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Opportunities and Challenges in Utilizing Customer Experience Analytics in B2B Contexts

Bachelor's Thesis
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Abstract

Recent research suggests that customer experience management and particularly customer experience analytics are becoming increasingly important among business managers and in the whole corporate sector as it provides a source of competitive advantage and long-term customer partnerships. Especially the utilization of customer experience (CX) analytics in business-to-business (B2B) contexts has been a topic of increasing interest in recent years. The goal of customer experience is to create a positive, seamless, and engaging experience for customers that meets, or preferably, exceeds their expectations. Capturing and analyzing data from customer interactions and relationships, along with the needs and requirements of customers, can provide useful insights into the customer journey and influence initiatives to improve customer experience, satisfaction, and ultimately customer loyalty.

The aim of this thesis was to explore the opportunities and challenges that B2B companies encounter while utilizing CX analytics. The research was conducted through a literature review to explore and analyze current literature on the topic. Relevant literature was chosen from the search results used in Scholar and Scopus, and forward and backward citations were utilized to identify additional relevant literature. The research chosen for the analysis was made by selecting relevant articles from 2016 onward with a couple of exceptions.

Based on the findings of this thesis, CX data, analytical tools, and measures, as well as an analytics culture, are seen as enablers for the creation of CX insights. The insights derived from CX data with the help of efficient CX tools such as text mining and AI are highly beneficial and should be applied as strategic information to guide CX actions. The implementation of CX analytics in a B2B environment can cause challenges for companies and complicate the creation of valuable and accurate CX insights. This research identified the complexity of the B2B process, data collection limitations, and the utilization and analysis of the correct CX data as the key challenges that B2B companies encounter during the implementation of CX analytics. To overcome these challenges, B2B companies must focus on a well-planned strategy to identify the goal and scope of CX measurement, in addition to correctly measuring high-quality meters to assure the accuracy of CX insights.

Keywords customer experience analytics, CX analytics, B2B, business-to-business, opportunities, challenges

Table of Contents

List of Figures

List of Tables

List of Abbreviations

CX	Customer Experience
B2B	Business-to-Business
B2C	Business-to-Consumer
CEM	Customer Experience Management
AI	Artificial Intelligence

1 Introduction

The utilization of customer experience (CX) analytics in business-to-business (B2B) contexts has been a topic of increasing interest in recent years. Capturing and analyzing data from customer interactions and relationships, along with the needs and requirements of customers, can provide useful insights into the customer journey and influence initiatives to improve customer satisfaction and loyalty.

The customer experience insights guide companies to manage customer experiences more effectively and they generally derive from the utilization of CX analytics (Holmlund et al., 2020). Thus, gathering customer data is an essential part of the utilization of CX analytics in customer experience management (CEM). New technologies and increased touchpoints in the customer journey have enabled companies to collect enormous amounts of data to employ (Zaki & Neely, 2019). Obtaining relevant CX data and generating insights from this data, on the other hand, is not as simple as it may sound, and can cause issues for businesses. Especially B2B companies are facing inadequateness in terms of gathering sufficient data needed to make accurate and meaningful insights (Lilien, 2016).

Research conducted by Accenture (2021) shows that companies that have set the customer experience at the forefront of their strategy have seen an extensive increase in their profitability. This development has been made possible by being customer-oriented and by utilizing data-powered customer insights (Fernon, 2021). During the previous ten years, technology barriers have been reduced, giving businesses more equal access to new innovations for gathering and analyzing customer data. (Lilien, 2016). Thus, reviewing research focusing on the opportunities and challenges of CX analytics is valuable for practitioners.

Although customer experience analytics and its potential are described as one of the essentials for companies, research in the area is still unexpectedly limited (Holmlund et al., 2020). Especially research in B2B contexts has received only a portion of the research attention in CX analytics compared to B2C markets as mentioned by Hallikainen et al. (2020), Lilien (2016), and McColl-Kennedy et al. (2019). According to Lilien (2016), one of the major challenges in B2B research is the difficulty of gathering data from limited sources, as opposed to B2C markets, where all types of consumer sources are more accessible, as well as the lack of tools and guidance utilized. In addition, McColl-Kennedy et al. (2019) specified that prior research has not focused on guiding how scholars and

practitioners could acquire valuable insights from CX data. Collecting B2B customer data often requires the involvement of multiple stakeholders and a comprehension of relationships within the organization (Zolkiewski et al., 2017). This thesis aims to address this research gap by exploring the opportunities and challenges that B2B companies come across while utilizing CX analytics.

1.1 Research questions

This research aims to bring insight into the opportunities and challenges of customer experience (CX) analytics in B2B contexts by exploring the following research questions:

- How can B2B companies gain a competitive advantage from the utilization of customer experience analytics?

- What are the main challenges of collecting, analyzing, and exploiting data for customer experience analytics in a B2B environment?

To answer these research questions, this study will reflect on existing research on customer experience management, B2B customer experiences, and data analytics. This review seeks to provide insights into the unique benefits of implementing CX analytics for managing B2B customer experiences, as well as to reveal characteristics that affect the application of CX analytics and the challenges of collecting and analysing the data.

1.2 Scope of research

This thesis covers the perspective of the opportunities and challenges that B2B companies encounter with CX analytics through a literature review. However, this thesis does not explore the opportunities and challenges faced by companies in a specific B2B business field. This literature review gives an overview of the topic. It is possible that different B2B sectors face specific opportunities and challenges.

Additionally, this thesis will not focus on particular tools or techniques in CX analytics. Instead, this thesis gives an overview on how to utilize analytics tools in the process of gaining CX insights.

1.3 Structure of the research

The rest of the thesis is structured as follows. Chapter 2 presents the methodology by which the literature review was conducted, including a summary of the most relevant

literature for this research, how the literature was discovered, and how the literature was analyzed for this review.

In Chapter 3, I will first introduce the key concepts for this thesis: customer experience, data analytics for measuring customer experiences, and the B2B environment. Followed by the opportunities that B2B companies achieve by implementing CX analytics. I will then explain the challenges that B2B companies encounter during the implementation of CX analytics. Lastly, I will conclude the chapter by summarizing the key results from the literature review.

The final chapter presents the conclusions of the thesis, while also discussing potential limitations and implications for future research.

2 Methodology

This chapter will outline the methodology utilized for the literature review. I will first briefly introduce the methods used to discover and source the relevant literature for this thesis, and then describe how the literature was analyzed.

A literature review aims to provide a timely and unified assessment of existing information on a selected topic (UIS, 2023). This method is thus suitable since my objective for this thesis is to provide an overview of CX analytics opportunities and challenges for B2B companies.

The selected literature for this thesis was primarily sourced from Google Scholar and Scopus. To conduct the literature search for this thesis, I employed various combinations of search terms, such as "customer experience" and "B2B" or "CX" and B2B", as presented in Table 1. Relevant articles were then chosen from the search results, and forward and backward citations were utilized to identify additional relevant literature. The research chosen for the analysis was made by selecting relevant articles from 2016 onward, with a couple of exceptions. The literature selection process involved first considering the title of each article and then determining the most relevant articles based on the number of citations they had received. Lastly, irrelevant literature was excluded after reading the abstracts and skimming through the articles. Finally, articles such as Lilien (2016), Zolkiewski et al. (2016), McColl-Kennedy et al. (2019) and Lemon and Verhoef (2016) were identified as particularly relevant, as they were cited in multiple other sources within the CX analytics and B2B literature.

Table 1 Summary of the search terms and relevant literature of the literature review.

Search terms	**Most used relevant literature**
Customer experience analytics or CX analytics	• Holmlund et al. (2020) • McColl-Kennedy et al. (2019) • Zaki & Neely (2019)
“Customer experience” & “B2B” or “CX” & “B2B”	• Zolkiewski et al. (2017)
Customer experience	• Berry et al. (2002) • Meyer & Schwager (2007)
Customer experience management	• Homburg et al. (2017)
Related and referenced articles in Customer experience analytics	• Hallikainen et al. (2020) • Ruiz-Alba et al. (2022) • Zaki (2019)
Related and referenced articles in B2B customer experience	• Rustkollkoarhu et al. (2022) • Lemon & Verhoef (2016) • Lilien (2016)

Following the discovery of these relevant articles for the literature review, I read through the chosen articles and coded the pertinent information with different colors to indicate their relevancy. For instance, I used yellow to indicate the overall explanation and definitions of CX and CEM, green for the benefits and opportunities that CX analytics offer companies, red for the challenges faced by B2B companies during CX analytics implementation, and blue for the research gap for this literature review. Subsequently, I transferred the highlighted sections of the articles into individual word files, which I clustered according to similar categories for integrative analysis during the literature review. This methodology facilitated a better understanding and explanation of each benefit and opportunity, as well as the challenges for B2B companies.

3 Results of the Literature Review

In this main chapter of the thesis, I will first introduce the key concepts of the research topic, followed by the opportunities and challenges of CX analytics in B2B contexts. I will conclude the chapter by summarizing the key findings from the literature and previous research.

3.1 Key Concepts

To have a clearer understanding of the upcoming findings of the literature review, I will begin by introducing the central notions of customer experience, data analytics, and B2B environment, which are the key concepts for this literature review.

3.1.1 Customer Experience through customer journey

Customer experience (CX) refers to everything a customer experiences and perceives throughout a transaction with a company (Berry et al., 2002; Meyer & Schwager, 2007). The goal of customer experience is to create a positive, seamless, and engaging experience for customers that meets, or preferably, exceeds their expectations (Berry et al., 2002; Bolton et al., 2014; Lemon & Verhoef, 2016). Understanding and analyzing the customer experience, as well as knowing how to manage it, are critical for businesses as global competition tightens and customers can easily locate alternative options for their needs.

To understand customer experience, companies must initially recognize the customer journey that they provide for their customers (Holmlund et al., 2020). Customer journey comprises all the touchpoints that customers encounter during the process (Lemon & Verhoef, 2016). Interactions between companies and customers occur at many different touchpoints across the customer journey: pre-purchase, during the process of purchasing, and post-purchase, as well as in multiple channels and media (Lemon & Verhoef, 2016). As stated by Lemon & Verhoef (2016) and Holmlund et al. (2020), at every touchpoint during the journey, customers will receive cognitive, behavioural, sensorial, social, and emotional responses to their customer experience. Additionally, Lemon & Verhoef (2016) highlighted that different touchpoints during the customer journey can have distinct importance for customers. Thus, these increasing touchpoints produce more complex customer journeys, which are more demanding to measure, monitor, and manage.

Handling and analyzing these customer touchpoints precisely will make a significant difference for the company and its customers. A well-designed and measured customer experience with analytics and other tools exposes countless opportunities to achieve satisfied and attached customers. The goal of evaluating customer experience strategically is to use this knowledge to enhance a pleasant and desirable customer experience (Zolkiewski et al., 2017), which results in increased levels of long-term loyalty with customers and drives sustainable competitive advantage (Berry et al., 2002 ; Bolton et al., 2014; Holmlund et al., 2020). In addition, a positive customer experience can have a significant impact on a company's sales and profitability, as according to a study by PwC (Puthiyamadam & Reyes, 2018), customers are willing to pay up to 16% more for products and services from companies that provide a better customer experience.

3.1.2 Data analytics for understanding customer experiences

Throughout the past decade, data has been one of the most exciting and discussed subjects among organizations, as data's relevance to enterprises has grown tremendously since it provides numerous opportunities for businesses to increase and enhance their processes (Barton & Court, 2012; Chen et al., 2012). In today's society, when an increasing portion of life takes place in a digital place, it is near impossible not to obtain data upon each journey (Diamantopoulos et al., 2023). And, as the continuous development of data storage capacity, computing power, and analytics continue, it enhances the variety of opportunities to occupy data through data analytics (Zaki, 2019).

Data analytics insights are usually divided into four broad categories: *Descriptive analytics* interpret insights on what has happened. This helps the companies describe the situation for future analysis. *Diagnostic analytics* give an understanding of why those events occurred. This type of analysis is useful for getting to the bottom of a business problem. *Predictive analytics* delivers information on what could happen in the future. By predicting the possible scenarios, companies gather valuable information about future trends and how they affect their businesses. *Prescriptive analytics* provides insight on what would be the best outcome to occur and what the company should do next. (Cote, 2021; Holmlund et al., 2020) These four assessments support businesses in developing strategies based on the insights and scenarios they compile from the data, as well as determining the areas and metrics to be measured and monitored in the future.

In terms of customer experience management, data analytics provide attractive tools to evaluate companies' customers, as they can be analyzed through quantitative and qualitative measures. These insights then guide companies to manage their customer experiences in a more effective manner. (McColl-Kennedy et al., 2019) The amount of

data that is created, used, and stored is increasing at an exponential rate (Statista, 2023). However, the enormous amount of data that companies have access to is solely not sufficient for generating accurate business insights. As Holmlund et al. (2020) highlighted, utilizing all types of data is not reasonable, as it causes challenges and costs for the company, and thus organizations should not try to harvest all forms of insights from the available data. Companies must carefully acknowledge and identify what data are valuable and useful for making the analyses (Diamantopoulos et al., 2023).

3.1.3 B2B Environment

Business-to-business (B2B) environments are characterized by transactions and relationships between two businesses rather than between a business and an individual consumer. B2B transactions involve the buying and selling of products or services, as well as collaboration and partnership opportunities between businesses. (Zolkiewski et al., 2017) B2B companies are typically reliant on a smaller number of customers and complex buying processes (Lilien, 2016). Therefore, building and enhancing long-term relationships with the multiple stakeholders within customers is essential for B2B companies in order to stay competitive and maintain market share and profitability.

The distinction between Business-to-Business (B2B) and Business-to-Consumer (B2C) markets can be discerned based on whether the demand is derived by a company or an organization, as opposed to a consumer. This differentiation is crucial because it impacts how businesses market, sell, and serve their products or services. (Lilien, 2016) Consequently, understanding the similarities between B2B and B2C decision-making and the notion of customer experience by humans will help companies establish long-lasting profitable customer relationships.

B2B characteristics vary quite profoundly from B2C interactions. B2B transaction processes usually involve dozens of individuals across both the buying and selling parties. B2B purchases also tend to involve larger amounts of capital and longer sales cycles compared to B2C purchases. (Hallikainen et al., 2020; Lilien, 2016) Thus, that also makes the customer journeys and experiences more complex to capture, measure, and manage (Homburg et al., 2017; Zolkiewski et al., 2017)

3.2 Opportunities of CX analytics

This section will explore how B2B companies can gain a competitive advantage from the utilization of customer experience analytics. Figure 1 summarizes these opportunities and enablers for achieving competitive advantage by implementing CX analytics into their business processes and the key enablers for achieving the benefit. In the following section, I will go through these potential factors that enable the achievement of competitive advantage by integrating CX analytics in B2B companies.

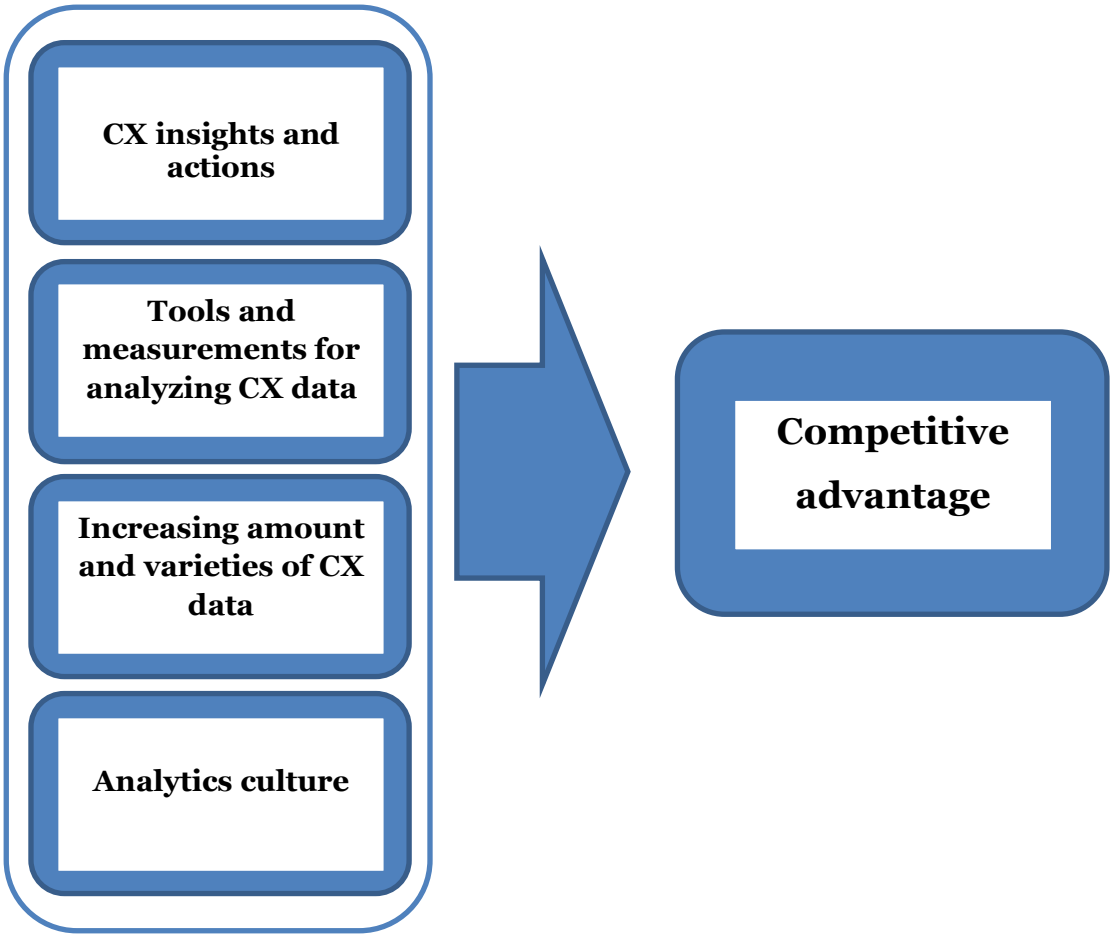

Figure 1. Opportunities and enablers of CX analytics to achieve competitive advantage.

3.2.1 Competitive advantage as an opportunity of CX analytics

Recent research suggests that customer experience management and particularly customer experience analytics are becoming increasingly important among business managers and in the whole corporate sector as they provide a source for a competitive advantage and long-term customer partnerships (Holmlund et al., 2020; Homburg et al.,

2017). Many organizations are now considering customer experience as a major competitive driver, as it enables them to learn more about how customers engage with their products or services and discover areas for development (Zolkiewski et al., 2017). Thus, investing in the analysis of customer experiences is crucial for maintaining competitiveness in a highly competitive business environment (Lemon & Verhoef, 2016; McColl-Kennedy et al., 2019), since customers may simply swap suppliers if they receive poor customer experiences in their customer journeys.

As cited by Rusthollkarhu et al. (2022), the primary focus in B2B environments should be on developing and maintaining long customer relationships, and more importantly, with their most important and strategic customers. According to Zaki (2019), B2B companies face much lower customer experience ratings compared to retail companies. Simultaneously, B2B customer expectations are growing due to customers becoming increasingly dissatisfied with the lack of service and innovation that individuals get compared to all B2C interactions (Zaki, 2019). Thus, customer experience analysis and management are critical, and it reflects a change away from data management and toward the creation of subjective and contextual intellectual capital (Zaki & Neely, 2019; Zolkiewski et al., 2017). As a response, assessing CX data using analytics provides B2B organizations with a wide range of opportunities for gaining CX insights and translating them into effective CX actions, such as enhancing customer retention and identifying the underlying reasons for customer churn (Hallikainen et al., 2020; Zaki & Neely, 2019; Zolkiewski et al., 2017). In order to stay ahead of the curve in today's customer-centric market, firms must include customer experience analytics into their management decision-making processes.

3.2.2 Insights and actions deriving from CX analytics

In order to obtain competitive advantage through customer experience, companies need to create meaningful and accurate CX insights by utilizing CX analytics and turn them into actions to improve the customer experience. As acknowledged by Davenport et al. (2020), the primary goal of analytics is to generate business knowledge to utilize in decision-making. In general, analytics provide companies with additional information to improve their knowledge of certain things that are being measured (Erevelles et al., 2016). Hence, the main motivation behind CX analytics is to produce CX insights into the most decisive factors that customers value within the customer journey (Zaki & Neely, 2019) in order to measure and manage customer experiences effectively.

CX analytics may expose a plethora of factors that make up the customer experience by evaluating customer data, and the insights gathered from this can present a variety of

important opportunities for companies to enhance their CX (Zaki & Neely, 2019). These CX insights can be sorted into three dimensions: attitudinal/psychographic, behavioural, and market insights (Holmlund et al., 2020). Attitudinal and psychographic insights create knowledge about what organizations value in terms of satisfaction, advocacy, or perceived effort, which are considered the most common insights among practitioners, as cited by Holmlund et al. (2020). Behavioural insights provide another perspective for companies to comprehend how customers interact at different touchpoints along the customer journey. The context that market insights present can benefit companies by helping them better understand their market and competitive position, as well as their brand equity. Market insights also help companies identify how they compare to other companies in terms of CX. (Holmlund et al., 2020) All three of the aforementioned insights provide valuable context for taking actions towards a better customer experience and achieving a competitive advantage.

Without the proper utilization of CX analytics, companies might lose significant insights and connections about their customers. McColl-Kennedy et al. (2019) presented that by analyzing CX data, companies can uncover "hidden risk segments", which eventually could lead to customer churn if no action is taken. In a B2B environment with a limited customer base, the value of CX insights and actions increases dramatically, making it critical to prioritize customer retention over customer acquisition, as stated by Hallikainen et al. (2020). As an example, if the company is not responding to the customer's complaint promptly, the customer can even consider replacing the supplier entirely. Therefore, CX analytics provide an exceptional opportunity for B2B companies to create insights and turn them into actions that repair the relationship with the customer (McColl-Kennedy et al., 2019). And as Bolton et al. (2014) identified, even minor details can make a significant difference in the customer experience if they are deemed essential by the customer.

The insights gained from analyzing CX data are highly beneficial and should be applied as strategic information to guide CX actions. By identifying the critical pain points that customers encounter during their customer journey (Zaki & Neely, 2019), companies can turn their focus towards those specific areas to improve or even redesign the customer experience at the problematic touchpoints (McColl-Kennedy et al., 2019). As acknowledged by Homburg et al. (2017), another essential CX action is the prioritization of the most meaningful touchpoints, which can be achieved by allocating resources efficiently where they have the most value to the customers. For example, a B2B company might hire new account managers to improve customer satisfaction in close contact touchpoints while simultaneously cutting costs in day-to-day customer service encounters that do not affect the customer experience significantly. While companies

implement new CX actions based on the insights they have gathered, one significant advantage is the ability to monitor the influence of those changes on sales, customer satisfaction, and the customer experience in general (Holmlund et al., 2020).

3.2.3 Tools and measurements for analyzing CX data

Analytics has the potential to revolutionize the customer experience by providing businesses with powerful tools and practices to extract insights from large volumes of data. Companies may now use analytics tools to better understand and manage CX by accurately analyzing data at various touchpoints in complex B2B environments (McColl-Kennedy et al., 2019). According to Erevelles et al. (2016), gaining a competitive advantage through CX is dependent not only on the quality of the data but also on the analytics tools' agility in generating timely insights. In other words, the ability to analyze CX data quickly and effectively can be critical in gaining a competitive advantage. Furthermore, as highlighted by Zaki & Neely (2019), using real-time data sources and comprehensive analytic tools can offer extensive CX developments.

Qualitative CX measurements involve gathering and evaluating textual data to capture emotional variables and consumer feedback related to various touchpoints in the customer experience (McColl-Kennedy et al., 2019). Text mining has been identified as an effective and valuable analytics tool to provide extensive CX insights from qualitative data (McColl-Kennedy et al., 2019; Zaki & Neely, 2019), as large amounts of verbal data can be obtained through various touchpoints (McColl-Kennedy et al., 2019). Sentence-level analysis is advised for achieving descriptive information about the CX journey (McColl-Kennedy et al., 2019), thus making the text-mining tools effective. Lemon & Verhoef (2016) acknowledged that text analytics tools can offer significant discoveries, for example, by gathering written feedback from the customer which are not visible through a numeric satisfaction survey. Overall, text mining is a promising tool for gaining deep insights into which touchpoints perform well and which do not, enhancing customer experience measurement and design.

Customers' underlying issues, complaints, and the whole customer experience cannot be revealed either by quantitative or qualitative measures alone. Thus, combining both quantitative and qualitative measures is critical for gaining a deeper understanding of the customer experience. (McColl-Kennedy et al., 2019) Several authors have argued that the most effective way to measure quantitative CX data is through the utilization of AI tools (Chatterjee et al., 2021; Rusthollkarhu et al., 2022; Zaki, 2019). According to a study conducted by Bag et al. (2021), B2B organizations gain knowledge using AI tools and their capability to perform extensive analysis on massive amounts of unstructured

numerical data. As a result, the application of AI in a B2B context is predicted to improve the interaction between cooperating firms while also increasing the organization's competitive edge (Chatterjee et al., 2021).

3.2.4 Increasing amounts and varieties of CX data

In order to create valuable CX insights through analytics and turn them into concrete CX actions, companies need various types of data. B2B firms, in particular, are becoming aware that they now have access to more relevant data sources related to B2B client demands, information, customer engagement, and other activities, and thus companies are spending substantial amounts of resources on databases (Lilien, 2016). Technology's rapid growth has enabled businesses to generate vast amounts of data at a faster rate and from a broader range of sources than ever before (Zolkiewski et al., 2017). All encounters between consumers and organizations in the digital, physical, and social environments create valuable CX data that ranges from structured to unstructured (Holmlund et al., 2020; Zaki & Neely, 2019). Structured implicating that the data is being interpreted as countable numbers, such as sales data, geolocation coordinates, and customer satisfaction scores. On the other hand, all uncountable data, such as text, videos, and sounds, is unstructured data. (Balducci & Marinova, 2018) Furthermore, the CX data gathered from touchpoints between the parties can be separated into solicited and unsolicited data (Holmlund et al., 2020; Zaki, 2019). Solicited data indicates that the company is deliberately gathering data from their customers, such as satisfaction surveys. On the contrary, unsolicited data is all available data a company receives without actively requesting it from their customers, such as feedback emails or face-to-face interactions. (Holmlund et al., 2020)

Both structured and unstructured data, as well as solicited and unsolicited data, are critical for companies to analyze customer experiences. However, due to the limited number of customers and the difficulty of gathering data in a B2B environment, the data available lags that of a B2C environment (Lilien, 2016). Customer data gathered from multiple touchpoints along the customer journey mostly consists of unstructured textual data (McColl-Kennedy et al., 2019), and the greatest potential for B2B companies' customer experience analyses and management comes through unsolicited and unstructured data (Balducci & Marinova, 2018). As presented by Holmlund et al. (2020), unsolicited and unstructured data can range from tweets and emails to customer service calls and video surveillance capturing customer emotions. Thus, the increase in data availability offers an enormous opportunity for companies to analyze CX data and obtain insights about their customers' beliefs and emotions to improve the customer experience.

Further adding to what was previously discussed, the available data can be harvested both from internal and external data sources. Internal data implicates that the data is directly obtained, for example, from the company's CRM system. On the other hand, outside data means that the data is collected from external sources, such as social media. (Zaki, 2019) Additionally, as mentioned by Barton & Court (2012) it is vital to collect data from both internal and external sources to provide better CX insights. Overall, the availability of data has opened multiple new dimensions for companies to analyze their customers' experiences across every touchpoint. A study by Zaki & Neely (2019) demonstrated that when analyzing CX, including data from multiple sources will enhance the legitimacy of the analysis. However, successful CX analytics cannot be conducted without proper knowledge of how to gather and measure the right data.

3.2.5 Analytics culture

An organization's analytics culture refers to its mindset that promotes the use of analytics in various processes, which has been recognized as a crucial element in effectively deploying CX analytics (Hallikainen et al., 2020). According to Germann et al. (2013), companies with a well-established analytics culture are also more likely to benefit from CX analytics. The effective utilization of available data sources to generate valuable and accurate insights signifies that the organization comprehends the value of data (Zaki, 2019). This is an indication of an established data-driven analytics culture in the company. Consequently, according to Hallikainen et al. (2020), if an organization with prior data expertise incorporates CX analytics, it will leverage its existing analytics culture to optimize analytics utilization, thereby yielding superior insights and gaining a competitive edge. In practice, an analytics culture can impact how well knowledge derived from CX data is interpreted, and a weak analytics culture can form a considerable barrier for companies to overcome.

3.3 Challenges of CX Analytics

The incorporation of CX analytics into B2B customer experience management strategies does not come without challenges. I will next go through the challenges that B2B companies encounter during the CX analytics implementation process. The main challenge that B2B companies encounter is the complexity of B2B processes, which affects their ability to collect, utilize, and analyze CX data.

3.3.1 Complexity of B2B Processes

Capturing customer experiences in complex B2B processes is becoming more challenging due to the increasing number of processes and touchpoints in the customer journey (Chatterjee et al., 2021), while simultaneously CX is turning into one of the critical components of achieving competitive advantage (Chatterjee et al., 2021; Hallikainen et al., 2020; Zaki, 2019). Often, B2B transaction processes involve several operations and stakeholders throughout the entire customer journey, making the entire process more difficult to portray and analyze (Lemon & Verhoef, 2016). Obtaining customer experiences in a B2B setting is thus difficult because the experiences occur through direct and indirect contacts in the customer journey between suppliers, clients, end-users, and other participants (Zolkiewski et al., 2017).

The customer journey in B2B processes involves numerous participants from different positions in both organizations (Rustholkarhu et al., 2022), such as selling and delivering, buyers and managers, and end-users (Wynstra et al., 2006). As a result, it makes the B2B process complex due to the uncertainty about whom to gather customer experiences from, as the experiences stem from direct and indirect contacts between suppliers, clients, and end users, as well as other customer interactions (Zolkiewski et al., 2017). In addition, all these touchpoint interactions are not equally valued in terms of importance for the company that is measuring the customer experience with analytics since they take place across a broader variety of front- and back-office operations as well as between organizations (Zolkiewski et al., 2017). Therefore, companies need to carefully examine which touchpoints create the most value for their customers, then analyze and manage them deliberately. Furthermore, as Homburg et al. (2017) state, customer experience outcomes are not only specific individual impressions but rather the results of encounters, referred to as touchpoints. Hence, to achieve knowledge from the entire customer journey, companies must enhance coordination among their different divisions to achieve more complete analyses that capture all the touchpoints to

manage full customer journeys (Lemon & Verhoef, 2016; Rustholllkarhu et al., 2022), which can cause challenges for B2B companies.

Comparing purchasing processes to B2C contexts, where the customer is usually a single person, the notion of a B2B buyer is quite difficult to identify (Zaki, 2019). As mentioned before, B2B processes typically involve multiple different stakeholders from various backgrounds (Zaki, 2019), including financial analysts, purchasing agents, engineers, manufacturing managers, lawyers, and others from both inside and outside the organizations (Lilien, 2016). The complexity of B2B procedures derives from the fact that these individuals often have diverse backgrounds, incentives, and goals for the operations (Lilien, 2016).

3.3.2 Data collection limitations

Due to the complexity of the processes, B2B companies face several challenges regarding collecting customer experience data. The CX data becomes complicated because it is derived from a variety of sources and stakeholders (Ruiz-Alba et al., 2022), as well as from multiple customer touchpoints around the organization (Chatterjee et al., 2021). Additionally, research by Lilien (2016) states that obtaining data for B2B analyses is comparatively more challenging and requires more effort due to the lesser amount of available data in comparison to consumer sources because it frequently necessitates the participation of one or more partnering organizations, compared to B2C, where the customer is usually a single person. Thus, building strong relationships with customers emerges as a vital part of collecting customer experience data, especially in a B2B environment.

The techniques used to obtain customer experience data are widely questioned among researchers (Wu et al., 2014). According to Zolkiewski et al. (2017) and Morgan & Rego (2006), CX data is traditionally collected through feedback surveys, questionnaires, interviews, and other conventional tools. Zaki & Neely (2019) point out that these practices to gather CX data are used at the end of the customer journey. This is problematic as they may hide the underlying causes of poor customer experience that serve as the foundation for valuable CX data and insights, which can be identified through CX analytics. Additionally, those CX data collection methods do not usually capture all the interactions across the whole customer journey, and distinct touchpoints are only accessed by specific personnel (Zolkiewski et al., 2017), which leads to inaccurate CX data. Furthermore, the data collection methods lack real-time responses, which are critical in terms of getting accurate insights from CX analytics, such as critical touchpoints and where companies should implement changes (Zaki & Neely, 2019).

Acknowledged by Lilien (2016) B2B companies also lack the knowledge of what data to acquire or what to do with the data they have. In addition to the limited capabilities in acquiring the data, Ruiz-Alba et al. (2022) found that the data collected by B2B companies might often be irrelevant and poorly managed. Thus, B2B firms need to invest in data capture capabilities as they become necessities to stay competitive. If companies fail to implement data-driven procedures, they capitulate the risk of losing competitiveness, market share, income, and eventually even the survival of the company itself is at stake (Zaki, 2019).

B2B organizations must carefully examine what, when, and where to collect customer experience data. It is critical for the success to realize the nature of data collection and which data is likely to be most beneficial for the analysis (Zaki, 2019). To overcome this, businesses must essentially understand what they are trying to measure, take into account the level of accuracy or reliability of the measurement, and think about how they can make use of it (Zolkiewski et al., 2017). Only after addressing these concerns should companies determine the questions to ask their clients and how to obtain the information from them (Zaki, 2019). Furthermore, it is critical to understand how effective their methods are since this can result in either positive or unpleasant experiences for their clients. Receiving repeated inquiries to participate in customer satisfaction surveys or interviews may be aggravating and, thus, result in poor customer experiences. (Zolkiewski et al., 2017) Thus, to obtain optimal results, it is critical to properly plan the timing, frequency, and form of sending out requests for customer experience surveys.

3.3.3 Utilizing and analyzing the right CX data

B2B companies face difficulties when trying to extract the potential of available data. They might be unable to identify what data is relevant for them and how to acquire the most beneficial data in terms of customer experience (Zaki, 2019). Merely gathering more data, doing extensive analyses, and obtaining more insights does not solely result in better customer experience management (Holmlund et al., 2020; Zaki, 2019). Lilien (2016) observed that organizations report a significant shortage of B2B customer data scientists, implying a scarcity of analytics human resources. The use of customer analytics to address business challenges is perceived as having significant potential among B2B practitioners, but firms do not always have the tools or the support to do it effectively (Hallikainen et al., 2020; Lilien, 2016). Further mentioned by Chatterjee et al. (2021), many firms in B2B settings struggle with leveraging customer data and maximizing its potential value since accurately maintaining and analyzing large amounts of customer data requires expertise and resources. As a result, having knowledgeable

personnel and resources to handle and analyze customer experience data is paramount for B2B companies to create meaningful CX insights through analytics.

As companies have integrated more AI technologies in customer experience analytics and management in recent years (Chatterjee et al., 2021; Ruiz-Alba et al., 2022; Rusthollkarhu et al., 2022), there has been an increased concern about privacy, transparency, and incompetent marketing communication (Davenport et al., 2020). To reduce these problems in B2B marketing, companies must re-evaluate their approach to AI-powered solutions because irrelevant and invasive advertising can irritate B2B clients and potentially harm the perceived customer experience as well as their brand and image (Ruiz-Alba et al., 2022). Furthermore, Chatterjee et al.'s (2021) research revealed that approximately 70% of the organizations surveyed face substantial challenges as they fail to reap the benefits of their AI investments. These aspects further emphasize the essential role of skilled professionals who understand how to overcome these challenges while evaluating and utilizing CX data.

It is important to exercise caution when determining measurements for B2B companies, as Lilien (2016) suggests that employing CX measurements commonly used in B2C settings can present challenges when applied to B2B environments. As an example, the well-known metric in customer experience management generated by Reichheld (2003), the Net Promoter Score, also known as NPS, is widely used in customer experience measurement. However, the metric is insufficient in capturing where the underlying problems occur within the customer journey that cause harm to the customer experience (Zolkiewski et al., 2017). According to Lemon & Verhoef (2016), NPS is also primarily a forward-looking metric, whereas customer experience is more of a backward-looking measure. Further, Lemon & Verhoef (2016) and Zaki et al. (2016) acknowledged that companies should shift away from using single-metric measures in customer experience, such as NPS, since they do not capture the complete customer experiences as they only measure a specific aspect of CX. The single-metric measures do not provide an accurate insight into the real customer experience and can, in fact, be deceptive, leading to organizations being overconfident and oblivious to client loss until it is too late (Zaki, 2019).

To tackle this challenge, Zolkiewski et al. (2017) stated that the metrics often deployed in B2B environments require a more strategic approach to recording and monitoring the customer experience. Moreover, companies should shift towards multidimensional approaches while measuring customer experiences (Zaki, 2019; Zaki et al., 2016). The implementation of multidimensional methods has significantly improved the measurement of customer experiences, resulting in lower dissatisfaction and fewer

complaints (Bolton et al., 2014). Yet Bolton et al. (2014) still argued that multi-dimensional measuring techniques do not capture the effects of small things in the customer journey. Simultaneously, the small details in the customer journey also have a sizable effect on the customer experience according to Gremler (2004). For example, if a customer receives poor customer service even once, it can have a significant impact on the customer relationship going forward. Even one-time incidents may go unnoticed if traditional multi-dimensional measurements are used (Bolton et al., 2014). In order to obtain a competitive advantage, it is essential to have the ability to collect precise, effective, and well-rounded customer experiences across the customer journey, since narrow and limited usage of CX metrics leads to distorted and inadequate results for management to capitalize on.

Instead of just gathering and analyzing more input-output-based data, Zolkiewski et al. (2017) argued that enterprises should record relevant analytic measurements to achieve the benefits of the data, turning their attention to more outcome-based measures. The difference between input-output and outcome-based measures lies in the consideration of the firm's performance in the process by shifting the focus away from product-centric measurements (Zolkiewski et al., 2017). Input-output-based measures focus only superficially on the experiences, such as finishing the construction on time, whereas outcome-based measures target more extensively the whole experience of the processes by asking why the construction was even built in the first place (Koontz & Thomas, 2012). In addition, concentrating on strategically relevant challenges and outcome-based measures should offer opportunities for value co-creation for both the buying and selling organizations (Bolton et al., 2014), and thus also increase the customer experience.

3.4 Summary of the results

Utilization of CX analytics in B2B companies' processes can create competitive advantage for the company (Holmlund et al., 2020; Zaki, 2019). This thesis identified four enablers for delivering the competitive advantage for a company. Table 2 summarizes the competitive advantage for a B2B company by implementing CX analytics as well as these four enablers.

Table 2 Summary of the opportunities for B2B companies that can be achieved by the utilization of CX analytics.

Opportunity	**Description**	**Main references**
Competitive advantage as a benefit of CX analytics	CX management and analytics are increasingly vital for B2B businesses to gain a competitive advantage, understand customer engagement, and improve long-term relationships. Thus, incorporating CX analytics into management decision-making processes is essential for thriving in today's customer-centric market.	• Zaki (2019) • Zaki & Neely (2019) • Zolkiewski et al. (2017)
Insights and actions deriving from CX analytics	To gain a competitive advantage, companies should utilize CX analytics to create valuable insights and take actions to improve the customer journey. This is important in B2B environments, where customer retention is prioritized, as the insights help to identify hidden risk segments and allow companies to repair customer relationships by addressing pain points in their customer journey.	• Homburg et al. (2017) • Holmlund et al. (2020) • McColl-Kennedy et al. (2019) • Zaki & Neely (2019)
Tools and measurements for analyzing CX data	Analytics tools enable businesses to extract insights from large amounts of data, particularly in complex B2B environments. By combining quantitative and qualitative measures with text mining and AI tools, companies can make valuable and accurate CX insights.	• Chatterjee et al. (20221) • Lemon & Verhoef (2016) • McColl-Kennedy et al. (2019) • Zaki & Neely (2019)
Increasing amount and varieties of CX data	To create CX insights and translate them into actionable CX actions, companies require various types of data. Technology's rapid growth has enabled businesses to generate vast amounts of data. Utilizing diverse data enables companies to gain deeper insights into customer experiences, improve measurement accuracy, and enhance the accuracy of their analyses.	• Balducci & Marinova (2018) • Holmlund et al. (2020) • Lilien (2016) • Zaki & Neely (2019)
Analytics culture	An organization's analytics culture, which promotes the use of analytics in various processes, is crucial for effectively deploying CX analytics. Companies with a well-established analytics culture are more likely to benefit from CX analytics by utilizing available data sources to generate valuable insights.	• Germann et al. (2013) • Hallikainen et al. (2020)

The implementation of CX analytics in B2B environment is generally much more complex compared to B2C (Lilien, 2016). Thus, it creates additional barriers for B2B companies to overcome to make accurate and meaningful CX insights. Table 3 summarizes these obstacles that B2B companies may encounter while implementing CX analytics in their processes.

Table 3 Summary of the main challenges that B2B companies encounter during the customer experience analytics implementation.

Challenge	Description	Main references
Complexity of B2B processes	Capturing customer experiences in a B2B environment is challenging due to the complexity of B2B processes, which include several touchpoints and interactions between multiple stakeholders and humans. The complexity creates difficulties for B2B companies to comprehend the overall customer journey and how to effectively manage and govern the customer experiences.	• Zolkiewski et al. (2017) • Lilien (2016) • Rustkollkarhu et al. (2022) • Lemon & Verhoef (2016)
Data collection limitations	The collecting of customer data from different sources and diverse stakeholders is one of the difficult tasks in customer experience management for B2B organizations. Conventional means of acquiring customer experience data, such as surveys and questionnaires, may not capture all interactions and touchpoints, and they may fail to represent the varying significance of different touchpoints.	• Zolkiewski et al. (2017) • Zaki (2017) • Ruiz-Alba et al. (2022) • Lilien (2016) • Zaki & Neely (2019)
Utilizing and analyzing the right CX data	B2B organizations struggle to find and use relevant data to improve customer experience since usually they lack the necessary human resources. Skilled professionals are required for the successful evaluation of data needed and used for customer experience analytics. Additionally, B2B firms should concentrate on strategically important areas of complex customer journeys and employ applicable measures to create CX insights.	• Chatterjee et al. (2021) • Lilien (2016) • Zaki (2019) • Zolkiewski et al. (2016) • Bolton et al. (2014)

4 Discussion and conclusions

The objective of this thesis was to provide an overview of how B2B companies can gain competitive advantage from the utilization of customer experience analytics, as well as the challenges that they might encounter when employing CX analytics. The research was conducted by doing a literature review to integrate and analyze the findings from the current literature on CX analytics in the B2B environment. The thesis objective was guided by two research questions:

- How can B2B companies gain a competitive advantage from the utilization of customer experience analytics?
- What are the main challenges of collecting, analyzing, and exploiting data for customer experience analytics in a B2B environment?

In this section, I conclude the thesis by discussing the key findings. I will end the section by presenting the limitations of this study and making suggestions for future research.

4.1 Key findings of the research

According to research conducted by (Puthiyamadam & Reyes, 2018), the majority of consumers, around 73%, prioritize customer experience as a key competitive driver when making their purchasing decision. Thus, for companies, capturing and analyzing CX data from customer interactions, along with the needs and requirements of customers, can provide useful insights into the customer journey and influence initiatives to improve customer satisfaction and loyalty. Several research argue that analyzing CX data can create significant value for the company and lead to a competitive advantage (Bolton et al., 2014; Holmlund et al., 2020; Zaki, 2019; Zolkiewski et al., 2017). As Zaki & Neely (2019) acknowledges, for companies to understand their customer experiences they are and they should be generating for their customers, they must essentially understand what their customers really value in the processes. Understanding the whole customer journey and what customers are really esteeming in the process becomes a paramount for B2B businesses to stay competitive (Zaki, 2019). These findings indicate that CX analytics provide an opportunity for B2B companies to enhance their competitiveness in the market.

Based on the findings of this thesis, CX data, analytical tools, and measures, as well as an analytics culture, are seen as enablers for the creation of CX insights. The insights derived from CX data with the help of efficient CX tools such as text mining and AI are

highly beneficial and should be applied as strategic information to guide CX actions. By taking actions in the customer journey based on the CX insights, companies can focus on critical touchpoints (Zaki, 2019), and uncover "hidden risk segments" (McColl-Kennedy et al., 2019), and thus prevent customer churn (Ruiz-Alba et al., 2022). By creating and maintaining long-term customer relationships with their most valuable and strategic customers, B2B organizations should emphasize customer retention over customer acquisition (Homburg et al., 2017). As a result, CX analytics utilization is a key process for businesses to efficiently analyze and manage customer experiences and gain a competitive advantage. The findings of this thesis suggest that companies should first ensure the quality and diversity of the CX data, and then utilize appropriate tools and measures to analyze CX data. Based on these analyses, companies can gain meaningful CX insights and turn them into important CX actions.

However, the implementation of CX analytics in a B2B environment can cause challenges for companies and complicate the creation of valuable and accurate CX insights. This research identified the complexity of the B2B process, data collection limitations, and the utilization, and analysis of correct CX data as the key challenges that B2B companies encounter during the implementation of CX analytics. Poorly assessed CX data and insights in the context of the B2B market can have serious effects, potentially resulting in the loss of important assets and customers, which can be serious for a company (Zolkiewski et al., 2017). As a result, companies should formulate and implement a well-planned strategy to identify the goal and scope of CX measurement.

4.2 Limitations and future research

This thesis aimed to provide an overview of B2B companies' opportunities and challenges for the implementation of CX analytics. This research focused on the B2B environment on a general level and did not target any particular B2B business field that may have an impact on the CX analytics characteristics described in this thesis. In addition, this study was limited to analyzing the CX data of the existing customers and how to utilize those insights. However, in a B2B field where the number of customers is limited, having the information of potential customers is crucial in order to grow the customer base and market share.

Furthermore, in a B2B environment, CX analytics has a lot of potential but needs to be further researched. Especially how CX analytics can be best utilized in the B2B sector, as stated by Lilien (2016), research has largely focused on the B2C side previously. That is why the research needs to continue and evolve to discover the best methods and insights

for the analytics professionals needed in B2B companies. By doing so, we can better address the challenges presented in this thesis and discover solutions for B2B companies.

The research field on CX analytics is also fairly new, as much of the literature on the topic was published from 2016 onwards, indicating that there is still plenty of room for future research. As mentioned before, future research could focus on the potential B2B customers that CX analytics could help to analyze and measure, and thus help in gaining new potential customers for the company. Another interesting topic for future research could be how increased data privacy concerns affect B2B companies and how they gather, store, and measure CX data.

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