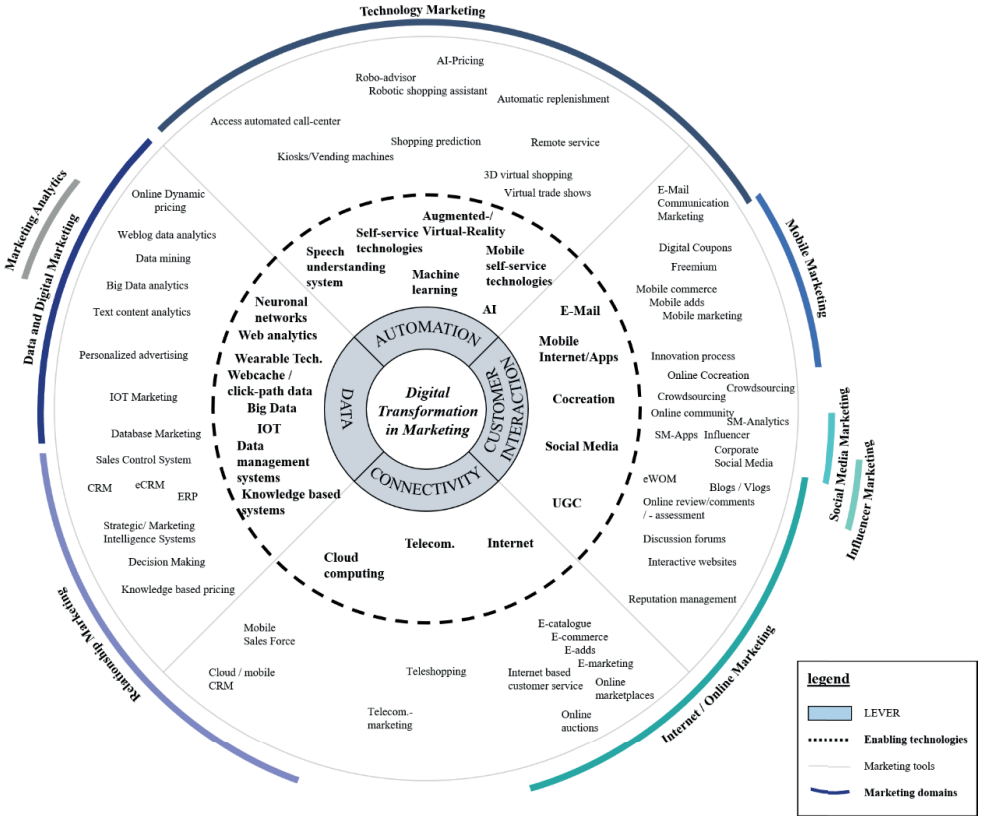

Figure 2 - 2 Digital Transformation in Marketing

The marketing domains are visualized as the outer circular lines in Figure 2 - 2. They demonstrate that marketing domains can include more than one Digital Transformation lever, e.g., relationship marketing or online marketing. In this study, we confirm three major aspects. First, Digital Transformation prevails in Marketing according to the stated levers *data, connectivity, automation* and digital *customer interaction*; second, marketing tools follow in sequence of enabling IT technologies; and third, marketing domains arise consequently and independently from the Digital Transformation levers.

By zooming out, as suggested in the beginning, the picture becomes comprehensible about how Digital Transformation affects Marketing. However, the totality what it means is more than the aggregate of its presumable contexts. Marketing tools make use of different technologies, even in combination with

different technologies and occasionally in different ways than they were intentionally designed. IT and Marketing together must understand the dynamics of different meanings and uses for designed tools and technologies. Krippendorff (1989) discovered that design is the key to giving things a sense, but in reality, things can be used for different purposes and will substitute for other things, which brings no significant difference. Hence, e-mails, telefaxes and telephones are, for example, substitutes for written letters and have reduced postal service activity. Moreover, social media are substitutes for the need for e-mails and phone calls. If technologies cannot compete against new technologies, marketing tools using the old technologies will consequently lose their effectiveness. For example, social media marketing is currently much more efficient than newsletters, although the amount and the degree of details are higher in e-mails. However, understanding the advantages of the individual platforms that customers are using is essential to apply social media marketing campaigns efficiently (V. Kumar et al., 2013). Marketing and IT need to understand that they are dependent on each other. Therefore, Marketing and IT have to interact like an aligned design team if they want to stay in control of customer interactions.

2.7 Conclusion

Even though Marketing is a well-known discipline and has been explored over decades, this paper is the first to demonstrate Digital Transformation by applying the four levers of new *data, connectivity, automation* and digital *customer interaction* (Berger, 2015) to enabling technologies and in sequence following marketing tools. Furthermore, this paper contributes new insights by demonstrating the chronological development of Digital Transformation in Marketing. We underline this by identifying four existing eras named the Telecommunication Era, Data Managed Internet Marketing Era, User-Enabled Mobile Era, and Intelligent Networking Era and providing insights into a fifth era, which we call the Autonomous IT Era. Strong marketing research can be used as a basis for several aspects within this topic; however, the combination of those topics leads to a new complex perspective.

This study has confirmed the occurrence of Digital Transformation in Marketing and that marketing tools are dependent on IT developments. We have achieved this by presenting the historical development of enabling technologies and demonstrating how marketing tools followed them in sequence by giving examples. Further, we have identified the eras we named the Telecommunication Era, Data Managed Internet Marketing Era, User-Enabled Mobile Era, and Intelligent Networking Era and described their impact on Marketing accomplishments. To prove the inherent Digital Transformation in Marketing, we initially introduced a general model from another field to the

marketing discipline (e.g., Berger, 2015) and applied the four major levers: *new data, connectivity, automation* and digital *customer interaction* to the identified technologies and marketing tools as enablers and prepositions. As a result, we conclude that Marketing and IT should work together to design new facilitating marketing tools, which can be applied to customer interactions and foster Marketing control. By this measure, both parties will ensure that Marketing will have the capabilities to use the tools efficiently. During the design phase of marketing tools, we note that technologies and tools are more than just artifacts and can be used for different purposes that might substitute for existing tools (Krippendorff, 1989). This study has raised important questions and provided guidance about the nature of Digital Transformation in Marketing and the need for alignment with IT.

2.8 Outlook and Limitations

Regarding the outlook of Marketing and IT alignment, we would like to emphasize certain aspects that surround the present study. The creation and use of (digital) marketing tools has originated from customer acquisition and retention as the major reasons. In conclusion, it will be important to understand their effect and efficiency from a customer point of view. Hence, it is important to include the customer in the marketing tool design process. Furthermore, throughout the customer purchasing process, there might be several touchpoints between Marketing and the customer via marketing tools (Edelman & Singer, 2015; Lemon & Verhoef, 2016). Due to the Digital Transformation, we expect customer touchpoints, which are not or are hardly in control of Marketing. There is a compelling need for Marketing to gain control, and we believe a key element is its alignment with IT.

Moreover, digital technologies enabled not only marketing tools but also completely new businesses such as online platforms, which provide services such as transactions, bookings and arrangements. Companies and start-ups have arisen that do not provide dedicated services or products for the customers themselves but refer them to other companies or individuals. Examples are holiday booking platforms or any type of portals where customers can compare and buy services or products up to dating platforms. We have not considered these types of businesses because we have focused on marketing tools. However, those platforms play a significant role in the Marketing of companies that actually provide the referred product or service.

The current COVID-19 pandemic is one example of why enabling technologies have gained importance for corporations. Many firms have begun outsourcing functions to data centers, and work from home has become an important instrument to keep the functions of corporations running (eWeek Editors, 2020). Accordingly, customers' behaviors and responsiveness have

changed unpredictably. In our study, we focused within the established eras mainly based on the timespan and sequencing, but there are clearly more variables such as culture, society and events, which have impacts on the importance of digital tools. Furthermore, those variables have also hindered the evolution of some tools. In this study, we have ignored such constraints for clarity.

2.9 Managerial Implications

The findings of this study have a number of practical implications. First, continuously improved marketing tools are one essential key factor for customer acquisition and retention. However, enabling technologies and smart tools alone are not sufficient for a sustainable customer acquisition approach. Second, companies need new organizational designs and a common understanding of aligned and separated responsibilities, which could lead to new setups in working relationships (Bharadwaj et al., 2013; Edelman & Singer, 2015; Matt et al., 2015). Third, marketing managers should carefully analyze their digital capabilities and applied digital marketing tools. Continued efforts are necessary to make data more accessible and match marketing managers' needs. Data and automation are two key levers of Digital Transformation, which will produce organizational benefits and facilitate customer interaction.

Following the marketing evolution, it is not surprising that a gap between necessary knowledge and required knowledge in the digitalization of marketing tools exists. A key policy priority should therefore be to plan for the long-term care of digital tools in Marketing. In return, another important practical implication is that IT managers should analyze the usability and purpose of enabling technologies. Both departments need to carefully consider the customer perspective when thinking about the right marketing tool and even integrate the customer into the design process.

2.10 Guidelines for Future Research

This study has raised many questions in need of further investigation. The increasing amount of data concerning customers' behaviors and the personalization of products and services are barely part of models so far. Researchers should reveal the advantages of new technologies that gather data and the increasing amount of provided data. However, the major driver for future research is the control of customer and marketing touchpoints. Researchers should consider the meaning of the touchpoints and compare those with the intended use (Hassenzahl, 2018; Schmitt, 1999). In addition, a guideline regarding what touchpoints are within Marketing control and how Marketing could gain control of more touchpoints should be a field of future research.

Further another important aspect is to analyze to what extent marketing capabilities are able to respond to changing technologies (Day, 2011). Marketing managers as users and designers of tools need knowledge about functionalities and require coordination of such tools to assess whether the designed tools work (Henseler & Guerreiro, 2020). They should acquire the required capabilities to use the tools efficiently (Dave Chaffey & Mark E Patron, 2012). It will be essential to investigate what knowledge and talents are required and what knowledge gap between IT and Marketing is reasonable. Furthermore, researchers should aim to conclude these aspects regarding the degree to which Marketing and IT should be aligned.

Chapter 3

Digital Transformation in Sales and Marketing Departments: An integrated Overview and Directions for Organizations and further Research

Summary:
A fundamental second step is to determine whether the interface between Marketing, Sales and IT (M-S-I) has been studied. The chapter demonstrates that studies about the alignment of this interface is a missing piece of research. It also defines the term alignment in contrast to similar terms used in the literature

Publication History:
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In: Westphal, J., Görne, J., Schmitz, C. (eds) Sales Enablement als Fundament des Vertriebserfolgs. FOM-Edition. Springer Gabler, Wiesbaden.

Abstract

Firms all over the world have started initiatives and made investments in projects to help discover the benefits of digital technologies. This transformation has had an impact on the Marketing and Sales relationship and the role of IT. Researchers have confirmed the need for interdepartmental alignment, but the integration of all three disciplines together has been overlooked, and a concrete method of collaboration has not been identified. The aim of this study is to review the Marketing, Sales and IT (M-S-I) research and to integrate the findings into a framework that can direct future research and organizational structures for interdepartmental alignment and collaboration with the goal of improving the performance of companies.

3.1 Introduction

Practically oriented researchers have found that organizations are struggling to follow the fast-moving effects of digitalization. Managers hire numerous people who call themselves 'digital specialists' and claim to know the processes and tools required, but at the same time, marketing strategies fail to keep pace with the disruptive effects of technologically empowered customer demands (e.g., Day, 2011; Maycock et al., 2012). This change has widely been called 'Digital Transformation' and is influencing companies' organizations and capabilities (Matt et al., 2015). Understanding the extent to which managers need to align Marketing, Sales and Information Technology (IT)[5] departments in organizations is a key aspect for a successful 'Digital Transformation'. Although researchers have pointed out that marketing departments should become more innovative (Verhoef & Leeflang, 2010), the extent to which the IT department is already part of marketing and sales activities and decisions has, surprisingly, not been a field of research so far. Especially because ample research focuses on scattered terms such as the 'alignment', 'integration', 'collaboration', 'interaction', or 'integration' of organization departments, the combination of all three departments—Marketing, Sales and IT (M-S-I)—is an essential missing piece of research on Marketing, whereas internal alignment shapes the front end for the customer. To address this gap and provide further guidance for managerial practice and future research, a literature review and meta-study was conducted in a three-step approach including examinations of studies focusing on the departments of Marketing, Sales and IT. Further, this work derives the managerial implications of transferring the findings into the organizational structures of companies. The following chapters explain the methodology of the research, followed by the results, which demonstrate the existing gap.

[5] In this dissertation the terms Marketing, Sales and IT are capitalized when they are addressed in general terms. This then includes all marketing -disciplines, -departments, - persons, -functions, etc.

3.2 Methodology

The domain of interdepartmental collaboration and the integration of IT into the Marketing and Sales environment are broad and include many attributes. Reviewing every side would be unwieldy; thus, it is necessary to focus on the most relevant attributes. Hence, the literature review was carried out with a three-step approach. We chose this approach because there is no common term for 'alignment' in the literature and the names of the departments analyzed are not necessarily part of the article's titles. Additionally, not all journals include keywords. We chose the following steps, which are shown in Figure 3 - 1: In step 1, we carried out a general database search (e.g., Scopus by Elsevier and Google Scholar) for the terms *'digital transformation + marketing' and 'digital transformation + sales',* as well as *marketing, sales,* and *information technology* coupled with synonyms for collaboration, such as *alignment, collaboration, cooperation, interaction* and *integration*. The selected end date for the search was 31 December 2019, ensuing a limit of 20 years from the starting date of 1999. We chose this timeframe because 1999 can be considered the approximate start of online retail and the beginning of the need for IT integration in sales and marketing activities. In this year, the online store Alibaba was founded, and Amazon expanded its business from selling books to include other businesses, such as cooperation with other retailers, which made Jeff Bezos the person of the year in 1999 according to *Time Magazine (Greeven & Wei, 2017; McGurl, 2016)*.

Hence, the topic of IT integration within Sales and Marketing became essential for organizations, as the organizational structures were fundamentally adapted and new requirements were introduced for the three departments. Consequently, knowledge of the form and extent of interdepartmental alignment

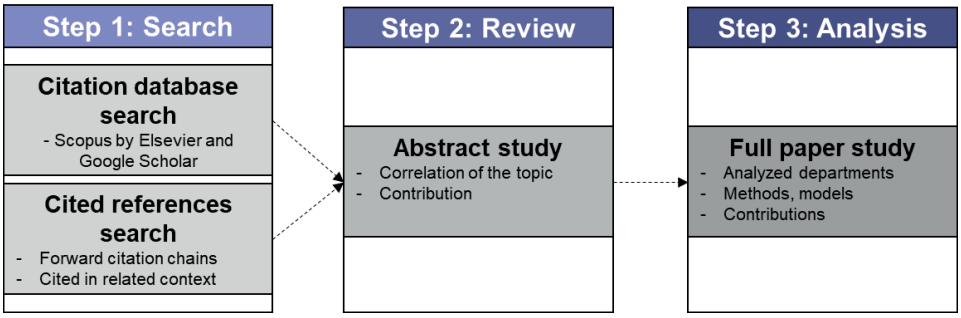

Figure 3 - 1 Process of Literature Review

are relevant prerequisites for organizations and scholars. This study focuses on articles published in peer-reviewed journals (ranked at VHB JOURQUAL 3)[6] to ensure a minimum quality of the articles.[7] As a second step, we studied the

[6] https://vhbonline.org/vhb4you/jourqual/vhb-jourqual-3/gesamtliste/
[7] Note: Four papers were added by forward citation chains despite the journals not being listed in the VHB JOURQUAL 3

abstracts of the articles to identify studies that contribute to the subject of this research. Topics that were frequently part of the search results but were not considered to fit the subject included, among others, *'web analytics', 'branding', 'social media'* and *'co-creation',* as these fields deal with specific applications of IT-like tools, and this study analyzes organizational structures through the theoretical lens of collaboration and alignment. In step 3, we studied the remaining set of articles thoroughly and excluded papers for the same reason mentioned above. Additionally, we added references from this set of articles cited in the appropriate context or by reviewing the reference list by title and author using forward citation chains. For these additional articles, we repeated steps 2 and 3.

The literature search returned numerous articles, 159 of which were studied thoroughly (Step 3), which resulted in a set of 69 articles at the end of this step. The results of this search process are shown in Table 3 - 2, which includes information on which departments were analyzed, using indicators for the three departments: Marketing (M), Sales (S) and IT (I). Some articles directly address the interface and the relationship with customers (C), which together are considered an important indicator of differentiation. Interactions with other departments (e.g., finance, manufacturing or human resources) are indicated conclusively with an (O).

3.3 Type of Relationship between Departments

One finding from reviewing the literature is that different terms are used to describe the existence of a common view and understanding between departments and of joint approaches or methods for working in a team. We identified the terms *'alignment', 'collaboration', 'cooperation',* and *'integration'*. Thus, these various terms are explained and defined below. The results are summarized in Table 3 - 1 and illustrated in Figure 3 - 2 and can be applied to organizational structures as different forms of working relationships.

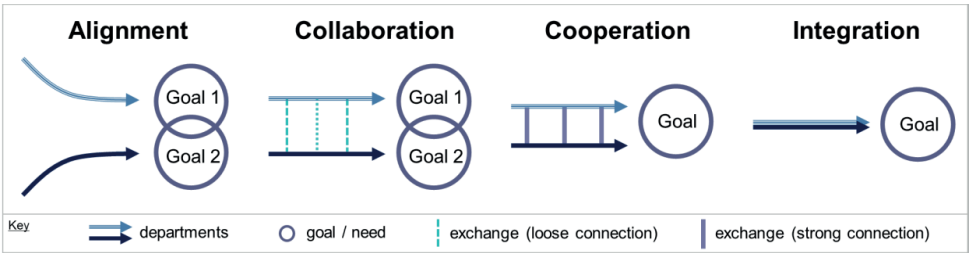

Figure 3 - 2 Illustration of the different Types of Relationship between Departments

3.3.1 Alignment

In general, there is the understanding that unaligned departments usually face conflicts and that being unaligned the opposite of being fully integrated. However, 'alignment' means that two departments are not fully integrated. Conclusively, boundaries between the aligned departments still exist; hence, the boundaries are perceived as rather flexible (Kotler et al., 2006). However, a very clear concept of alignment seems to be lacking in the current research, and the term has even been called a nebulous concept (Chan et al., 1997; Gerow et al., 2014; Preston & Karahanna, 2009). While some authors discuss alignment more in the context of operational processes (e.g., Cragg et al., 2002), another option is to consider long-term planning and strategy alignment (e.g., Porra et al., 2005; Reich & Benbasat, 2000). This circumstance also applies to the research and practitioner literature (Gerow et al., 2014).

Phrases that are used to describe alignment are, e.g., 'mutual understanding', 'congruence', 'matched with', 'in harmony with', 'complement each other', 'congruent with' 'understanding of priorities' and 'fit' (Coltman et al., 2015; Gerow et al., 2014; Reich & Benbasat, 2000; Shpilberg et al., 2007). Thus, the meaning of alignment in the business environment is a preferred maximum level of overlap of general views on needs and priorities, e.g., in the context of business strategizing and planning (Avison et al., 2004; A. M. Johnson & Lederer, 2010). Additionally, it refers to the extent to which managers execute their tasks and projects in line with strategic marketing objectives (Verhoef & Leeflang, 2009; Vorhies & Morgan, 2005).

Conclusively, we use the following definition: "'Alignment' is the degree to which the needs, demands, goals, objectives, and/or structures of one component are consistent with the needs, demands, goals, objectives, and/or structures of another component" (Nadler & Tushman, 1977). In this context, 'component' can be understood to mean 'department'. 'Alignment' is usually not related to the concrete (joint) execution of tasks and is more abstract and generalized than 'collaboration' and 'cooperation', which is defined as follows. In a managerial context, it can be understood as an overall attitude and understanding of the different departments to achieve overlapping goals, but the way in which goals are to be achieved is solved individually by each department. The extent to which goals overlap can vary. Figure 3 - 2 provides an illustration for 'alignment' as overlapping goals that departments aim to achieve from different perspectives.

3.3.2 Collaboration

The term 'collaboration' occurs in the reviewed papers less frequently than 'alignment' and is connected to phrases such as 'collective goals', 'informal

activity', 'shared resources', 'joint creation', 'common vision', 'various informal activities' and 'esprit de corps'; it is considered to have a greater impact on performance than 'interaction' does (Kahn, 1996; Kahn & Mentzer, 1998; Le Meunier-FitzHugh & Piercy, 2009; Massey, 2012; Workman Jr, 1993). Collaboration involves cooperation, representation, the sharing of resources and the contribution of different organizational functions to strategic processes (Biemans et al., 2010) and often represents a collective working relationship, which is more linked than just interaction (Lawrence & Lorsch, 1967; Massey, 2012). Thus, it can be concluded that 'collaboration' is a resource-shared execution of activities for a common vision or a collective goal. Compared to the term 'alignment', an overlap regarding the vision exists, but 'collaboration' usually describes activities directly. In a managerial context, 'collaboration' does not necessarily mean that different departments strive for shared goals. It is even possible to collaborate with competitors to achieve their own goals, e.g., by exchanging information or sharing resources. However, the goals overlap to a certain extent, which prompts collaborative work among departments. Figure 3 - 2 illustrates how collaboration can be seen as two (or more) departments that have loose (e.g., temporary or task-related) interconnections in different forms.

3.3.3 Cooperation

The term 'cooperation' can be found in all types of literature, resulting in a common understanding of its meaning. The reason for including the definition of this term in this chapter is to highlight the difference between 'alignment' and 'collaboration'. The term 'cooperation' describes the level or extent to which there is a state of collaboration and involvement of two or more parties, but the parties are not actually integrated. It reflects tangible actions such as information sharing, which implies that cooperation is measurable (Ernst et al., 2010; Massey, 2012). From a managerial point of view, cooperation is more concrete and compulsory than collaboration. In this case, the departments usually strive for the same goal and interact in a constant and defined way. Departments that cooperate with each other have a transparent understanding of, e.g., information sharing or joint approaches. Figure 3 - 2 illustrates 'cooperation' similar to collaboration but with bold, constant exchange routes between the departments striving for the same goal.

3.3.4 Integration

In the context of interdepartmental working relationships, the term 'integration' represents 'coordination', 'interconnection' and 'constitution' (Barki & Pinsonneault, 2005; Ricciardi et al., 2017). It is used to explain the extent of

coordination and interconnection of activities, e.g., the observed processes, into the department's general environment (Barki & Pinsonneault, 2005). Examples of such activities are planning, target setting, conducting customer assessments and developing value propositions (Kotler et al., 2006). In the context of this study, we use the following definition: "'Integration' describes the extent to which distinct and interdependent organizational components rapidly and adequately respond and/or adapt to each other while pursuing common organizational goals" (Ricciardi et al., 2017). 'Component' is again interchangeable with the term 'department'. In conclusion, between two fully integrated departments, the boundaries are blurred, and both start to adopt tasks and shared metrics from each other (Kotler et al., 2006). Figure 3 - 2 demonstrates how 'integration' can be seen as departments that can hardly be distinguished that are striving for the same goal. In a managerial context, this could be developed by interdisciplinary or agile teams working in the same office, for example.

3.3.5 Summary

The review of the literature shows that there is no such common definition or terminology for a positive working relationship. The reason might be that 'alignment' and 'collaboration' are difficult to measure by themselves but do contribute to a measurable value such as business performance or sales revenues. We have noticed that authors focusing more on the relationship between teams and departments tend to use the term 'alignment', while authors focusing more on the results of such relationships use specific phrases such as 'integration'. Managers can use different definitions as an orientation for proper interdepartmental working environments. In general, the terms all describe an overlap of activities or understanding in striving for goals. They can be understood as attributes that have a more tangible or abstract effect on the analyzed objects to which they are applied. The attribute describes *'how to do it'* through various commonalities, such as a general or common esprit des corps, a common mindset on an abstract level, common goals, or, as a more tangible example, a common language. Alignment is the most generic attribute applicable to all objects, sets of goals and organizational components. It has been identified as the comprehensive terminology and is therefore used as the descriptive attribute in this study.

Table 3 - 1 Definition of Terms used to describe Relationships between Departments

Term	*Definition*
Alignment	"'Alignment' is the degree to which the needs, demands, goals, objectives, and/or structures of one component are consistent with the needs, demands, goals, objectives, and/or structures of another component" (Nadler & Tushman, 1977)
Collaboration	Collaboration involves cooperation, representation, the sharing of resources and the contribution of different organizational functions to strategic processes and usually represents a collective working relationship that is more than just interaction. (Biemans et al., 2010; Lawrence & Lorsch, 1967; Massey, 2012)
Cooperation	The term cooperation is used to describe the level or the extent to which there is a state of collaboration and involvement of two or more parties and does not describe the integration process itself. It reflects tangible actions like information sharing, which implies that it is measurable. (Ernst et al., 2010; Massey, 2012)
Integration	"'Integration' describes the extent to which distinct and interdependent organizational components rapidly and adequately respond and/or adapt to each other while pursuing common organizational goals". (Ricciardi et al., 2017)

3.4 Overview of M-S-I Literature Research

The focus of the present study is research on alignment among marketing, sales and IT departments. However, there is primarily literature with a different focus published, and this review identifies three major areas of research concerning these departments and their interfaces. Figure 3 - 3 illustrates the number of articles that analyzed departments of Marketing, Sales or IT. Furthermore, by connecting lines among the three departments and with other departments, it demonstrates how many articles analyzed more than one department and thus also the alignment between these departments. One major aspect of interest is the alignment of Marketing and Sales, as 27[8] of the 69 analyzed papers address this interface. Concerning IT departments, a common field of interest is the alignment of an IT department's strategy with the corporate or business unit strategy, and this is the subject of research in 16 articles. Third, a very broadly researched area concerns customer relationship management (CRM) tools. As the literature in this field has begun to mature, the focus of most articles has

[8] Including the three that also integrated IT

turned to the use, adjustment and performance of such tools. Thus, these articles do not address the alignment of Sales and IT itself and do not contribute to the question of interdepartmental alignment and collaboration with the goal of improving the performance of companies. Therefore, most articles about CRM were excluded in steps (2) and (3) of the review process and are not discussed in the following chapter. However, it is worth noting this topic here because it is one possible interface between Sales and IT. As shown in Figure 3 - 3, the number of collected articles concerning the alignment of IT with Sales and Marketing is minor compared to all other reviewed interfaces.

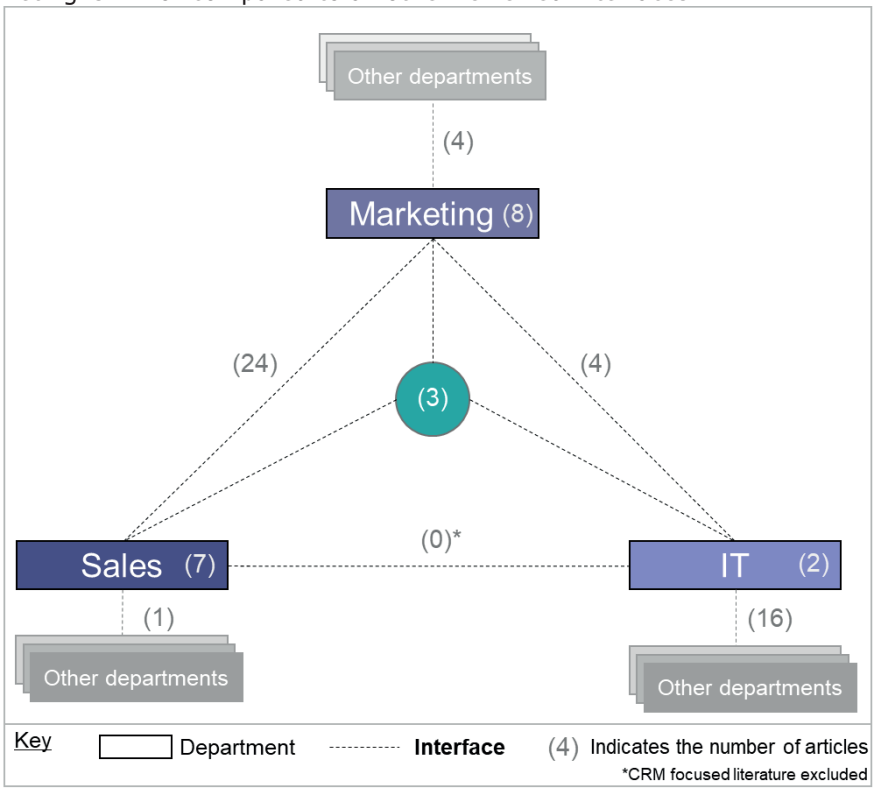

Figure 3 - 3 Areas of current interdepartmental Alignment Research

In total, three of 69 included articles analyze all three departments (M-S-I) together in their research. One of these articles reflects the evolution of publications over 40 years with the motivation to stimulate readers to challenge their mental models of business and industrial marketing and to consider the implications of the blurring of the lines between industrial and consumer marketing. The article points out that most Marketing (and Sales) decisions are interrelated and, in turn, affect and are affected by other functions such as operations or IT (Wind, 2006).

The second study focuses on digital content in B2B Marketing and studies how marketing and sales systems may be integrated through advancements in IT by conducting interviews within an organization's top management. Although this article concludes that not only IT integration between marketing and sales systems but also collaborative planning and functional alignment across departments is required, unfortunately, no interviews were performed with IT department representatives (Järvinen & Taiminen, 2016). The study described in the third article included interviews and quantitative research with interdisciplinary groups of all three departments, and the article concludes that IT needs to be integrated as an additional player into the framework of Marketing and Sales. However, the way these departments need to be aligned or work together has not been answered so far (Hensel-Börner et al., 2018).

Table 3 - 2 Summary of the Literature Review for Marketing (M), Sales (S), IT (I), other Departments (O) and Customer Consideration (C)

Publication	**M**	**S**	**I**	**C**	**Other departments**	**Focus**	**Method**
Ahearne et al. (2010)		●		●		Tools	Lit. review
Avison et al. (2004)			●		Strategy	Alignment	Case studies
Barki and Pinsonneault (2005)			●			Integration	Lit. review
Bathen and Jelden (2014)	●					Influence	Interviews, survey, leadership circles
Berthon et al. (2003)	●					B2B Configurations	Lit. review
Biemans et al. (2010)	●	●				Alignment	Interviews
Bush et al. (2009)			●		Strategy	Alignment	Interviews
Coltman et al. (2015)			●		Strategy	Alignment	Lit. review
Constantinides (2002)	●		●			Tools	Case studies
Dawes and Massey (2006)	●	●				Collaboration	Survey
Day (2011)	●					Alignment	Lit. review
Dewsnap and Jobber (2000)	●	●				Alignment	Lit. review
Dewsnap and Jobber (2002)	●	●				Collaboration	Lit. review
Ernst et al. (2010)	●	●			R&D	Cooperation	Survey
Gerow et al. (2014)			●		Business Units	Alignment	Survey
Guenzi and Troilo (2007)	●	●				Alignment	Interviews, survey
Hensel-Börner et al. (2018)	●	●	●			Collaboration	World-cafe
Homburg and Jensen (2007)	●	●				Alignment	Survey
Homburg et al. (1999b)	●	●			R&D, Finance, Manufacturing, Human Resources	Influence	Survey
Homburg et al. (2002)		●		●	Key Account Management	Alignment	Survey
Homburg et al. (2008)	●	●				Alignment	Survey
Homburg et al. (2010)		●				Tools	Interviews, survey, data bases
Homburg et al. (2011)		●		●		Stereotypes	Interviews, survey
Homburg, Artz, and Wieseke (2012)	●			●	Management Accounting	Alignment	Survey

Publication	M	S	I	C	Other departments	Focus	Method
Homburg, Fürst, and Kuehnl (2012)	●					Alignment	Survey
Homburg et al. (2015)	●	●			R&D, Finance, Operations	Influence	Survey
Hult et al. (2011)	●			●		Collaboration	Lit. review
Hunter and Perreault (2006)		●				Tools	Survey
Hunter and Perreault (2007)		●				Tools	Survey
Järvinen and Karjaluoto (2015)	●		●			Tools	Interviews
Järvinen and Taiminen (2016)	●	●	●	●		Tools	Interviews
A. M. Johnson and Lederer (2010)			●		CEO, CIO	Alignment	Survey
J. S. Johnson and Matthes (2018)	●	●				Job Roles	Interviews
Kearns and Lederer (2000)			●		Strategy	Alignment	Survey
Kearns and Lederer (2003)			●		Strategy	Alignment	Survey
Kearns and Sabherwal (2006)			●		Strategy	Alignment	Survey
Kotler et al. (2006)	●	●				Alignment	Interviews
Krohmer et al. (2002)	●	●		●	R&D, Finance, Manufacturing, Human Resources	Alignment	Survey
Le Meunier-FitzHugh and Lane (2009)	●	●				Collaboration	Interviews, survey
Le Meunier-FitzHugh and Piercy (2007a)	●	●				Collaboration	Survey
Le Meunier-FitzHugh and Piercy (2009)	●	●				Collaboration	Interviews, survey
Le Meunier-FitzHugh and Piercy (2011)	●	●				Collaboration	Survey
Le Meunier-FitzHugh et al. (2011)	●	●		●		Collaboration	Case studies, survey
Lipiäinen (2015)	●		●			Tools	Interviews
Massey (2012)	●	●				Collaboration	Compilation of surveys of other authors
Matt et al. (2015)			●		Strategy	Alignment	Lit. review
Matthyssens and Johnston	●	●				Collaboration	Interviews

Publication	M	S	I	C	Other departments	Focus	Method
(2006)							
Meuter et al. (2005)		●		●		Tools	Interviews, survey
Millson (2013)	●				R&D, New Product Design	Integration	Survey
W. Oh and Pinsonneault (2007)			●		Strategy	Alignment	Survey
Preston and Karahanna (2009)			●		Strategy	Alignment	Survey
Quinn et al. (2016)	●					Integration	Interviews
Reich and Benbasat (2000)			●		Business Units	Alignment	Interviews
Ricciardi et al. (2017)			●	●	Business Units, Top Management Team, Non-IT Suppliers, IT Providers	Alignment	Survey
Rouziès et al. (2005)	●	●				Integration	Lit. review
Sabherwal and Chan (2001)			●		Strategy	Alignment	Survey
Sabherwal et al. (2001)			●		Business Units	Alignment	Interviews
Shpilberg et al. (2007)			●			Alignment	Survey
Slater and Olson (2001)	●				Strategy	Integration	Survey
Smith et al. (2006)	●	●		●		Cooperation	Case studies
Verhoef and Leeflang (2009)	●			●	Finance	Collaboration	Survey
Verhoef and Leeflang (2010)	●			●		Collaboration	Survey
Verhoef and Leeflang (2011)	●			●		Collaboration	Survey
Verhoef et al. (2011)	●	●		●	R&D, Finance	Influence	Survey
Wilson (2000)		●		●		Collaboration	Case studies and online research
Wind (2006)	●	●	●		Operations	Alignment	Lit. review
Workman Jr (1993)	●	●			Product Manager, Engineering, Manufacturing, Service and Support	Collaboration	Interviews
Yayla and Hu (2012)			●		Business Units	Alignment	Survey
Zhao and Priporas (2017)	●		●			Alignment	Lit. review

3.4.1 Marketing and Sales Alignment

Within this review, 27 articles address the interface between Marketing and Sales and the alignment, collaboration or cooperation of those departments, and 24 authors directly refer to these terms. In general, the studies have found that an increased alignment, in almost all cases, had a positive effect on business performance, efficient working or its equivalent. The studies strongly conclude that improvements in collaboration between Sales and Marketing have a positive effect and that requirement changes in the company's culture to enable this collaboration are necessary (Guenzi & Troilo, 2007; Le Meunier-FitzHugh & Lane, 2009; Le Meunier-FitzHugh & Piercy, 2009, 2011). It is noteworthy that none of the reviewed studies analyzing the marketing and sales department by questionnaire uses matched pairs within the surveyed companies (except for case studies). Seven studies create a model to measure the outcome (e.g., performance) of Marketing and Sales alignment, and it can be concluded that an alignment between the two departments is necessary but a complete integration of all tasks is redundant (Homburg et al., 2008; Homburg & Jensen, 2007). The significant positive effect on both market orientation and business performance by collaboration between Sales and Marketing is confirmed by, e.g., frameworks, a correlation matrix and a scenario management model (Le Meunier-FitzHugh & Piercy, 2009, 2011; Smith et al., 2006). This common conclusion results in recommendations such as aligning Sales and Marketing through frequent, disciplined cross-functional communication and joint projects (Kotler et al., 2006). Further improving the connection with the customer requires that marketers become more accountable and innovative to gain more influence (Verhoef & Leeflang, 2009, 2010) and use shared performance metrics and rewards (Kotler et al., 2006), which requires changes in the company's culture and managerial systems as well as people's attitudes and behaviors (Guenzi & Troilo, 2007).

3.4.2 Alignment with the IT department

Out of the 23 studies concerning IT, 16 studies compare the effects of alignment between corporate or business unit strategies and the IT division strategy. Alignment is overall considered to positively influence business performance (Gerow et al., 2014; Sabherwal & Chan, 2001; Yayla & Hu, 2012). Although investment costs need to be considered carefully (W. Oh & Pinsonneault, 2007), it has even been stated that alignment with IT essentially defines a company’s position in the marketplace (Shpilberg et al., 2007). The findings also suggest that formal organizational structures provide a greater advantage than informal interactions and a shared understanding; additionally, shared language contributes to alignment (Preston & Karahanna, 2009) and knowledge sharing

(Kearns & Lederer, 2003). Studies concerning strategy were included, although they are not directly connected to Marketing and Sales, because the representatives for strategy decisions are in the top management team or include the CEO (Oh and Pinsonneault 2007; Preston and Karahanna 2009; Sabherwal and Chan 2001; Johnson and Lederer 2010; Ricciardi et al. 2017), who usually directs the Sales and Marketing him or herself. Second, the methods, models and results used can be compared with those from the marketing and sales field of research and potentially applied to common research in all three departments. A difference from the studies concerning Marketing and Sales is that scholars analyzing the use of IT focus more on the difference between business-to-business (B2B) and business-to-customer (B2C) environments than do scholars with other focuses (Järvinen and Taiminen 2016; Berthon et al. 2003; Dewsnap and Jobber 2000; Ahearne and Rapp 2010; Le Meunier-FitzHugh et al. 2011). Applied models include an alignment-performance relationship model within the context of the resource-based view (Kearns and Lederer 2003), alignment measurement instruments (Gerow et al. 2014) and a cluster and factor analysis of matched pairs representatives within the same company (Johnson and Lederer 2010; Oh and Pinsonneault 2007; Preston and Karahanna 2009). The creation of different models shows that researchers have trust in the impact of alignment on business performance, but a manifest model or a determined set of variables has not been found. Nevertheless, there are similarities between the models used and a certain plausibility behind applying those models to different alignment scenarios.

3.5 Current Limitations and Future Directions

A pervasive issue in the literature is the alignment of departments in the context of business performance. One of the larger concerns in the literature relates to the alignment of either Sales and Marketing or IT and business unit strategies. Each of these streams argues about the importance of such integration separately. Considering this issue, there are several opportunities for future research. First, the extent to which Marketing, Sales and IT are aligned in organizations needs more attention. Second, the impact on the performance of companies resulting from this alignment can be measured. Ideally, this can be observed in an alignment process using longitudinal case studies (Avison et al., 2004; Homburg et al., 2008; W. Oh & Pinsonneault, 2007; Ricciardi et al., 2017; Sabherwal et al., 2001; Sabherwal & Chan, 2001; Zhao & Priporas, 2017). Alternatively, in contributing to a longitudinal study, future research should consider using matched triple responses or pooling sales, IT and marketing managers' responses to provide triadic data on the Sales, IT and Marketing relationship within one organization. Having found both dyadic approaches (e.g., W. Oh & Pinsonneault, 2007; Preston & Karahanna, 2009) and scholars

describing the need for and benefits of such types of surveys (e.g., Guenzi & Troilo, 2007; Le Meunier-FitzHugh & Piercy, 2009; Massey, 2012; Yayla & Hu, 2012), there is, to our knowledge, no such research that captures the responses from all three (M-S-I) departments within one company. Even one study that conducted interviews with the top management of several departments and argued the necessity of alignment with IT did not include interviews with IT department representatives (Järvinen & Taiminen, 2016). In conclusion, there is a general lack of data captured from all three departments in the field of alignment research.

Interdepartmental alignment is one of the most important components of solving the challenge of Digital Transformation. However, organizations need to consider the customer as an additional player within this interaction. The results of this study demonstrate which articles considered the customer. Further research is required to analyze customer interaction in combination with the alignment of Marketing, Sales and IT with the goal of providing managerial and theoretical guidelines for organizational structures and communication (Graesch et al., 2020).

Although there are many existing measures to report in this review, a subsequent scale development or refinement based first on theory and then on empirics that focus on the level of alignment seems to be out of reach; however, a scale that contributes to business performance based on the extent of alignment is recommended for future research. This also applies to the need in future research for a set of variables that are relevant for such measurements (e.g., Homburg, Fürst, & Kuehnl, 2012; Hunter & Perreault, 2006; Millson, 2013).

3.6 Managerial Implications

This study clearly identifies the gaps in M-S-I alignment. A summary of the different terms used in the literature makes it clear that neither the type nor the form of the relationship between the departments has been collectively agreed upon. However, scholars have discovered that alignment has a positive effect on business performance, for example. These findings can be transferred to practical implications. First, marketing and sales managers should carefully analyze their digital capabilities and skillsets. Given the finding of this study that less attention has been paid to the alignment of M-S-I, it is not surprising that a knowledge gap between necessary knowledge and required knowledge exists when using digital technologies in Marketing and Sales. Second, managers should connect the knowledge among M-S-I instead of hiring ‘digital specialists’ (Day, 2011). This study provides an orientation through the defined terms of ‘alignment’, ‘collaboration’, ‘cooperation’ and ‘integration’, which support managers in finding the right amount of interdepartmental knowledge transfer.

Finally, companies need to design new organizational environments and cultures. Furthermore, they need a common understanding of aligned and separated responsibilities, which could lead to new forms of working relationships.

3.7 Conclusion

Driving most researchers' motivations for analyzing IT department alignment is the progressive increase in digitalization, which is called the 'Digital Transformation' and affects not only the use of digital technologies but also cross-functional collaboration (Matt et al., 2015). 'Digital Transformation' has been identified as an inherent trend in practice and research, but the question remains of the extent to which alignment with IT is necessary remains relevant. There is much left to discover about this cross-border alignment (Zhao & Priporas, 2017). The relevance and positive effects of interdepartmental alignment have been confirmed by numerous studies, and several models have been created to measure that effect by, e.g., improved business performance (e.g., Gerow et al., 2014; Kearns & Lederer, 2003).

However, discussion about IT alignment is still ongoing. In addition to the alignment of business strategy with information technology strategy, scholars have so far paid little attention to other departments, such as Marketing and Sales, which opens a gap in understanding and measuring the positive effect of this interaction. Furthermore, managers should ask themselves what form of working relationship among the marketing, sales and IT departments is suitable for promoting Digital Transformation.

This paper identifies the gaps in the alignment among marketing, sales and IT departments. In addition, this study provides guidance for scholars and managers on the different types of relationship among these departments. A broad three-step meta-study shows that the issue of an IT department's alignment with the existing framework of Marketing and Sales is new and rarely part of the history of marketing research (Wind, 2006), but is relevant to recent publications (Hensel-Börner et al., 2018; Järvinen & Taiminen, 2016), while the interface between Marketing and Sales has been analyzed intensively (Homburg et al., 2008; Krohmer et al., 2002; Massey, 2012; Rouziès et al., 2005). Closing this gap is important for both researchers and practitioners to prepare for Digital Transformation.

Chapter 4

The Customer Centricity Journey – How Marketing, Sales and IT interact with Customers

Summary:
Building on what has been discovered in the previous chapters, the dependencies between Marketing and IT promise that IT is involved in customer interactions. This chapter aims to understand the dynamics of the M-S-I interplay and which of the actors is responsible for customer touchpoints and interactions. The revealed dynamic responsibilities of the M-S-I actors lead to the conclusion that proactive alignment in terms of customer interaction responsibility is an imminent need.

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None

Keywords:
marketing; sales; information technology; case study; touchpoints; customer centricity journey

Abstract

Marketing websites and sales organizations regularly invite customers to "please get in touch with us". But the question is: who is "us"? Because of digitalization and the growing number of customer-company touchpoints, Marketing, Sales and IT ('M-S-I') actors face dynamic responsibilities during customer interaction. However, there are still boundaries that separate Marketing and Sales from IT actors, especially in the B2B environment. This study, the first to interview matched triples of M-S-I managers and executive directors, within a case study of four business units, offers important insights into these dynamic responsibilities, using the Customer Journey as a guiding framework. An updated list is presented of customer touchpoints throughout the six stages of the Customer Journey, within which gaps were identified and used to demonstrate the dynamic and shifting responsibilities of each M-S-I actor during that journey and the rising importance of IT support in general. The case study's findings show that Sales is perceived as the dominant actor but also that IT's involvement is essential, even exceeding the responsibility of Marketing at some stages. Finally, the study contributes to customer solutions and customer centricity literature by presenting the Customer Centricity Journey and sending the M-S-I actors on that journey.

4.1 Introduction

Customers considering and buying products or services encounter several channels and touchpoints in dealing with organizations. Having all been customers ourselves, we are familiar with such contacts at corporate websites, in media advertising, or during telephone and online exchanges. Examples might be: "Please get in touch with *us*", "Is there anything *I* can help you with?" or "What can *we* do to improve your experience?" But who exactly are these *I*, *we*, and *us* who are apparently speaking to the customer and what are they responsible for during the customer interaction? In the communications landscape of today, tools and touchpoints within the customer interaction have been deliberately shifted into digital channels (Alavi & Habel, 2021), which are shaped by IT developments (Graesch et al., 2020), but sales organizations struggle to gain beneficial use of these tools and digitalized touchpoints (Micallef et al., 2023). This is thus a first indication of the importance of IT as an enabler and actor, in that Marketing and Sales[9] actors are dependent on the support and participation of IT to fulfill their tasks, because of the increasing number of digital tools and multichannel customer experiences (Barwitz & Maas, 2018; Day, 2011; Järvinen & Karjaluoto, 2015; Saura et al., 2017; Verhoef et al., 2015). Furthermore, companies tend to have a product-centric view of customer

[9] In this dissertation the terms Marketing, Sales and IT are capitalized when they are addressed in general terms. This then includes all marketing -disciplines, -departments, - persons, -functions, etc.

solutions, but instead digitally enabled customers tend to have either a relational process view of solutions (Tuli et al., 2007) or a customer-centric understanding (Habel et al., 2020; Shah et al., 2006), which creates a demand for Sales actors to act as both boundary spanners (Marrone, 2010) and companions at any point in the Customer Journey (Lemke et al., 2011). Accordingly, new demands in terms of responsibilities and skills, such as digitization and artificial intelligence (Singh & Hess, 2017), are being placed on Sales and Marketing actors when transitioning from product-centric to solution-centric Sales (Blocker et al., 2012; Evans et al., 2012), which inevitably include responsibilities of IT (Ulaga & Kohli, 2018).

Thus, the interface between the individual Marketing, Sales, and IT ('M-S-I') roles has become more important, and managers need to be able to classify which of them are w*e*, u*s* and *I*. While the field of Marketing and Sales has been studied extensively, hardly any attention has been paid to the interfaces among M-S-I (Graesch et al., 2022), indicating boundary conditions for the field of Marketing and Sales. There has furthermore been criticism in the literature of the inadequate practical relevance of related studies in organization and management research (Rynes et al., 2001; van Aken & Romme, 2009). For instance, in practice, the interface is exposed to different situations in the working relationship, which requires a dynamic approach instead of a general study.

To answer the question, of who is responsible for the customer interaction throughout the Customer Journey, an in-depth investigation was carried out, by means of a case study, of a corporate organization that had benefitted in four different sectors by shifting towards IT enabled customer solutions. Specifically, the Customer Journey was taken as the guiding framework to explore the responsibilities of the M-S-I actors along the many customer interactions occurring in practice at given touchpoints.

The findings of the present study reveal that the perceived levels of responsibility of the M-S-I actors vary along the Customer Journey and that all three are responsible for the customer interaction. In the process of taking the intermediate methodological step of identifying an updated list of the customer touchpoints for each of the journey's stages, a pattern was demonstrated of the dynamic responsibilities for each M-S-I actor in the customer interaction. The case study shows that Sales actors who function as boundary spanners dominate in being perceived as responsible for customer interactions. It also demonstrates that IT actors have today become an essential part of those interactions and even have more responsibility than Marketing actors at some stages of the Customer Journey. Thus, the research findings bury in the sand previous views of IT as just a "resource".

The theoretical contribution of the present study derives from four factors. First, it adds the IT actors into the vein of customer solution and value added

sales literature, extending the boundary conditions which have drawn around the interface of Marketing and Sales solely. The second factor is that the interface between M-S-I is not static in terms of responsibilities but dynamic along the Customer Journey. Third, in B2B solution business (e.g., Ulaga & Reinartz, 2011), IT manages two functions, namely enabling and production. Fourth, by proposing to use the Customer Journey as a coordination mechanism by merging the Customer Journey framework and the customer centricity concept (Fader, 2020), and it turns the Customer Journey inside-out. Previous conceptualizations of customers as being on a journey around the organization were transferred into the context of customer centricity, sending the M-S-I actors on that journey, which provides preliminary indications of the concept of a *Customer Centricity Journey*. The results also identify managerial implications for corporate organizations, suggesting that IT actors need to be proactively integrated into the design of customer touchpoints and play an active part during customer interactions throughout the Customer Journey.

4.2 Theoretical Background

The interface of Marketing and Sales has been studied extensively over the past two decades, as Table 4 - 1 summarizes from which we draw three conclusions. First, there is so far only one study that adds IT to the Marketing and Sales interface by the work of Järvinen and Taiminen (2016), which analyzes the use of IT tools but did not examine responses from IT managers. Second, boundary conditions apply to a static view of the general interface and many studies rely on single-informant design. Accordingly, a study that adds the dynamic perspective of the interface and includes the perspective of all actors adds the missing piece. Third, these studies have in common that they assume or demonstrate a positive effect of the Marketing-Sales interface in terms of collaboration, implying the underlying assumption that these actors have not cooperated voluntarily. A couple of years later, this assumption can be transferred to the interface of all three M-S-I actors.

Table 4 - 1 Studies of the Marketing-Sales Interface

Author (year)	Contribution	Method	Limitation
Dewsnap and Jobber (2000)	Framework that provides a conceptual basis for understanding sales and marketing relations and also forms a foundation for future research.	qual.; Lit. Rev.; n=31	Compilation of existing studies
Dewsnap and Jobber (2002)	Conceptual framework and research propositions for the relations between Marketing and Sales, which underlines the importance of deploying organizational structures that enable personnel from both groups to work together.	qual.; Lit. Rev.; n=12	Compilation of existing studies
Kotler et al. (2006)	The relationship between Marketing and Sales is affected by product lifecycle stages, which underlines the importance of deploying organizational structures that enable personnel from both groups to work together.	qual.; Interviews; 8 firms n=16	Static analysis of interface
Dawes and Massey (2006)	Perceived level of relationship effectiveness between sales managers and marketing managers is high. Interpersonal trust is building effective cross-functional relationships between Marketing and Sales.	quant.; Survey; n=113	Static analysis of interface
Smith et al. (2006)	Framework that bridges the gap between Marketing and Sales communication, implying that improved internal collaboration between Marketing and Sales can offer significant upside potential for the firm.	qual.; Case studies; n_{cs}=1	Single-source design
Matthyssens and Johnston (2006)	Three aspects which are fundamentals for the optimization of the Marketing-Sales interface i.e. the organization, the communication and human resources management.	qual.; Interviews; n=21	Static analysis of interface
Homburg and Jensen (2007)	Dimensions of Marketing and Sales "thought worlds" and the effect of differences in cooperation between Marketing and Sales on market performance.	quant.; Survey; n=337	Single informant design; static analysis of interface
Le Meunier-FitzHugh and Piercy (2007b)	Demonstrates that collaboration between Sales and Marketing has a positive association with business performance and added insight into several factors that are related to the operation of the interface between Sales and Marketing.	quant.; Survey; n=146	Single informant design; static analysis of interface
Guenzi and Troilo (2007)	Effective Marketing–Sales relationship and customer-oriented salespeople positively affect superior customer value creation and market performance, which require changes in the company's culture, managerial systems as well as people's attitudes and behaviors.	qual. and quant.; Interviews and survey; n_l=45 n_s=396	Single informant design; static analysis of interface
Homburg et al. (2008)	Multidimensional model of Marketing-Sales interface. Successful configurations are characterized by strong structural linkages between Marketing and Sales and a high degree of market knowledge in Marketing.	quant.; Survey; n=337	Single informant design; static analysis of interface
Le Meunier-FitzHugh and Piercy (2009)	Antecedents for collaboration between Sales and Marketing, which influence the relationship and collaboration and improve business performance.	qual. and quant.; Interviews and survey; n=146	Single informant design; static analysis of interface
Le Meunier-FitzHugh and Lane (2009)	Found an interrelationship between market intelligence systems, management attitude towards coordination, and collaboration between Sales and Marketing, which has positive impact on business performance and market orientation	qual. and quant.; Interviews and Survey; n=146	Single informant design; static analysis of interface
Biemans et al. (2010)	Dynamic, evolutionary spectrum of four B2B Marketing-Sales interface configurations. That strongly depends on the characteristics of both functions and how the interface is organized	qual.; Interviews; n=100	Static analysis of interface

Author (year)	Contribution	Method	Limitation
Le Meunier-FitzHugh and Piercy (2011)	Collaboration between Sales and Marketing has a significant and positive effect on both market orientation and business performance.	quant.; Survey; n=146	Single informant design; static analysis of interface
Le Meunier-FitzHugh et al. (2011)	Effects of rewards alignment on the Sales-Marketing interface. Rewards aligned towards achieving organizational goals can help to focus sales and marketing staff on collaborating with each other.	qual. and quant.; Case study and survey; n_{cs}=5 n_{s}=146	Single informant design; static analysis of interface
Massey (2012)	Effective Marketing-Sales relationships are positively associated with superior value creation and market performance.	qual.; Compilation of surveys of other authors; n=15	Literature Review: compilation of existing studies
Järvinen and Taiminen (2016)	Advances understanding of the organizational processes that support "content marketing" and shows how "content marketing" can be combined with B2B selling processes via marketing automation in ways that achieve business benefits.	qual.; Interviews; n=9	No interviews with IT manager, static analysis of interface
J. S. Johnson and Matthes (2018)	Theoretical model of Sales-Marketing job transition, indicating potential positive and negative effects on the organization.	qual.; Interviews; n=56	Static analysis of interface

In parallel, selling teams which handle product adoption and cross-selling initiatives have been analyzed in terms of meeting customer-oriented individual demands and calling for research that analyzes additional boundary conditions (Schmitz, 2013; Schmitz et al., 2014). There is no doubt that selling teams rely on IT enabling tools, which have changed the way Sales is interacting (C. B. Gibson & Cohen, 2003; Rapp et al., 2010). Even more surprising, literature studying Sales teams and their output has not included IT actors, even if some studies admit they will consult experts, which possibly includes also actors from IT.

Furthermore, a recent vein of research analyses the customer solutions, which include customer-oriented demand definition, deployment, and post-deployment support (Macdonald et al., 2016; Tuli et al., 2007). The role of customer solutions Sales actors, who act as boundary spanners between the buying and selling organization, grows by adding further responsibilities (J. T. Johnson et al., 2001; Ulaga & Kohli, 2018) and creating additional value for the customer (Vargo & Lusch, 2016). Understanding customer solutions as a process means that added value should be perceived by the customer at any point in the Customer Journey (Lemke et al., 2011). More research is needed because firms have seen little gain from moving into the selling of customer solutions, which may be caused by the absence of coordination among the actors (Rangarajan et al., 2018; A. Sharma & Iyer, 2011).

The Customer Journey has been a prevalent topic of research since the early 1990s and has been gaining attention from both academia and practitioners in recent years again (Tueanrat et al., 2021). The term "Customer

Journey" commonly refers to a process or sequence that customers go through to acquire a company's offering (Følstad & Kvale, 2018). Customers gain experience through a variety of channels that provide different touchpoints for communication and interaction between customers and companies (Barwitz & Maas, 2018). Newly introduced enabling technologies have resulted in new innovative and digital touchpoints, which Marketing and Sales actors use in customer interaction (Del Bucchia et al., 2021; Majra et al., 2016). Research findings demonstrate that firms struggle to control the customer experience and Customer Journey because of these numerous channels (e.g., Lemon & Verhoef, 2016). Until now, little attention has been paid to the Customer Journey in terms of IT integration into customer interaction, even though it is a central element in Marketing given that IT developments enable the implementation of a range of marketing tools (Graesch et al., 2020; Lemon & Verhoef, 2016).

The concept of a Customer Journey has been widely adopted by both academics and practitioners in terms of the emerging prominence of the customer-centric view in the marketing field (Crosier & Handford, 2012; Tueanrat et al., 2021). Similar to customer solutions, customer-centric marketing seeks to fulfill requirements of each customer individually (Sheth et al., 2000a). Customer centricity is decisive in the gaining of competitive advantage, in the development of customer loyalty, and generally in improving the customer experience (Chenhall, 2008). Sales and Marketing are by far the most customer-focused actors, but customer centricity requires attitudinal shifts and organizational transformation (e.g., Wechsler & Schweitzer, 2019). Although the concept has been discussed for more than a decade, firms still struggle to adopt it in practice and to develop customer-centric strategies, even in Marketing (Gummesson, 2008; Shaphali Gupta & Ramachandran, 2021; Shah et al., 2006). Furthermore, scholars have already been highlighting for many years the existing boundary conditions of customer centricity theory, such as corporate culture and structure (Lamberti, 2013; Sheth et al., 2000a).

Boundary conditions, referring to the "*who, where, when"* aspects of a theory, are important to mitigate the research-practice gap (Busse et al., 2016). These conditions relate primarily to the boundaries in time and space, which determine the theory's generalizability throughout different contexts (Whetten, 1989). Scholars have examined the Marketing-Sales interface in terms of customer interaction, but it remains to be validated if this applies to the same level in different situations and if IT is part of this interface. Accordingly, we aim to alter the context of the Marketing-Sales interface by adding IT actors, changing the environment of customer interactions by examining touchpoints, and changing the time by varying situations along the Customer Journey (*"who, where, when")*. Thus, we provide a deeper and more nuanced understanding of the interface, along with practical implications.

4.3 Methodology

The aim of this study was to explore the perceived responsibilities of Marketing, Sales and IT actors during customer interactions throughout the Customer Journey. *Responsibility* is defined in this context as the obligation to perform a task satisfactorily, which is consistent with other definitions in general use (e.g., McGrath & Whitty, 2018). It includes all customer interactions arising from a touchpoint performed by any of the organizational actors. It is thus possible that more than one actor may be responsible for a task but at a different level.

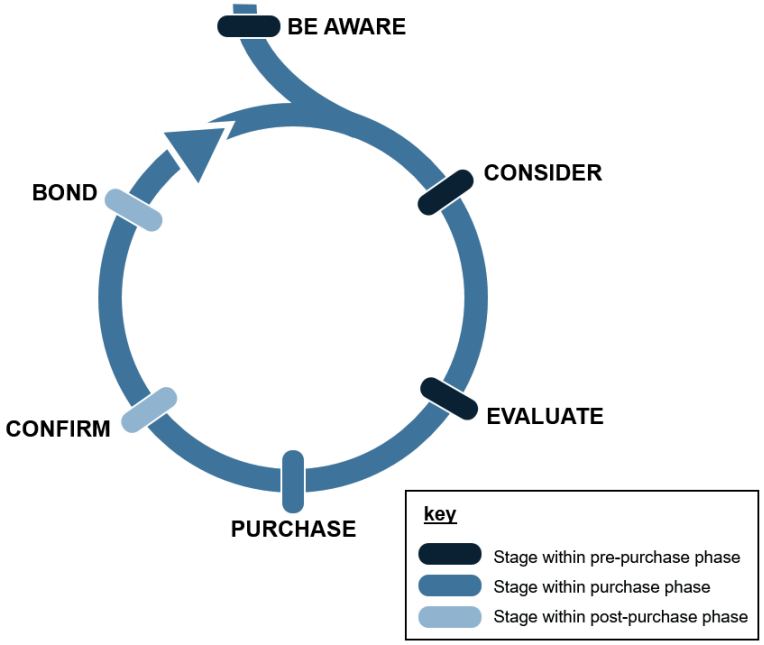

Figure 4 - 1 Customer Journey Cycle

The Customer Journey was conceptualized as a recurring loop, as shown in Figure 4 - 1, which consists of three main phases including the stages *be aware*, *consider*, *evaluate*, *purchase*, *confirm*, and *bond*, but separating the *be aware* stage from the cycle, as do the recent studies by Edelman and Singer (2015) and Court et al. (2009).

Specifically, this paper reports a case study, based on twelve interviews with four matched triples of M-S-I personnel and applying the Customer Journey cycle as a framework, to examine the aspect of customer solution and value adding process including its dynamic in shifting situations (Tuli et al., 2007). In so doing, the touchpoints in the customer interactions were revealed, which were used in turn to analyze the perceived responsibility of M-S-I actors for interaction at these touchpoints.

A formal case study is to be favored when studies examine contemporary real-life instances and when boundaries between phenomena and contexts are not evident (Yin, 2014), and for uncovering patterns (Patton & Appelbaum, 2003). Moreover, a single case can serve appropriately for in-depth investigation and description (Eisenhardt & Graebner, 2007; Järvinen & Taiminen, 2016). In the present research, the case-study approach assured the integration of the different perspectives of all three departments by interviews with matched triples (managers as actors from all three departments in a single business unit). In one transport-industry company, four different business units were identified as suitable for four reasons. First, they are self-contained within the company and each one maintains its own Sales, Marketing and IT department. Second, the business units concerned are distinct and offer entirely different B2B products to different global customers in different industries. Third, the selection of business units within one company mitigates such further influences as different cultural, structural or legal factors, allowing for a substantial focus on the interaction. Fourth and finally, the choice of the company was reinforced by one of the co-author's access to its contact directory, which facilitated the securing of interviews with top management, a solid criterion for sample selection in qualitative research (Eisenhardt & Graebner, 2007; Gephart, 2004).

The interviews were conducted over two months in Fall 2021 at in-person and online meetings, and were audio-recorded. Analysis took place after all had been completed, to mitigate selection bias (Flick, 2014). All twelve respondents' anonymized names are listed and their roles and job positions are described in Table 4 -2. Analysis of the data followed systematic predefined rules according to Mayring (2015). Qualitative content analysis was conducted to develop categories deductively and abductively, allowing important aspects of the data to emerge during analysis (Schreier, 2012). A deductive coding approach generated categories for touchpoints within the Customer Journey and for roles of IT actors.

In total, twelve semi-structured interviews with an average duration of 45 minutes were conducted with four triples, as an appropriate method for qualitative research, especially in the context of exploration of an emerging concept (van Esch & van Esch, 2013). The required level of data saturation for practical research was achieved with the total of twelve samples (Boddy, 2016). In this way, all three perspectives on the responsibility for six different stages per business unit were considered, which is congruent with the ideal sampling process for case-study research (Mayring, 2007). Analysis of the data followed systematic predefined rules according to Mayring (2015). Qualitative content analysis was conducted to develop categories deductively and abductively, allowing important aspects of the data to emerge during analysis (Schreier, 2012). A deductive coding approach generated categories for touchpoints within the Customer Journey and for roles of IT actors.

Table 4 - 2 Overview of Respondents

Name	Role	Position	Industry
Maggie	**M**arketing	Marketing Manager	Technical maintenance
Silas	**S**ales	Senior Vice President, Sales	
Isabell	**I**T	Director, IT Strategy	
Martin	**M**arketing	Chief Marketing Officer	Consultancy
Steven	**S**ales	Sales Manager	
Ines	**I**T	Chief Information Officer	
Mike	**M**arketing	Head of Marketing	Digital products
Simon	**S**ales	Director, Sales & Account Management	
Ian	**I**T	Director, IT and Digital Development Operations	
Max	**M**arketing	Head of Marketing	IT systems
Sebastian	**S**ales	Sales Manager	
Ivo	**I**T	Senior Vice President, IT Solutions	

To analyze the perceived responsibilities of the actors, an adjusted variant of structured content analysis, a scaled coding system (Mayring, 2015), was the method of choice. To analyze the perceived responsibility of an actor, a scale anchored at 0 = no responsibility and +++ = high level of responsibility was applied, in sequence to all structured answers. A ranking was thereby created of the qualitative responses of all respondents relatively to each other. That was feasible because each respondent indicated the perceived responsibility for each of the M-S-I actors for each stage of the Customer Journey. Consequently, it was possible to apply the coding for each actor to rank their perceived responsibilities relative to the other actors'. The application of the coding system was reviewed multiple times by all three authors.

4.4 Results

4.4.1 Touchpoints throughout the Customer Journey

Identifying *where* customer interactions take place is the basis for analyzing *who* is responsible. Respondents stated a number of customer interaction touchpoints throughout the Customer Journey, as set out in Table 4 - 3, in which each row represents a single identified touchpoint, in alphabetical order and each column represents a stage of the Customer Journey. The outcome is 53 distinct touchpoints in total. The length and location of the box in a given row indicates the stages at which the touchpoint concerned was experienced by a respondent.

The touchpoints specified by the respondents are the basis for identifying *where* and *when* during the Customer Journey interaction takes place. They were also used to ask the respondents *who* of the M-S-I actors they perceived as responsible for these touchpoints.

By reference to Table 4 -3 , gaps were identified, which could indicate emerging concerns with regard to the enablement of information systems supporting the digital interaction. Specifically, the '*evaluate*' stage contains relatively fewer touchpoints, meaning that Sales and Marketing actors do not in the end have the right digital tools to support customer solutions during the *evaluate* stage. The visualization of the extent of the touchpoints reveals that many combine either the first two or the last two stages of the Customer Journey, which could be an indication that the development of specific touchpoints matching the needs of that particular stage is missing.

Table 4 - 3 Identified Touchpoints at each Stage of the Customer Journey

No.	1- Be Aware	2- Consider	3 - Evaluate	4 - Purchase	5 - Confirm	6 - Bond
1	Advertisement					
2				Apps		
3	Blogs					
4	Brochures		Brochures			Brochures
5	Calls				Calls	
6				Catalogue		
7		Chatbot				
8				Click & buy		
9					Co-Creation	
10	Cold calls					
11	Customer community				Customer community	
12	Conferences				Conferences	
13				CRM tool		
14	Cross-References			Cross-References		
15					Cross-Selling	
16					Customer-Centric product development	
17			Customer feedback tool			
18					Customer	
19			Customer success		Customer success stories	
20				(Digital) Contract		
21	Digital events					
22					Digital interfaces	
23					e-Sessions	
24	Events				Events	
25	Fairs				Fairs	
26			Helpdesk		Helpdesk	
27	Intranet					
28	Journals					
29	Mailings			Mailings		
30					Net promoter score	
31	Networking				Networking	
32	Newsletter				Newsletter	
33			Online marketplace			
34	Press releases				Press releases	
35					Promotions	
36		Proposal				
37	Provisioning of studies & download					
38			Reactive Q&A			
39	Relationship management					
40	Sales campaigns					
41	Search engine					
42	Site visits					
43	Social media				Social media	
44		Stakeholder management				
45		Proposal tender management				
46	Testimonials					
47		Trial			Trial	
48			User group meetings		User group meetings	
49	Videos					
50	Web conferences					
51	Website				Website	
52	Word of mouth					
53			Workshops		Workshops	

4.4.2 Tasks and Roles of IT Actors

Analysis of the touchpoints demonstrated that IT actors need to be differentiated into two categories: as a production function, *IT(P)*, and as an enabler for other departments to fulfill their tasks, *IT(E)*. Two of the four analyzed business units have recently integrated digital products or add-ons into their portfolio, which were developed in-house by their own IT departments. The other two business units consider digital services to be their core competency and IT to be the main output of their operations.

Tasks associated with the work of Marketing and Sales found to be supported by IT(E) were, for instance: the management of websites, social media, and CRM tools; or market assessment. Tasks to be performed by *IT(P)* were for instance: product delivery, operations and customer consulting. However, respondents from *IT(P)* stated that the differentiation and boundaries between *IT(P)* and *IT(E)* were blurred for new product organizations and became more differentiable in the case of mature counterparts. One respondent explained:

> We have to understand where the line between Marketing and Sales is, and where the line between Sales and IT is. We are looking for borders. And there are no borders (….), or there are blurring lines. (Ian)

4.4.3 Responsibilities of M-S-I Actors during the Customer Journey

Using the identified touchpoints and the differentiation between *IT(E)* and *IT(P)* actors, the analysis identified the perceived actors' responsibilities for each stage of the Customer Journey, as shown in Figure 4 - 2.

The perceived level of responsibility for each actor at each stage was arrived at by taking the average of the twelve respondents' answers with regard to that stage. Each of the twelve respondents gave a statement with respect to the perceived responsibility for every role and every stage so that each point in Figure 4 - 2 represents the statements of all twelve respondents. Krippendorff's alpha test was used (Hayes & Krippendorff, 2007) to estimate the inter-rater reliability, which was significant at $\alpha = 0.7020$, showing that the three actors were in agreement with each other.

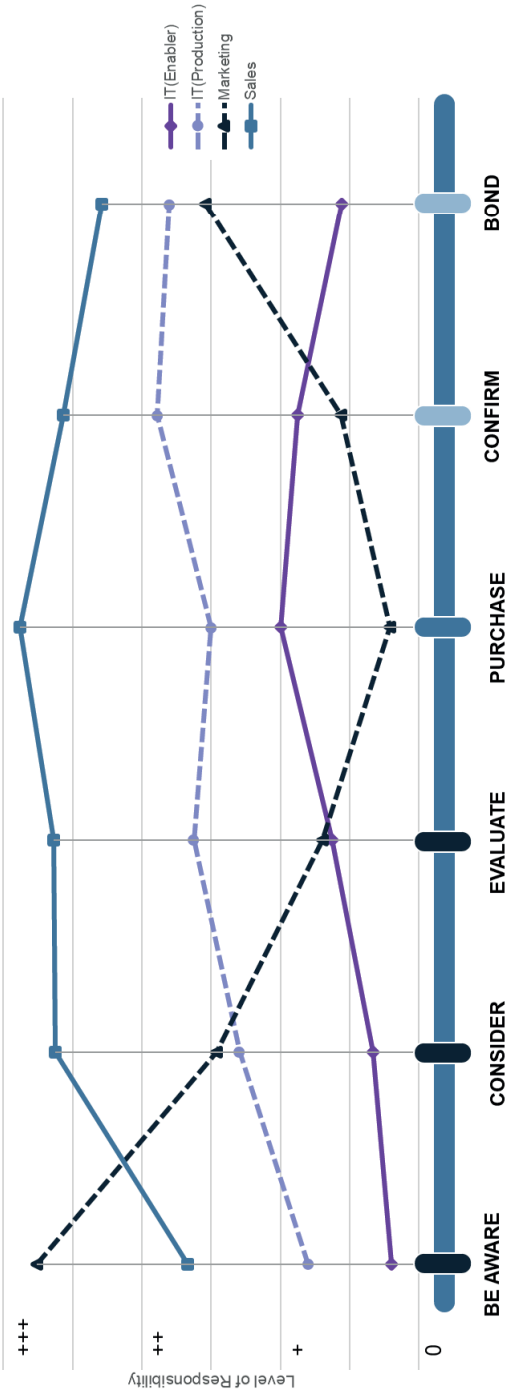

Figure 4 - 2 Responsibility of M-S-I Actors during the Customer Journey

However, the analysis found a small tendency for respondents to perceive their own responsibility as more important than other actors perceive them to be, which explains the relatively modest alpha value. Since this self-report bias applies to all respondents, its distorting effect is neutralized. The importance of the matched triple design is thus highlighted and the possible bias of a single-informant design emphasized.

The results demonstrate that the four actors' responsibilities are interdependent. Like a choreographed dance, the actors form patterns that interact with each other. They also show that, within this case study, Sales is perceived as a dominant actor over all stages. However, during the *be-aware* stage, Marketing assumes the highest responsibility. A decrease in the latter's responsibility furthermore leads to a rise in the former's, and vice-versa. Marketing actors were perceived to have a high level of responsibility during the *be-aware* and *bond* stages, for example because events and fairs for many customers at once, which take place during those stages, are facilitated and organized by Marketing actors, but do not approach customers individually. Three respondents commented:

> From that point on [after be-aware], we [Marketing] are excluded from their perspective, because we are not Sales, because we are never present with the customers, we never contact customers directly, and we are never in contact with them. (Maggie)
> With regard to bond, [...] Marketing can just make that possible, can support. (Silas)
> Marketing is responsible for the one-to-many interactions and Sales is responsible for one-to-one interactions. (Ian)

Accordingly, in the middle of the Customer Journey, during the *purchase* stage, the responsibility of Marketing actors was judged to be marginal.

Similarly, for *IT(E)* and *IT(P)*, there is a mutual dependency with respect to their responsibilities, which follow similar courses over the stages. Overall, the results indicate that the extent of the perceived responsibility is higher for *IT(P)* than for *IT(E)* and ranks highest within the *confirm* stage. This derives from the fact that product fulfillment has been judged to be part of customer solutions. Hence, *IT(P)* actors became involved and at some touchpoints were even in the lead of customer interaction, by explaining product details, demonstrating product features, and negotiating contract details.

> IT as a specialist is very much involved [...], because Sales makes the deal, but the lead is already clearly IT, because they determine the price, they say what the solution looks like, and so on. (Martin)
> Content feedback in the sense of: what features are demanded by a customer? Where do products need to go? What do competitors offer? An important interface from Sales to IT, both in terms of content and price. (Ivo)

Accordingly, those actors take over Sales tasks, because Sales actors struggle to explain specifics and consequently request them for use in customer

meetings. In this regard, two respondents from IT both stated that they were consulted on an ad-hoc basis and had until then no responsibility for the customer interaction.

> It comes up when something isn't working or something needs to be optimized, as long as the thing is running, so to speak, and functioning according to the agreed procedures, we don't have any responsibility for the time being. (Ines)

During the *purchase* stage, however, *IT(E)* actors have a relatively higher level of responsibility, because the customer systems deployment touchpoint is the most important task for *IT(E)* actors throughout the Customer Journey.

It is noteworthy that, even though the *IT(E)* responsibility is clearly the lowest overall, it is on same level or even higher than that of Marketing during the *evaluate*, *purchase* and *confirm* stages. By contrast, Sales and *IT(P)* are perceived as dominant actors during the stages from *evaluate* to *bond*.

The findings demonstrate that the responsibilities are dynamic throughout the Customer Journey in the analyzed environment, and that IT actors have become important players, taking into account the respective levels of responsibility. Fundamentally, if an organization nowadays asks "How can *we* help you?", that "*we*" will inevitably include actors from IT.

4.5 Discussion

This study offers a new perspective on the topic of the Marketing-Sales-IT interface, which has so far been somewhat overlooked in the literature. Specifically, it illustrates the need for IT actors to take responsibility during customer interaction, which was evident in the analyzed business units. The integration of matched triples as respondents, walking step-by-step through the stages of the Customer Journey, thus provided a *peripheral view* of the phenomenon. The demonstrated patterns within the companies analyzed in this study show that M-S-I actors are jointly responsible for interaction with customers, which is an important aspect of sustainable customer experience and satisfactory customer solutions.

4.5.1 Theoretical Contribution

The study delivers the following theoretical contributions: First, the interaction of two actors is not enough to satisfy customers; at least three actors are needed for customer solutions. The findings thus expand the boundary conditions of the former Marketing-Sales interface and demonstrate that in practice IT is already part of the customer interaction. They thereby deliver a theoretical contribution to the customer solution and selling teams veins in the literature by including IT as an interdisciplinary actor. Our review of the literature demonstrated a boundary between, on the one hand, Marketing and Sales and on the other, IT.

In the past, that literature has been dominated by analyses of actor dyads, such as Marketing and Sales, or IT and another, to the exclusion of more than two being analyzed simultaneously in this context. The focus on just two actors is a relic of a previous perspective, while the complex dynamics within the interactions have made expanding the boundary conditions a necessity.

Second, the interface of M-S-I responsibilities is dynamic throughout the Customer Journey, demonstrating that there is no single static condition of the interface. Our study thus adds to those analyzing the general configuration of an interface by adding a dynamic perspective of situations throughout the sales process. In doing so, it narrows the boundary conditions of general analyses to situation-specific environments.

Third, the results are a valuable contribution to theory in furnishing an updated list of customer-interaction touchpoints assigned to the stages of the Customer Journey, in the B2B setting.

Fourth, IT actors need to be differentiated into two categories, namely as a production function, *IT(P)*, or as an enabler for other departments to fulfill their tasks, *IT(E)*, which is already the case in modern B2B solutions businesses (e.g., Ulaga & Reinartz, 2011), but is blurred for new product organizations. This differentiation contributes to the understanding, of the actors' roles within this interface.

Ultimately, our study makes a theoretical contribution by merging the Customer Journey into the concept of customer centricity. The results demonstrate that organizational actors accompany the customers on their journeys and shift their responsibilities among Marketing, Sales, and IT. Those actors have to interact in a customer-centric way, based on the needs of the customers at each stage and touchpoint, as Figure 4 - 3 shows.

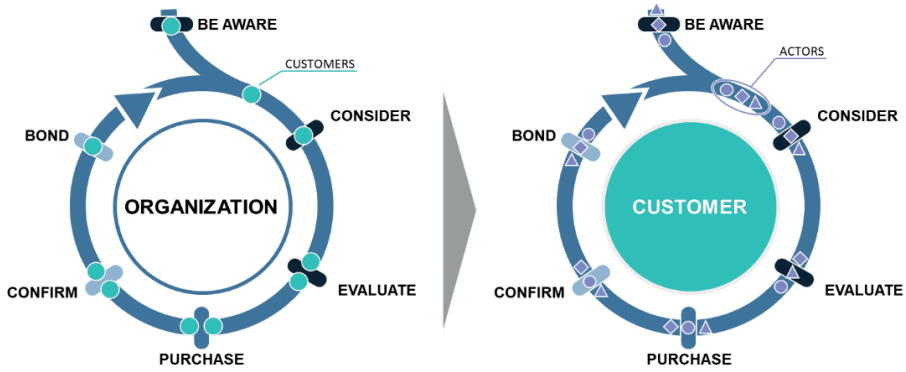

Figure 4 - 3 Transformation form an Organizational-Centric toward a Customer-Centric Journey

Instead of having multiple customers go through one firm's Customer Journey, internal actors need to undertake that journey themselves, as illustrated in Figure 4 - 3. We propose using the Customer Journey as a coordination mechanism and understanding it as the *Customer Centricity Journey*. The notion of turning the Customer Journey *inside-out* involves changing the conventional view by placing the customer at the center and letting the organization's actors orbit around each customer by sending the actors themselves on the journey. The *Customer Centricity Journey* provides a new perspective on customer interaction and highlights the need for the actors to align themselves individually for each customer, thereby contributing to the customer solutions literature, where selling teams could benefit from. Companies such as Chrysler, Oracle Corporation, Samsung and United Airlines tried to make their organization more customer-centric on the initiative of their top management quite some time ago (Rust et al., 2010), but have not yet integrated their IT actors.

4.5.2 Managerial Implications

The results of this empirical study suggest a high level of managerial relevance aimed to constantly weave in practical significance. The inclusion of IT actors into the customer interaction, or even interdisciplinary selling teams at an early juncture, will ultimately improve individualized customer solutions. This highlights the importance of alignment across M-S-I in general, still an evolving topic in the managerial context, which many respondents mentioned in general feedback after the interviews. The study's results thus contribute to the practice of organizational restructuring. The demonstrated difference between *IT(P)* and *IT(E)* actors enables managers to consider the structure of IT as performed by centralized and decentralized roles, e.g. differentiated in terms of first-level and second-level support. The identified touchpoints provide guidance to managers with regard to their applicability and the stages at which new touchpoints need to be designed. Specifically, the results of this study show that the actors involved do not possess a proper toolset during the *evaluate* stage, on account of identified gaps in the state of knowledge. Ultimately, the concept of turning the Customer Journey inside-out and letting the M-S-I actors themselves take part in it has important managerial implications, such as creating interdisciplinary sales teams and engaging IT actors proactively in customer-centric interactions, accompanying the customers even beyond sales success, or providing the suitable tools for each stage and all customer solutions. We propose to use the *Customer Centricity Journey* as a coordination mechanism as well in practice accordingly.

4.5.3 Limitations and Future Research

While the results of this study offer promising lessons for scholars and managers, it is not free of limitations, which can nevertheless be overcome in future studies. First, the findings are based solely on respondents' statements and are neither complete nor independent of the industry and its products. Further research is needed to confirm the generalizability of our findings, for example by a quantitative study, which should also consider the effect of excluded variables, such as type of customer, contract volume, and regions or branches. Ultimately, the dynamic responsibilities of the M-S-I actors during customer interaction in the companies studied provide a basis for further research on alignment between actors and how it can be adjusted.

4.5.5 Conclusion

The Customer Journey framework pictures a customer embarking on a journey, but the unfolding process involves interaction with the selling company's different actors, stage-by-stage and touchpoint-by-touchpoint. The fact that our case study identified more than fifty touchpoints indicates alone that this exchange of responsibilities is essential and signposts the need for alignment of the internal interplay. By using a qualitative analysis in combination with a structure for changing situations over time, our study adopted appropriate tools to explore the dynamics of responsibilities, finding that the perceived responsibilities of M-S-I actors vary throughout the Customer Journey at the several touchpoints. Turning the Customer Journey inside-out and orbiting around each customer by sending the actors themselves on the journey is a significant step towards customer centricity. Sales actors are perceived as being still in the driver's seat while IT actors are undeniably important during customer interaction over all stages to support Sales as a "boundary spanner" and Marketing for the one-to-many interactions. In general, the actors could benefit from interdisciplinary sales teams, erasing the boundary with IT. Former views taking IT for granted and integrating it as no more than a "resource" have become passé and are in fact negated by the findings of our case study. An alignment of M-S-I actors' responsibilities for each situation will be the choreography that coordinates with *whom* customers are asked to "get in touch with *us*!"

Chapter 5

Customer Success Management by intradimensional and interdimensional Alignment throughout the Customer Journey
- Shaping the Marketing-Sales-IT Interface

Summary:
Based on what was discovered in the previous chapters, the dynamic responsibilities of the M-S-I actors lead to the need for alignment in terms of customer interactions among the actors. This chapter aims to understand how alignment is shaped and how it can be adjusted. It identifies dimensions and attributes for intra- and inter-dimensional alignment.

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References to previous publications:
Graesch, J. P., Hensel-Börner, S., & Henseler, J. Alignment throughout the Customer Journey - Shaping the Marketing, Sales, IT interface. In AMA Winter Academic Conference, Nashville, TN, February 10-12, 2023.

Keywords:
marketing; sales; information technology; case

Abstract

Digitalization brings together Marketing, Sales and IT (M-S-I) actors at the customer interface. However, little is yet known about the dynamics of the interplay between these three actors. Furthermore, Sales faces customer solution and customer success management (CSM), also remaining responsible for customers in the post-purchase phase of their journeys. This study examines the working relationship of the M-S-I interface by taking a qualitative approach. Interviews in a case study with four matched triples of M-S-I actors – including executive directors of each company – along the Customer Journey incorporate the dynamics of this trilateral interplay. The findings demonstrate six dimensions and twenty attributes of alignment, integrated into the COMPLY framework, which provide guidance on how to shape the alignment of the M-S-I interface. This process results in novel key propositions for intradimensional alignment and finally interdimensional interventions, which open up avenues for researchers and managers to design an aligned interface to better facilitate CSM. This study contributes to existing models for alignment and to CSM research by proposing the triadic M-S-I interplay as an interpretation mechanism for the required dimensions. It is the first study to provide guidance on how to analyze and shape alignment for organizational M-S-I actors.

5.1 Introduction

customer solution (CSM), as a manifestation of an organization's consistent focus on the success of its customers and its products or services, can put tremendous pressure on Sales. On the one hand, Sales can no longer hand over newly acquired customers to the key account management organization after the purchase phase, because they also remain responsible for the post-purchase phase. This underlines what we have noticed recently in the customer solutions literature, which stresses the customer's view of selling as an ongoing process, even after purchasing (e.g., Panagopoulos et al., 2017; Ulaga & Kohli, 2018). Customers, previously perceived this process as a patchwork of interactions (Kalbach, 2020), which CSM was intended to overcome. On the other hand, Sales need to also improve its skills in the pre-purchase phase, as customers encounter several touchpoints while considering products or services. Digitally empowered and autonomous customers challenge the sales process by using IT-enabled tools and, in parallel, IT has enabled Marketing[10] to change the way in which Marketing and Sales promote the products, streamlining processes, improving efficiency, and providing more insights into customer behavior (Graesch et al., 2020; Saura et al., 2017). This means that a successful CSM

[10] In this dissertation the terms Marketing, Sales and IT are capitalized when they are addressed in general terms. This then includes all marketing -disciplines, -departments, - persons, -functions, etc.

should include all phases of the Customer Journey, typically Marketing, Sales, and Key Account Management functions throughout pre-purchase, purchase and post-purchase phases, reinforced by digitalized IT utilities resulting from digitalization.

In B2B organizations, CSM is growing in practical importance. It encompasses monitoring, securing and enhancing customer success as well as the implementation of the required organizational structures and processes within the supplier firm for maximizing both demonstrable customer and company value (Prohl-Schwenke & Kleinaltenkamp, 2021). Scholars predict that CSM will manifest itself in new functional units and job roles, which involve continual adaptation of Sales roles (Zoltners et al., 2023), and the combination of customer relationship management (CRM) and customer engagement or customer solution aspects (Hilton et al., 2020). However, we have already observed an apparently never-ending battle between Marketing and Sales (e.g., Kotler et al., 2006; Massey, 2012) over the past two decades, wherein the interface between these two actors has been extensively studied. At the same time, managing CRM tools effectively has become increasingly relevant in recent years, which undoubtedly includes alignment between Sales and IT actors. (e.g., Reinartz et al., 2004). Thus, a few years later, these insights can be used to help understand the interface of all three Marketing, Sales, IT (M-S-I) actors together. For instance, CSM requires robust digital support systems (Zoltners et al., 2023), which will include generative AI and digital touchpoints (Murphy, 2023), and require interfaces between Sales and other functions as these help to facilitate multiple customer channels (Hochstein et al., 2020). Accordingly, Marketing and Sales actors are dependent on IT's support and participation to fulfil their tasks in achieving customer interaction, and it is important that these actors are aligned.

Conclusively, it is necessary to ask how Marketing, Sales and IT interplay with each other in terms of customer interaction and how such alignment can best be shaped. To answer that question, an in-depth investigation was carried out, by means of a case study, of industrial companies that have benefitted from digitalized Marketing, digitalized Sales activities, IT developments in various sectors, and had already included CSM in at least one of their business units. Specifically, the Customer Journey model was used as an auxiliary vehicle for the exploration of the M-S-I interface artifact, because it reflects those pre-purchase and post-purchase touchpoints for customer interaction that are relevant for CSM.

The findings of our study reveal that alignment between the M-S-I actors is beneficial for the trilateral interplay. The intradimensional alignment that was explored is shaped by six identified dimensions, namely *Communication & information sharing, Objectives*, *Mindset & orientations, Power*, *Linkages & resources*, and *Yielded knowledge & skills,* containing 20 intradimensional

attributes. For all the identified attributes, the study's findings provide guidance on how to shape the alignment, resulting in novel key propositions as contributions to benefit both managers and scholars. Furthermore, based on these results, we have developed the COMPLY framework for interdimensional alignment, which intertwines the demonstrated dimensions. Finally, this study has resulted in novel key interventions for interdimensional alignment, which contribute to design-oriented paths for managers and scholars by addressing the challenge of how to best and comprehensively intertwine the demonstrated dimensions of alignment for the M-S-I interface artifact. This study is the first to consider matched results of M-S-I actors within the same companies in the form of case study results. The COMPLY framework contributes to the understanding of an M-S-I interface, since it updates existing models of alignment e.g. in the context of Marketing and Sales, Key Account Management, and IT interfaces by identifying new dimensions, e.g., in the light of digitalization and consideration of information systems, transferring it into the context of all actors together and addressing the challenge of how to best shape alignment. Ultimately, this can be used as a coordination mechanism for growing up Sales into the CSM role.

5.2 Literature Review

Analysis of the M-S-I actor interface is a broad field, and it would be unwieldy to review every part of it. Thus, it is necessary to analyze what has already been achieved and can be used as a basis for this study. Much empirical work has focused on the interplay between Marketing and Sales, or of IT and other departments, and analyzed pairs of actors (Graesch et al., 2022). Accordingly, it is important to understand the conclusion and limitation of existing studies in the field in terms of the interplay between pairs of the M-S-I actors, and if they are applicable to the interface between the three M-S-I actors. An analysis of all three M-S-I actors together seems to be missing from extant research. A literature review covering the past 20 years returned the five conceptual studies summarized in Table 5 - 1 for the interface between two actors in similar contexts with a focus on interdisciplinary interplay, identifying concepts or characteristics of that interplay. Three analyzed the Marketing-Sales interface, one the IT interface with other departments of an organization and one focussed on Key Account Management, which is relevant because of the overarching function of CSM.

Although the models appear to be different, commonalities exist between them. Le Meunier-FitzHugh and Piercy (2007a) identified antecedents contributing to business performance within Marketing and Sales alignment. Focusing on a higher level of organizational interplay, Homburg et al. (2002) in contrast formed constructs relating to the organizational structure of Key Account Management (KAM) involving with other actors. Homburg et al. (2008)

formed conceptual domains in a comparable taxonomy resulting in a different model, by enclosing structural and general domains. Similar results can be found in the work of Biemans et al. (2010), who identified terms that overlapped with those used in the other studies. In the historical overview of Coltman et al. (2015) general aspects, such as the formfitting shape of IT and other departments, were identified. Over time, new domains of alignment have emerged and updates of the conceptual studies – for instance in light of digitalization and skillset – have become necessary. This supports job enrichment in terms of CSM and digitalized customer touchpoints. These constructs are grounded in the literature in general, but missing from the models analyzed. For example, the importance of *knowledge* within interdepartmental interfaces has been frequently pointed out in both past to current research (Hoffman et al., 2021; C. L. Wang et al., 2008). However, the attribute of *skills* needs separate attention, because if differs from that of *knowledge* (e.g., M. Gibson & Chesterman, 2022; Powell, 1992; Voogt & Pareja Roblin, 2023). Furthermore, the characterization of startups, considering *corporate maturity* (Picken, 2017), and the *mindset* of different generations (Peppard, 2007; Pullig et al., 2006) is not included in existing models. We conclude that although existing models for working relationships remain relevant, they need to be updated because of digitization and IT's increasing relevance.

Table 5 - 1 Conceptual Studies of Interfaces in similar Context

Studies	Actors	Conclusion / Implication	Limitation
Homburg et al. (2008)	Marketing, Sales	Conceptual domains of the M&S interface • Information sharing • Structural linkages • Power • Orientations • Knowledge	Marketing and Sales questions were answered by one and the same informant
Homburg et al. (2002)	Key Account Management (KAM)	Key constructs of KAM conceptualization contributing to business performance • Activities • Actors • Resources • Formalization	Single informant design
Le Meunier-FitzHugh and Piercy (2007a)	Marketing, Sales	Antecedents contributing to business performance • Market intelligence • Organizational learning • Interdepartmental conflict • Management attitudes towards coordination • Collaboration between M & S	No data from Sales and Marketing managers but rather from directors and chief executives.
Coltman et al. (2015)	IT, other	Historical review of the strategic IT alignment literature • Fit • Support • Congruence	Literature review, no additional empirical data
Biemans et al. (2010)	Marketing, Sales	M-S interface configurations and characteristics • Functional separation • Tasks of M • Tasks of S • Interfunctional communication • Information sharing • Collaboration • Orientation and interfunctional relationship	Informants from different organizations – no matched pairs

5.3 Methodology

The aim of this study was to explore the trilateral interplay of M-S-I considering the consistent path of customer solution as the central junction throughout the complete Customer Journey. In doing so, it explores which of the actors are collaborating during which situation in the Customer Journey and considers the dynamic changes of the actors' roles depending on customer interactions. More specifically, this paper reports a case study, based on twelve interviews with four matched triples of M-S-I personnel (M-S-I managers as actors from all three departments of one and the same business unit) and applying the Customer Journey cycle as an auxiliary vehicle to analyze internal interplay between the

three actors. The analysis of the interplay at each stage of the Customer Journey is a consequent step in the research design, using the same type of questions for each Customer Journey stage (Kalbach, 2020; Lewrick et al., 2018). In this way, we analysed the artifact including its grounds and environments.

A formal case-study approach is the preferred research method to explore a contemporary phenomenon – especially when the boundaries between the phenomenon and context are not clearly evident (Yin, 2014) – uncovering patterns, and determining meanings (Patton & Appelbaum, 2003). Moreover, a single case be suitable for in-depth investigation and description (Eisenhardt & Graebner, 2007; Järvinen & Taiminen, 2016) and specifically for exploring business networks and other subjects of industrial marketing in B2B relationships (Järvensivu & Törnroos, 2010). Because of the consideration of these characteristics, this study digs deeper into one case rather than increasing the number of cases, as suggested by Dubois and Gadde (2002). In the present study, the case-study approach assured the integration of the varying perspectives of all three departments by interviews with matched triples in four different business units. In one transport-industry company, four business units were identified as suitable for four reasons. First, they are self-contained within the company and each one maintains its own Sales, Marketing and IT departments. Second, the business units concerned are distinct and offer entirely different B2B products to different global customers in different industries. Third, the selection of business units within one company mitigates influences such as varying cultural, structural or legal factors, allowing for a substantial focus on the interaction. Fourth and finally, the choice of the company was reinforced by one of the co-author's access to its contact directory, which facilitated the securing of interviews with top management, a solid criterion for sample selection in qualitative research (Eisenhardt & Graebner, 2007; Gephart, 2004).

Table 5 - 2 Selection of Companies and Respondents

Name	**Role**	**Position**	**Industry**
Maggie	**M**arketing	Marketing Manager	Technical maintenance
Silas	**S**ales	Senior Vice President, Sales	
Isabell	**I**T	Director, IT Strategy	
Martin	**M**arketing	Chief Marketing Officer	Consultancy
Steven	**S**ales	Sales Manager	
Ines	**I**T	Chief Information Officer	
Mike	**M**arketing	Head of Marketing	Digital products
Simon	**S**ales	Director, Sales & Account Management	
Ian	**I**T	Director, IT and Digital Development Operations	
Max	**M**arketing	Head of Marketing	IT systems
Sebastian	**S**ales	Sales Manager	
Ivo	**I**T	Senior Vice President, IT Solutions	

The interviews were conducted over two months in Fall 2021 during in-person and online meetings, and were audio-recorded. Analysis took place after all had been completed, so as to mitigate selection bias (Flick, 2014). All twelve respondents' anonymized names (first letter used as acronym for their role) are listed and their roles and job positions are described in Table 5 - 2. Three out of the twelve respondents were female.

Respondents in the four business units occupied various positions, including Senior Vice President, Chief Marketing Officer, and Chief Information Officer, and also directors, team leaders, and operational managers. One business unit used customer success management as the job description for their sales managers. The set of interview respondents were chosen, because they had an overview beyond their own tasks and those for the interface, because they also interacted with other roles – which is usually the case for higher and middle management. Furthermore, they have the potential to influence the required responsibilities and explain the underpinning rationale of the existing interface.

In total, twelve semi-structured interviews with an average duration of 45 minutes were conducted with four triples, as a suitable method for qualitative research, especially in the context of exploration of an emerging concept (van Esch & van Esch, 2013). The required level of data saturation for practical research was achieved with the total of twelve samples (Boddy, 2016). In this way, all three perspectives for six different stages per business unit were considered, which is congruent with the ideal sampling process for case-study research (Mayring, 2007).

In addition, field notes taken during the interviews and information from intranet files and organizational charts were included as a further input to data analysis, providing construct validity to triangulation of the case-study data and limiting bias, as advocated by e.g., Goffin et al. (2019). The interviews were conducted by one of the authors; the other two authors were not involved in the interviews so as to achieve a more objective oversight of the evaluation, as elaborated by e.g., Eisenhardt and Graebner (2007).

The resulting coding scheme was compared and adopted in line with the conceptual studies from the literature outlined earlier. As a result, the final coding scheme is a systematic combination of existing and new abductively developed dimensions and attributes. The application of the coding system was reviewed multiple times by all three authors. The results provide quotes translated into English.

5.4 Results

The exploratory study resulted in the composition of alignment by six dimensions, which contain a total of 20 attributes. These dimensions are grounded in the literature as domains or constructs. The dimensions are intended to be a cluster of attributes and not a category of higher order and contain intradimensional attributes for aligned M-S-I customer interaction. Through the lens of these dimensions and intradimensional attributes, novel theoretical key propositions and directions for further research were developed. Together these will all be explained in the following chapters and condensed into one proposition. The overall findings are listed in Table 5 - 3, summarized as intradimensional alignment.

5.4.1 Communication and Information Sharing

The first dimension is termed *communication* and *information sharing*. It includes the attributes *provision*, *transparency* and *digitalization* of information both from and to customers. *Transparency* and *provision* differentiate in terms of the direction of information flow. Transparent information can be drawn by the actor at any time. Provisioned information is pushed actively from one actor to others at certain points in time.

> "Keep each other in the loop about what's happening at the various stages. On the Marketing side, I also have a strong interest in finding out what the benefits are of everything we're doing here." (Max)
> "So we never know now exactly what situation [the customer] is in". (Maggie)
> "If the feedback is, 'haven't reached the customer after six times', or 'have reached him, but there was no interest at all and it all turned out to be pointless', then I have to believe that." (Martin)

The respondents highlighted the digital character of information sharing. Potential for adjustment can be found in the CRM system, which was perceived only as a documentation tool and provides much room for improvement to support all actors in information transparency. Furthermore, through digital events and digital customer experience centers information was provided transparently to the customer. A joint approach and consistent messages to the customer were considered to be as a major alignment aspect by Marketing. Alignment within this dimension requires an unimpeded flow of information and regular communication, because the respondents indicated that they never intended to withhold information, but were reluctant to share it due to difficulties in the process. A key proposition for alignment that builds on this work can be summarized as follows:

P_1: Customer information sharing and transparent communication need to be established.

5.4.2 Objectives

The second dimension encompasses *objectives* including the attributes *goal definition* and *key performance indicator (KPI) measurement*. This dimension provides orientation to the actors and an understanding of which KPIs are crucial for the achievement of objectives.

> "Everyone is measured by different KPIs, I think that sums it up, because the IT department also usually has revenue targets, (...) 'I just have the java programmers free, the data scientists are not free, why are you selling this subject, moron!'" (Martin)
> "Because otherwise they somehow deliver tons of junk leads - or leads (…) with which the Sales department, because it has other goals, can't do much." (Steven)
> "[We need] closer alignment, a better coordination of goals - we do not have goal definition. I think this a major aspect. (…) For me by far most important are coordinated and set goals" (Steven)

Particularly for IT actors, who are responsible for touchpoints within the Customer Journey, managers need to link objectives and their measurement for these actors. The defined goals need to match and not contradict each other. The respondents stated clearly the importance of transparent objectives even for relative closely related actors, such as Marketing and Sales, to ensure harmonized behavior.

P_2: Objectives need to be coordinated in an interdisciplinary way with jointly prioritized, measurable key results.

5.4.3 Mindset and Orientations

The third dimension of alignment encompasses *mindset* and *orientations*. *Orientations* relate to actors, to the customers and to objects such as tools or product features (e.g., Peppard, 2007; Pullig et al., 2006). This dimension has been complemented with *mindset*, to include recent research areas in terms of judgements of the actors, willingness or self-efficacy (e.g., Knight et al., 2014; Li et al., 2021). *Orientations* can be understood as the focus of the actors, e.g., towards the customer or the product (Homburg et al., 2008). Accordingly, *customer-oriented thinking* is a core attribute.

> "Every person is a Sales person in the organization." (Steven)
> "I would say that we are a very customer-focused organization that also understands IT as a core competence." (Ines)

In contrast, *care* and *self-efficacy* are attributes which rose in importance (e.g., Knight et al., 2014). They determine if an actor is self-reliant or cares about other actors.

> "Marketing doesn't want to be impeded and that's why there's sometimes a gap that could be optimized or improved." (Sebastian)

> "An ideal collaboration would be letting Sales act for certain IT products on its own." (Simon)
> "[W]e are excluded from [Sales'] perspective, because we are not Sales." (Maggie)

Further, *willingness and judgment* has been identified as an attribute that indicates how actors judge customers' or other actors' wishes and in which way they use provided tools (Li et al., 2021; Parent et al., 2011). In contrast to the later described attribute of *mentality*, *willingness and judgement* focus on the professional decision of one actor if the requests by another actor or the customer is relevant or reasonable. For example, a customer's product change requests may be critical to sales success, but be deemed uneconomical or not scalable by the IT department. Further, Marketing might prepare campaigns with a different focus to that of Sales.

> [Marketing and Sales say] we need to make flyers or do anything else, or mailings or do something on our website or rank our website better on Google, but I don't think that has any relevance at all." (Ian)
> "The problem with marketing generated templates is, that they have been designed in a quiet chamber on their own." (Sebastian)
> "And then there is the question: is it really necessary?" (Maggie)

When considering the attribute of *corporate maturity* (e.g., Picken, 2017) the respondents observed blurred lines between M-S-I for younger business units in contrast to mature organizations.

> "I think the problem is that from the product portfolio we should act as a start-up but we learned the setup from our corporate context. (…) But there are blurring lines in startups." (Ian)
> "For very young products (…) the roles are closer and more enriched than for mature products." (Isabell)

Overall, customer-oriented thinking and a sales-driven IT department were identified as adjustment levers for shaping the alignment. In addition, there is a higher degree of alignment in the working relationships of the younger product organizations that were analyzed; for example, through an open and digital mindset towards collaboration, flexible mindsets and a culture of caring that promotes alignment. A culture of caring and understanding has been outlined to shape the alignment. Thus:

P_3: Joint understanding of customer-oriented thinking and an open digital mindset need to be established.

5.4.4 Power

The fourth dimension is termed *power* and includes the attributes *responsibility*, *mentality* and *top management*. The responsible actor prevails the outcome and the ways of working (Homburg et al., 1999a), which require alignment to avoid

conflicting responsibilities and behavior.

> "Marketing will say, get out of the way and Sales will say: here we are." (Isabel)

This example demonstrates that the actors want to assert themselves because of unclear responsibilities and to make use of the power their roles given them. Even within the responsibilities of Marketing and Sales no clear definitions of tasks exist, leading to unclear or disjunct responsibilities. To illustrate, Sales might win customers by making certain contractual fulfillment promises, but the fulfillment cannot be matched by IT actors that have different objectives. Even though Sales actors know about this mismatch, they still act in terms of the customer request to achieve their own objectives.

> "The [Sales] manager has the difficult situation, he must not perform as the advocate of the customer. That's so dangerous sometimes, it's like the Stockholm Syndrome." (Ian)
> "I don't have to check whether the solution is technically feasible, whether it can be implemented technically, whether I can sell it at prices in line with the market, whether I am able to deliver - none of that matters to me for the time being." (Steven)

Additionally, crucial responsibilities within customer touchpoints have been outsourced for some of the business units that were analyzed, such as corporate website development and social media management, with resulting unclear responsibilities when it comes to change requests. Importantly, many respondents worried about unclear, overlapping or conflicting responsibilities of tasks and highlight this aspect as major adjustment lever for shaping alignment.

> "Marketing communications is just running behind and putting out fires, because they never talked about the clear definitions of what our tasks actually are." (Max)

Further, *mentality* is an identifiable attribute, demonstrating the way of acting in relationships (e.g., Day, 1997; Le Meunier-FitzHugh & Piercy, 2007b).

> "That has to do with people's self-image. Classic IT people are not the super outspoken personalities." (Ivo).
> "[It] depends on the person (…) When a classic IT person speaks, a classic Marketing person doesn't always understand that immediately, I think." (Max).
> Whereas Isabell describes it as a "hate-love" and "difficult relationship". Ian criticizes the mentality as "lack of appreciation, which I really mean in all directions."

The findings demonstrate that the mentality of the actors define their readiness to align with each other and their counterparts, as well as feelings of loyalty and pride, considering themselves to be different from other actors in some special way, which is called esprit de corps.

Finally, *top management* has been perceived as a critical attribute in terms of *power* (Elbanna, 2013). For some of the companies, one top manager is

responsible for all three – IT and Marketing and Sales – which has been judged as favorable for overall alignment.

> "Sometimes you also need a bit of management attention, in the sense of a regular review, where you combine the priorities in Marketing and Sales." (Mike)

The involvement of the *top management* has an impact on the actors' alignment. Respondents from business units with separated *top management* stated the need for inclusion.

P_4: Bundling of activities, leveling responsibilities and a positive mentality need to be ensured by the top management.

5.4.5 Linkages and Resources

The fifth dimension encompasses *resources* and *structural linkages*. *Resources* includes the attributes *availability* and *teamwork*. In addition, *structural linkages* imply the configuration of the interface in terms of process *frequency* and team *proximity* (e.g., Panda & Rath, 2016; Workman Jr et al., 1998). This is reflected in the involvement of the *team* with each other or by its *frequency*.

> "IT is not involved at all, or we define something with Sales and then, let's say, throw it to IT on the table without direct or strong participation." (Max)
> "It comes up when something isn't working or something needs to be optimized, as long as the thing is running (…), we don't have any involvement." (Ines)

In terms of *frequency*, the respondents mentioned various modes from weekly to adhoc meetings, such as reacting to system outages, which hinder sustainable alignment and tense the relationship. *Availability* typically relates to unavailable resources in Marketing or IT.

Surprisingly, in some cases the respondents found it difficult to describe the tasks of the other actors. This is, on the one hand, caused by the overlapping responsibilities described earlier, but also by the proximity of the actors. Sales tend to act regionally, while IT is centralized at headquarters. Sales actors who are located abroad rarely interplay with IT.

> "I have an employee in each of the sales regions, one in Asia and one in the U.S. [Because] (…) we don't need a one-size-fits-all, but a concept that is adapted to the regions as well." (Max)

Clear guidance for processes and regular exchange meetings between the actors will lead to aligned communication with and towards the customers. In terms of teamwork, silos should to be dissolved and alignment should be consistent but still agile.

> "If you can manage to combine the good ones with each other, then that's an advantage." (Ian)

Furthermore, alignment requires the availability of resources and consistently defined tasks and for managing the best actor for customer interaction. Accordingly, alignment can be shaped in terms of team setups, frequency of meetings and availability of resources.

P_5: Close linkages and joint process management through aligned resources need to be established.

5.4.6 Yielded Knowledge and Skills

The sixth dimension group comprises yielded *knowledge* and *skills. Knowledge* here taken to mean the expertise of the respective actors in terms of all relevant tasks within the Customer Journey. It includes the attributes of *(digital) product knowledge* and (*IT) tool knowledge*. The digital aspect of product knowledge has been identified as a newly emerging construct in literature (Hoffman et al., 2021).

> "The interesting point is, when you have a marketing campaign and there are questions, where do you direct such questions? Because you get to the point - and I am in the B2B environment - where the questions become very technical. And we should have the requirement to ourselves, that Marketing – and I think we are not good at that – that Marketing and Sales should understand and have specific know-how about what our organization does technically and can explain it externally [towards the customer] to a certain point." (Ian)
> "Of course, Marketing actors need to have a certain basic understanding of the products, otherwise we can't choose the optimum customer interaction channels." (Ivo)

Additionally, the attribute of *market intelligence* has been identified (e.g., Maltz & Kohli, 1996; Sombultawee & Boon-itt, 2018).

> "Marketing automation (…) that in the future there will be IT tools that provide this information." (Steven)
> "That I as a sales director do not know now and have no way of finding out how many calls my employees make to customers per day. I don't know in particular or we as a company don't know what feedback is coming in at the moment." (Silas)

This could be, for example, achieved through applying CRM tools or analytics tools, which some of our respondents use and highlighted the benefits accordingly, but others were reluctant to use because of the pure recording character of the tool. Furthermore, automatically generated marketing material suiting the customers' demands were desired by the respondents.

The attribute of *skillsets* has been added in contrast to *knowledge*, because *knowledge* can be stored and transferred, but *skillsets* are either already owned by the actors, yielded or need to be developed.

> On the other hand, it is also the case that the specialist departments often join us, if the topics are more complex, then a sales colleague with the appropriate skills will

> always be there and will then receive the feedback directly from the customer and of course also pass this back to the IT department." (Sebastian)
> "[You need to decide] which person you want to let run loose on customers and which one you don't." (Simon)

The following example shows how an aligned combination of various *skillsets* could generate benefit:

> "We all work for the same product, but all 3 departments, which are described here (…) typically have different strengths. And I believe that the strength lies in the combination of these 3 departments, because you don't have such all-rounders. People who can do everything are often the problem, because then they can't do anything really well." (Ian)

A broad variety of *skillsets* is necessary to address various stakeholders' needs. For example, IT actors need Sales *skillsets* during product demonstrations and demonstrate their IT skills in return.

> "In other words, you present yourself to the outside world with tools, so that the customer believes that you are a digitization company. So I can't go to the customer with an old computer, so to speak, that doesn't work. If I'm selling digitization, I should know [...] what features there are and should deal with the standard. If I'm selling agility, I should know 'scrum' and should be able to explain it." (Ines)

All actors need comprehensive *knowledge*. In particular, Marketing and Sales need to understand IT tools and digital products. Accordingly, experts in each role remain in place, but interdisciplinary teams with aligned skillsets are beneficial. Thus:

P6: Individual skills need to be respected and selected, and yielded knowledge has to be shared.

5.5 Intradimensional and interdimensional Alignment

The first results of this study are six dimensions and their attributes, which shape the alignment of the M-S-I interface. However, a further goal of the study was to address the challenge of *how* to shape alignment. This can be achieved on two levels. First, the micro level within the dimension, which we term intradimensional alignment and second, the macro level combining dimensions, which we term interdimensional alignment. In the following chapters, these two contributions will be developed resulting in a framework.

5.5.1 Intradimensional Alignment

The findings of the previous chapters and the propositions developed therein demonstrate the attributes for the shape of alignment. To delve into the roots of alignment and to twine in practical relevance, we applied another axial coding to the interview material, including the emergent knowledge, and enriched the results by the question of *how* the alignment can be specifically shaped. The extant knowledge of the authors within this topic has been used to foster the process of abductive reasoning.

The findings are summarized in Table 5 - 3, giving specific suggestions for how to shape the alignment for each attribute of the M-S-I interface by providing adjustment levers in the context of customer interaction. All the identified attributes are associated with interventions to shape the intradimensional alignment as a contribution to managers and scholars by giving examples of how the working relationship conditions affect the alignment.
The assorted intradimensional adjustment levers listed in Table 5 - 3 were abductively developed from the interview material and field notes, and provide guidance for and examples of alignment.

Table 5 - 3 Overview of intradimensional Adjustment Levers per Attribute

Dimension	Attribute	Intradimensional Adjustment Interventions (*how*)
Communication & Information Sharing	Digitalization	▪ Integrate whole Customer Journey in CRM tool ▪ Digitalize customer communication jointly
	Provision	▪ Create a culture of learning from each other ▪ Define interfaces and ways of information sharing jointly
	Transparency	▪ Create access to all available information in real time ▪ Monitor and track status of customer interaction including reason for decisions ▪ Make information transparent, including planned activities
Objectives	Goal Definition	▪ Create supporting environment to achieve every actor's goals ▪ Identify objectives mutually ▪ Prioritize goals mutually
	KPI Measurement	▪ Familiarize with objectives and key results ▪ Share KPI's with all actors ▪ Agreed metric how to measure KPIs ▪ Joint discussion about progress and results
Mindset & Orientations	Willingness & Judgement	▪ Create awareness for the importance of each M-S-I task ▪ Generate engagement of all M-S-I actors throughout the Customer Journey
	Care & Self-efficacy	▪ Allow self-efficacy but avoid self-reliance ▪ Discuss and create awareness of various perspectives and feasibility ▪ Engage a culture of care and trust
	Customer-oriented Thinking	▪ Establish sales-driven IT developments ▪ Connect the respective counterparts in customer interactions ▪ Streamline and share external communication
	Corporate Maturity	▪ Create a startup spirit ▪ Increase the identification as a "*we*" ▪ Support digital mindset
Power	Top Management	▪ Jointly convince the management ▪ Create management attention ▪ Strive for bundling of managements' responsibilities
	Responsibility	▪ Make joint decisions for tools, content and activities ▪ Uniform responsibilities (of M-S-I) and share consequences throughout the CJ ▪ Create common understanding of tasks and roles
	Mentality	▪ Build understanding and appreciation of various roles ▪ Respect different characters and personalities ▪ Uniform esprit de corps
Linkages & Resources	Proximity	▪ Balance regional setting of Sales and Marketing with centralization of IT ▪ Establish proximity in buildings or office designs
	Frequency	▪ Define a continuous process for interdisciplinary involvement of all required actors ▪ Distinguish need for regular meetings and case-by-case projects
	Availability	▪ Jointly manage capacities ▪ Jointly prioritize projects ▪ Minimize non-value-adding activities ▪ Minimize coordination efforts on individual projects
	Teamwork	▪ Blur the lines between M-S-I teams ▪ Work agile in teams ▪ Represent the organization together
Yielding Knowledge& Skills	Product knowledge	▪ Share product features and requirements with all actors ▪ Create awareness of consequences in case of new product feature requests by customers
	Tool Knowledge	▪ Build knowledge of IT tool features and constraints with Marketing and Sales ▪ Co-Create and choose tools jointly
	Market Intelligence	▪ Set marketing automation as a common goal for M-S-I ▪ Use customer data analytics support for sales process
	Skillset	▪ Train and combine skillsets of M-S-I actors ▪ Create awareness of different skillsets ▪ Match tasks to skills

5.5.2 Interdimensional Alignment

Although the discovered dimensions and attributes as well as the existing models reveal important insights, the answer of how to intertwine the dimensions themselves remains a gap in the knowledge. As outlined at the beginning, there are only a few interdisciplinary theoretical studies highlighting those interventions that contribute to alignment. According to the findings, we analyzed the further applied axial coding of the interview material abductively and propose novel interdimensional interventions that weave the dimensions together. More specifically, in the construct of CSM, the combination of the functions are necessary, which in turn requires an intertwining of their associated attributes.

Accordingly, we developed these into a conceptual framework for M-S-I actors' alignment. Figure 5 - 1 shows the resulting *COMPLY* framework. The order of the dimensions in Figure 5 - 1 does not suggest a ranked structure or dependencies between the dimensions. However, there is only one important nuance: the practitioner should make sure that the attributes employed are complementary rather than oppositional or isolated (*COMPLY*).

In turn, the overall alignment can be shaped in two ways: first, intradimensional alignment, ensuring that the attributes *comply* another; and second, interdimensional alignment, creating overlapping interventions. Notwithstanding that practitioners need to apply intra- and interdimensional alignment customized to their environment and teams, which could also lead to a different weave of the interdimensional alignment. The following suggested interventions resulted from the study:

First, introducing one parent top management coordinator who aligns the overall objectives and funnels communication and ensures joint priorities. Thus the proposition I_A is an overlapping collection of P_1, P_2, P_3 and P_4

I_A (P_1,P_2,P_3,P_4): One parent top management coordinator (e.g. a Chief Customer Success Manager) achieves overall alignment by bundling activities and objectives at a high level, ensuring joint prioritizations, uniform responsibilities and customer-centric mindsets throughout the complete Customer Journey.

Second, introducing a single digital tool for communication and transparent information sharing, which provides customer information and controls customer interactions and thus creates links between the actors. This tool should contain the earlier defined objectives, track their key results and be accepted by the actors. Thus, Intervention I_B interweaves the dimensions P_1, P_2 and P_5:

I_B (P_1,P_2,P_5): One jointly used digital tool creates interdimensional alignment by ensuring transparent communication and information sharing, linkages in the customer interaction process management and the transparent measurement of KPIs.

Third, in contrast to the joint understanding and definition, diverse perspectives, skills and knowledge are also important to the alignment of customer interactions. Flexibly formed teams complement each other. This could be achieved by e.g. agile teams or interdisciplinary task forces, because of smaller planning increments and improved teamwork (Stare, 2014). Thus, intervention I_C groups P_3, P_5 and P_6

I_C (P_3,P_5,P_6): Interdisciplinary and flexible teams that have mutual orientations achieve interdimensional alignment by ensuring a balance of diverse skills and knowledge as well as individual linkages in both frequency and availability.

The three interdimensional interventions I_A, I_B and I_C resulted from abductive reasoning and intertwining the dimensions by overlapping inclusion of various propositions and their attributes, which is illustrated by Figure 5 - 1. The interdimensional alignment framework addresses the question of *how* to align the M-S-I actors in terms of combining the dimensions of alignment, including their attributes. The purpose of the alignment culminates in the common task of interacting with the customers seamlessly and throughout the complete Customer Journey supported by frameworks interventions.

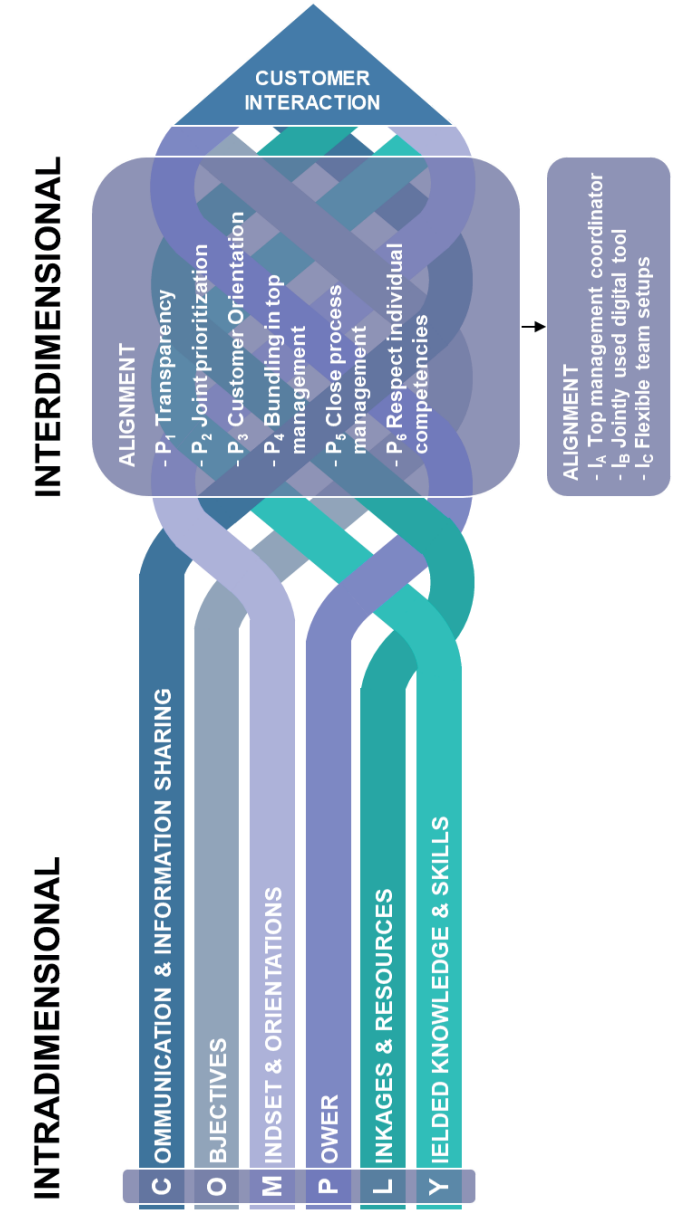

Figure 5 - 1 COMPLY Framework

5.6 Discussion

5.6.1 Theoretical Contributions

The study's contributions are fourfold.

First, it is one of the first to consider the interface between Marketing, Sales and IT (M-S-I) by exploring triadic results of matched M-S-I actors. Internal validity within this innovative research design was ensured by means of a rigorous research design, integrating the perspectives of each M-S-I actor within a single company, walking step-by-step through the stages of the Customer Journey. The *COMPLY* framework contributes to the CSM literature as a coordination mechanism in terms of which attributes of the different roles need to be aligned or even combined if Sales is to take on the CSM role.

The results and process of our case study show that analyzing more than two actors at a time is reasonable. Indeed, analyzing only two actors is a relic of a previous perspective, while the complex dynamics within the interactions have made the widening of the view a necessity. The tendency to focus on only one discipline hindered research progress in the past and a lack of cross-referencing slowed the creation of interdisciplinary research (Tanskanen et al., 2017). Future scholars are invited to overcome these barriers.

Third, the resulting conceptual contribution of this study's COMPLY framework could be applied to other disciplines to further challenge role stereotypes in organizations. However, we concede that some of the elements might be unique to M-S-I or customer interaction and need adaption, whereas the question of whether the framework is transferable to other domains remains open.

Fourth, the novel key propositions and interventions of this study open avenues for design-oriented research to design the artifact, shape the interface, consider requirements for an optimal setup and to conduct further analysis to validate the findings. Design-oriented research aims to result in propositions that serve as relevant inputs for management theories (van Aken & Romme, 2009).

5.6.2 Managerial Implications

The results of this empirical study provide highly relevant managerial implications and aimed to incorporate practical significance throughout the study design, which has also been achieved by consistently including answers of each of the M-S-I actors for every analyzed business unit to include all perspectives and also harmonize the responses from a feasibility perspective. The study proposes four managerial implications:

First, the dimensions of alignment, including their intradimensional attributes, help managers to understand the specific dimensions of alignment

and provide scope for applying interventions. Practitioners aiming for alignment can use the *COMPLY* framework as an evaluation or an alignment coordination mechanism in their organizations.

Second, this study provides a new understanding of CSM as a combination of various functions throughout the Customer Journey. CSM contains functions of Marketing, Sales (including Key Account Management) and IT that need to be aligned to transfer the organization as a whole into CSM. For business units that aim to implement CSM, the attributes provide guidance for transferring the Sales, Marketing and IT roles into CSM. However, it is for managers to decide which of those will be transferred in any particular business.

Third, it highlights the relevance of alignment between M-S-I in general, which is still an evolving topic in the managerial context, which many respondents stated after the interviews as general feedback. Thus, we conclude that managers should be invited to integrate IT actors into the customer interaction proactively and create awareness for the alignment along the Customer Journey.

Fourth, we suggest that managers understand the specific attributes and dimensions in the context the alignment should occur in, which will reveal opportunities for and barriers to alignment. Although the COMPLY framework was intended to foster the dimensions of alignment, it can also be used in analyzing barriers to alignment. Considering barriers in terms of the COMPLY framework attributes, the framework supports managers in identifying necessary actions in their organizations and improve the design of the M-S-I interface. How the alignment weave needs to be intertwined for each single organization remains for each managers to decide, but this study provides the key attributes and proposes specific adjustment interventions for doing so.

5.6.3 Limitations and Future Research

Although the results of this study offer promising lessons for both scholars and managers, it is not free of limitations, which can nevertheless be overcome in future studies. First, the findings are based solely on respondents' statements and are neither complete nor independent of the industry and its products. Further research is needed to confirm the generalizability of our findings, for example through a quantitative study, which should also consider the effect of excluded variables, such as type of customer, contract volume, and regions or branches. Specifically, the stated dimensions and attributes listed in Table 5 - 3 are neither a complete list, nor necessarily transferrable, but indicate the key areas and can be used as a basis for fostering alignment. Finally, the opportunities for future research that we have identified should also spur the debate about how to best measure alignment.

5.6.4 Conclusion

Aligning actors within an organization to provide a seamless customer success management is essential for managers but also remains a challenge. This study is, to our knowledge, the first that carried out interviews with matched triples of M-S-I actors within the same companies to ensure integration of different perspectives, coherence of the answers and limiting influence factors at the same time. The exploration of the interface of M-S-I actors as an artifact reveals that alignment is essential for the interplay, which is shaped by various dimensions and intradimensional attributes. Six dimensions of alignment, termed ***C****ommunication & information sharing,* ***O****bjectives*, ***M****indset & orientations,* ***P****ower*, ***L****inkages & resources*, and ***Y****ielded knowledge & skills*, shape the alignment of the M-S-I actors within this interface. The findings resulted in the *COMPLY* framework, which provides attributes for these dimensions, and which are furthermore complemented by abductively developed intradimensional interventions. The findings of this research suggest novel key propositions for scholars and managers to analyze and shape the intradimensional and interdimensional alignment for organizational interfaces and open paths for design-oriented research and validation in CSM. The suggested interventions encompass: (I_A) one coordinator from top management who bundles activities and objectives being a role model for customer-oriented mindset; (I_B) one jointly used digital tool for communication and transparent information sharing; and (I_C) flexible or agile teams with common orientations, which integrate diverse, interdisciplinary skills. By applying the COMPLY framework within organizations, alignment between the M-S-I actors interface can be identified and shaped, which paves the way to achieve effective CSM for organizations. Having an aligned customer interaction established, the customer will no longer perceive the interaction along his journey as a patchwork, but will be welcomed on a knitted red carpet.

Chapter 6

Synopsis

"HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTIONS DURING DIGITAL TRANSFORMATION IN B2B?"

Summary:
This study aimed to explore whether Digital Transformation in Marketing and Sales means alignment with IT, and how this can be leveraged to improve customer interactions.

This has been condensed in the overall research question that will be answered in this final chapter.

6.1 Overview

In this final Chapter 6, the answers to the research question and the questions raised in the individual chapters are answered in the following Section 6.2. This chapter is based on the results of the different steps of this dissertation, as represented by the individual Chapters 2-5. It brings these parts together in a synopsis and relates the findings from these chapters back to the main research question to provide the answer. While the limitations of the findings of each chapter have been addressed in that respective chapter, Section 6.3 identifies the limitations of this research project as a whole and presents areas for future research based on these given boundary conditions. In the final Section 6.4, the overall conclusion summarizes the key messages of this research project.

6.2 Discussion

6.2.1 Summary of Findings

To facilitate understanding of the discussion, the key findings identified in Chapters 2-5 are briefly summarized in chronological order in Table 6 - 1.

Table 6 - 1 Key Findings of Thesis

	Key findings	In-text reference
Chapter 2	Digital Transformation prevails in Marketing according to the identified levers *data, connectivity, automation* and *digital customer interaction*. Marketing tools follow in sequence of enabling IT technologies. Marketing domains arise consequently and independently from the Digital Transformation levers. These findings have confirmed the occurrence of Digital Transformation in Marketing and that marketing tools are dependent on IT developments.	Figure 2 - 2 Digital Transformation in Marketing (Page 41)
Chapter 3	A literature review of the past 20 years demonstrates a research gap of the M-S-I interface. The collected studies show models for the alignment of dyads between M-S or IT-other that are promising in terms of their positive impact on e.g. business performance. The alignment of IT with the existing framework of Marketing and Sales is novel and rarely part of the history of marketing research.	Figure 3 - 3 Areas of current interdepartmental Alignment Research (Page 55)
Chapter 4	IT actors need to be differentiated into two categories: as a production function, IT(P), and as an enabler for other departments to fulfill their tasks, IT(E). This differentiation contributes to the understanding of the actors' roles within this interface.	Chapter 4.3.2 (Page 87)
Chapter 4	The perceived responsibilities of M, S, IT(P) and IT(E) are dynamically shifting among the actors throughout the Customer Journey stages. The findings demonstrate that in practice, IT is already part of customer interactions.	Figure 4 - 2 Responsibility of M-S-I Actors during the Customer Journey (Page 78)
Chapter 5	Six dimensions shape the alignment, namely: **C**ommunication & Information Sharing; **O**bjectives; **M**indset & Orientations; **P**ower; **L**inkages & Resources; **Y**ielding Knowledge & Skills. These lead to the following six propositions for intradimensional alignment:	Table 5 - 3 Overview of intradimensional Adjustment Levers per Attribute (Page 101)

	P_1: Customer information sharing and transparent communication need to be established. *P_2: Objectives need to be coordinated in an interdisciplinary way with jointly prioritized, measurable key results.* *P_3: Joint understanding of customer-oriented thinking and an open digital mindset need to be established.* *P_4: Bundling of activities, leveling responsibilities and a positive mentality need to be ensured by the top management.* *P_5: Close linkages and joint process management through aligned resources need to be established.* *P_6: Individual skills need to be respected and selected, and yielded knowledge has to be shared.*	
Chapter 5	The *COMPLY* framework for intra- and interdimensional alignment incorporates these discovered dimensions and adds interventions to intertwine them. *I_A (P_1,P_2,P_3,P_4): One parent top management coordinator (e.g. a Chief Customer Success Manager) achieves overall alignment by bundling activities and objectives at a high level, ensuring joint prioritizations, uniform responsibilities and customer-centric mindsets throughout the complete Customer Journey.* *I_B (P_1,P_2,P_5): One jointly used digital tool creates interdimensional alignment by ensuring transparent communication and information sharing, linkages in the customer interaction process management and the transparent measurement of KPIs.* *I_C (P_3,P_5,P_6): Interdisciplinary and flexible teams that have mutual orientations achieve interdimensional alignment by ensuring a balance of diverse skills and knowledge as well as individual linkages in both frequency and availability.* The framework acts as a coordination mechanism to analyze, shape and adjust alignment in the context of M-S-I customer interactions.	Figure 5 - 1 COMPLY Framework (Page 104)

6.2.2 Discussion of Findings

After our own journey through this dissertation project, the golden thread has been laid out as follows. At the outset, the study discovered that Digital Transformation exists in Marketing and Sales by identifying Digital Transformation levers in Chapter 2 and forecasting a potential era of autonomous IT. Implicitly, these findings were the heralds for the need for alignment among the three actors – Marketing, Sales and IT – because an ongoing Digital Transformation – enabled through IT developments – means Marketing and Sales must coordinate with IT to get ahead of the rolling wave of Digital Transformation.

Moving on to Chapter 3, the study revealed a surprising lack of knowledge on alignment or any other type of interplay among all three M-S-I actors together. Dyadic analyses have been conducted in literature, mainly between M-S and IT with other departments. In retrospect, this is symptomatic for the view that IT is simply a resource that can be accessed by Marketing and Sales, as well as the tendency to analyze a fragment within one discipline rather than interdisciplinary research (Bartunek & Rynes, 2014), and therefore the need for the eye-to-eye alignment that this study brought to light was not previously

considered to be necessary. This could potentially mean that the extent to which Digital Transformation of Marketing and Sales would impact their roles and responsibilities has been underestimated.

In terms of roles and tasks, Chapter 4 examines these responsibilities within a case study that includes the perspectives and responses of all three M-S-I actors from the same business unit, in order to exclude environmental effects such as culture, leadership style, etc., and to mitigate a single-informant bias that other studies have implied. Thus, by exploring current customer interaction tasks and which actor plays which role, the analysis showed that IT actors are already interacting with customers and are perceived to have responsibilities throughout the Customer Journey. Although the number of case study participants was limited, an interrater reliability calculation of Krippendorff's Alpha showed that all respondents shared this level of perceived responsibility. In addition, the study shows that IT can be divided into two roles, referred to as IT(production) and IT(enabler), which in turn have different levels of perceived responsibility. The study also found that these responsibilities are dynamic throughout the Customer Journey in the sense that actors are perceived to have different levels of responsibility for customer interactions at different stages of the Customer Journey. These findings are based on the customer interaction touchpoints identified by respondents, which determine the pattern of the results. This adds to the essential perception that alignment between these actors is necessary as their responsibilities change dynamically.

Finally, from what has already been learned during this Thesis, it is a consequent next step to elaborate the alignment of the three actors analyzed. The interdependencies of shared responsibilities in customer interactions make it evident that alignment is critical to successful interactions. In Chapter 5, existing alignment models in the literature were analyzed, although they were designed for two actors and a similar context. A case study of the same matched triplets as in Chapter 4 revealed characteristics of the desired alignment, resulting in a framework of alignment. This so called COMPLY framework provides six dimensions of alignment containing 20 attributes. Together with the resulting interventions, it can be used as a coordination mechanism to analyze, shape, and adjust both inter- and intra-dimensional alignment. It was developed in the context of interfunctional alignment for customer interactions.

The discovered results of the individual chapters were in turn consecutive steps to answer the overall research question: **"HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTIONS DURING DIGITAL TRANSFORMATION IN B2B?"** The final answer to this question has already been given in the previous chapters. Customer interactions will improve when Marketing and Sales proactively align with IT. This means designing touchpoints together, creating a digital tool for coordination, and having top management support for alignment.

Consequently, organizations need to integrate IT in such a way that M, S, and IT actors perceive themselves as aligned. The COMPLY framework provides the possible attributes for designing this aligned interface.

To answer the research question, the selected case study methods and frameworks were appropriate for the following reasons. First, qualitative methods were necessary and appropriate because there were new phenomena to be discovered. The integration of IT was emerging and existing models for alignment were outdated. According to Section 1.3, no quantitative study could have discovered the grounds (Edmondson & McManus, 2007) that have been used to discover the need for alignment and to design a framework that can be used to coordinate, shape, or adjust alignment.

The selected cases, as outlined in the individual chapters, were the most appropriate because they ensured consistent findings from each individual M-S-I perspective, while at the same time harmonizing interfering variables such as culture, industries, products, leadership, etc. The research design, although cumbersome and unable to efficiently collect data from a large number of respondents, resulted in rich findings that explore the complex facets of the M-S-I interface. As shown by Krippendorff's Alpha interrater reliability (Hayes & Krippendorff, 2007), the respondents' answers were consistent, so the case study was an appropriate method for this dissertation. As a result, this study is the first to conduct an in-depth investigation of the M-S-I interface in terms of customer interaction, and is also the first to consider matched triple findings, which will lead to future research as outlined later.

The use of the Customer Journey as a framework was well suited to overcome the limitations of existing Marketing-Sales studies and to analyze the interface dynamically. In the literature, the cooperation or alignment of Marketing and Sales is usually considered in general terms. At the same time, customer interactions have been analyzed with extensive studies on its dynamics in terms of multichannel characteristics and other environment factors. Apparently, the coordination and alignment among the actors is influenced by these characteristics and is likely to be dynamic itself. Analyzing the M-S-I alignment throughout the Customer Journey is just one consequent approach to address the dynamic, multichannel customer interactions. Surprisingly, the Customer Journey is hardly ever used as a guiding framework for inter-organizational studies, which makes this study one of the first to consistently apply it. In particular, respondents found it compelling and were able to describe the responsibilities and characteristics in more detail because they could distinguish them from those of other stages of the Customer Journey. As a result, the Customer Journey was very appropriate for this in-depth study and provided new and more detailed contributions.

6.2.3 Theoretical Contributions

From a theoretical perspective, this study makes six contributions to academia.

First, the study contributes to interdisciplinary research by anchoring IT in the Marketing and Sales domains and identifying and closing the knowledge gap about this interface. Avoiding the fragmentation of research and at the same time keeping the research distinct is required (Bartunek & Rynes, 2014), which is achieved with this interdisciplinary approach. It contributes to studies that have analyzed the Marketing-Sales interface by adding IT as a third player, expanding on what has already been accomplished. Building on existing comprehensive studies of the Marketing-Sales interface (e.g., Homburg et al., 2008), this study adds another building block in terms of adding IT as a third actor and one more by transferring it to a dynamic perspective.

Thus, secondly, this study demonstrates that the M-S-I interface is dynamic and perceived responsibilities for customer interaction vary between these actors, which contributes to the understanding of the influence of customer interactions on inter-organizational actors and vice versa. It is the first study to include all three perspectives in the matched triple research design, overcoming the common single-informant bias and incorporating a longitudinal perspective by using the Customer Journey as a framework. The case study also draws on insights from senior executives, including senior directors, SVPs, CIOs, and CMOs, ensuring perspectives that have an overview of the reasons and opportunities for change at the interface under study, which has rarely been the case in previous research studies. Thus, the identified respondents' statements carry particular weight for academia. This consequent research design contributes to future studies in analyzing other inter-organizational interfaces.

Third, it clarifies the differences and defines the terms alignment, coordination, collaboration, and integration. The nuanced use of these terms provides options for scholars to improve existing theories or models in terms of specialization.

Fourth, it contributes to distinguishing now in two different facets of IT actors, namely IT(production) and IT(enabler). This important distinction drives the discussion on organizational setups and functions. The demonstration of this differentiation also contributes to the Digital Transformation literature, because even traditional organizations, as the ones studied in this research, started to integrate the IT(P) function, which needs separate attention from the academia.

Finally, the main contribution is the COMPLY framework, which describes inter-organizational alignment and provides six dimensions and 20 attributes to analyze, design or shape alignment. While the generalizability of the framework is discussed in the limitations, this model can be used as a mechanism to coordinate alignment and contributes to academia by building on existing models from literature and updating missing dimensions and attributes. Although the

framework has been developed for customer interactions, it is not limited to this application and a transfer to other purposes or generally for alignment within organizations could be worthwhile.

This dissertation also provides contributions for the important and growing but still under-researched field of customer success management (Prohl-Schwenke & Kleinaltenkamp, 2021), which has emerged as an evolution of the customer experience or customer solutions literature (Hilton et al., 2020). These concepts have in common that they understand selling as a process and increase the customer's expectations of the sales organization in supporting the customer, both pre-purchase in terms of needs and post-purchase in terms of adapting the service or product. This Thesis adds a perspective that Sales is faced with additional tasks that are nowadays performed by IT(P) and Marketing and offers the alignment among these actors as a possible solution to encounter CSM.

In summary, this Thesis contributes to the marketing management as well as sales management literature by providing a new understanding of the need and shape of alignment with IT actors and it contributes to the information systems literature by creating awareness of Marketing's dependency on IT developments and their already existing stake in customer interaction. Along with the stated and grounded contributions, this dissertation also provides the space for more abstract ideas on research. To summarize what has been learned: (1) IT is not only a required internal resource but also a central junction in customer interactions; (2) customers have become increasingly demanding in terms of (a) interaction channels and touchpoints, and (b) customized solutions that in turn support their own success, as concepts such as customer solutions and CSM promote; so that (3) customer interactions' responsibilities and organizational alignment are dynamic and relate to customers. On this basis, if we look back to the roots of organizational theories, a lot has changed over time. Porter (1985) conceptualized a value chain pointing towards the customer, where each activity within this chain adds value to the end product for the customer. The original value chain consists of *firms infrastructure, human management, technology development and procurement* as so called 'support activities' laying continuously on the top, and *inbound logistics, operations, outbound logistics, marketing & sales* and *service* as 'primary activities'. At that time, there was hardly any IT involved, and customers were solely understood as end users of the products. Considering the results of this study as a contribution to Porter's value chain, it could be thought of as a recurring loop, as shown in Figure 6 - 1, where IT has been introduced at its core and the customer as the balance of the company's activities with whom the interaction takes place, which has originally not been included in the illustration of Porter (1985).

In Figure 6 - 1, the customer is still the desired end user of the products,

but also has an influence on the design and shape of the product. However, like ying and yang, both sides need and benefit from each other. Accordingly, the value chain is presented as a recurring loop, meaning that the organization's output is passed on to the customer, and the customer in turn makes demands on the organization (e.g., in terms of product design, sustainable production, or logistics). IT facilitate this influence through the manifold customer interaction channels. As discussed in this Thesis, IT can be divided into IT(E) and IT(P), which implies that it is both a primary and supporting activity according to Porter (1985), which is the reason for presenting IT at a different position in the value chain. IT, as a central node at the core of the cycle, enables both the interaction with the customer and the value creation for the product development as a newly defined function in the concept of the value chain. For simplification and transferability, Figure 6 - 1 does not distinguish between IT(P) and IT(E), as it has not yet been analyzed which of the two affects which activity, and this may potentially differ for different organizations.

With IT enabled customer interactions, the customer is able to impact every part of the value chain. This concept could contribute to the customer

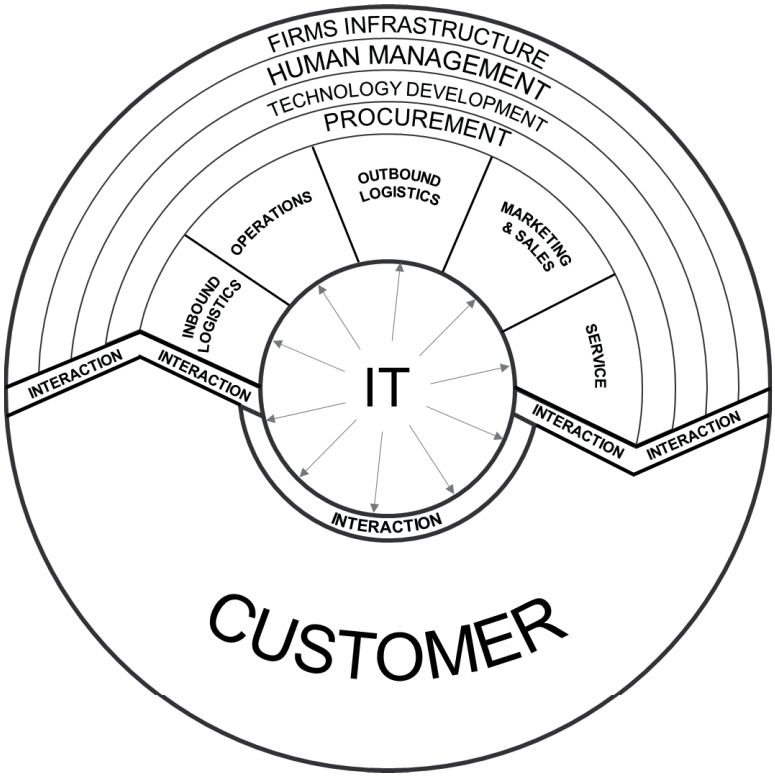

Figure 6 - 1 Value Chain Loop amended from Porter (1985)

experience in co-creation (e.g., Sahhar & Loohuis, 2022; Sheth, 2019), or to customer centricity organizational behavior (e.g., Wechsler & Schweitzer, 2019). Although this concept needs more grounding to hold up, it gives a sense of both how the literature has changed over time to promote CSM and why the contributions of this dissertation are so relevant, even if they remain to be discussed. It combines the evolving importance of IT due to the Digital Transformation of organizations with the transformation of organizations' products towards customer solutions and CSM. This will open rich avenues for future research to be built block by block to manifest understanding of customer interactions.

6.2.4 Managerial Implications

As stated at the beginning, this dissertation aimed to continuously balance practice and theory. Therefore, it contains strong managerial implications, the most important of which are summarized below.
First, it provides awareness for marketing managers to carefully analyze their digital capabilities and innovativeness in addition to the applied digital marketing tools (Feng et al., 2020). This is necessary to effectively utilize the existing touchpoints, and beneficial to adapt the touchpoints to customer interaction. While

Table 4 - 3 provides an overview of customer touchpoints, and managers need to be aware of the number and competencies required to cope with them (Bunjak et al., 2021), and also with potentially new or different touchpoints. Like the drone of a bagpipe, this Thesis conveys the underlying message that Digital Transformation also means that Marketing and Sales actors must be open to new enabling technologies, get used to them and learn how to leverage the opportunities they bring - for example, for social media capabilities (Benitez, Castillo et al., 2018) - where managers face the reality of user acceptance challenges (Popovič, 2017; Venkatesh et al., 2003). The same is true for IT, which has to get used to being involved in customer interactions. Accordingly, organizations need to take control of the customer touchpoints for which this Thesis creates awareness and provides clues. Overall, this will be important for managers to achieve customer engagement (V. Kumar et al., 2019), successful customer experience (Bolton, 2016), or customer success management (Eggert et al., 2020), or any of these concepts.

Second, this study provides marketing practitioners with the first tools for the successful shaping, analysis, and adjustment mechanism of alignment. Managers can benefit from this versatile instrument by applying the attributes to their organizations and further validating whether they provide the structures that enable the interdimensional interweaving of alignment dimensions, e.g., aligned top management, commonly used digital tools, and flexible team setups. Managers will develop further ideas using this coordination mechanism.

And finally, the obvious need for alignment of the M-S-I interface contributes to managerial practice. This is because awareness of the now two different forms of IT(P) and IT(E), both of which already have roles in customer interactions, will wake up managers to adjust organizational structures and inter-organizational responsibilities accordingly. For example, managers will ask themselves: "Why should Marketing alone decide the design of the company's website?" "Why should Sales and Marketing decide which customer interaction channels to use?" "Why is Sales responsible for determining the features of the CRM tool?" Several aspects will change in practice as a result of an aligned M-S-I interface, for which this Thesis provides a further step of foundation.

6.3 Boundary Conditions

6.3.1 Limitations

Although this study has attempted to include as many aspects as possible, limitations have to be imposed in order to focus on the core of the phenomena under investigation. These limitations also act as boundary conditions, framing the area for which the results are applicable (Busse et al., 2016). While specific

limitations are identified within each chapter, the following are generalized reflections related to the Thesis as a whole.

First, the cases analyzed within this Thesis have limitations in terms of transferability that need to be overcome through further research. On the other hand, the fact that all the business units analyzed are part of the same company makes it possible to exclude influencing variables such as culture, leadership, legislation, etc., from the analysis. These variables also affect the shape of the alignment. They might even be aggregated into a new dimension of alignment. However, since business units operate globally, in different industries, and have subsidiaries all over the world, this Thesis did not examine whether alignment is shaped by other attributes for companies in completely different geographic locations or for completely different industries or service domains.

Second, methodologically, an extensive qualitative case study consisting of interviews was conducted, which has already been justified. While the use of scaling qualitative content analysis (Mayring, 2015) is also on the edge of mixed methods, such complex phenomena as organizational interfaces and customer interaction may well require mixed methods as a route to better understanding. Generalizability and transferability of the findings are also limited due to the applied methods, which was caused by the knowledge gap in this area and should be overcome by future studies, followed to this Thesis. The identified responsibilities, which aim to demonstrate their existence and dynamics, do not indicate an absolute, measured level of responsibility. If such a result were desired, taking into account the above-mentioned limitations for culture, industrial sectors, etc., further quantitative studies would be necessary in order to achieve a generalization of these results.

Furthermore, this dissertation was started before and finished after the COVID-19 pandemic, which changed many assumptions during the analysis. The use of digital tools and digital alignment within the organization is not the same as in 2019, and the Digital Transformation gained accelerated during the past three years. Customer interaction has also changed. In the business units studied, there were almost no video calls during acquisition in 2019, which are common practice today in 2023 (Benitez et al., 2023). This does not mean that there is an alignment between the actors today, but it could have had an impact on awareness on its own. This also affects the touchpoints identified in the study, which are only effective in the environment studied and are not a complete list that can be transferred to any industry.

6.3.2 Future Research

The limitations identified also provide rich directions for future research, a promising compilation of which is suggested below.

Further studies on perceived responsibilities will contribute to a deeper

understanding of customer interaction. A quantitative study analyzing perceived responsibilities across industries will validate the findings of this Thesis and provide a more nuanced knowledge of customer interaction throughout the Customer Journey. Furthermore, a subsequent study analyzing responsibility per customer touchpoint would further deepen this understanding and also contribute to the responsibility of designing new touchpoints.

Perceived responsibilities also imply the possibility of conflicting responsibilities, which should be explored in future studies. For which stages or touchpoints in the Customer Journey do conflicting responsibilities prevail, and what are the resulting consequences?

The distinction between IT(P) and IT(E) offers avenues for future research. The study found evidence during the interviews that IT(P) and IT(E) may be blurred for younger organizations, such as startups, and may be more differentiated for mature companies This leads, for example, to the fact that IT(P) or IT(E) capabilities are also more important for the actors of small companies (Braojos-Gomez et al., 2015). This effect should be investigated and the impact on inter-organizational alignment and customer interaction should be analyzed.

Future studies should also examine the nature of the COMPLY framework and, in particular, its dimensions. For example, the value of the dimensions could be assessed and a ranking of the dimensions for shaping alignment could be developed. Some dimensions may have a greater impact on alignment, while others may be easier to implement, which could be used to rank the dimensions. There is already a rich body of literature that could be used to build upon, step by step, towards a better understanding of alignment. For instance, digital knowledge bases and their effect on alignment (Abbas et al., 2022) seems promising as an example for alignment with IT, and it could be compared with the effect of joint goals (Pieper et al., 2008) as one of many examples. Accordingly, an efficiency coefficient could be developed to assess the design or shape of alignment.

Finally, the resulting COMPLY framework should be validated not only in practice but also in theory, and I would be delighted to find future studies that apply the framework. Its transferability to other actors than M-S-I could be validated as well as for another purpose than customer interaction. For example, analyzing the alignment between IT(P), Product Development and Sales for the purpose of new product development could be an interesting case.

6.4 Conclusion

This dissertation examines how Marketing and Sales can deal with the Digital Transformation conceptually. It considers that Marketing and Sales are intended for customer interactions and constantly observes the inter-organizational

interplay through this lens. It finds that the Digital Transformation has already been initiated by IT and that Marketing has been using the tools reactively, which the Thesis suggests should be overcome through joint design and use of customer touchpoints. Furthermore, a proactive alignment with IT is necessary to coordinate the existing responsibilities of all three players, which Marketing and Sales have so far failed to consider for IT. Apparently, IT is already part of the Marketing and Sales working environment, and IT actors have become an active part and are also perceived as responsible for customer interactions. Accordingly, an alignment among the M-S-I actors is necessary, where this study's COMPLY framework provides levers for shaping, analyzing, and adjusting. Overall, this dissertation is a journey from a vague knowledge gap about what Digital Transformation means, through its shape of customer interactions in practice, to a toolset for managing it. Finally, we arrive at the answer; it's in one sentence:

Managing the
DIGITAL TRANSFORMATION OF CUSTOMER INTERACTIONS
implies
ALIGNING MARKETING, SALES AND IT

Appendix A

INTERVIEWLEITFADEN / INTERVIEW GUIDELINE

Einleitung

- Vorstellung Interviewer
- Dank für die Teilnahme
- Erläuterung Ziel: PhD Forschungsprojekt - Wir möchten gern mehr über den Einfluss / die Auswirkungen Zusammenarbeit zwischen Marketing, Sales und IT in Bezug auf Kunden erfahren.
- Präsentation des Ablaufs:
  - Dauer etwa 45-60min, ggf. Pause
  - Hinweis auf Tonaufnahme mit Bitte um Einverständnis (Unterzeichnung der Einwilligungserklärung)
- Kurze Einführung in das Thema (Customer Journey → Customer Touchpoints und Erläuterung wichtiger Begrifflichkeiten
- Bitte um kurze Beschreibung der eigenen Person, Erfahrungen mit digitalen tools, Position und Firma (z.B. Mein Name ist xx, ich leite xyz im Bereich zyx der Firma yy)

Introduction

- Introduction interviewer
- Thank you for participation
- Explanation of goal: PhD Research Project - We would like to learn more about the influence / impact of marketing, sales and IT alignment in terms of customer view
- Presentation of the course of the interview:
  - Duration approx. 45-60mins, plus breaks if needed
  - Pointing at audio recording (signing the declaration of consent)
- Brief introduction to the topic (Customer Journey → Customer Touchpoints and explanation of important terms
- Request for brief introduction of interviewee, relation to digital tools, and company (e.g. My name is xx, I am head of xyz in the department zyx in the company yy)

Erster Fragenblock:
Allgemeine Zusammenarbeit

1. Schildern Sie bitte die Zusammenarbeit zwischen **marketing und sales** in Ihrer Firma aus Ihrer Sicht
   a. …in Hinblick auf den Themen und Aufgaben?
   b. …in Hinblick auf die Art und Weise des Austauschs?
   c. …in Hinblick auf die Frequenz des Austauschs?
2. Schildern Sie bitte die Zusammenarbeit zwischen **marketing und IT** in Ihrer Firma aus Ihrer Sicht
   a. …in Hinblick auf den Themen und Aufgaben?
   b. …in Hinblick auf die Art und Weise des Austauschs?
   c. …in Hinblick auf die Frequenz des Austauschs?
3. Schildern Sie bitte die Zusammenarbeit zwischen **IT und sales** in Ihrer Firma aus Ihrer Sicht
   a. …in Hinblick auf den Themen und Aufgaben?

First Set of Questions:
General working relationship

1. Please explain the working relationship between **marketing and sales** in your company?
   a. …with regards to its topics and tasks?
   b. …with regards to the type of relationship?
   c. …with regards to the frequency of relationship?
2. Please explain the working relationship between **marketing and IT** in your company?
   a. …with regards to its topics and tasks?
   b. …with regards to the type of relationship?
   c. …with regards to the frequency of relationship?
3. Please explain the working relationship between **sales and IT** in your company?
   a. …with regards to its topics and tasks?

   b. …in Hinblick auf die Art und Weise des Austauschs?
   c. …in Hinblick auf die Frequenz des Austauschs?
4. Wie die Zusammenarbeit aller 3 Parteien zusammen aus?
5. Welche Aufgaben gehören aus Ihrer Sicht zu den Aufgaben der IT?

Zweiter Fragenblock:
Verkaufs Anbahnungsphase

6. Schildern Sie die Aufgaben und Verantwortlichkeiten in Bezug auf Customer Touchpoints in der Stufe **„Be Aware**“
   a. … welche Touchpoints kennen Sie in dieser Phase?
   b. … welche der 3 Bereiche M-S-I arbeiten daran?
   c. … ist ein Department verantwortlich, wenn ja, welches?
   d. … beschreiben Sie die Zusammenarbeit und Koordination?
   e. … warum wird so gearbeitet, was sind Vor- und Nachteile?

7. Bitte schildern Sie die Aufgaben und Verantwortungen in Bezug auf Customer Touchpoints in der Stufe „**Consider**“
   a. … welche Touchpoints kennen Sie in dieser Phase?
   b. … welche der 3 Bereiche M-S-I arbeiten daran?
   c. … Ist ein Department verantwortlich, wenn ja, welches?
   d. … beschreiben Sie die Zusammenarbeit und Koordination?
   e. … warum wird so gearbeitet, was sind Vor- und Nachteile?

8. Bitte schildern Sie die Aufgaben und Verantwortungen in Bezug auf Customer Touchpoints in der Stufe „**Evaluate**“
   a. … welche Touchpoints kennen Sie in dieser Phase?
   b. … welche der 3 Bereiche M-S-I arbeiten daran?
   c. … ist ein Department verantwortlich, wenn ja, welches?
   d. … beschreiben Sie die Zusammenarbeit und Koordination?
   e. … warum wird so gearbeitet, was sind Vor- und Nachteile?

9. Wie gestaltet sich in der **Pre-Purchase Phase** die Ausrichtung oder

   b. …with regards to the type of relationship?
   c. …with regards to the frequency of relationship?
4. Please explain the working relationship between all three parties
5. Which tasks are tasks the IT should fulfil?

Second Set of Questions:
Pre-Purchase Phase

6. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “**be aware**” stage?
   a. …what touchpoints exist?
   b. … how are they addressed by the departments (M-S-I)? who is working for it?
   c. … is one department responsible for the process, which?
   d. … describe the alignment and coordination?
   e. … why is it like that? What are advantages and disadvantages?

7. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “**consider**” stage?
   a. …what touchpoints exist?
   b. … how are the three roles (M-S-I) working for it?
   c. … is one department responsible for the process, which?
   d. … describe the alignment and coordination?
   e. … why is it like that? What are advantages and disadvantages?

8. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “**evaluate**” stage?
   a. …what touchpoints exist?
   b. … how are the three roles (M-S-I) working for it?
   c. … is one department responsible for the process, which?
   d. … describe the alignment and coordination?
   e. … why is it like that? What are advantages and disadvantages?

9. To what extent exists alignment or coordination with the IT by marketing

Zusammenarbeit mit der IT seitens M oder S?
a. … welche Vorteile bietet diese Zusammenarbeit?
b. … was sind die Herausforderungen bei der Zusammenarbeit?
c. … was begünstigt die Zusammenarbeit bzw. würde diese begünstigen?
d. … Wie würde eine ideale Zusammenarbeit aussehen?

Dritter Fragenblock:
Purchase Phase

10. Bitte schildern Sie die Aufgaben und Verantwortungen in Bezug auf Customer Touchpoints in der Stufe „**purchase**“
    a. … welche Touchpoints kennen Sie in dieser Phase?
    b. … welche der 3 Bereiche M-S-I arbeiten daran?
    c. … Ist ein Department verantwortlich, wenn ja, welches?
    d. … beschreiben Sie die Zusammenarbeit und Koordination?
    e. … warum wird so gearbeitet, was sind Vor- und Nachteile?
11. Wie gestaltet sich in der **Purchase Phase** die Ausrichtung oder Zusammenarbeit mit der IT seitens M oder S?
    a. … welche Vorteile bietet diese Zusammenarbeit?
    b. … was sind die Herausforderungen bei der Zusammenarbeit?
    c. … was begünstigt die Zusammenarbeit bzw. würde diese begünstigen?
    d. … wie würde eine ideale Zusammenarbeit aussehen?

Vierter Fragenblock:
Post-Purchase Phase

12. Bitte schildern Sie die Aufgaben und Verantwortungen in Bezug auf Customer Touchpoints in der Stufe „**confirm**“
    a. … welche Touchpoints kennen Sie in dieser Phase?
    b. … welche der 3 Bereiche M-S-I arbeiten daran?
    c. … ist ein Department verantwortlich, wenn ja, welches?
    d. … beschreiben Sie die Zusammenarbeit und Koordination?

or sales during **the pre-purchase phase**?
a. … what prospects does this alignment generate?
b. .. what challenges do you see by alignment and coordination?
c. … what would encourage the alignment or coordination?
d. … how would an ideal alignment look like?

Third Set of Questions:
Purchase Phase

10. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “**purchase**” stage?
    a. …what touchpoints exist?
    b. … how are the three roles (M-S-I) working for it?
    c. … is one department responsible for the process, which?
    d. … describe the alignment and coordination?
    e. … why is it like that? What are advantages and disadvantages?
11. To what extent exists alignment or coordination with the IT by marketing or sales during the **purchase phase**?
    a. … what prospects does this alignment generate?
    b. .. what challenges are do you see by alignment and coordination?
    c. … what would encourage the alignment or coordination?
    d. … how would an ideal alignment look like?

Fourth Set of Questions:
Post-Purchase Phase

12. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “confirm” stage?
    a. … what touchpoints exist?
    b. … how are the three roles (M-S-I) working for it?
    c. … is one department responsible for the process, which?
    d. … describe the alignment and coordination?

e. … warum wird so gearbeitet, was sind Vor- und Nachteile?

13. Bitte schildern Sie die Aufgaben und Verantwortungen in Bezug auf Customer Touchpoints in der Stufe „**bond**“
    a. … welche Touchpoints bestehen in dieser Phase?
    b. … welche der 3 Bereiche M-S-I arbeiten daran?
    c. … Ist ein Department verantwortlich, wenn ja, welches?
    d. … beschreiben Sie die Zusammenarbeit und Koordination?
    e. … warum, was sind Vor- und Nachteile?

14. Wie gestaltet sich in der **Post-Purchase** Phase die Ausrichtung oder Zusammenarbeit mit der IT seitens M oder S?
    a. … welche Vorteile bietet diese Zusammenarbeit?
    b. … was sind die Herausforderungen bei der Zusammenarbeit?
    c. … was begünstigt die Zusammenarbeit bzw. würde diese begünstigen?
    d. … wie würde eine ideale Zusammenarbeit aussehen?

Abschluss

- Gibt es einen Aspekt der (möglichen) Zusammenarbeit zwischen M-S-I den Sie besonders hervorheben möchten?
- Gibt es noch offene Fragen / Punkte / Anmerkungen, die Ihnen wichtig sind und noch nicht angesprochen wurden?
- Herzlichen Dank und Verabschiedung

e. … why is it like that? What are advantages and disadvantages?

13. Please describe the tasks and responsibilities with regards to the customer touchpoints during the “**bond**” stage?
    a. …what touchpoints exist?
    b. … how are the three roles (M-S-I) working for it?
    c. … is one department responsible for the process, which?
    d. … describe the alignment and coordination?
    e. … why is it like that? What are advantages and disadvantages?

14. To what extent exists alignment with the IT during the **post-purchase phase**?
    a. … what prospects does this alignment generate?
    b. .. what challenges do you see by alignment and coordination?
    c. … what would encourage the alignment or coordination?
    d. … how would an ideal alignment look like?

Conclusion

- Is there one aspect of the M-S-I joint working relationship which you would like to highlight?
- Are there any questions / remarks left that you would like to mention?
- Thank you and farewell

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Summary

This dissertation explores the impact of Digital Transformation on Marketing and Sales. The Digital Transformation is influencing customer behavior across the board by creating new sales channels, opportunities for product evaluation and customer communication. At the same time, more and more digital products are being added to existing products, even by conservative companies. At the same time, the professional demands on Marketing and Sales are also increasing, as the purchase transaction is no longer perceived as a one-time point in time, but as an end-to-end process with the purpose of helping customers succeed with customized products or services. In addition, studies are known from the literature that have analyzed the battle between Marketing and Sales over the years. These analyses form the knowledge base on which this study builds and now adds IT as a third actor.

This Thesis first shows that Marketing is dependent on IT developments, as new marketing measures emerge, some of which were not designed for Marketing at all (e.g. social media), and results in the fact that Marketing and Sales have to coordinate in order to better design the customer interaction. At the same time, there is surprisingly little research that addresses the interface between Marketing Sales and IT (M-S-I).

A case study of four business units of a large corporation operating in different customer segments worldwide first explores the responsibilities of the three M-S-I actors. The research design places particular emphasis on the fact that the interviewees within each of these subsidiaries are represented by a marketing manager, a sales manager, and an IT manager. This process of a matched triad or group of three ensures, first, that the statements fit together and that confounding variables such as culture, leadership style, etc. are eliminated. Existing research often analyzes only one dyad, and by not matching interviewees, single-informant biases arise, which this study overcomes.

The first finding is that all three actors have responsibilities within the customer interaction and are therefore part of the customer interaction. A listing of the customer contact points along the Customer Journey enables a statement to be made about the relative responsibility of the M-S-I actors per Customer Journey stage. It also shows that IT is split into two functions, IT(production) and IT(enabler); for this subdivision, the responsibilities can also be shown. Since all actors have responsibilities, this study goes one step further and analyzes to what extent the actors are aligned with each other. For this purpose, a model is developed that targets the previously defined concept of "alignment". This model, called the COMPLY framework, can be used to design, analyze, or adjust the alignment of M-S-I actors with respect to customer interaction. It is based on existing models in the literature and has been abductively developed based on the case study, adding new attributes such as digitalization.

Thus, this dissertation makes contributions to theory, as the field or the interface between M-S-I has hardly been studied so far. It makes new contributions to the inter-organizational design of operational processes, also through the research design, which has not been applied in this way before and has its strengths especially with regard to the consideration of all perspectives of all actors. Furthermore, this Thesis is an interdisciplinary work, which builds bridges for common approaches for both sides, Marketing and information systems. This Thesis is quite practice-oriented and the COMPLY framework as a central result empowers especially managers to be able to shape the orientation of their interdisciplinary staff. The model contains 20 attributes and six dimensions of common alignment, which can be designed intradimensionally as well as interdimensionally. Concrete suggestions of the design are: First, establish shared top management among the departments to be aligned, enabling joint interaction and eliminating conflicting goals. Second, to implement a shared digital program, with which customer interaction is managed, is transparent and helps all involved to simplify the work. Third, to create flexible teams that bring different skills and knowledge and network with each other.

Finally, the research question, "HOW CAN MARKETING AND SALES IMPROVE CUSTOMER INTERACTION DURING THE DIGITAL TRANSFORMATION IN B2B?" is answered by the fact that these actors need to coordinate with IT actors and there needs to be a common alignment.

Zusammenfassung

Diese Dissertation erforscht den Einfluss der Digitalen Transformation auf Marketing und Sales. Die Digitale Transformation beeinflusst das Kundenverhalten durchgängig, indem neue Vertriebskanäle, Möglichkeiten der Produktbewertung und Kommunikation der Kunden entstehen. Zeitgleich werden auch immer weitere digitale Produkte, selbst von konservativen Unternehmen, den bestehenden Produkten hinzugefügt. Zur selben Zeit steigen auch die fachlichen Anforderungen an Marketing und Sales, da der Kaufvorgang nicht mehr als einmaliger Zeitpunkt, sondern als durchgängiger Prozess wahrgenommen wird, mit dem Zweck, den Kunden mit maßgeschneiderten Produkten oder Services zum Erfolg zu verhelfen. Außerdem sind aus der Literatur Studien bekannt, die über Jahre den Kampf zwischen Marketing und Sales analysiert haben. Diese Analysen bilden die Wissensgrundlage, auf der diese Studie aufsetzt und nun die IT als dritten Akteur hinzufügt.

Diese Thesis zeigt zunächst, dass Marketing von IT- Entwicklungen abhängig ist, da neue Marketingmaßnahmen entstehen, die zum Teil gar nicht für Marketing konzipiert waren (z.B. Social Media), und resultiert darin, dass Marketing und Sales sich abstimmen müssen, um die Kundeninteraktion besser zu gestalten. Gleichzeitig gibt es überraschender Weise kaum Forschung, die sich mit der Schnittstelle zwischen Marketing Sales und IT (M-S-I) beschäftigt.

Eine Fallstudie von vier Geschäftsbereichen eines großen Konzerns, die in unterschiedlichen Kundensegmenten weltweit tätig sind, erforscht zunächst die Verantwortlichkeiten der drei M-S-I Akteure. Dabei legt das Forschungsdesign besonderen Wert darauf, dass die Interviewpartner innerhalb jedes dieser Tochterunternehmen durch jeweils einen Marketing-, einen Sales- und einen IT-Manager*innen repräsentiert sind. Durch dieses Verfahren der abgestimmten Dreiergruppe bzw. Triade wird zum einen sichergestellt, dass die Aussagen zusammenpassen und störende Variablen wie Kultur, Führungsstil usw. eliminiert werden. Bestehende Forschung analysiert häufig nur eine Dyade und dadurch, dass die Interviewpartner nicht aufeinander abgestimmt sind, entstehen Einzelinformanten-Befangenheiten, die diese Studie überwindet.

Als erstes Ergebnis steht fest, dass alle drei Akteure innerhalb der Kundeninteraktion Verantwortungen wahrnehmen und damit Teil der Kundeninteraktion sind. Eine Auflistung der Kundenkontakt-punkte entlang der Kundenreise (Customer Journey), ermöglicht es, eine Aussage über die relative Verantwortung der M-S-I Akteure pro Customer Journey Stufe zu treffen. Außerdem wird gezeigt, dass sich IT in zwei Funktionen aufspaltet, IT(Produktion) und IT(Befähiger); für diese Unterteilung können ebenfalls die Verantwortungen gezeigt werden. Da alle Akteure Verantwortungen wahrnehmen, geht diese Studie noch einen Schritt weiter und analysiert, inwieweit die Akteure untereinander abgestimmt sind. Dafür wird ein Modell entwickelt, das auf das zuvor definierte Konzept *„alignment*", zu Deutsch *Ausrichtung*, abzielt. Mit diesem Modell, das COMPLY Framework genannt wird, kann die Ausrichtung der M-S-I Akteure in Bezug auf die Kundeninteraktion gestaltet, analysiert oder adjustiert werden. Es basiert auf in der Literatur bestehenden Modellen und wurde auf Basis der Fallstudie abduzierend weiterentwickelt, wobei neue Attribute, wie z.B. Digitalisierung, ergänzt wurden.

Damit liefert diese Dissertation Beiträge zur Theorie, da das Feld bzw. die Schnittstelle zwischen M-S-I bislang kaum untersucht wurde. Sie liefert neue Beiträge zur interorganisatorischen Gestaltung von betrieblichen Abläufen, auch durch das Forschungsdesign, das in dieser Weise so noch nicht angewendet wurde und hat insbesondere hinsichtlich der Berücksichtigung aller Perspektiven aller Akteure seine Stärken. Darüber hinaus ist diese Thesis eine interdisziplinäre Arbeit, die für beide Seiten, Marketing und Information Systems Brücken für gemeinsame Ansätze baut. Diese Dissertation ist durchaus praxisorientiert und das COMPLY Framework als zentrales Ergebnis befähigt insbesondere Manager*innen, die Ausrichtung ihrer interdisziplinären Mitarbeiter*innen gestalten zu können. Das Modell beinhaltet 20 Attribute und sechs Dimensionen der gemeinsamen Ausrichtung, die sowohl intradimensional also auch interdimensional gestaltet werden können. Konkrete Vorschläge der Ausgestaltung sind: Erstens, ein gemeinsames Top Management der auszurichtenden Abteilungen zu etablieren, wodurch gemeinsame Interaktion ermöglicht wird und widersprüchliche Ziele ausgeschlossen werden. Zweitens, ein gemeinsam genutztes digitales Programm zu implementieren, womit die Kundeninteraktion verwaltet wird, transparent ist und allen beteiligten hilft, die Arbeit zu vereinfachen. Drittens, flexible Teams zu bilden, die unterschiedliche Fähigkeiten und Wissen mitbringen und sich untereinander vernetzen. So wird schlussendlich die Forschungsfrage, "WIE KÖNNEN MARKETING UND VERTRIEB DIE KUNDENINTERAKTION BEI DER DIGITALEN TRANSFORMATION IM B2B VERBESSERN?" dadurch beantwortet, dass diese Akteure sich mit IT Akteuren abstimmen müssen und es einer gemeinsamen Ausrichtung bedarf.

Samenvatting

Dit proefschrift onderzoekt de impact van digitale transformatie op marketing en verkoop. De digitale transformatie beïnvloedt het gedrag van klanten over de hele linie door het creëren van nieuwe verkoopkanalen, productevaluatiemogelijkheden en klantcommunicatie. Tegelijkertijd worden steeds meer digitale producten toegevoegd aan bestaande producten, zelfs door conservatieve bedrijven. Tegelijkertijd nemen ook de professionele eisen aan marketing en verkoop toe, aangezien de aankooptransactie niet langer wordt gezien als een eenmalig moment, maar als een end-to-end proces met als klanten te helpen succesvol te zijn met op maat gemaakte producten of diensten. Voorts zijn er in de literatuur studies bekend waarin de strijd tussen marketing en verkoop in de loop der jaren is geanalyseerd. Deze analyses vormen de kennisbasis waarop deze studie is gebaseerd en voegen daar nu IT als derde actor aan toe.
Dit proefschrift toont allereerst aan dat marketing afhankelijk is van IT-ontwikkelingen, aangezien er nieuwe marketingmaatregelen ontstaan, waarvan sommige niet eens voor marketing zijn ontworpen (bijv. sociale media), en resulteert in het feit dat marketing en verkoop zich moeten afstemmen om de interactie met de klant beter vorm te geven. Tegelijkertijd is er verrassend weinig onderzoek gedaan naar het raakvlak tussen marketing, verkoop en IT (M-S-I).
In een case study van vier business units van een grote onderneming die wereldwijd in verschillende klantsegmenten actief zijn, worden eerst de verantwoordelijkheden van de drie M-S-I actoren onderzocht. De onderzoeksopzet legt bijzondere nadruk op het feit dat de geïnterviewden binnen elk van deze filialen worden vertegenwoordigd door een marketingmanager, een salesmanager en een IT-manager. Deze procedure van een gecoördineerde triade zorgt ervoor dat de verklaringen op elkaar aansluiten en dat storende variabelen zoals cultuur, leiderschapsstijl, enz. worden geëlimineerd. Bestaand onderzoek analyseert vaak slechts één dyade en door de geïnterviewden niet op elkaar af te stemmen, ontstaan single-informant biases, die in deze studie worden ondervangen.
De eerste bevinding is dat alle drie de actoren verantwoordelijkheden hebben binnen de klantinteractie en dus deel uitmaken van de klantinteractie. Een overzicht van de klantcontactpunten langs de Customer Journey maakt het mogelijk een uitspraak te doen over de relatieve verantwoordelijkheid van de M-S-I actoren per Customer Journey fase. Tevens blijkt dat IT is opgesplitst in twee functies, IT(productie) en IT(enabler); voor deze onderverdeling kunnen ook de verantwoordelijkheden worden weergegeven. Aangezien alle actoren verantwoordelijkheden hebben, gaat deze studie nog een stap verder en analyseert de mate waarin actoren op elkaar zijn afgestemd. Hiertoe wordt een model ontwikkeld dat gericht is op het eerder gedefinieerde begrip "alignment". Dit model, genaamd het COMPLY-framework, kan worden gebruikt om de afstemming van M-S-I actoren in relatie tot klantinteractie te ontwerpen, te analyseren of bij te sturen. Het is gebaseerd op bestaande modellen in de literatuur en werd op een abductieve manier verder ontwikkeld op basis van de casestudy, waarbij nieuwe attributen, zoals digitalisering, werden toegevoegd.
Daarmee levert dit proefschrift bijdragen aan de theorie, aangezien het veld of de interface tussen M-S-I tot nu toe nauwelijks is bestudeerd. Het levert nieuwe bijdragen aan het inter-organisationele ontwerp van operationele processen, ook door de onderzoeksopzet, die nog niet eerder op deze manier is toegepast en vooral zijn sterke punten heeft wat betreft het in aanmerking nemen van alle perspectieven van alle actoren. Bovendien is dit proefschrift een interdisciplinair werk dat bruggen slaat voor gemeenschappelijke benaderingen voor beide partijen, marketing en informatiesystemen. Dit proefschrift is vrij praktijkgericht en het COMPLY-framework als centraal resultaat stelt vooral managers in staat de oriëntatie van hun interdisciplinair personeel vorm te geven. Het model bevat 20 attributen en zes dimensies van gemeenschappelijke afstemming, die zowel intradimensionaal als interdimensionaal kunnen worden vormgegeven. Concrete suggesties voor de vormgeving zijn: Ten eerste het instellen van een gemeenschappelijk topmanagement van de af te stemmen afdelingen, waardoor gezamenlijke interactie mogelijk wordt en tegenstrijdige doelen worden uitgesloten. Ten tweede, een gemeenschappelijk digitaal programma invoeren dat de interactie met de klant beheert, transparant is en alle betrokkenen helpt het werk te vereenvoudigen. Ten derde, flexibele teams samenstellen die verschillende vaardigheden en kennis inbrengen en met elkaar netwerken.
Ten slotte wordt de onderzoeksvraag "HOE KUNNEN MARKETING EN DISTRIBUTIE DE KLANTENINTERACTIE IN DE DIGITALE TRANSFORMATIE IN B2B VERBETEREN?" beantwoord door het feit dat deze actoren moeten samenwerken met IT-actoren en dat er een gemeenschappelijke richting moet zijn.