

Saimaa University of Applied Sciences
Faculty of Business Administration Lappeenranta
Degree Programme in International Business

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Customer relationship management in ride-hailing companies: case mytaxi (Intelligent Apps GmbH)

Thesis 2019

Abstract

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The purpose of the study was to understand how customer relationship management is organized in the ride-hailing industry. The author strived to provide a glance at the very fabric of CRM related activities such as customer segmentation and multichannel communication by using the case of the Germany's leading ride-hailing company mytaxi.

The theoretical part concentrates on the study of general concepts of customer relationship management such as its emergence and development, different types of solutions, conceptual frameworks, and data evaluation techniques. The qualitative research method was used to answer the main question of the study. The information was gathered from reliable sources such as academic literature, scholarly articles, reports, mytaxi's official website, as well as mytaxi's marketing communication materials used by the company's CRM team. The empirical research included a semi-structured interview with two CRM Marketing managers at mytaxi. Both respondents were interviewed at the same time to generate more information during the discussion. Enough empirical data was collected to deliver detailed and descriptive answers to the research questions.

All things considered, the results of the study not only provide a comprehensive overview of CRM communication methods and strategies used by ride-hailing companies but also emphasize the importance of CRM implementation, which is necessary for an effective competition on the market.

Keywords: customer relationship management, ride-hailing, marketing

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Appendix 1

Interview questions

Abbreviations

ABC – Activity-based Costing

AI – Artificial Intelligence

B2B – Business-to-Business

B2C – Business-to-Consumer

CLV – Customer Lifetime Value

CPA – Customer Profitability Analysis

CRM – Customer Relationship Management

CSS - Customer Service and Support

ERP – Enterprise Resource Planning

KPI's – Key Performance Indicators

PaaS – Platform as a Service

SaaS – Software as a Service

SFA – Sales Force Automation

1 Introduction

1.1 Research background

Customer Relationship Management was invented in the ancient commercial world and has been constantly evolving throughout the years under different names until the end of the 20th century. There are several antecedents contributed to the development of relationship marketing such as energy crisis of 1970's and total quality movement. However, one of the main forces, that has been constantly shaping and improving the business environment, was the advent of digital technology. The Information Technology (IT) revolution has played a vital role in rapid growth of the marketing field and has forever changed the understanding about modern CRM. In the new era of digitalisation, which covers virtually all existing industries, CRM connects customer data with target-group oriented communication activities such as e-mail and mobile marketing. In other words, CRM has become an integral part of the customer lifecycle management. (Sharma & Gupta 2003, pp. 8-15; Piskar & Faganel 2009, pp. 199-200; Chakravorti 2006, pp. 20-28.)

Furthermore, online shopping and booking has grown steadily during the past decade (Statista 2018). It plays a significant role in socio-economic development by stimulating competitiveness on the market. From the business perspective, it improves companies' performance by reducing transaction costs and providing global access to the greater number of customers. Around-the-clock availability, diversity and speed of access are the key features allowing companies to make more money than ever before.

However, the success of any business is heavily dependent on customer loyalty towards a brand or service. As a result, CRM implementation has been added to the agenda of many e-businesses. For instance, the ride-hailing industry is a fast-growing mobility service provider, the overarching idea of which is to enable cab requests through a mobile application (Wang 2015, pp. 2-4). Companies operating in this field attract and retain their customers predominantly via online communication, which makes CRM and online marketing the backbone of their daily operations.

In recent years, there has been an increased focus on Customer Relationship Management and its influence on company performance. Prior studies have generally found a positive relationship between CRM implementation and customer acquisition as well as retention ratios. For example, Dutu and Halmajan (2011) pointed out that the improvement of business performance can generally be explained by the fact that customer retention tends to be less expensive than the customer acquisition process.

There are plenty of publications and research works which studied CRM in the Airline, Banking, and e-commerce industries (Cvijovic & Kostic-Stankovic & Reljic 2017; Kumar & Sajnani 2014; Dukić & Stanišić & Stanišić 2013). However, there has been no research done on CRM practices in the ride-hailing industry. As the previous research within this area is limited, the study will provide valuable insight into this complex topic.

The following chapters will address the topic of CRM in the ride-hailing industry through an in-depth analysis of Germany's industry leader, mytaxi.

1.2 Objectives of the study

The main purpose of this study is to illustrate CRM organization in ride-hailing companies. The observations found by studying mytaxi support the thesis with real-life examples and aim to emphasize the importance of CRM presence in day-to-day business operations. The thesis has to be understandable for readers who have little to no knowledge about customer relationship management. At the same time, those wishing to increase professional competence in this field, should be able to retain useful and sophisticated information.

1.3 Delimitations

First and foremost, the research for this subject was carried out within the framework of marketing. CRM in this study is defined as a process that utilizes cloud services to collect, analyse, and distribute current and prospective customer data for the purpose of communication and marketing automation development. In order to narrow down the wide topic, the research will be focused only on CRM in the B2C context.

The empirical study was conducted on the ride-hailing industry since it is a highly service-oriented field where CRM plays a major role in bridging the gap between passengers, drivers, and the company itself. The author only analyses CRM structure within a specific German ride-hailing company, although the results are applicable to any other market.

Moreover, the empirical research is predominantly focused on CRM Marketing activities determined by the trends and behaviours of customers based in Germany, as this market is currently the largest and the most important target group of mytaxi. This segment consists of B2B clients, passengers, and drivers. The thesis is focused on collecting and analysing of information related to passengers.

The scope of the study is limited to interviewing the team members of the CRM Marketing unit in Germany. Financial results and strategic plans of mytaxi are subject to confidentiality and will not be disclosed in the thesis. Finally, the author is not required to go beyond the scope of collecting data, analysing, and providing suggestions for further studies.

1.4 Research questions of the study

The main question of the study is “*How CRM is organized in ride-hailing companies?*”. Primarily, the thesis aims to investigate CRM related activities designed to build long-term relationships with current and potential customers in the ride-hailing industry. To conduct a thorough analysis of the CRM phenomenon, the author divided the key research question into five sub-questions:

- *What is CRM and why is it important to business?*

By answering this sub-question, the author would like to ensure that readers have a good understanding of the CRM topic as well as to provide a rounded overview of potential benefits that companies could gain from the integration of CRM processes into its daily operations.

- *How CRM collects, processes, and manipulates customer data?*

The answers to the second-sub question provide an insight into data-mining processes of CRM. These operations allow data-driven marketing to be used efficiently. Therefore, it is crucial to understand how companies evaluate, cluster, and target their customers.

- *What are ride-hailing companies?*

The author does not exclude the possibility that not each and every reader is familiar with the concept of ride-hailing and strives to give a brief but comprehensive explanation of this topic. The answer to this question ensures a deeper understanding of the main research question.

- *What strategical approach to CRM is used in ride-hailing?*

The answer to this question aims to deliver a detailed overview of customer management operations in ride-hailing companies and to enrich the study with insightful empirical findings.

- *What are the benefits and drawbacks of CRM in ride-hailing?*

Finally, the author would like to complement the empirical part of the study with identified strengths and weaknesses of CRM in the ride-hailing context. The answer to this question will help to provide a complete picture of the current CRM state in ride-hailing industry and will gradually lead readers to the end of the empirical part of the study.

1.5 Theoretical framework

The theoretical part of the study begins with a chapter covering the emergence and transformation history of customer relationship management over the past three decades. The next chapter discusses the main three types of CRM solutions such as Operational CRM, Analytical CRM, and Collaborative CRM. To achieve successful results after CRM integration, each of all three components has to be taken into account.

Furthermore, the theoretical background includes the key relationship management frameworks, which enrich CRM with core values, related practices, and

strategic thinking approaches. The “Data mining techniques” chapter discusses evaluation methods that are frequently used to measure customer profitability, customer lifetime value (CLV), as well as to identify customer needs and preferences. Finally, the theoretical framework provides a general overview of the ride-hailing industry and includes information on its current state as well as the forecasted future.

This part of the research is based on books and scholarly publications such as “Handbook of CRM: Achieving Excellence in Customer Management” (2005) by Adrian Payne, “Customer Relationship Management: concepts and tools” (2004) by Francis A. Buttle, and “Strategic, Operational, and Analytical Customer Relationship Management Attributes and Measures” by joint authors Francis A. Buttle and Reiny Iriana. To support the theory with more recent data and statistical results, reliable online sources such as American research organization Gartner and a multinational information technology company IBM were frequently referenced in the study.

1.6 Research methodology

There are three types of research methods: quantitative, qualitative, and mixed. Quantitative research is usually carried out when accurate, statistically verified numerical data is required. It quantifies the behaviour and attitudes of respondents and transforms it into usable statistics, which can be measured by data analysing software such as R and SPSS. On the contrary, qualitative research is an explanatory type of research that is used to attain deeper knowledge of primary reasons and motives behind a certain event. Information comes from focus group discussions, questionnaires, as well as interviews with various groups of respondents (e.g. employees, companies, institutions). Mixed research uses both quantitative and qualitative methods either consecutively or simultaneously. (Saunders, Lewis & Thornhill 2009, p. 414; Creswell 2014, pp. 43-45.)

Unlike quantitative, qualitative approach delivers an in-depth analysis through a holistic, descriptive, and dynamic framework (Yilmaz 2013, pp. 312-317). Qualitative approach corresponds to the main objective of the thesis and therefore, is chosen to be the main research technique that will be applied to the study. The

author uses a case company to yield a full description of the phenomenon, and, as a result, provide much richer answers to the research question. Furthermore, the interview is an essential part of the qualitative research method, which allows gaps to be filled with information necessary to describe or analyse the phenomenon. Therefore, it will be used as a supplementary source of information about mytaxi's CRM operations. The funnel structure of the interview, where the author begins with broad questions and then gradually narrows them down, helps to develop more precise descriptions from general statements. The main purpose of this interview is to collect more detailed information about the company's CRM processes related to customer segmentation and channels of marketing communication. (Creswell 2014, pp. 44-45.)

There are two types of data used in research: secondary and primary. Secondary data include raw data and published summaries such as books, journals, industry statistics, and organisation's communications such as e-mails and letters (Creswell 2014, pp.258-259). Primary data is collected first-hand, for example, through interviews, questionnaires, and observations (Creswell 2014, p. 14).

The application of different techniques for data acquiring allows one to conduct an in-depth analysis. Therefore, both methods of data collection are used to answer the research questions of the study. In this case, secondary data will be collected from reliable sources such as academic literature, online articles, reports, company's official website, as well as mytaxi's marketing communication materials such as newsletters, push notifications, ad in-app messages. Similarly, primary data is collected through a semi-structured interview with mytaxi's CRM team members.

It should be noted that the detailed information on the design of the interview and data analysis processes is presented in chapter 7. The above-mentioned key aspects of the research methodology were discussed to describe general boundaries of the study.

1.7 Structure of the thesis

The study is divided into seven equally important parts, guiding the reader through the entire research process. Every chapter consists of several sub-chapters providing more specific information. The “Introduction” chapter outlines the purpose and goals of the thesis. The “Fundamentals of CRM” chapter provides theoretical background regarding customer relationship management, including its development, structure and application. The “Data mining techniques” section describes how CRM processes customer information to tailor promotional content for customer needs and wants. The “Ride-hailing companies” chapter begins the empirical part by providing information about the ride-hailing industry and its future. Moreover, the empirical study provides the findings collected during the research on the case company and the interview with its CRM managers. The questions of the study are answered in the chapter “Research results”, which is solely based on the information gathered during the interview with mytaxi employees. The “Conclusions and suggestions” chapter covers the results of the theoretical and empirical parts of the thesis as well as provides suggestions for future research.

2 Fundamentals of CRM

This chapter provides a general overview of customer relationship management. Firstly, readers will get familiar with the history of CRM systems, the factors that influenced its emergence and further development in the market. Secondly, the core three types of CRM solutions are discussed in this study. Furthermore, this chapter covers the key conceptual frameworks, which help companies to integrate the system as well as its relationship management philosophy.

2.1 Emergence of CRM practice

1980-1993

With the development of computer technologies and the emergence of client-server architecture in organizations in the late 1980s, the first software products for contact management were created. The pioneer software innovators such as

ACT! and Goldmine became one of the first companies, which introduced a breakthrough solution to the emerging CRM industry. In 1993 the company Siebel broke into the market and has been keeping the leading position as a CRM system since then. It was one of the first companies to offer hybrid solutions such as multichannel sales and marketing campaigns characterised by the low-cost and maintains benefits for enterprises. (SearchCRM 2008; Business wire 2004.)

In order to store customer information at one place as well as to automate the basic business processes, the first SFA (sales force automation) and CSS (customer service and support) were developed. However, such systems had a number of limitations, which made the synchronisation, checking and updating of the stored data impossible. CSS systems, for example, could not support any quantity calculations or store variables, generate text or support decision structures. Yet, in spite of its weaknesses, they were frequently used by the call centres. (Culshaw & Leventhal & Maloney 1997.)

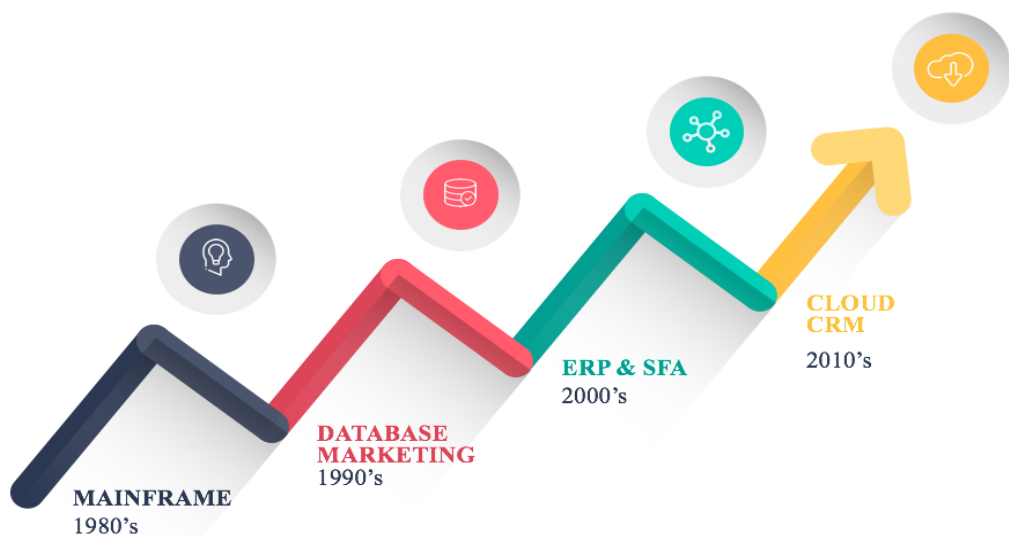


Figure 1. Timeline of CRM emergence (Culshaw et al. 1997; Gartner 2018)

1994-1999

The period from the late 1990's was the era of Enterprise Resource Planning development. The main purpose of these business applications was to integrate various types of systems into one common software package, where all the company's activities could be monitored. Thereby, ERP supported such back-end

functions as accounting, manufacturing, human resource and inventory management, logistics, marketing and finance. (McGaughey & Gunasekaran 2007, p. 24.) However, ERP systems particularly suffered from the lack of functionality necessary for efficient customer relationship management. This problem was solved by introducing CRM as a separate product that had to cover all front-end functions such as consumer interaction on each stage of the customer life cycle and marketing. (Baran 2012.)

Within the time, CRM systems expanded its functionality by shifting its focus on complex solutions, merging sales, services and marketing activities on one platform. In 1999, Salesforce entered the market, becoming one of the pioneers in SaaS, PaaS, and cloud analytics. The company became the world leader in this field in 2013 and is holding its performance up to the mark in 2018. Another company worth mentioning is SAP. It has been one of the main competitors of Siebel on the CRM market and nowadays the company is known as one of the fastest growing ERP applications in its field. (Dickie 2009; Salesforce n.d.; Gartner 2018.)

2000-2010

Prior to 2002, companies trying to integrate CRM systems had no strategic approach. Instead of focusing on costs reduction and customer centralisation, they were looking for profit maximization. As a result, such an approach could not meet the high expectations regarding the CRM integration. Regarding this matter, Paul Greenberg introduced a book called “CRM at the speed of light”, which eventually became a go-to guide for companies employing CRM. Greenberg suggested a more comprehensive CRM system that persuaded enterprises to reconsider their business approach and switch their focus on customer satisfaction. In addition, the drastic growth of social media marketing has drawn the attention of many organizations, as the use of social media platforms like Facebook began to spread rapidly around the world. Due to the rise of social media, CRM has shifted from transactional to interactive. Companies started to recognize the value of social media and to use it as a strategic tool for customer acquisition. According to statistical information provided by CSO Insights, the percentage of firms implementing CRM increased from 53 % in 2003 to 75 % in 2010 (Weinberger 2010).

Furthermore, the integration of innovative cloud technologies into CRM systems allowed companies to use a monthly subscription instead of paying for a full ownership of a personalized CRM platform. Thus, CRM applications became available to a wider range of organizations like SME's. (IBM 2013, p. 1.)

2011- Present

Since 2011, CRM systems have been more and more often integrated by B2C as well as B2B companies. Statistically speaking, the amount of annual spending on CRM software has grown from \$16.08 billion in 2011 to \$ 39.5 in 2017 (Statista 2018). According to Gartner Inc., the worldwide CRM software revenue overtook that of database-management systems (DBMS's), thus made CRM the largest of all software markets. Moreover, CRM revenue is expected to continue to take the leading position among the rest of software markets with the fastest growth rate of 16 %. In the upcoming years the CRM platforms are expected to go through a number of transformations related to Artificial Intelligence (AI) development. AI-driven CRM systems will allow companies to shorten the time spent of repetitive work, thereby focus on essential duties encouraging creativity and generating revenue. (Gartner 2018; Owners 2018.)

2.2 Types of CRM solutions

CRM systems enable companies to store and process data, generate reports when required, and perform marketing activities. However, underlying company needs depend on the industry in which they operate. Thus, the different types of CRM systems were created. These systems may vary in their main purpose of utilization, functionality, level of information processing, and method of organization. There are three main types of CRM applications:

- operational
- analytical
- collaborative

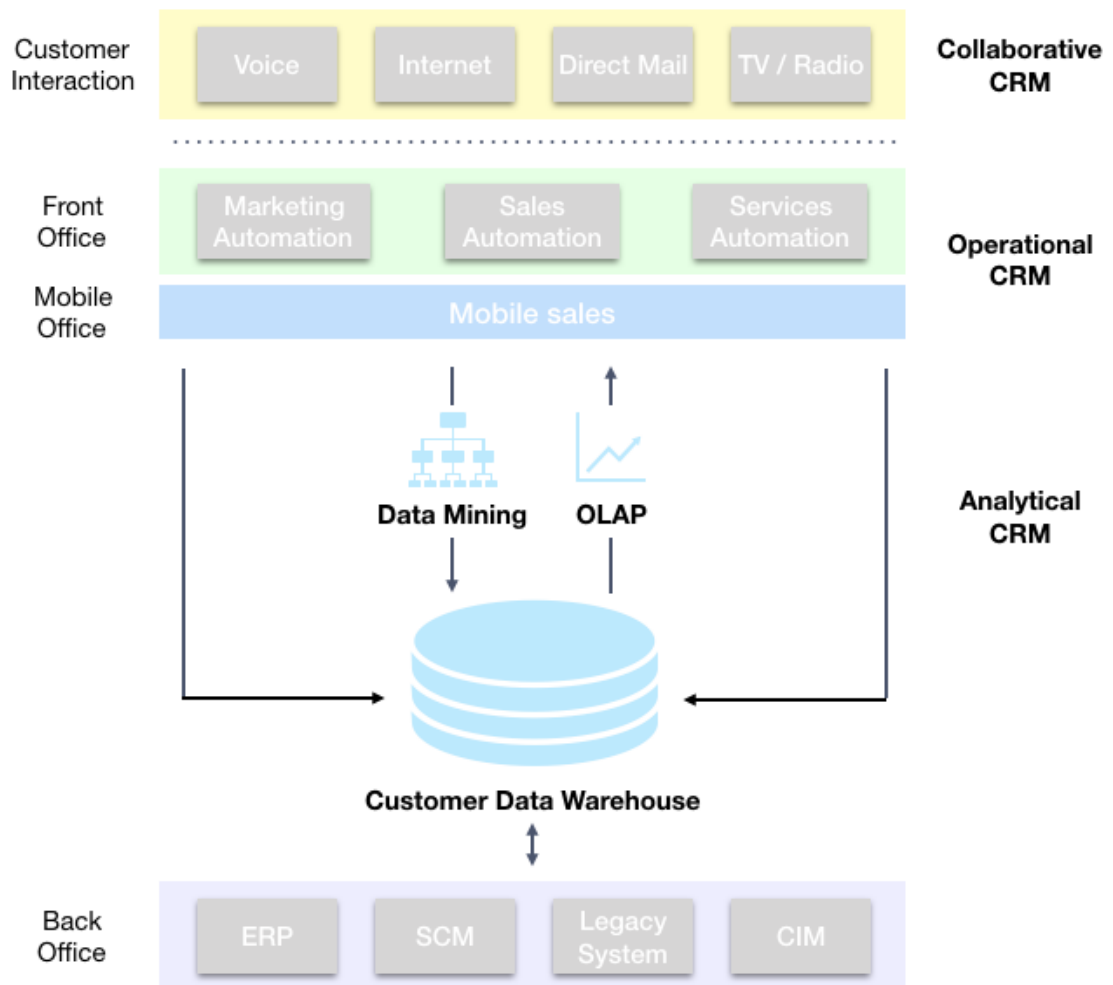


Figure 2. CRM structure (Albadvi 2003)

2.2.1 Operational CRM

Operational CRM covers business processes through customer touch points aimed at the improvement of CRM day-to-day activities in front, back, and mobile offices (Figure 2). Operational CRM consists of transactional data collected from front-line customer touch points like sales, surveys, and other customer interactions. Some scholars such as Fayerman (2002) claimed that CRM data can also be gathered from contact management activities and back office functions such as human resources and finance. Operational CRM includes different practical features, for example, automated enterprise marketing, sales-force and customer services. Sales force automation allows companies to optimize their sales productivity by improving the quality of information flow through content personalisation and adaptation to customer needs. Likewise, marketing automation helps to manage promotional campaigns, avoid overlapping of communication send-

outs, and even provides an insight into customer response to marketing activities. The main objective of service automation is to increase customer satisfaction through the acceleration of inquiry and feedback processes across multi-channel platforms. The main purpose of Operational CRM lies in the improvement of customer management practices by ensuring that customer needs are met. This can also be achieved by increasing quality and the speed of information flow between organizations and their partners. According to Payne and Flow (2005), the key motivation factor for Operational CRM system implementation is the multi-channel integration process because it attempts to ensure consistency and excellence in customer experience across all communication channels available to a company. (Buttle & Iriana 2008, pp. 26-28.)

2.2.2 Analytical CRM

Analytical CRM is an application which has the primary function of analysing customer data and behavioural patterns crucial for business performance evaluation and improvement. It includes the underlying data warehouse architecture as well as customer segmentation systems, reporting, and detail analysis (Figure 2). Analytical CRM uses various IT tools to collect, organize, interpret, distribute, and apply customer data. This information is extremely useful for the creation of customer profiles and development of customer touch points. Furthermore, Herschel (2002) mentioned several features that are specific to Analytical CRM. These include customer segmentation and profitability analysis as well as real-time campaign monitoring, triggering, and personalization. As a result, companies can conduct the necessary adjustments in accordance with customer behavioural patterns.

Analytical CRM can enhance revenue of cross-sell and up-sell campaigns, as well as increase brand awareness and customer loyalty. To assure successful implementation of Analytical CRM system the empowerment of management and strong teamwork between marketing and services have to be taken into account. The lack of knowledge regarding potential CRM benefits may result in the failure of an Analytical CRM integration. (Buttle & Iriana 2008, pp. 28-29.)

2.2.3 Collaborative CRM

Although there are plenty of studies about CRM available, there is only a short supply of research on collaborative CRM. This resulted in a fragmented and unclear definition of this application. Collaborative CRM has two interpretations, which are quite often mixed in literature. The first statement claims that this type of CRM comprises of a various number of collaborative services that allow businesses to interact and cooperate with their customers. These services might include direct sales, voice technologies, e-mail, fax, TV, and face-to-face interactions. (Reinhold & Alt 2002, pp. 98-100.)

The second states that Collaborative CRM combines concepts of network enterprises and marketing. It enables companies to establish long-term and trust-worthy relationships with customers by sharing or joining network resources. As a result, manufacturers, distributors, and service providers have a chance to go beyond their company borders and to improve their customer acquisition and retention strategy. Additionally, more and more modern Collaborative CRM implies the integration of mobile technologies, which offer an opportunity to compliment the customer lifecycle and adding value to company's services (Figure 2). Nowadays, mobile devices in Collaborative CRM are mainly seen as contact channels or mobile operation platforms for closer communication with customers, which support sales and services beyond the company. (Reinhold & Alt 2002, pp. 98-100.)

2.3 Models of CRM

Over the years, several CRM models have been created. These are characterized by their main goal to implement customer centric culture in companies. Regardless of the idea that the key idea behind the CRM has the tendency to be straightforward, the creation of a conceptual framework can be a good way to sort through rich theoretical information and put it into practical use. Since CRM is a cross-functional activity it is almost impossible to implement the system and reach the company's goals without a systematic framework. The process of choosing the most suitable strategic approach is especially important for large companies, handling millions of individual customer relationships at the same

time. This section observes four of the most frequently discussed and used frameworks. The adoption of one of these allows companies to find a starting point towards CRM implementation and its further development.

2.3.1 IDIC model

The IDIC model was developed by Don Peppers and Martha Rogers in 2004. According to this framework, companies should take the following four actions in order to build closer one-to-one relationships with customers (Buttle 2009, p. 19.):

Identify. The company should identify its customers and develop an in-depth understanding of them.

Differentiate. The company should differentiate its customers to find out which of them have the most value now and which will potentially provide more value in the future. Such an approach will allow a company to prioritize and focus on implementing customer specific strategies.

Interact. The company should interact with its customer to make sure that its actions align with customer expectations and needs. It is also a good way to identify the flaws in CRM operations and consequently eliminate them.

Customize. It is crucial to understand that each target group and each individual customer requires a unique approach. Thus, the company should tailor products and services to the expectations of its own target audience. This gives a competitive advantage among enterprises selling similar or almost identical products on the market. Moreover, the ability to flexibly personalise goods and services embraces the feeling of ownership among customers, thus, increasing brand loyalty.

2.3.2 CRM Value Chain

The CRM Value chain shown in Figure 3 was created by Francis Buttle, the Australian professor of Marketing and Customer Relationship Management. The model consists of five primary stages and four supporting conditions, which are aimed at increasing customer profitability. Buttle claims that businesses, wishing to implement CRM strategies, should follow the Value Chain model to ensure that the company builds long-term and mutually-beneficial relationships with its strategically important clients. (Buttle & Iriana 2008).

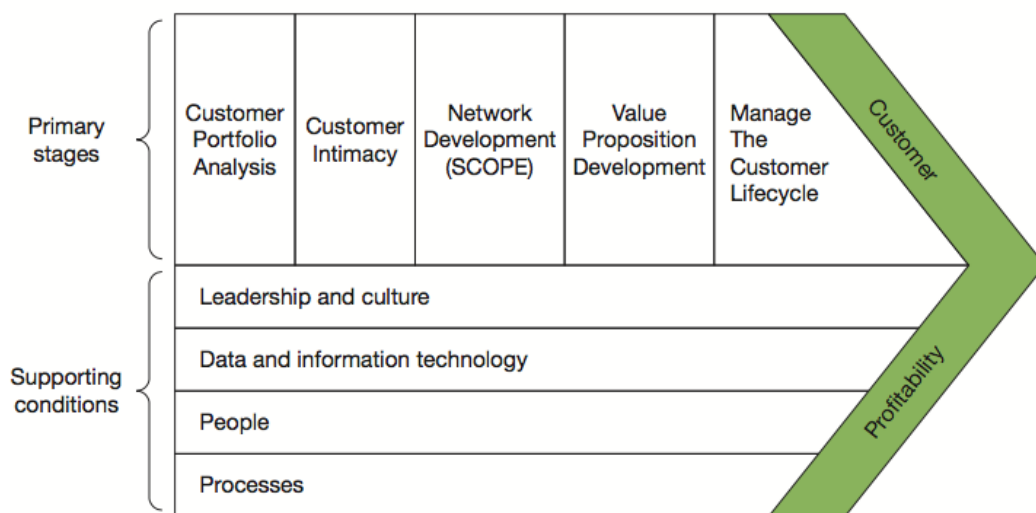


Figure 3. The CRM Value Chain (Buttle & Iriana 2008, p. 20)

According to Buttle (2008), the following five primary stages are responsible for the creation and delivery of value proposition that attracts and retains profitable customers:

- The “**Customer Portfolio Analysis**” phase helps analyse the company’s target group and provide customers with relevant value propositions. According to Buttle, companies that do not have any existing historical customer data should rely on segmentation approaches.
- The “**Customer Intimacy**” step allows companies to focus on the right customers through detailed investigation of selected segments or individuals. It also involves the creation of a customer data-base, which is to be

privately accessible to individuals who have an impact on customer decisions.

- The building process of a powerful and valuable network with suppliers, stakeholders, and employees is the key purpose of the “**Network Development**” stage. Communication is an essential success factor within any organisation, which assures that every person directly or indirectly involved in business operations equally understands the requirements of the target group.
- The “**Value Proposition Development**” step stands for the creation of values offered to the customers. These are the company’s specific characteristics that it should be associated with, well-known within the company’s networks as well as promoted and proposed to the target audience.
- Lastly, the “**Customer Lifecycle Management**” stage involves the general management of interactions between the company and its clients from the moment of his or her purchase until the after-order assistance phase.

The supporting conditions such as leadership and culture, data and information technology, people and processes also enable an effective and efficient functioning of implemented CRM strategy. (Buttle & Iriana 2008.)

2.3.3 Payne and Frow’s 5-process model

The Payne and Frow’s 5-process model was developed in 2005 by Adrian Payne and Pennie Frow with the aim to identify core practices relevant to CRM. According to Figure 4, the conceptual framework for CRM strategy is based on five process which include: strategy development, value creation, multi-channel integration, performance assessment, and information management. The first two are related to strategic CRM, where the multi-channel integration and performance assessment are associated with operational CRM. The last are defined as analytical CRM.

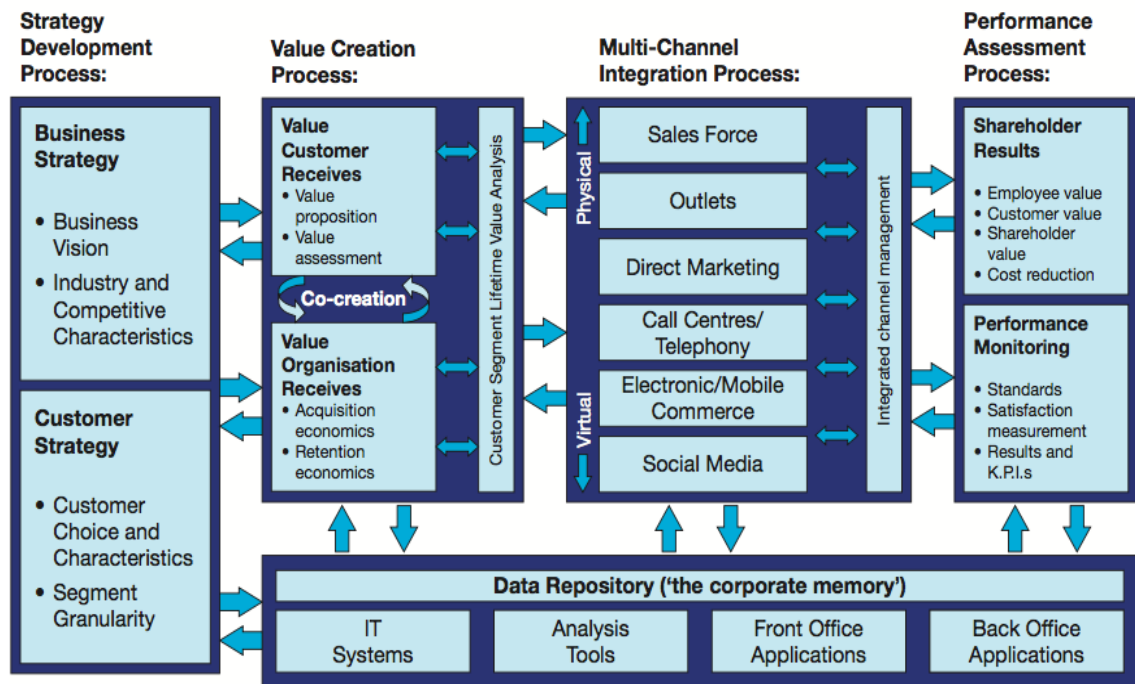


Figure 4. The 5-process strategic framework for CRM (Buttle & Iriana 2008, p. 21)

The arrows in the figure above illustrate interaction and feedback loops between processes. For example, changes in disintermediation within a certain company will have an impact on channel selections in the multichannel integration process. Similarly, any shifts in the multi-channel process would have a direct effect on decisions made within the value creation process. The model was developed with the help of an extensive review of the literature on CRM related topics, in-depth interviews with senior managers and CRM strategy consultants, marketing, IT, group discussions, and workshops. In comparison with previously mentioned CRM models, the Payne's and Frow's framework describes each of its element in detail, thus provides a deeper insight into the strategy of successful integration of CRM. Each of the five processes in the Payne and Frow's model (2005) suggest several questions that organizations need to ask themselves while using this framework:

- The **“Strategy Development Process”** contains such questions as *“What is it we wish to achieve?”* and *“What kind of audience are we targeting and how can our customers be segmented?”*

- During the **“Value Creation Process”** companies should be able to answer on such questions like *“How is value delivered to the customer?”*, *“How is the lifetime value of our customer maximized?”*.
- The **“Multi-Channel Integration Process”** considers questions such as *“What is the best way to communicate with our customers?”*, *“How is a high-quality customer experience delivered at affordable costs?”*
- The **“Information Management Process”** aims to answer the questions like *“How is our customer data collected and stored?”*, *“How can this data be used to improve CRM processes?”*.
- Finally, the **“Performance Assessment Process”** should answer such questions as *“What can be done to increase revenue and shareholders value?”*, *“Which standards and metrics are to be used to measure and manage performance?”*.

While the Payne and Frow’s 5-process model has a universal application, the emphasize on a certain step as well as the key questions may vary from organization to organisation. (Payne 2005. pp. 31-33.)

2.3.4 Gartner’s competency model

The final well-known CRM framework was proposed by Gartner Inc, one of the leading IT research and consulting companies in the world. Founded in 1979, Gartner Inc. has undoubtedly made a significant contribution to research in the CRM sector. The framework is based on the profile of eight Fortune 1000 companies (steadily growing year-after-year) and consists of the Eight Building Blocks such as vision, strategy, valued customer experience, organizational collaboration, processes, information, technology and metrics. In addition, the Gartner’s model puts an emphasis on importance of creating a balance between the enterprise’s and customer’s needs. The symbol of yin and yang illustrates the point where people first meet, then build relationships and provide mutual benefit to each other. (Gartner 2001.)

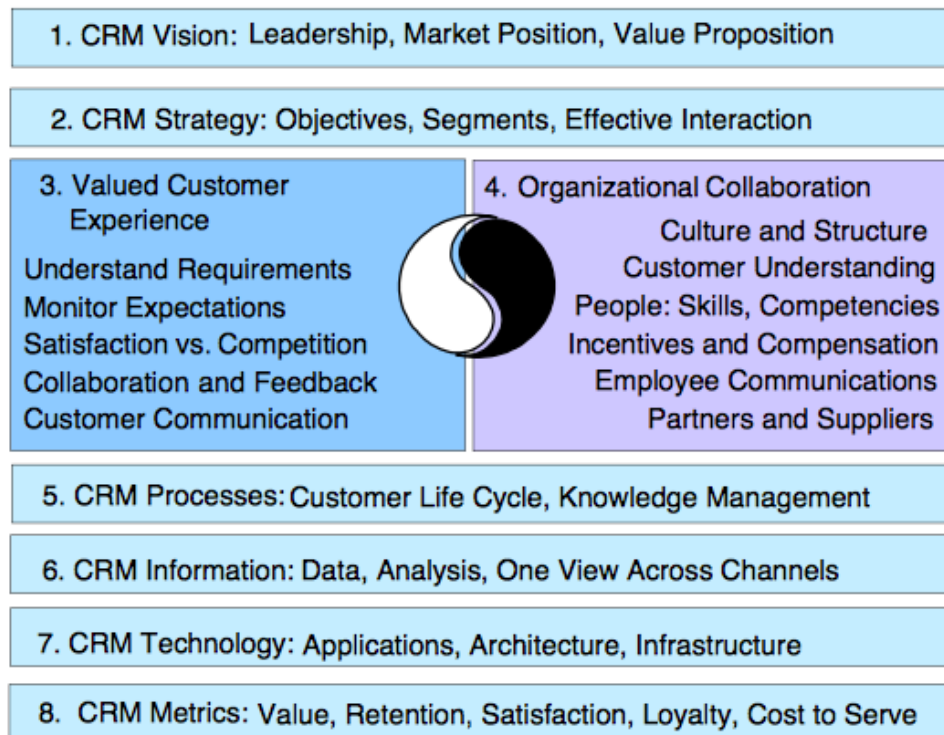


Figure 5. Gartner's competency model (Buttle & Iriana 2008, p. 22)

Vision. According to Gartner's model, successful CRM requires a clear vision to develop an effective implementation strategy. The CRM Vision strives to create a certain picture a given company will be associated with. Otherwise, it will not be possible to stand out in the competitive market. Inspirational leadership, unique value proposition, and market position are the major milestones when delivering exceptional customer experience. (Gartner 2001.)

Strategy. The main purpose of this block is to identify the way customer base could be transformed into an asset through the delivery of customer value proposition. In fact, using CRM strategies is not a roadmap nor an implementation plan. A real CRM strategy includes practices such as targeting, customer acquisition and retention, which help to align company's financial goals with the implementation of a customer loyalty program. (Gartner 2001.)

Valued Customer Experience. Just like in the previously mentioned models, value creation and customer experience claim to play a significant role in shaping brand perception. Customer experience has a direct influence on trust and long-term loyalty, thus contributing to the determination of the future relationship be-

tween clients and a given enterprise. More and more companies have begun focusing on the importance of customer feedback, as it not only helps to identify and eliminate flaws in its operations, but also helps customers see that their voice is considered. (Gartner 2001.)

Organizational Collaboration. Many companies tend to forget that the implementation of CRM technologies does not automatically change the company's focus on its customers. It is a long and time-consuming process which often requires significant changes in organizational structure, culture, employee training, management and leadership skills. Just like the CRM value chain, Gartner underlines the importance of communication and networking development within an organization. (Gartner 2001.)

Process. This block involves the management of customer lifecycle, knowledge, and processes related to planning. Gartner also refers to this process area of the model as re-engineering, as the company should learn how to recognize what matters to customers rather than concentrate merely on efficiency improvement and cost reduction. The company's processes should support customer value proposition and provide competitive differentiation on the market. (Gartner 2001.)

Information. Successful implementation of CRM requires quality data and integration of operational and analytical systems within an organization. The quantitative data provides an insight into consumer behaviour, supports business processes and decisions. Gartner claims that companies investing their time in CRM information development are more likely to achieve their goals and increase competitive advantage. (Gartner 2001.)

Technology. One of the most important pieces of the puzzle in modern CRM implementation is IT infrastructure and architecture. According to Gartner, enterprises should make decisions in three areas concerning CRM applications, architectural issues, and integration. With rapid development of IT, companies have more options that allow a creative and personalized approach to customers. (Gartner 2001.)

Metrics. Finally, all the other seven building blocks are highly dependent on performance metrics and goals. Therefore, companies should set measurable CRM

objectives to monitor and evaluate the effectiveness of the chosen strategy. (Gartner 2001.)

3 Data mining techniques

In the previous chapters three main types of Customer Relationship Management solutions were defined: operational CRM, collaborative CRM, and analytical CRM. The latter represents the key source of information on consumer buying behaviour, allows to build up a customer's profile, define a target audience and most importantly tailor promotional content in accordance with customers' need and wants. Data analytics is the heart of every business and therefore its mining techniques applied in CRM and deserve special attention. Nowadays, companies try to create as many touch points with its customers as possible, which enable them not only to collect more precise data but also improve their value proposition, build trust and credibility. E-mail promotional newsletters, push notifications as well as the company's website are one of the main platforms providing valuable insight into such information. Optimisation of these marketing distribution processes can make a significant difference in the company's CRM model, as a result, make it more cost-efficient, profitable and automative. To achieve that, one must be aware of customer evaluation and personalisation techniques, as well as basic criteria that can improve communication quality via the above-mentioned platforms.

3.1 Customer profitability analysis

To improve company's efficiency, one has to analyse profitability of its customers, determine how resources are allocated among them, and understand how to increase profits generated from existing customers. Customer profitability analysis is a widely used practice in marketing, which was defined by Pfeifer et al. (2005) as *"the difference between the revenues earned from and the costs associated with the customer relationship during a specified period"*. In other words, this approach is based on accrual accounting profits earned in the past. The study conducted by Kaplan and Narayanan (2001) in the B2B & B2C sectors concluded that understanding of the net profitability drivers per customer is crucial for conversion of unprofitable customers into profitable ones. Based on the observation

of Holm, Kumar and Rohde (2011), the CPA calculation is often based on activity-based costing (ABC) technique. (Holm & Kumar & Rohde 2011, pp. 391-392.)

3.1.1 Activity-based costing (ABC)

Activity-based costing (ABC) has become one of the most important innovations contributed to the cost calculation and managerial accounting approaches. This tool is used across various number of industries such as logistics, healthcare, manufacturing, banking. Activity-based costing is claimed to improve internal business processes and help companies to gain management facilitations benefits such like customer profitability analysis (CPA). In the case of CPA, activity-based method suggests dividing customers into three (or four) groups corresponding to their value.

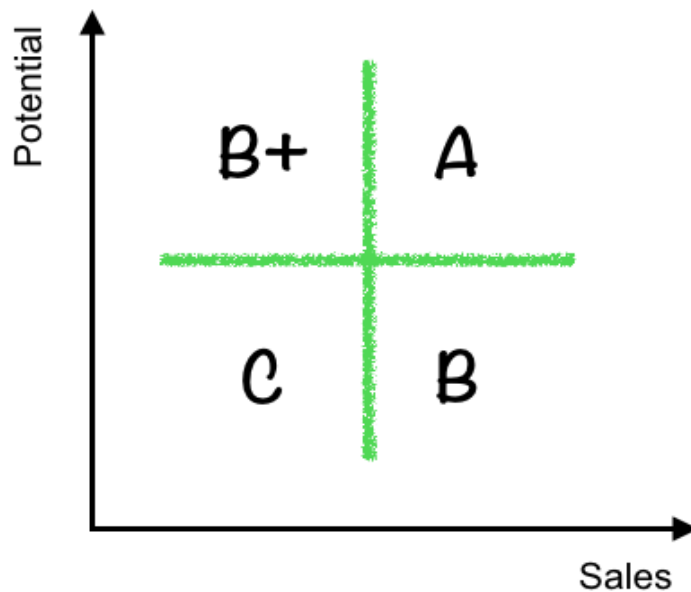


Figure 6. ABC customer rating (Grimmert 2011)

In this way, group A represents the cluster of highly profitable customers, group B is the segment of a medium priority customers with an average profitability, and group C – customers with below average profitability and less priority in comparison with two other groups. The calculation is based on the 80/20 rule (also known as Pareto Principle), which states that 20 % of the customers (the so-called A-customers) account for roughly 80% of total sales. Another 30% (B-customers)

correspond to 15% of sales, where the remaining 50% (C-customers) to only 5% of total sales. (Cardos & Cardos 2014, pp. 56-58; Grimmert 2011.)

The figure above illustrates the example of ABC customer evaluation by sales and sales potential. As one might notice, the B segment can also be subdivided into groups as it represents the median between the least and the most profitable customers. According to the Figure 6 the following can be inferred:

- **A-customers** sector contributes to the biggest share of sales within a company and has a high sales potential. Therefore, it is very important to hold these customers and pay maximum attention to their buying behaviour and needs. (Grimmert 2011).
- **Customers belonging to the B+ sector** are less revenue-relevant yet have a higher than average sales potential. This segment has to be expanded in the future based on the knowledge of A-customers. (Grimmert 2011.)
- **B-customers** segment generates a high amount of revenue but has a very low potential for further expansion. This group of customers is not dynamic as it has already passed the peak of its high profitability. The B group should be kept for as long as possible and be served on a current level. (Grimmert 2011.)
- **Customers on the C sector** make no significant contribution to the business and have little or no sales potential. Although this sector has to be also satisfied, it is not recommended to invest a lot of time and financial means in its service. (Grimmert 2011.)

Activity-based costing analysis illustrates the importance of a primary customer segmentation and the impact of customer prioritisation. As the A group dominates among the other segments in terms of profitability, a loss of these customers will take immediate effect on the company's turnover. The deeper understanding of A-customers can also help to expand the potential of B-customers. The ABC can be easily implemented in a CRM-software and give a graphical overview of customers' current state. However, due to the limited number of parameters used for

customer evaluation in this method, it should not be taken as a primary or a single source of information for subsequent marketing decisions. (Grimmert 2011.)

3.2 Customer lifetime value (CLV)

Another method used for customer evaluation is called customer lifetime value (CLV) and is defined as the present value of “*all future cash flows obtained from a customer over his or her life of relationship with the firm*” (Holm et al. 2011, p. 389.) Although CPA and CLV are frequently confused in the literature, these approaches give two fundamentally different perspectives on customer profitability. Unlike CPA, CLV aims to define the expected profit, adjusted by an appropriate discount rate, through the estimation of the three key components such as (1) customer’s loyalty, (2) predicted contribution margin for future purchases, (3) and the amount of resources required per customer for direct marketing activities in the future. CLV helps companies to understand the dynamics of customer behaviour and identify which customer relationships can prove to be worthwhile on the long run. According to the study of Kumar and Shah (2009), the method is reliable in terms if company’s value prediction and its CLV maximizing marketing strategies may positively affect its stock price. One of the most useful techniques for CLV calculation is Markov chain modelling (MCM). (Holm et al. 2011, pp. 389-391.)

3.2.1 Markov Chains

Markov chains were first introduced in 1906 by a Russian mathematician Andrei Andreyevich Markov (1856-1922) and represent a common way of stochastic modelling of random events, where the probability of each event depends only on the state obtained in the foregoing event (Oxford Living Dictionaries. 2018.) The method is used in a variety of areas, ranging from text generation to financial modelling. Pfeifer and Carraway (2000) suggested to use Markov chain for modelling of customer relationship on the basis of CLV calculation. Indeed, this approach has a number of advantages such as flexibility, what allows companies to adjust the model to any kind of customer relationship situations. Additionally, Markov chains are applicable for both customer retention and customer migration strategies. (Ferrentino & Cuomo & Boniello 2016, pp. 526-530.)

The following equation used in Markov model to calculate CLV:

$$CLV = \sum_{t=0}^T [(1+d)^{-1}P]^t R \quad (1)$$

Equation 1. Markov model for modelling customer relationships (Ferrentino et al. 2016, pp. 530-532)

In this model, all possible states of customer relationships are counted. The probability of changing from one state to another during one period is defined as transition probability. Assuming that the number of possible states is n , an $n \times n$ transition probability matrix P characterizes the transition between those states. The obtained matrix has to be multiplied by a reward vector R , containing the monetary contribution of each state, for every period. This multiplication will result in the value derived from a customer in that particular period. Thus, one will get a vector CLV , containing the expected future value of a customer for each future state s ($s = 1, \dots, T$) at time $t=0$, with T periods ahead, where P and R are both constant over time. (Ferrentino et al. 2016, pp. 530-532.)

3.3 Customer segmentation

Another meaningful data mining technique in relationship management is customer segmentation. Customers can be divided into groups according to their common characteristics such as age, sex, geography, profitability, or last purchase time without invoking any difficult analysis. Such information is collected throughout every established customer touch point and stored in a company's database system. Modern CRM software and marketing-automation platforms allow to create clusters by adding specific filters and characteristics to the entire customer pool. Customer segmentation is indeed the backbone of promotional activities because it enables the company to use its corporate resources more effectively and make better marketing decisions. Yet the CRM activities such as push-notifications, newsletters and in-app messages do not cost anything to the business, they have to be filled with meaningful and relevant content in order to retain customers and motivate them to use company's products and services in

the long run. This would not be possible without adopting a much more personalised and targeted approach to their customer universe. (Payne 2005, pp. 251-252.)

A viable market segment has to be:

- **Measurable in size and characteristics.** Strategist have to be able to identify the extent to which they should focus their efforts on a particular segment. (Payne 2005, pp. 65-66.)
- **Substantial.** A homogeneous group with clearly defined characteristics such as socio-economic background and brand perception will help to avoid ineffective marketing budget allocation on segments with negligible spending power. (Payne 2005, pp. 65-66.)
- **Durable over time.** There is no point in focusing on an unstable customer group that is likely to disperse or change. (Payne 2005, pp. 65-66.)

4 Theoretical summary

To summarize, CRM is defined as the mix of strategies used by a company to maintain the relationship with existing and prospective customers. It also describes the process of utilizing cloud services to collect, analyse, and distribute customer data for the purpose of communication's quality improvement, and growing sales to those customers. (Doyle 2011, p. 151.)

Relationship management is an integral part of every business, which allows companies to build customer loyalty and brand credibility. The first CRM systems were created in the late 1990's when the need to merge sales, services, and marketing activities onto one platform arose. Enterprise Resources Planning system is known as a predecessor of CRM. Indeed, both systems are similar in many ways, as their main goal is to increase overall profitability of a business. Nowadays, ERP and CRM are two independent software platforms, which are frequently integrated one with another.

There are three types of CRM solutions:

- *operational*

- *analytical*
- *collaborative*

The main objective of Operational CRM is to ensure that consumer needs are met by increasing the quality and speed of information flow between the company and its customers. Multi-channel communication lies at the heart of Operational CRM and ensures consistency and excellence in customer experience across all communication channels and touch points.

Analytical CRM is responsible for data collection, organization, interpretation, and distribution within the company. It allows marketers to not only identify customer behavioural patterns, but also build customer profiles and segments. Today, enterprises are heavily dependent on analytics, which allows them to gain greater customer insight. Therefore, Analytical CRM, beyond any doubt, can be called the most critical part of every CRM system.

Collaborative CRM, on the other hand, describes the situation where various departments of an organization, such as marketing, sales, and technical support cooperate with each other and exchange customer information that they have collected. Although there is no unified definition for Collaborative CRM, this application can be seen as a tool to improve overall customer satisfaction and customer loyalty.

Although the main concept of CRM is relatively straightforward, the cross-functional activity associated with it requires a systematic framework. There are several CRM conceptual frameworks that have been created during the past two decades:

- *IDIC model*
- *CRM value chain*
- *Payne and Frow's 5-process model*
- *Gartner's competency model*

Each of these models has its own unique view on how CRM has to be integrated into daily operations, and subsequently managed to bring about the positive change to the company. The theoretical frameworks discussed in this thesis

share a lot in common. They try to guide companies through implementation and further development processes, teach how to put theoretical information into practice, and how to create and deliver value proposition that attracts and retains profitable customers.

Another crucial topic that was discussed in the theoretical part of this study is data mining techniques. Companies have extensive access to customer data due to the multiple number of touchpoints that they have created all the way through the customer lifecycle. CRM collects data through weekly newsletters (e-mails), push notifications, as well as in-app activity. It is essential to understand how CRM manipulates this data to improve customer targeting and marketing communication relevancy.

One of the well-known data techniques used in CRM and marketing in general is Customer Profitability Analysis (CPA), which is defined as the difference between the revenues and costs associated with a particular customer relationship. This approach allows a company to distinguish between the most and the least profitable customers, and to allocate resources accordingly. CPA is often calculated with the help of activity-based costing (ABC) technique. ABC suggest dividing customers into three categories, where A-customers represent the group of the worthiest customers in terms of their profitability, B-customers - generating a high amount of revenue but have low further expansion potential, and C, customers with below average profitability and low priority. According to this system, companies invest their resources in a specific customer group, which are valuable for the business prosperity.

Customer lifetime value (CLV) is an alternative to CPA, which is defined as the present value of all future returns from a customer over his or her relationship with the company. CLV defines expected profit through the estimation of customer loyalty, predicted contribution margin for future purchases, and the amount of resources required to supply marketing activities per customer. Customer lifetime value calculation is frequently based on Markov Chains for stochastic modelling of random events.

Lastly, customer relationship management relies on the personalisation and tailoring of products or services offered by a company. Analytical data collected over a period of time through multiple customer touchpoints allows companies to learn more about its target audience. Consumers are usually segmented based on their common characteristics such as age, sex, or geographical location. Modern CRM does not imply mass marketing and aims to communicate relevant information to the right people. Customer segmentation emphasizes the importance of customer knowledge, and knowledge of your company's target group, necessary to generate the highest return on time and money invested in a particular relationship.

5 Ride-hailing companies

Ride-hailing companies (also frequently known as Transportation Network Companies) are defined as businesses using online platforms to connect passengers with drivers. To name a few, Uber and Lyft are currently two of the most successful start-up companies operating in over 300 cities worldwide. In recent years, they have become the main threat to traditional taxi services, which accuse TNCs of operating unfairly. Ride-hailers combine three major technologies such as GPS navigation, smartphones, and social networks. GPS navigation not only makes trips more cost efficient but also supports customers with a taxi tracking solution. Smartphones allow for accessibility by providing a multiple number of payment and booking options. Social networks and communication via different channels allow companies to build trustworthy relationships with both riders and drivers. (Wang 2015, pp. 2-4.)

5.1 Outlook and forecasts

According to the industry insights provided by the Bank of America Merrill Lynch, mobility services such as ride-hailing and car sharing are growing at an incredible pace. This positive trajectory is reinforced by the shift in social preferences with millennials attracted to access over ownership and technological progress. For instance, the usage of private cars in London declined from 47% to 36 % over the past 15 years. Likewise, the share of people between the age of 20 and 24 holding a driving licence in the U.S. dropped from 92% to 77% during the past

three decades. In addition to the huge time trade-off and higher level of convenience over private ownership in larger cities, mobility services are claimed to be 24% less expensive. (Briggs & Ma 2017; Briggs 2017.)

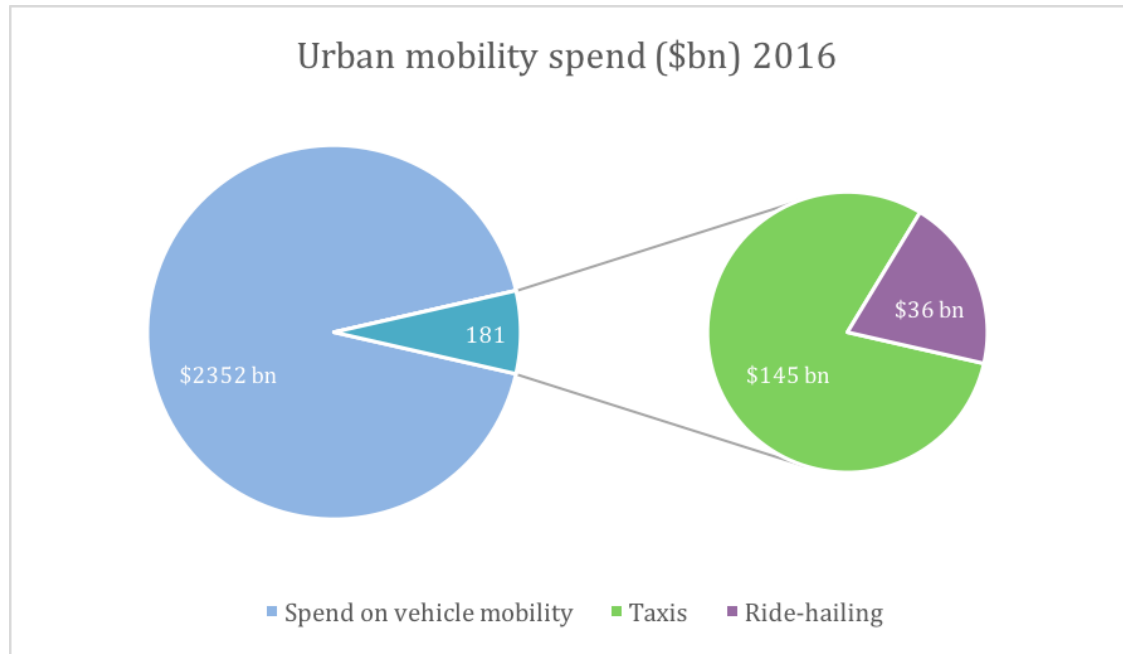
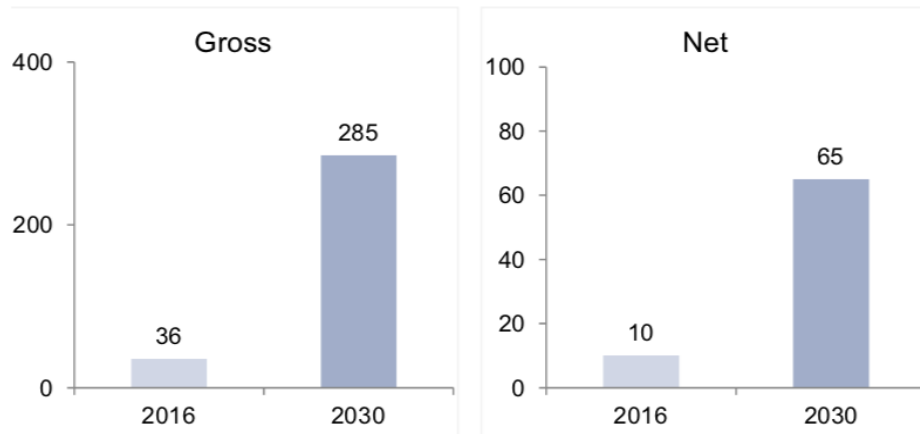


Figure 7. Urban mobility spending (\$ bn) in 2016 (Burgstaller & Flowers & Tamberrino & Terry & Yang 2017)

However, ride-hailing and car-sharing not only provide a gateway to leaving ownership behind, but also affect the public transportation use rate. According to the annual Carplus UK survey, the TNCs have increased the use of public and sustainable transport by 7% and cut down the use of privately owned cars by 10%. Furthermore, the estimated growth of mobility services is equal to 14% per year from 22 million vehicles in 2016 to 130 million by 2030. This number will represent the 8% of the total global vehicle park. (Briggs & Ma 2017; Briggs 2017.)

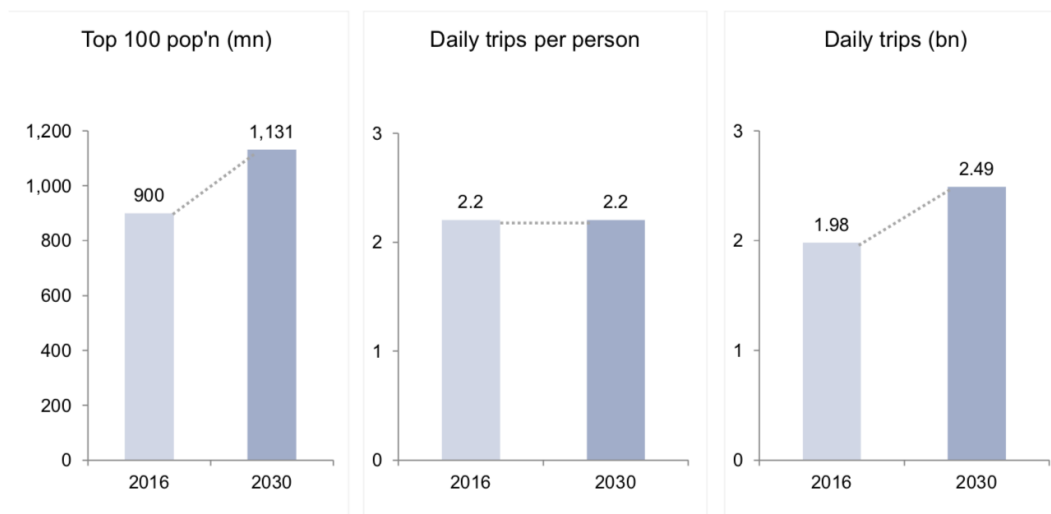
As stated by the Goldman Sachs Global Investment Research, "*ride hailing is set to overtake and ultimately eclipse taxi markets*". Indeed, mobility services are slowly but steadily taking the leading positions in the top tier cities. For instance, San Francisco has become one of the most progressive examples where the ride hailing is currently 4x bigger than the taxi market. Yet, on the worldwide level, the taxi market is worth \$108 bn, which is still 2,9x larger than ride-hailing market

(Figure 7). Overall, market analysts expected the ride-hailing market to expand eightfold to \$285 bn in 2030 (Figure 8). (Burgstaller et al., pp. 3-12.)



Source: Company data, Goldman Sachs Global Investment Research.

Figure 8. Ride-hailing net and gross revenues (\$ bn), 2016 and 2030E (Burgstaller et al. 2017)



Source: Goldman Sachs Global Investment Research, Brookings Institution.

Figure 9. Mobility demand, Top 100 = tier 1 and 2 cities (Burgstaller et al. 2017)

Such growth is stimulated by population growth and increased by rural to urban migration (Figure 9). The greater number of people increases the demand for mobility as well as the need for environmentally efficient solutions that help fight the problem of air pollution in large cities. Population density increase can have

negative environmental consequences such like air pollution due to a higher number of vehicles in urban areas. Pay-as-you-go models will help to separate car usage from car ownership. (Burgstaller et al. 2017, pp. 3-12.)

Last but not least, more and more companies introduce autonomous driving services transforming the very fabric of the ride hailing industry. Such innovation can help to reduce operating costs by eliminating driver subsidies, facilitate geographic expansion, and reduce regulatory challenges associated with employment contracts and worker rights. The study claims that customer subsidies are indeed one of the most important contributors to the lack of operating profit. Thus, the opportunity of providing autonomous fleets could open up a new revenue pool of \$220 bn by 2030. (Burgstaller et al. 2017, p. 27.)

5.2 Leading enterprises

Uber (market leader in the US) and Didi Chuxing (market leader in China) are the pioneers of the ride-hailing industry owning 90% of the global market by revenue. Lyft has been ranked as the third largest company, even though its operations are limited to the US market only. It is followed by the Israel-based hailing app Gett, which is now partially owned by Volkswagen (\$300 mn stake). Similarly, Daimler-owned mytaxi is currently a market leader in Germany and aims to overtake Uber on the European market in the future. (Burgstaller et al. 2017, p. 19.)

6 Case company

Mytaxi is the world's first taxi app that provides a direct connection between passengers and drivers. The ride-hailing company was founded in June 2009 by Niclaus Mewes (CEO) and Sven Külper (CMO). To date, mytaxi is the leading e-hailing app in Europe with more than 10 million customers and over 100,000 drivers. In 2014, mytaxi became a part of Daimler Mobility Services GmbH. Two years later, mytaxi successfully merged with Hailo, one of the top taxi apps in the UK and Ireland. This event was an impetus for mytaxi's growth and development as a ride-hailing company on the European market. The app is currently available

in about 100 cities in countries such as Germany, Poland, Spain, Portugal, Austria, Greece (Figure 10). Mytaxi supports all major platforms such as iOS, Android, Windows Phone, and Blackberry. (LinkedIn 2018; Mytaxi 2018.)

7 Research results

7.1 Data collection

As it was mentioned earlier in chapter 1.6, the qualitative approach was selected as the main research technique. The data collection process was initiated between June and October 2018. During that period, the author was actively looking for suitable sources of information that could be applied to the study and was developing the overall thesis structure. Figure 10 illustrates the thesis progress over the time.

The data was collected from reliable secondary and primary sources, where the primary data was retrieved from the interview. Secondary data was collected from various sources such as books, articles, and company's marketing communication materials. In November, the author arranged an interview with mytaxi's CRM team to collect missing data for the empirical part of the thesis. The main purpose was to find out how ride-hailing companies use CRM in their day-to-day operations. The detail description of the interview's design is presented in the following subchapter.



Figure 10. Thesis development process

7.2 Interview design

There are three types of interviews: structured, semi-structured, and unstructured. Structured interviews are conducted in the predetermined form (rigorous set of questions in the same order), what leaves respondents little or no opportunity to deviate from the topic proposed by the interviewer. Semi-structured interviews consist of a predefined list of themes and questions that the researcher would like to cover. Depending on the flow of conversation, some questions can be either omitted or added to the interview. The order of questions does not matter, which also leaves some room for flexibility. Unstructured interviews resemble a casual conversation and are usually more informal and open-ended. A related point to consider is that semi-structured and unstructured interviews are frequently called non-standardised (qualitative research) interviews. These are, normally, audio-recorded due to the unique nature of every conversation. While taking notes, the likelihood of missing out on some important details is very high. (Saunders & Lewis & Thornhill 2009, pp. 320-321.)

Semi-structured interviews are frequently used to collect empirical data as a part of the case study strategy. It allows researchers to conduct an in-depth analysis and answer on “what”, “how”, and “why” question of the study. Therefore, the author decided to arrange a semi-structured interview with mytaxi’s employees. The interview includes thirteen open-ended questions, which allow respondents to give answers in their own way, thus to share their personal opinions, experiences, and attitudes towards the subject. As a result, the author had an opportunity to get a deeper understanding of the CRM structure in the ride-hailing industry and acquire all the necessary information to answer on the research questions of the study. (Saunders et al. 2009, pp. 320-321; pp. 374-375.)

As it was earlier mentioned in the chapter 1.6, respondents were primarily selected based on their role in the company. Thus, the author chose two participants from mytaxi’s CRM Marketing team. Moreover, the author decided to organize a group interview with two selected CRM senior managers. In comparison with one-to-one interviews, group interviews tend to have a more dynamic environment, thus help to generate more insightful information and ideas. Furthermore, participants can address the points raised by other group members to either challenge

or complement the one another's view on a particular question. In this way, the author aims to establish the credibility of the research and attempts to overcome the biasness associated with interviews in general. (Saunders et al. 2009, pp. 345-346.)

A video call interview with the CRM senior managers from Hamburg was conducted and audio-recorded in November 2018. The interview questions can be seen in Appendix 1.

7.3 Data analysis

As it was previously emphasized, semi-structured interviews should be recorded and subsequently transcribed, that is, presented in a written form. In this way, the author has an opportunity to focus on a real-time discussion and make adjustments to the questions if more information about a particular subject is required. The audio-record transcribing is a time-consuming process, which can take up to several hours of decoding. The main task is not only to record what was exactly said and by whom, but also try to give an indication of a respondent's tone and mood towards the topic. In other words, the researcher has to pay an extra attention to the participants' non-verbal communication. (Saunders et al. 2009, pp. 485-486.)

Furthermore, it is recommended to transcribe interviews as soon as possible after they are taken. The interview is still fresh in the memory and it might help to better understand and grasp the key ideas of respondents. As time goes by, the interviewees' answers can seem to be abrupt and difficult to decode. While transcribing the interview, one must assure that the transcription is accurate and does not contain errors. This process is known as data cleaning and refers to identifying incorrect or irrelevant part of the data that should be subsequently replaced, modified, or removed from the study. To reduce the time needed to transcribe an audio-record, only the sections pertinent to the research have to be decoded. However, one will need to listen to the record carefully a few times. (Saunders et al. 2009, pp. 485-486.)

Once it has been done, researchers can send a copy of a transcript to the interview participants for the final proofreading. Indeed, respondents are often willing

to correct their grammar as well as use of language. This is due to the difference between written and spoken languages. Indeed, one has less control over the speech than writing. This step is not obligatory, although it can improve the data accuracy. (Saunders et al. 2009, pp. 485-486.)

During the interview transcribing process, the author has adjusted the language and corrected grammar mistakes with kind permission of the respondents. Yet, the true meaning of the interviewee's answers has remained unchanged. In addition, only relevant to the research information has been extracted from the discussion.

The next step in data analysis and sampling is data categorization. This stage involves two activities: initial category development and attachment of data to these clusters. In reference to the previous sub-chapter, the interview questions were divided into six sections: introduction, customer segmentation, multichannel communication, challenges of CRM, benefits of CRM, and conclusion. The category identification was initially guided by the purpose of the study expressed through the research questions. Such an approach helped the researcher to collect more detailed information about particular CRM topics, such as multichannel communication and segmentation strategy at mytaxi. Moreover, these categories are reflected in the empirical research of the thesis. The interview answers are inbuilt in chapters in a very descriptive form. In order to clarify to whom belongs a particular statement, both participants are referenced in the study according to their responses. (Saunders et al. 2009, pp. 492-493.)

7.4 Mytaxi user funnel

Based on the information collected during the interview at mytaxi, the company's user funnel includes several stages. The initial awareness and interest about the brand raised by paid-search and affiliate marketing, brings customers to the website, Apple Store, or Google Play. The customer journey begins from the point where he or she downloads the mytaxi App.

According to the activity dashboard, nearly 90% of users who installed the app register for an account, which is a positive result. However, 77% of new users do not book a tour on day one. Approximately 25,7% of passengers convert within

the first day, where 38,8% complete a booking after three days, and 39% only seven days after their registration. In overall, only 23% of customers, who downloaded the app take an action and complete their first tour (Figure 11).

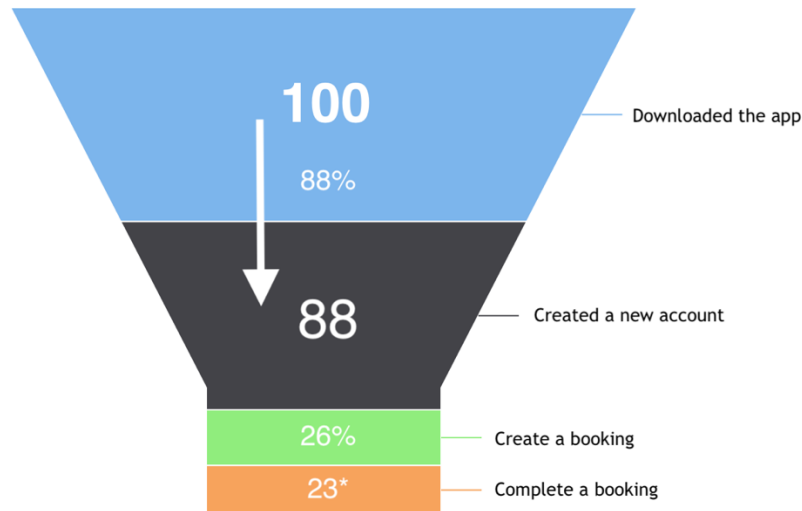


Figure 11. Mytaxi user funnel (mytaxi 2018)

7.5 CRM conceptual framework

CRM at mytaxi follows the Buttle's Value Chain model (Figure 3) that helps to identify the sources of competitive advantage needed to maintain long-term relationships with its customers. According to subchapter 2.3.2, the model contains five primary stages such as Customer Portfolio Analysis, Customer Intimacy, Network Development, Value Proposition Development, and Customer Lifecycle Management.

Figure 12 illustrates the CRM Value Chain at mytaxi. The first stage involves primary customer segmentation, ABC, as well as customer lifetime value analysis, that help to evaluate the worthiness and potential profitability of the company's current customer base. The next stage enables mytaxi to get to know the identity, expectations, and preferences of its target groups through customer database development and warehousing. The network development processes include relationships management with teams and particular employees involved in CRM processes. These are supported through regular stand-up meetings, company's business channels for internal communication, as well as yearly CRM workshops.

Furthermore, mytaxi develops its value proposition through content personalisation, excellent customer experience, and conflict resolutions. The Customer Lifecycle stage is considered to be one of the most crucial ones for a successful CRM functionality. This phase includes such processes as customer acquisition (passenger onboarding), customer retention through cross-channel communication, and performance tracking of KPIs (e.g. subscribe/unsubscribe rate, email open rate / click-through rate).

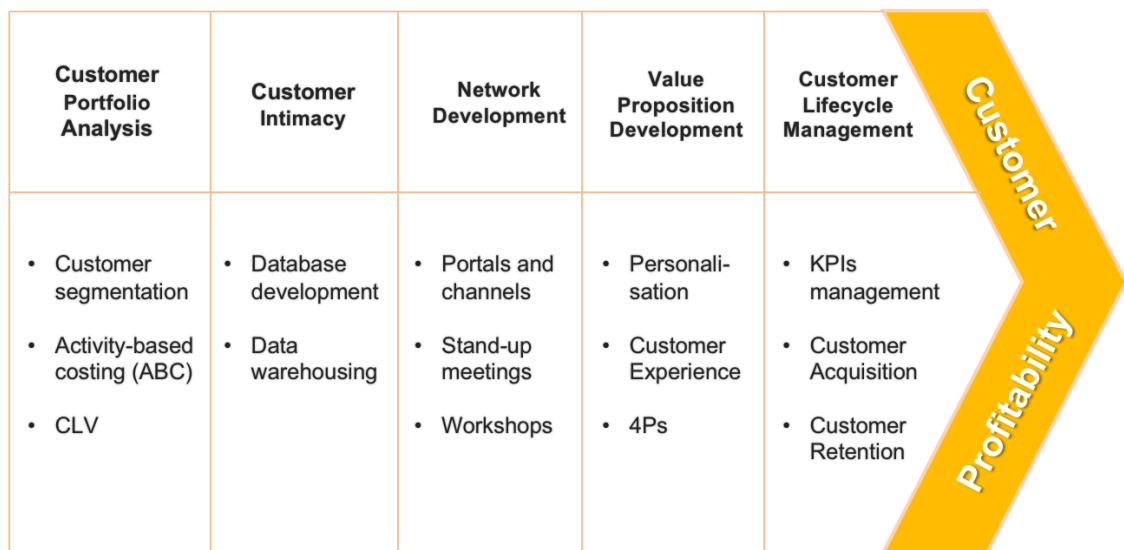


Figure 12. Mytaxi Value Chain

7.6 Customer segmentation

The CRM team initially divides passengers into two specialized segment types, opt-in and opt-out segments, which allow mytaxi to comply with anti-spam legislation. The opt-in is strategically the most important group of passengers for CRM, as it allows company to communicate informative content during the onboarding process. However, passengers decided to opt-out from notifications also receive one or two “Welcome opt-out” pushes, which can, theoretically, change customer’s mind and make them subscribe. Secondly, mytaxi clusters its customers by country, current city, and their last tour location. Such an approach enables CRM to communicate unique offers to audience in particular regions.

Another crucial criteria for segmentation is language. Mytaxi understands the importance of effective communication and takes customer’s preferred language into account. For example, passengers located in Germany do not necessarily

speak German, but they are expected to have a good command of English. Therefore, CRM communicates promotions and updates in both German and English.

Moreover, such user activity criteria as bookings and completed tours allow CRM to trace a pattern in customer behaviour. CRM continuously observes how passengers evolve over time, whether there is an unusual decrease or an uplift in their activity. Depending on the situation, CRM would either want to reactive its passive customers and increase their engagement with the product or encourage their active behaviour with vouchers and unique offers.

It is although distant from the current discourse not altogether irrelevant to adduce here the fact that Customer Profitability Analysis as well as Customer Lifetime Value are surely one of the most useful data mining techniques that can be used in CRM, as it allows company to track the tendencies in customers' behaviour, to identify what segment generates more revenue, and which segments needs a little more motivation and encouragement to move further down the funnel. Lastly, some customer segments can be created on a temporary basis for seasonal marketing campaigns such as Christmas, New Year's Eve, Black Friday, Valentine's Day, and much more.

7.7 Passenger onboarding process

CRM at mytaxi and in ride-hailing in general is heavily dependent on prior marketing activities (e.g. paid-search, affiliate marketing, TV, billboards) since it raises awareness about the company and its services, generates leads to the website, and makes people download mytaxi App on their mobile devices. CRM comes into play once the app was successfully installed (Figure 13). During the onboarding process, opt-in and opt-out segments receive marketing communication varying in its content and "aggressiveness". As it was mentioned previously, CRM cannot target the opted-out passengers who didn't express their will to receive promotional information. Therefore, the CRM team only sends one or two "welcome e-mail opt-out" communications. It depends on whether the new registered passenger has opened the first e-mail or not.

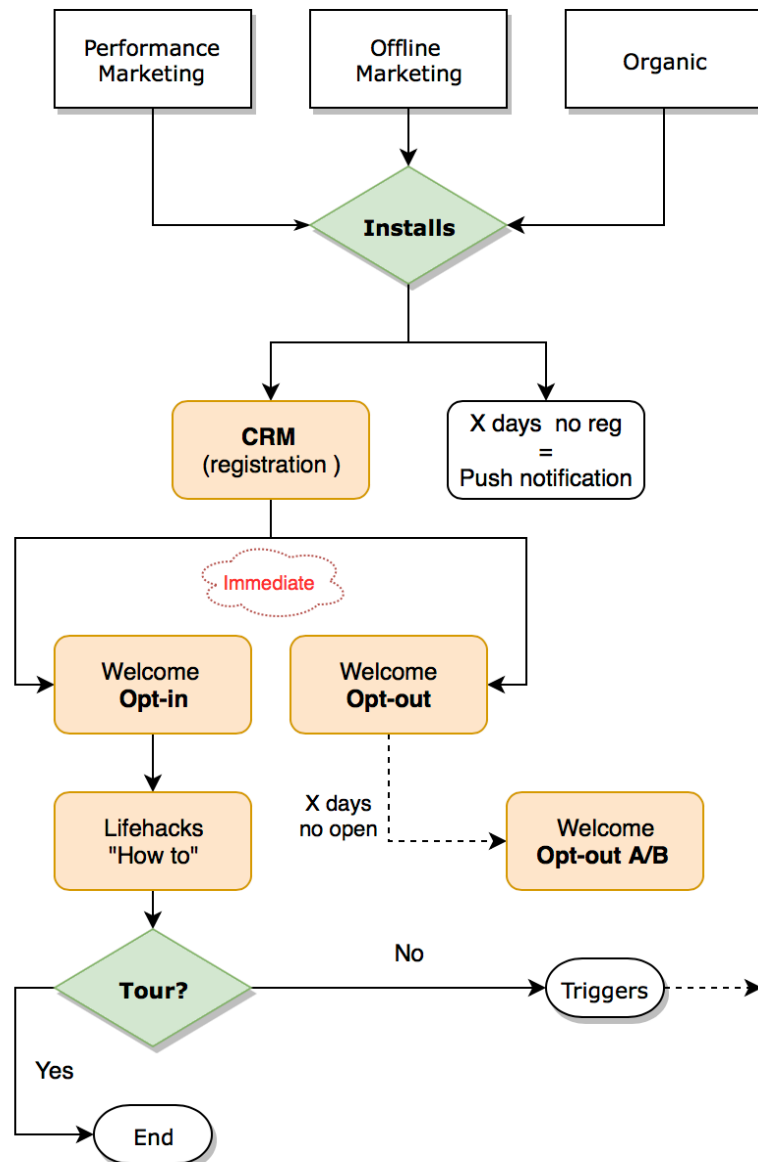


Figure 13. Passenger onboarding process

At the same time, opted-in passengers receive diverse educational content, which determined on shaping of customers' attitude towards the product. Moreover, CRM also controls whether passengers did a tour after the registration or not. In case of doing a tour, customers are simply congratulated with their first ride. Otherwise, CRM continues sending communications throughout a number of X days to push customers through the funnel and make them convert. In the matter of stagnation, CRM sends personalized vouchers, which motivate passengers to finally book and complete their first tour. Not to mention, CRM strives to show customers that mytaxi is more than just a digital product. The main goal is

to pursue them make a purchase (tour) as soon as possible. Competition in today's market is fierce, thus it is crucial to get people to choose your product or service faster.

7.8 Multichannel communication

The CRM team at mytaxi actively uses e-mail newsletters as well as tries to sway users to use more immediate channels such as in-app messages, push notifications, and news feeds (Figure 14). E-mail is, indeed, the strongest channel of communication for mytaxi since it allows the company to enrich content with more extensive information and eye-catching design. Moreover, customers have control over this channel in a way that they can decide themselves when to open and read e-mails.

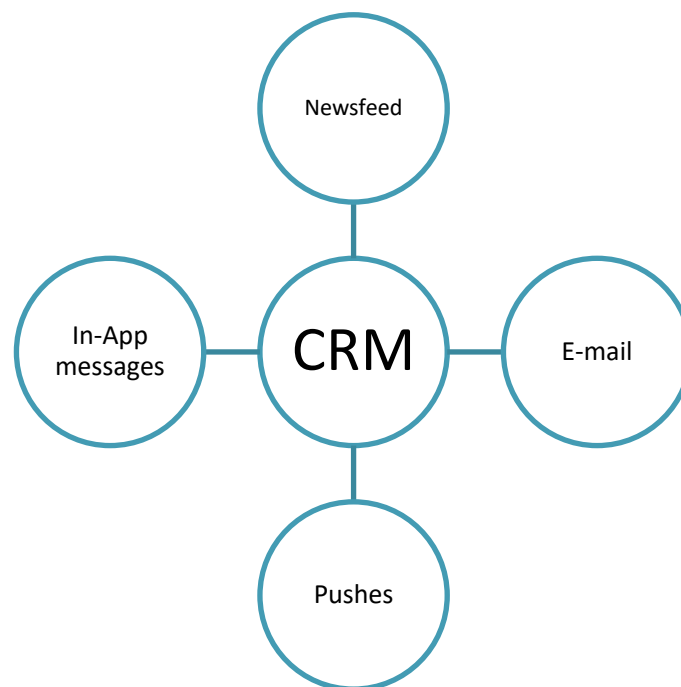


Figure 14. Multichannel communication strategy

Roughly 70% of passengers read mytaxi's newsletters on smartphones. Therefore, it is extremely important to create e-mails in desktop and mobile formats to make sure they are legible, regardless of the device used by a customer. The following subchapters will shed some light on delivery frequency as well as e-mail, pushes, and in-app messages appearance. Newsfeed is only used for interaction with drivers, thus will not be considered in the study.

7.8.1 Frequency

As for the frequency of communications, both interviewees pointed out that it depends on such factors as particular market plan, competitors' activity, seasonal campaigns, and force majeure. To maintain interest, CRM team sends promotional and triggered e-mails/push notifications to Germany based customers at least once a week. However, the key factor in this matter is diversity. One must send communications within a proper time-frame, to the right audience, but most importantly, with varied content. As long as it is not always the same, CRM can contact customers more frequently without appearing to be too pushy. Mytaxi's CRM team always keeps in mind that people tend to get bored, irritated, or can simply lose interest in their product. Diverse but consistent messages spread throughout a multiple number of channels is the best solution for marketers. As a result, one can observe synergy effects, which in turn enhance brand awareness and customer loyalty.

7.8.2 Newsletters

Email newsletters are considered to be the main channel of communication for mytaxi. Figure 15 (on the left) illustrates an example of last year's summer campaign sent to the opt-in segment users, whereas Figure 16 (on the right) demonstrates an e-mail triggered by a passenger's location. It is clear both templates follow a consistent design. Every created newsletter includes the company's logo (e.g. top-banners, headers) and reflects its mustard colour in the preheader and header. Additionally, mytaxi uses dynamic top-banners, which tend to draw more of the customer's attention. However, newsletters never repeat themselves and always contain a unique copy. To generate more clicks, mytaxi also often includes CTA buttons, motivating people to do a certain action.

Mytaxi sends out one or two e-mails per week to a certain target group. However, the frequency may vary due to national holidays or any other unpredicted circumstances. As it was previously emphasized, the majority of mytaxi's passengers open their e-mails on mobile devices. Therefore, CRM pays an extra attention to the mobile version of mytaxi's e-mails. Mytaxi also controls the e-mail campaigns'

performance through such KPI's as Open Rate, Bounce Rate, Click-Through-Rate (CTR), Unsubscribed rate, and Conversion Rate.

In this way, the team can identify customer preferences, learn what kind of content they find the most interesting. Some campaigns can be given a second life, meaning that the CRM team can recycle or reuse them in the future.



Figure 15. Seasonal campaign (mytaxi 2018)

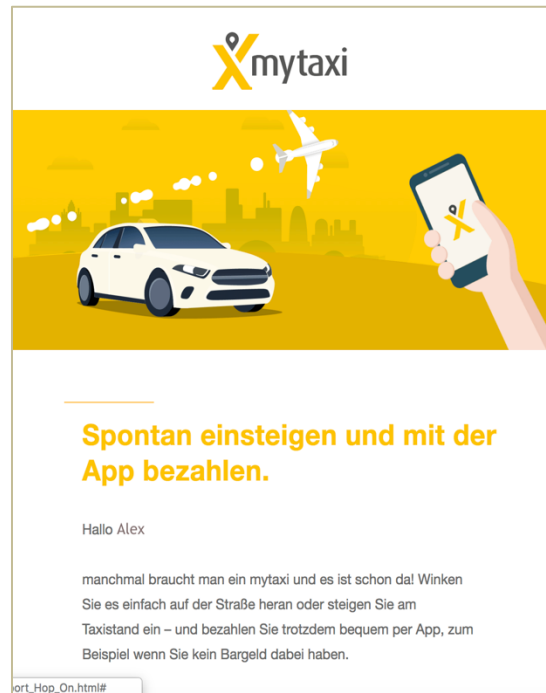


Figure 16. Triggered email (mytaxi 2018)

7.8.3 In-app messages (IAM)

In-app messaging (IAM) broadcasts communications to passengers when they are using mytaxi App, directly in the app itself. This looks like a pop-up window including an image, a text, and a call to action. Usually, CTA buttons contain a deep link, taking customers to a certain destination within the app. However, it can also be used to simply exit the popped-up window.

In-app messaging is one of the key discreet ways of communicating with mytaxi App users. In-app messages are triggered from an in-app event, for example, when passengers start a session. Figure 17 illustrates two examples of a seasonal IAM, which aims to warn passengers about expected delays caused by a national holiday. Oktoberfest is officially celebrated in Munich, what means that

only customers located in Munich and its suburb area receive this kind of IAM. A proactive approach allows a company to reduce the number of possible complaints and cancellations caused by this event.

Another good example of proactive behaviour, is a reminder sent within the app (Figure 18). For example, if a customer received a personalized voucher but has not redeemed it yet, he or she receives a notification reminding them of the voucher's expiration date. It might cause a feeling of a potential loss, create urgency, and, as a result, increase the conversion rate.

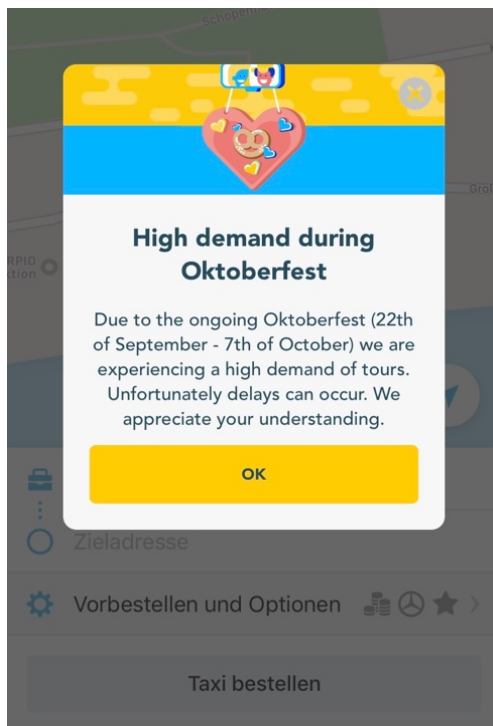


Figure 17. Oktoberfest IAM (mytaxi 2018)

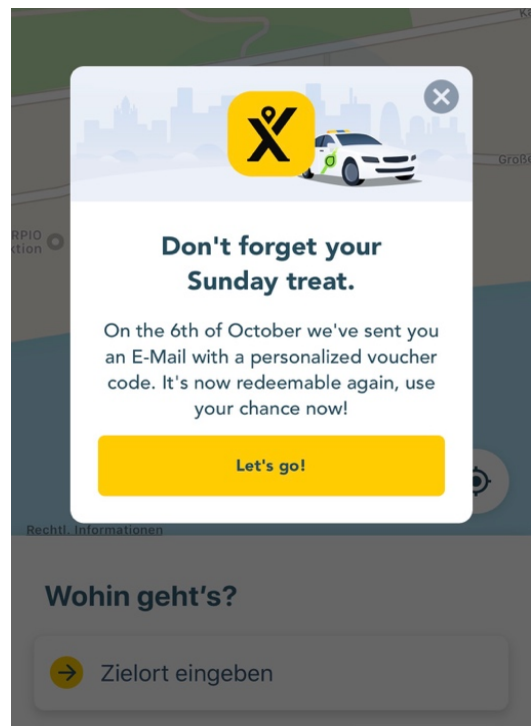


Figure 18. Reminder IAM (mytaxi 2018)

7.8.4 Push notifications

Push notifications are a relatively aggressive channel of communication since customers do not have control over this source of promotional information. Unlike newsletter and in-app messages, pushes are sent and received by passengers during a specific time-frame chosen by the CRM team. The time of delivery depends on a several factors such as the geographical location of a target audience,

and earlier scheduled e-mails and in-app messages. After clicking on the notification, passengers are either redirected to a certain webpage or will automatically open the app.

Push notifications are often prepared together with an email but are not sent at the same time. Instead, they are sent several hours apart from one another. Figure 19 demonstrates the proactive behaviour of the CRM team towards a specific event occurring in the cities. As a result of strikes, the public transportation system can experience delays or shutdowns. Mytaxi uses this opportunity to remind passengers about its services, which increases the likelihood of gaining a tour.

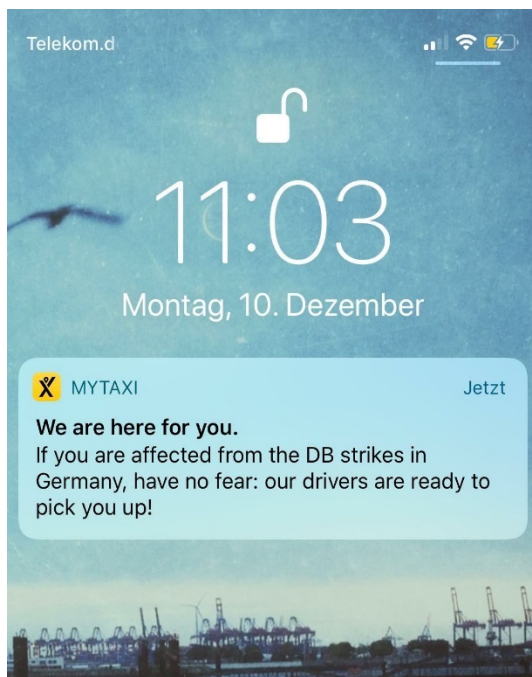


Figure 19. "We are here for you" reaction to strikes in Germany (mytaxi 2018)



Figure 20. "Don't forget your coupon" reminder (mytaxi 2018)

Furthermore, it is important to keep an eye on events (certain and uncertain) that occur in cities. Figure 20 illustrates another type of reminder that encourages passengers to book a tour. Deadlines create urgency and motivate customers to redeem a promocode. These kinds of reminders are usually sent two or three times depending on the validity period. Lastly, mytaxi pushes have a moderate design and do not include images. Emojis are rarely used as well, yet the CRM team would like to change it soon.

7.9 Challenges of CRM

Per the responses of both interviewees, the main challenge for CRM is to predict demand for taxi services. It is heavily dependent on factors such as weather conditions, peak hours, national holidays, and the political situation in the country. It became clear from the interview that mytaxi has a higher demand during cold and rainy weather. In addition, the business might suffer because of traffic suspension caused by national protests and strikes in cities. Unfortunately, neither mytaxi nor other companies can predict or control these types of occurrences.

It is almost impossible to evaluate if it is helpful for passengers to receive communications from the CRM team and to determine whether it impacts consumer behaviour and changes their habits or not. The interviewees claim that although CRM does, logically, influence current and prospective customers, one cannot assign a certain value to these effects. In other words, it is difficult to measure CRM success.

Moreover, mytaxi does not have a monthly subscription model for its services nor offers tour packaging rebates. This is why ride-hailing companies have a different user-funnel than e-commerce companies. The biggest barrier for ride-hailing is that customers, unlike in e-commerce business, are not able to return the product they have paid for. In case of a negative experience in ride-hailing, they simply stop using the services offered by a company. In other words, bad tour experiences can not only destroy the potential to build a long-term relationship with a specific customer but can also ruin a company's reputation on the market.

7.10 Benefits of CRM

First and foremost, CRM is the most cost-efficient channel of communication for mytaxi. Larger expenses are associated with raising customer awareness, which requires large investments in television advertisements, billboards, and paid searches. CRM, on the contrary, only requires a cloud service subscription and a one-time expense incurred on the initial integration process of the system. It is worthwhile to mention that CRM allows companies to educate their customers and make them more loyal towards your brand. In other words, it plays a crucial role in the customer retention process.

Furthermore, CRM enables mytaxi to automatize communication and reduce the amount of manual work. In the case of unpredictable circumstances, mytaxi can reach its customers fast and without losing money. With the help of CRM, one can do more with fewer people, which also significantly reduces company labour costs.

Another key point is that CRM is rich with functionalities. It allows mytaxi to create dashboards, customized newsletter templates, and customer segments. Apart from that, it gives room to work on other important topics and projects, allows the team to be more creative and flexible. CRM is beneficial for both the customers and the company. Passengers can receive bonuses, information about specific events, or last-minute updates. My taxi, on the other hand, can be agile and adaptable to any situation. Both interviewees believe, that mytaxi would not be as successful as it is now without implementing CRM into its day-to-day operations.

8 Conclusions and suggestions

8.1 Conclusions

A few years ago, there were not so many companies providing online mobility services, but today there are more and more start-ups conquering the industry with innovative and creative ideas that end up putting competitors out of business. People choose ride-hailing companies that offer competitively lower prices or lure their customers with attractive offers such as discounts, promocodes, or bonuses. As a result, the competition in this field has become fierce and firms now have to fight for every potential client. Unlike the e-commerce businesses, ride-hailing providers must be more proactive to win a customer's heart and make them come back next time they need a taxi. For this reason, customer relationship management has come into play by becoming the backbone of companies' daily operations.

The purpose of this study was to demonstrate how CRM activities are organized in ride-hailing companies and what role they play in their success. To reach this

goal, the research questions were designed and answered by theoretical overviews and empirical findings.

The following sub-questions were built to support the main objective of the study:

- What is CRM and why is it important to business?
- How CRM collects, processes, and manipulates customer data?
- What are ride-hailing companies?
- What strategical approach to CRM is used in ride-hailing?
- What are the benefits and drawbacks of CRM in ride-hailing?

CRM is defined as the mix of strategies used by a company to maintain the relationship with its current and potential customers. It is also a software platform that allows companies to collect, store, and process customer data. The author has identified three main types of CRM solutions such as operational, analytical, and collaborative. Depending on the goals and needs of a company, a certain type of CRM platform is implemented. CRM plays a significant role in building customer awareness and loyalty. As a result, it allows businesses to generate more revenue. In addition, CRM enables companies to shorten the time spent on repetitive work, thus focusing their time on strategical projects that encourage creativity. Therefore, each and every company should turn its attention to this corporate solution.

Secondly, it was found that CRM collects customer data through different touch points such as promotional newsletters (e-mails), push notifications, registration and subscription. The data stored on CRM platforms allows firms to evaluate customer preferences, needs, and desires. Moreover, CRM helps to identify company target groups, create customer segments, and build behavioural patterns in customer decision processes. Furthermore, CRM processes collect data to identify the most and the least valuable clients. Such techniques as ABC, CLV, and CPA are some of the key methods involved in evaluation practises.

Thirdly, ride-hailing companies were defined as businesses that utilize online platforms such as mobile Apps to connect passengers with drivers. This industry

has been growing steadily over the past decade and is currently conquering traditional taxi services with its innovative and effective solutions. As most people do not use taxis on a daily basis, it is extremely important to keep potential passengers interested in your services. Therefore, ride-hailing companies rely on CRM to maintain the relationships with its passengers as well as drivers.

The next question was answered by studying CRM operations and communication strategies implemented by the CRM Marketing team at mytaxi. During the interview with two CRM Managers Philipp Warneke and Victoria Ferreyra, the author has identified the key channels of communication used by mytaxi:

- newsletters / e-mails
- IAM
- push notifications
- news feed.

Due to the delimitations of the study, the “news feed” channel was not considered further in the study as it is only used to communicate certain events, accidents, and special offers to mytaxi’s drivers. E-mail communication is claimed to be the strongest and the most effective way of communication with passengers because it allows companies to include as much valuable information as possible. Moreover, customers have control over this channel as they can decide themselves when to open mytaxi’s e-mail and whether to read them or not. In contrast, IAMs pop-up whenever one opens an app or does a certain action within that App. Push notifications appear on mobile screens at a specified time and may distract or even annoy customers. Therefore, push notifications are considered to be the most aggressive channel of communication and are usually sent when CRM team needs to promptly communicate a certain message.

The CRM operations at mytaxi are dependent on customer segmentation. As it was mentioned during the interview, the first step during that process is to attribute passengers to opt-in and opt-out segments. Such an approach helps to comply with anti-spam legislation. Mytaxi has an established passenger onboarding automation chain, that involves e-mails and push notifications. The main goal is to push potential customer through the funnel, make them convert, and reassure

a positive experience after taking the first tour. Furthermore, passengers are also segmented based on their country, current city, last tour location, and language. These important details enable company to communicate relevant information at the right time to the right people. Frequency of communication may vary depending on a season, public holidays, and other events. However, mytaxi strives to send minimum one or two e-mails or push-notification per week to a particular customer group to keep them interested in company's services.

The following CRM drawbacks in ride-hailing were identified during the empirical research:

- difficult to predict demand for taxi services
- difficult to measure CRM's success
- unsubscribed customers are unreachable
- bad tour experience can ruin existing and potential long-term relationships

The following benefits of CRM in ride-hailing were found during the study:

- CRM is the most cost-efficient channel of communication
- positively affects customers' loyalty towards a particular brand.
- allows for agility and proactive communication
- rich with functionality
- reduces manual work and allows for automated processes

To conclude, CRM has more positive than negative points and is worth implementing in ride-hailing companies. This research should be useful to those wishing to increase professional competency in CRM and its effective application in the ride-hailing industry.

8.2 Suggestions for further research

This thesis was intended to illustrate CRM operations in the ride-hailing industry. One avenue for further study would be research into the specific channel of communication such as emails, push notifications, and IAMs. It is relevant to investigate the optimal frequency as well as time of send-outs for a particular group of customers. Furthermore, one can conduct a quantitative analysis to compare the

effectiveness of each particular channel. Last but not least, deeper research on the passenger onboarding process in ride-hailing companies could help to identify the strengths and weaknesses of CRM strategy, as well as provide further suggestions and ideas for its improvement.

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Appendices

Appendix 1. Interview questions

The following questions were created to help the author to collect relevant data for the empirical study. The semi-structured interview consists of seven parts, each of which contains thematical questions depending on the information searched. At the meeting, some questions were adjusted to make the transition from one topic to another smoother. The interview was conducted with the CRM Marketing Managers Victoria Ferreyra and Philipp Warneke.

Discussion topic	Questions
Introduction	<ul style="list-style-type: none"> • <i>Could you briefly introduce yourself?</i> • <i>How long have you been working for mytaxi?</i>
CRM processes	<ul style="list-style-type: none"> • <i>Could you describe the user conversion process?</i> • <i>What CRM model do you use? Could you describe its core components?</i>
Customers	<ul style="list-style-type: none"> • <i>Could you describe the customer/passenger onboarding process?</i> • <i>How do you segment customer/passengers? What criteria do you use?</i> • <i>How do you retain your customers/passengers?</i>
Multichannel communication	<ul style="list-style-type: none"> • <i>What channel of communication do you use in CRM?</i> • <i>What channels have priority and why?</i> • <i>What is, based on your experience, the most effective frequency of communication?</i>
Challenges of CRM	<ul style="list-style-type: none"> • <i>What, in your opinion, are the key challenges and limitations of CRM in ride-hailing?</i> • <i>How do you handle these problems at mytaxi?</i>

Benefits of CRM

- *How does the company benefit from CRM activities? / What is the real value of CRM for mytaxi?*
- *How do you work on CRM improvement?*

Conclusion

- *Can you imagine mytaxi be just as successful as it is not without implementing CRM into its day-to-day operations?*
-