Tampere University

Sanni Vikman

DESIGNING AND IMPLEMENTING CUSTOMER SEGMENTATION IN B2B INDUSTRIES

Company Perspective

Master of Science Thesis
Faculty of Management and Business
Examiners: Tommi Mahlamäki & Teemu Laine
May 2025

ABSTRACT

Sanni Vikman: Designing and Implementing Customer Segmentation in B2B Industries
Master of Science Thesis
Tampere University
Master's Degree Programme in Industrial Engineering and Management
May 2025

Customer segmentation is a widely studied concept, and its theoretical foundations offer clear guidelines on how segmentation should be conducted. However, in a B2B context, customer segmentation is highly complex and challenging. Companies themselves are complex entities, and customer needs and values can differ significantly. These needs are often difficult to interpret, and the situation is further complicated by the fact that the demand is also influenced by the customers' customers. Therefore, the entire value chain and not just the direct customer relationship must be considered in segmentation. The difficulty of segmentation is further emphasized by the fact that the existing literature mainly focuses on theoretical approaches. Concrete descriptions of how segmentation is actually implemented in companies are rare. The aim of this study was to address these research gaps by bridging the divide between theory and real-world B2B segmentation practices.

The research was conducted as a qualitative case study in a Finnish B2B company. The case company's customer segmentation process was examined through participation in internal discussions and observations. In addition, semi-structured interviews were carried out to explore how companies have implemented customer segmentation, what challenges they have faced, and what advice they would give to others. The study was complemented by a literature review that examined the definition, purposes, and challenges of customer segmentation. The interview data were analysed using thematic analysis, which allowed the identification and structuring of key themes. Finally, the collected empirical data were compared to existing literature, enabling a synthesis of theoretical and practical perspectives to address the research questions.

The results show that the case company's customer segmentation process is strongly aligned with the models presented in the literature, thereby validating existing segmentation literature. The case company encountered several of the same challenges identified in both earlier research and interviews with other companies. Notably, however, almost half of the challenges mentioned in the literature were not observed in the case company or among the other interviewed companies. Nevertheless, the study identified potential future challenges for the case company, including market changes, limited customer insight, data quality issues, and internal resistance. The use cases for customer segmentation were largely consistent between the literature and the interviews. Only one use case identified in the literature did not emerge in the interviews, which further supports the credibility of the literature. The case company was found capable of utilizing all identified use cases, although its segmentation framework supports some of them better than others.

This research contributes a new empirical perspective to B2B customer segmentation literature by detailing the stages of the segmentation process, the practical challenges involved, and the actual use cases, and offering a concrete framework to support other companies. The study also provides insights for other B2B companies, recommending that they ensure alignment between segmentation and overall strategic objectives, leverage existing customer data, keep segments simple and actionable, and establish a continuous monitoring and updating rhythm for the segments. Future research could follow companies over a longer time period, compare segmentation practices across industries, and incorporate the customer perspective to better understand the long-term impacts, practical effectiveness, and improvements in customer experience resulting from segmentation.

Keywords: customer segmentation, B2B marketing, segmentation implementation, segmentation process, segmentation challenges

TIIVISTELMÄ

Sanni Vikman: Asiakassegmentoinnin suunnittelu ja implementointi B2B-toimialoilla
Diplomityö
Tampereen yliopisto
Tuotantotalouden diplomi-insinöörin tutkinto-ohjelma
Toukokuu 2025

Asiakassegmentointi on konseptina laajasti tutkittu ja sen teoreettiset perusteet tarjoavat selkeät suuntaviivat siitä, miten segmentointi pitäisi toteuttaa. B2B-ympäristössä asiakassegmentointi on kuitenkin hyvin monimutkaista ja haastavaa. Yritykset ovat itsessään monimutkaisia kokonaisuuksia, ja asiakkaiden tarpeet sekä arvot voivat poiketa merkittävästi toisistaan. Nämä tarpeet ovat usein vaikeasti tulkittavissa, ja tilannetta mutkistaa entisestään se, että kysyntään vaikuttavat myös asiakkaiden omat asiakkaat. Näin ollen segmentoinnissa joudutaan ottamaan huomioon koko arvoketju, ei pelkästään suora asiakassuhde. Segmentoinnin haastavuutta korostaa myös se, että olemassa oleva kirjallisuus keskittyy enimmäkseen teoreettisiin lähestymistapoihin. Konkreettiset kuvaukset siitä, miten segmentointia oikeasti toteutetaan yrityksissä, ovat harvinaisia. Tämän tutkimuksen tavoitteena oli vastata näihin tutkimusaukkoihin kuromalla umpeen teorian ja todellisten B2B-segmentointikäytäntöjen välistä kuilua.

Tutkimus toteutettiin laadullisena tapaustutkimuksena suomalaisessa B2B-yrityksessä. Tutkimuksessa seurattiin tapausyrityksen asiakassegmentointiprosessia osallistumalla sisäisiin keskusteluihin ja tekemällä havainnointia. Lisäksi puolistrukturoiduissa haastatteluissa selvitettiin, miten yritykset ovat toteuttaneet asiakassegmentointia, mitä haasteita he ovat kohdanneet ja mitä neuvoja he antaisivat muille. Tutkimusta täydensi kirjallisuuskatsaus, joka tarkasteli asiakassegmentoinnin määritelmää, käyttötarkoituksia ja siihen liittyviä haasteita. Haastatteluaineiston analyysissä hyödynnettiin temaattista analyysimenetelmää, jonka avulla keskeiset teemat pystyttiin tunnistamaan ja jäsentämään. Lopuksi kerättyä empiiristä aineistoa verrattiin kirjallisuuteen, mikä mahdollisti tutkimuskysymyksiin vastaamisen teorian ja käytännön näkökulmia yhdistäen.

Tutkimuksen tulokset osoittavat, että tapausyrityksen asiakassegmentointiprosessi on vahvasti linjassa kirjallisuudessa esitettyjen mallien kanssa, mikä osaltaan validoi segmentointia koskevaa teoriaa. Tapausyritys kohtasi useita samoja haasteita kuin aiemmassa kirjallisuudessa ja haastatteluissa muiden yritysten kanssa. Huomionarvoista on, että lähes puolet kirjallisuudessa mainituista haasteista ei esiintynyt tapausyrityksen tai muiden haastateltujen kokemuksissa. Tutkimuksessa tunnistettiin kuitenkin tapausyrityksen mahdollisia tulevia haasteita, kuten markkinamuutokset, asiakasymmärryksen rajallisuus, datan laatu ja sisäinen vastarinta. Asiakassegmentoinnin käyttötapaukset olivat pääosin yhteneväisiä kirjallisuuden ja haastatteluaineiston välillä. Vain yksi kirjallisuudessa mainittu käyttötapaus ei noussut esiin haastatteluissa, mikä vahvistaa kirjallisuuden luotettavuutta. Tapausyrityksen todettiin voivan hyödyntää kaikkia tunnistettuja käyttötapauksia, vaikka viitekehys tukee eri tapauksia eri tavoin.

Tämä tutkimus tuo uutta empiiristä näkökulmaa B2B-asiakassegmentointikirjallisuuteen kuvaamalla yksityiskohtaisesti segmentointiprosessin eri vaiheet, käytännön haasteet ja todelliset käyttötapaukset, tarjoten konkreettisen viitekehyksen yritysten tueksi. Tutkimus tarjoaa myös näkemyksiä muille B2B-yrityksille, joita suositellaan tulosten perusteella varmistamaan segmentoinnin yhteys strategisiin tavoitteisiin, hyödyntämään olemassa olevaa dataa, pitämään segmentit yksinkertaisina ja käytännöllisinä sekä varmistamaan jatkuva asiakassegmenttien seuranta ja päivitys. Tuleva tutkimus voisi seurata yrityksiä pidemmällä aikavälillä ja vertailla segmentointikäytäntöjä eri toimialoilla sekä sisällyttää asiakkaiden näkökulman, jotta asiakassegmentoinnin pitkän aikavälin vaikutukset, käytännön toimivuus ja asiakaskokemuksen parantuminen ymmärrettäisiin kokonaisvaltaisemmin.

Avainsanat: asiakassegmentointi, B2B-markkinointi, segmentoinnin implementointi, segmentointiprosessi, segmentointihaasteet

USE OF AI IN THESIS

I have utilised AI tools in my thesis:

☐ No
☒ Yes

The AI tools utilised in my thesis and their purposes are described below:

Names and versions of AI tools: ChatGPT-4o, ScopusAI (May 2024 release)

Purpose of using AI tools: ChatGPT-4o was used for checking language and improving text format, ScopusAI was used to find relevant academic articles.

Sections where AI tools were used: ChatGPT-4o was used throughout the thesis, ScopusAI was used in literature review and research methodology.

I acknowledge that I am fully responsible for the entire content of my thesis, including the parts generated by AI, and accept accountability for any violations of ethical standards in publications.

PREFACE

Diving deep into customer segmentation and observing its implementation from a front-row perspective has made this thesis journey a fascinating and rewarding experience. The writing process was challenging at times, but the support I received along the way has been very significant. A special thanks goes to Matti from the case company, who offered help throughout the entire process and encouraged me whenever things felt difficult. I am grateful to all the companies who participated in the interviews—it was a pleasure speaking with you and hearing your perspectives on customer segmentation. I would also like to thank Tommi from the university for his valuable advice and feedback. Finally, sincere thanks to my partner, friends, and family for your support and understanding, especially when I momentarily disappeared into writing mode as deadlines approached.

Finishing this thesis also marks the approaching end of my time in university. It took six years, and each one of them was wonderful. What I'm most grateful for are the friends I made along the way and with whom I got to experience all the best student events. The university era was truly special, and being an "academic weapon" during the past six months was a fun ride, but now it's time for new adventures!

Helsinki 19.5.2025

Sanni Vikman

CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

1.1 Background and research gaps

Customer segmentation as a concept originated in the 1950s and has since become a well-established and extensively studied topic in academic literature (Clarke et al., 2024). In modern literature customer segmentation is defined as the process of grouping customers into distinct segments based on shared characteristics that influence their purchasing behaviour, product usage, preferences, and needs. The main objective of customer segmentation is to create groups that are as internally consistent as possible, meaning the differences among customers within each segment are minimized, while ensuring that the differences between the segments are maximized. (Liozu & Richardson, 2019; Thomas, 2016, cited in Cortez et al., 2024)

In the literature, customer segmentation is perceived valuable because it enables companies to target their marketing and sales efforts more precisely by understanding the specific needs and behaviours of different customer segments, leading to more effective and efficient outreach (Bo et al., 2019; Pradhan, 2021). By focusing on high-value segments, companies can optimize resource allocation and prioritize efforts on customers who are most likely to be profitable, resulting in improved profitability (Thakur & Workman, 2016, cited in Komura et al., 2021). Customer segmentation supports the design of tailored products, services, and pricing strategies that align with what each segment values (Liozu & Richardson, 2019). It helps organizations identify new growth opportunities and gain competitive advantages by uncovering unmet needs or emerging trends within specific segments (Cuadros & Dominguez, 2014; Dibb & Simkin, 2009; Thomas, 2016). Finally, clear segmentation builds internal alignment, commitment, and clarity, possibly leading to indirect business improvement (Simkin, 2008).

Academic literature often succeeds in conceptualizing customer segmentation by establishing models, frameworks, and criteria. However, literature frequently fails in offering practical guidance on customer segmentation in real organizational contexts. Much customer segmentation research is conceptual or prescriptive, indicating how segmentation should be done, rather than how it is performed in practice. Thus, there is a scarcity of empirical studies examining actual company behaviours across all stages of the customer segmentation process while insights from real-world cases would enable updating

and adjusting frameworks to better suit organizational complexities (Clarke et al., 2024; Diamantopoulos & Adamantios, 2008). This research addresses this gap in literature since it examines how customer segmentation is executed in practice within the case company, and investigates other companies' customer segmentation initiatives, critically testing existing theories.

Another research gap is that most customer segmentation literature focuses on business-to-consumer (B2C) markets. In those markets customer segmentation is generally straightforward due to the nature of individual consumer decisions and the abundance of accessible data. In contrast, there is a significant gap in nuanced approaches and actionable frameworks for complex business-to-business (B2B) environments, which have longer sales cycles, multiple decision-makers, and require more sophisticated, multidimensional segmentation methods. (Bhandari et al., 2017; Tang & Mantrala, 2024) Most of the current literature and practical guidance also revolves around data-based models, that are better suited to transactional, consumer-oriented settings. These models often fail to capture critical B2B-specific elements, and the literature calls for the creation and validation of advanced segmentation models specifically for B2B contexts that account for the technical, relational, and strategic complexities. This research's case company and all the interviewed companies operate in B2B markets, creating a strong B2B focus for the whole paper.

As noted, there is a need for more research on how the customer segmentation methods and theories presented in the literature are applied in real-world cases. The literature also lacks practical guidance on how to implement and operationalize the outcomes of customer segmentation. This research aims to address these gaps by validating findings from the literature through comparison with the case company's customer segmentation process, and by exploring practical possibilities for implementation and operationalization. The research focus is illustrated in the Figure 1.

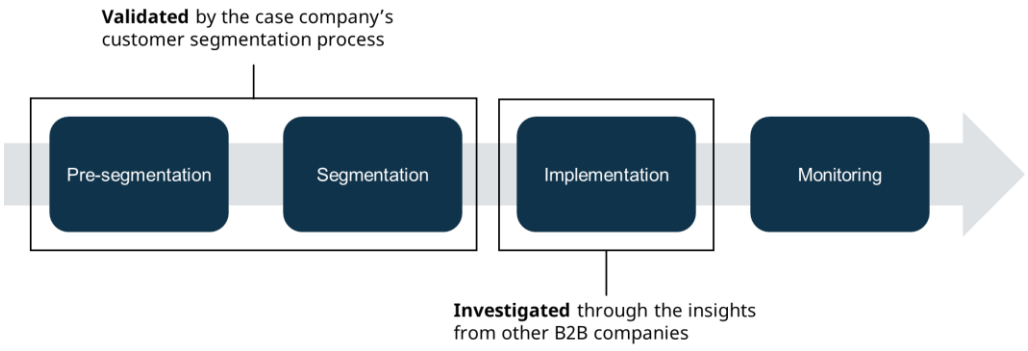

Figure 1: This research's focus areas

The literature divides customer segmentation process into pre-segmentation, segmentation, implementation and monitoring phases. This research follows the practical execution of the case company's pre-segmentation and segmentation steps in their customer segmentation process. The case company will continue with the implementation only after this research is conducted. The implementation phase will be investigated through the insights from interviews with eight other B2B companies, gaining the understanding of practical use cases they have applied.

1.2 Research context

The case company has previously undertaken customer segmentation initiatives, though they faced challenges and were not fully successful. During the previous attempt the case company created a 6-dimensional customer segmentation model that was presented in 3D-form. This model was proved difficult to understand and implement, and the work did not bear fruit. Now the case company emphasizes the willingness to create a simple but effective customer segmentation to primary support strategic decision making. Even though the case company faces data-related challenges, the data foundation is now better than during the previous customer segmentation attempts, making this project more likely to succeed.

This research examines how the case company conducted their customer segmentation process, starting from the very beginning. This investigation disclosures the realized steps the case company took during their process and compares them with the process emerged from the literature. This reveals areas of success in the case company's approach, highlights encountered challenges and identifies how those challenges could have been avoided.

Additionally, this research offers guidance for the case company on how to operationalize the obtained insights in the future. These insights are collected from interviews with other B2B companies experienced in customer segmentation. Moreover, this research presents potential practical use cases and recommendations based on the experiences and advice shared by the interviewees.

1.3 Research objectives and research questions

The objective of this research is to bridge the gap between customer segmentation literature and real-world B2B practices. This goal will be achieved by first validating existing theoretical frameworks through analysis of the case company's customer segmentation

process, and second, by identifying practical approaches for implementing and operationalizing customer segmentation outcomes based on insights from other B2B companies. To support the achievement of the research objective, the following research questions are posed, the first of which is:

RQ1: How does the case company's customer segmentation process align with the findings in existing literature?

This first main research question focuses exclusively to the case company's customer segmentation exercise, examining the connection between the case company's practices and existing literature. This research question is complimented by two sub-questions:

RQ1a: To what extent did the case company encounter common customer segmentation challenges, and how were they addressed?

RQ1b: What challenges might arise in the future of the customer segmentation process, and how can the case company prepare to mitigate them?

The first sub-question RQ1a facilitates a comparison of the challenges faced by the case company with those identified in both the literature and the interview data from other companies. The second sub-question RQ1b explores potential future risks the case company may encounter in implementing and monitoring the developed customer segments. The second main research question, along with its two sub-questions, is as follows:

RQ2: How can insights from customer segmentation process be operationalized?

RQ2a: How can the case company apply operationalization practices considering its current segmentation framework?

The main research question RQ2 synthesizes findings from both the literature and interviews to formulate a cohesive set of suggested use cases for the case company. The sub-question RQ2a reflects these findings with the case company's context, focusing on the suitability of the use cases found and whether the case company's framework poses any limitations for the implementation phase.

1.4 Structure of the thesis

The research continues with Chapter 2, where the existing customer segmentation literature is thoroughly reviewed. Chapter 2.1 focuses on defining customer segmentation, presenting the known use cases for it, and exploring the data-driven customer segmentation models. Chapter 2.2 presents the customer segmentation process from preparing and defining the segmentation objectives, to selecting segmenting criteria and creating

the segments, to lastly implementing and monitoring the segments. Chapter 2.3 delves into customer segmentation challenges, dividing them into challenges occurring in the conduction phase and the ones occurring during implementation. Finally, the literature review is concluded with a synthesis, creating a clear understanding of the current literature on customer segmentation and forming a framework to support the discussion of this research.

Chapter 3 outlines the research methodology applied in this research. Chapter 3.1 describes the research philosophy, strategy, and other methodological selections made for this research. Chapter 3.2 explains what data was collected, how the collection was conducted, and why the data is appropriate for this research. Finally, Chapter 3.3 details the data analysis process and how the findings were utilized.

Chapter 4 presents the empirical findings of the research. Chapter 5 compares these findings with the existing literature and evaluates how well the research addresses the research gaps identified in Chapter 1.1. Finally, Chapter 6 concludes the key findings and discusses the theoretical contribution, managerial implications, research trustworthiness, and proposals for future research.

2. LITERATURE REVIEW

The literature review aims to build an understanding of existing research on customer segmentation while also establishing a foundation for this study. In Chapter 2.1 customer segmentation is defined together with common criteria and objectives for it. After that, Chapter 2.1.1 explores the use cases for customer segmentation. Chapter 2.1.2 gives an overview of data-driven customer segmentation models. Chapter 2.2 delves into customer segmentation process, discussing its phases from pre-segmentation to implementation and monitoring. Chapter 2.3 presents the common challenges emerging during customer segmentation and its implementation. Lastly, Chapter 2.4 provides a synthesis of the literature review, concluding the findings.

2.1 Defining customer segmentation

In the literature both customer segmentation and market segmentation are well-established concepts in B2B business. Often their definitions are similar or align closely, depending on the research objective and context. This study refers specifically to *customer segmentation,* both for consistency and because the case company uses this term in their work. However, in defining customer segmentation, literature of both customer segmentation and market segmentation is used.

Before defining customer segmentation, it is crucial to understand the differences between B2C and B2B customer segmentation. B2C segmentation typically relies on consumers' values, attitudes, and lifestyles, which is not effective for B2B segmentation due to the fundamentally different nature of customer needs, particularly in industrial settings, which tend to be more technical (Hutt & Speh, 2021, cited in Clarke et al., 2025). B2B segmentation is more complex due to longer sales cycles, larger order sizes, limited customer base, higher costs and the involvement of multiple decision-makers (Bhandari et al., 2017; Tang & Mantrala, 2024). This contrasts with B2C segmentation, which is generally simpler and more direct due to faster individual-level decisions (Bhandari et al., 2017). As a result, precise customer segmentation is crucial for effective targeting and communication, highlighting the need for more advanced, multi-dimensional B2B segmentation strategies (Tang & Mantrala, 2024). Because data is more readily available and the complexity is lower, most existing literature focuses on the B2C framework, with relatively few examples addressing the B2B context. (Bhandari et al., 2017) Thomas (2022, cited in Tang & Mantrala, 2024) also highlights the urgent demand for more sophisticated and comprehensive approaches to B2B customer segmentation.

Customer segmentation has been discussed already in the 20th century, and in 1974 Arndt (cited in Freytag & Clarke, 2001) defined it as a process of grouping customers through their needs and wants and determining how to target them and with what intensity. Today, customer segmentation is still seen as the process of grouping customers into subsets who share similar needs or behaviours and who may need different products (Kotler & Armstrong, 2006, cited in Tang & Mantrala, 2024). Bo et al. (2019) further describe customer segmentation as the classification of customers based on their purchasing behaviour, needs, preferences and what they value. Liozu's and Richardson's (2019) approach is similar, as they group customers based on product usage, buying behaviour, preferences and needs. A customer segment is thus a collection of customers with uniting characteristics, and with similar product needs and buying behaviours (Dibb & Simkin, 2009). The aim of customer segmentation process is to minimize differences within segments while maximizing differences between segments (Thomas, 2016, cited in Cortez et al., 2024). The process of grouping customers based on selected criteria is presented in Figure 2.

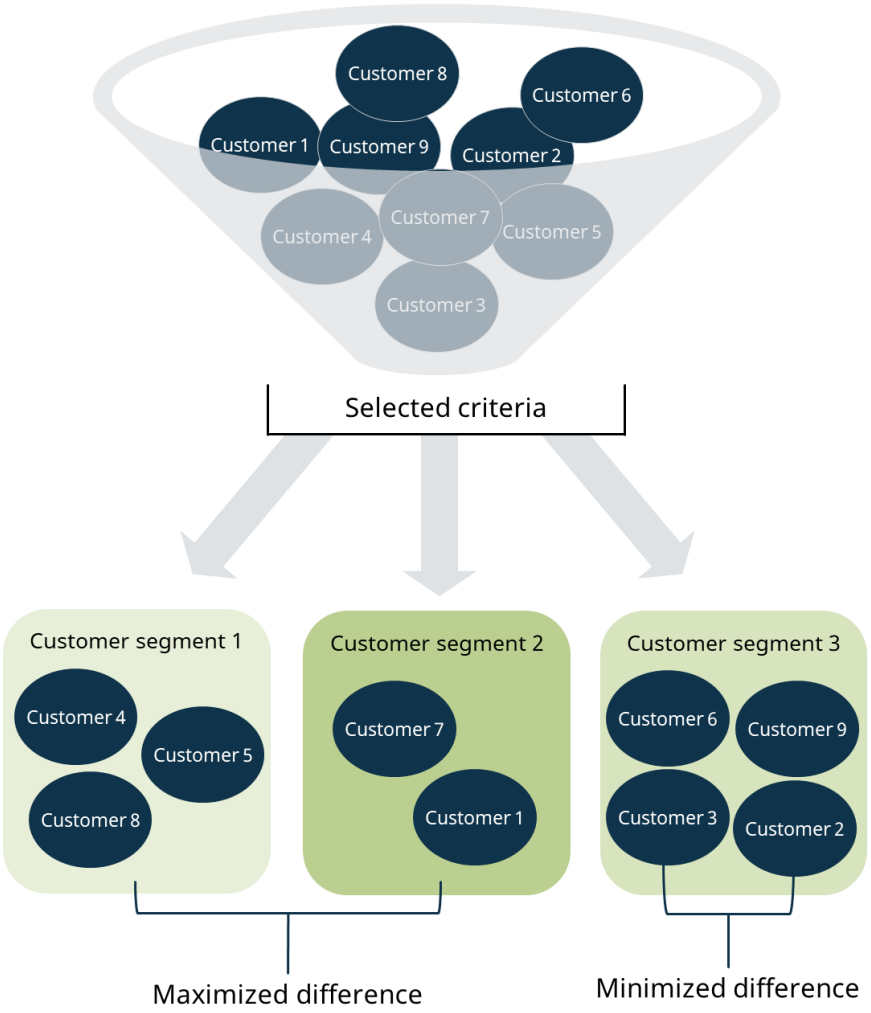

Figure 2: Process of grouping customers based on selected criteria

Baoqun et al. (2019) highlight the connection between customer segmentation and customer value, since they see customer segmentation as a process of evaluating customer value based on customer behaviour. Customer value can be determined either qualitatively or by data. Gupta and Lehman (2005, cited in Boersma & Vos-van Gool, 2009) define customer value as the cumulated result of current and future profits the customer created during the relationship between them and the organization. Boersma and Vos-van Gool (2009) emphasize that customer value management serves as the crucial link between understanding customer needs and achieving the company's financial objectives. Zeng (2013, cited in Baoqun, 2019) also stresses the importance of leveraging customer value in the segmentation process, as he says the purpose of customer segmentation is to identify valuable customer types and serve them with targeted strategies. For example, in the banking sector, segmenting customers according to their lifetime value helps to allocate resources optimally and develop tailored marketing strategies (Liu & Wang, 2012).

By dividing customers into distinct groups based on shared characteristics, businesses can better understand what are each segments wants and needs (Balci & Cetin, 2017). Identifying customer needs leads to knowing the customers better and giving them what they want or may want (Simkin, 2008). Following this classification, companies can formulate segment-specific strategies and provide targeted products, services and marketing models (Bo et al., 2019). Furthermore, Liozu and Richardson (2019) see customer segmentation mainly as a great tool for marketing and market management. Pradhan (2021) agrees that customer segmentation allows companies to target their marketing strategies more effectively and maximize profits by understanding customer preferences. According to Thomas (2016), the objective behind customer segmentation is to find competitive advantages and to improve resource allocation, and to target customers who have the highest probability of purchasing. Customer segmentation analysis can also help companies identify growth opportunities (Weinstein, 2014). The use cases for customer segmentation are discussed in more detail in Chapter 2.1.1.

2.1.1 Use cases for customer segmentation

Successful customer segmentation provides multiple benefits for businesses, enabling them to focus on high-value customers and enhance customer management and marketing efforts. It aids companies in growth, resource allocation and pricing. By leveraging customer segmentation, companies can confidently tailor their products and services to better meet customer needs. Ultimately, customer segmentation allows companies to

create segment-specific strategies that enable them to target their customers efficiently. All use cases identified in the literature are presented in Figure 3, after which they are examined on a deeper level.

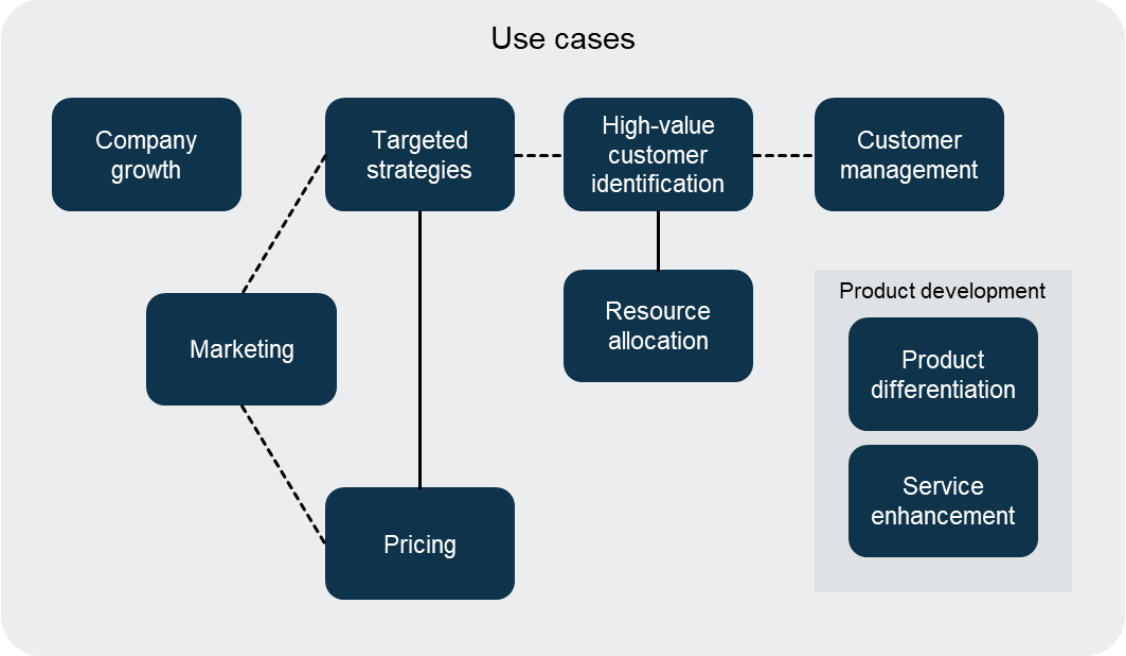

Figure 3: Use cases for customer segmentation

Customer segmentation is a powerful tool for **company growth**, since it helps organizations to discover new growth opportunities (Weinstein, 2014). Customer segmentation can also help organizations to make investment decisions, since segmentation creates valuable supportive information for it (Cuadros & Dominguez, 2014). According to Simkin (2008), customer segmentation can also establish commitment within the organization, since the vision and message of the company gets clearer, which can lead to indirect business improvement. It's also easier and more efficient to train new marketing employees with clear customer segments (Balci & Cetin, 2017).

Effective customer segmentation is a strategic tool supporting the creation of **segment-specific strategies** (Cortez et al., 2024). Customer segmentation helps companies to get closer to their core customers and to go after them suitably (Simkin, 2008). Hence, segmentation enables companies to form customer-focused strategies considering the value both for and from customers (Boersma & Vos-van Gool, 2009). Without segmentation companies might end up following unsuitable strategies and offering high-value products to customers who will not pay for them (Liozu & Richardson, 2019). Targeted strategies also enable companies to refine their **pricing** strategies, ensuring that they align with the value perceptions of distinct customer groups (Liozu & Richardson, 2019).

Effective price discrimination allows businesses to maximize profitability by charging different prices based on the willingness to pay of various segments (Balci & Cetin, 2017).

A significant benefit customer segmentation enables is the ability to **identify high-value customers** and further locate and prioritize them (Zeng, 2013, cited in Baoqun, 2019; Balci and Cetin, 2017). Focusing on high-value customers businesses can uncover new competitive advantages that set them apart from competitors and emphasize their own business strengths (Cuadros & Dominguez, 2014; Dibb & Simkin, 2009; Thomas, 2016). Identification of high-value customers enable efficient **resource allocation**, and clear customer segments are considered as a great tool for resource management and maximation (Dibb & Simkin, 2009; Freytag & Clarke, 2001; Fuentes-Blasco et al., 2017). Successful resource allocation is connected to higher profitability, since knowing the high-value segments, companies can better determine the optimal allocation of their scarce resources to eventually maximize profits (Thakur & Workman, 2016, cited in Komura et al., 2021). Additionally, segmentation helps companies allocate sales resources optimally, enabling expense optimization and ensuring existing assets are used to their full potential. Without segmentation companies split time equally among all customers, which can lead to loss of profit. (Liozu & Richardson, 2019) Balci and Cetin (2017) emphasize that customer segmentation allows companies to use their marketing and operational resources more effectively. Thomas (2016) also emphasizes resource optimization, but in terms of allocating resources to segments that have higher probability of purchasing from the company in question versus a competitor.

Customer segmentation insights provide direction for **marketing** strategies and empower businesses to design appropriate marketing campaigns that resonate with their audience by addressing the unique needs of each customer profile (Balci & Cetin, 2017; Chongwatpool & Kanchanapoom, 2021). Boersma and Vos-van Gool (2009) argues that companies with a single value proposition will catch only a limited part of the market. Liozu and Richardson (2019) suggest creating value propositions and marketing plans tailored to each segment and defining commercial approaches for them. For instance, technology-based marketing material might resonate better with sophisticated technology-driven buyers. They also demonstrated how some of their most successful customer segmentation projects led to the development of marketing plans for each segment. Customized marketing programs avoid the inefficiencies of targeting uninterested segments and instead focus on accounts with the highest potential. Companies can also make marketing investment decisions better by targeting the core segments, which can lead to improvements in return of investments. (Liozu & Richardson, 2019)

Effective **customer management** is essential for B2B companies, where the ability to keep customers is emphasized when the number of customers is relatively small (O'Brien et al., 2020). By assessing customer profitability and lifetime value, companies can concentrate their efforts on building strong, long-term relationships rather than short-term customer relationships (Chan & Ip, 2011, cited in Cuadros & Dominguez, 2014). Customer segmentation assists companies to identify the most attractive customers and focuses on building relationships with them (Simkin, 2008). Segmentation can also help companies to manage high volume customers effectively (Balci & Cetin, 2017). By focusing on customer needs, businesses can improve customer satisfaction and loyalty over time (Zeng, 2013, cited in Baoqun, 2019). Targeted sales efforts tailored to the specific customer needs can also lead to customer satisfaction and loyalty level increasements (Dibb & Simkin, 2009; Liozu & Richardson, 2019).

Customer segmentation significantly enhances **product differentiation** by enabling businesses to tailor their offerings to the specific needs of distinct customer groups, while establishing themselves somewhere between overgeneralized and over customized (Bo et al., 2019; O'Brien et al., 2020). Weinstein (2014) argues that a one-size-fits-all product approach can cost companies their market share, in worst case the whole market, making product differentiation a crucial activity for companies. With the customer segmentation outcomes, organizations can adjust their product offerings, and create product bundles and product-service packages targeted to their customer segments. Additionally, companies can develop a product and service versioning strategies that offer different tiers. Optimizing the product offering can also create savings in raw materials, engineering, and manufacturing. This approach not only reduces inefficiencies but also ensures that high-value innovative products are delivered to customers who are willing to pay for them. (Liozu & Richardson, 2019) According to Weinstein (2014), companies with product differentiation are also more successful in target marketing than companies using undifferentiated products.

Enhancing services is a natural outcome of a well-executed segmentation strategy. By understanding the preferences and expectations of different customer groups, businesses can develop new services or improve existing ones to meet these needs effectively (Balci & Cetin, 2017). Offering premium service levels to high-value customers who are willing to pay from them can also create new revenue streams (Liozu & Richardson, 2019). Differentiating services based on customer value ensures that every segment feels heard, enhancing the overall customer experience.

2.1.2 Data-driven customer segmentation models and limitations in B2B environments

Companies conduct customer segmentation both using established models and internally defined frameworks. When data is readily available and its application aligns with segmentation objectives, some companies employ data-driven methods such as cluster analysis. Others rely on more traditional qualitative approaches, including demographic, psychographic, and geographic models.

In addition to cluster analysis, there are other well-known data-based models to support customer segmentation such as the RFM model, latent class analysis and customer lifetime value analysis. The RFM model is composed of three parameters: recency (R), frequency (F) and monetary (M). Recency signifies the time interval between the last purchase and the present time, frequency indicates the number of purchases made within a defined period, and monetary means the amount of money spent by the customer over this period. (Mangaraj & Ray, 2016) The RFM model analyses customer activity based on defined R, F and M parameters and values, and tries to predict future customer behavior (Wei et al., 2010, cited in Hosseini & Shabani, 2015). RFM model is also used to identify the value of customers from the company point of view (Fahrudin & Rindiyani, 2024). This helps businesses determine which customers are most beneficial and tailor their marketing efforts accordingly (Dedi et al., 2019). RFM model works as a customer segmentation tool on its own to some extent, but better as a support for other methods. After conducting RFM analysis, the results can be utilized for example for cluster analysis.

Looking at the RFM model from the B2B context, it does not consider firmographic characteristics such as industry sector, company size, and geographic location, which are crucial in the B2B context (Bouguelia et al., 2024). It also ignores the customers' relationship and changes in customers' behaviour, making the RFM model less effective for B2B segmentation (Etemad et al., 2018). In addition to that, the simplicity of the RFM model, which only uses three variables, may not capture the complexity of B2B customer relationships. However, the RFM model is straightforward and easy to implement, making it accessible for businesses to quickly segment their customers based on their purchasing behaviours. (Bouguelia et al., 2024) By focusing on transactional data, the RFM model helps businesses understand customer engagement, which is critical for maintaining long-term B2B relationships (Delimayanti et al., 2024).

K-means is the most well-known clustering algorithm, since it is simple and relatively fast for data segmentation (Gowthami et al., 2024, Haghi & Hamidi, 2024). It is often used to identify valuable customer groups and further formulate marketing strategies, which makes it suitable for customer segmentation (Laksono et al., 2023). K-means algorithm divides customers into groups by initially determining a set number of cluster centres and assigning customers to the nearest centre. The cluster centres are then updated based on the average of the customers assigned to them, and this process of reassignment and updating continues until the cluster centres stabilize and no longer change. (Haghi & Hamidi, 2024) The stabilized cluster centres are the found segments.

K-means clustering algorithm starts by picking random points to create the initial clusters, and if the points are not chosen well, the results can vary a lot and be unreliable (Punniyamoorthy & Sivaguru, 2021). The algorithm also requires the number of clusters to be specified in advance, which can be challenging to determine accurately without prior knowledge. This can lead to either over-segmentation or under-segmentation. (Beg & Islam, 2016) As a strength, K-means is computationally efficient and can handle large datasets, which is crucial for B2B companies dealing with extensive customer data. K-mean's ability to effectively identify patterns and group customers based on similarities in their behaviours and characteristics is also valuable in B2B contexts. (Maulina et al., 2019) According to Pragathi and Sagar (2024) K-means algorithm is also easy to implement and can be easily integrated into existing data analysis pipelines.

Using the customer lifetime value method, companies can group their customers based on their value and develop segment specific strategies to focus more on high-value customers (Zeng, 2013, cited in Baoqun, 2019). Customer lifetime value indicates the value, and benefits customers can provide to the company (Laksono et al., 2023). Customer lifetime value builds up during the journey between the customer and the company, including customer's identification, acquisition and termination (Horák, 2017). Khajvand and Tarokh (2011, cited in Laksono et al.,2023) describe customer lifetime value as the combination of customer's present value and the potential value in the future. Customer lifetime value as a customer segmentation method facilitates the development of effective customer-centric strategies by considering both the value provided to customers and the value derived from them (Boersma & Vos-van Gool, 2009). Gupta et al. (2006, cited in Horák, 2017) provide an equation to calculate the customer lifetime value, where they use the price paid by a customer at a given time and the direct cost of serving the customer at that time as parameters. Additionally, the probability of the customer staying active at that time and the customer acquisition cost are factored into the calculation (Gupta et al., 2006, cited in Horák, 2017).

Another statistical method for customer segmentation is latent class analysis (LCA) that identifies subgroups within a population based on patterns in observed variables, using a probabilistic model. It determines the optimal number of classes through selected model fit criteria. (Cazzaniga & Naldi, 2020) In the literature, however, LCA is promoted mostly for B2C contexts, as it is particularly effective in capturing the heterogeneity of consumer preferences (Liberato & Rose, 2007). LCA has been utilized in consumer-oriented industries such as tourism, to examine tourists' preferences for package tours, and in telecommunications, to segment mobile app users based on their usage patterns, revealing distinct segments such as social-type users and entertainment-type users (Cui & Jin, 2023; Liberato & Rose, 2007)

Among the methods discussed, cluster analysis using K-means is suitable for B2B companies, especially large ones with substantial, good quality customer data. However, limitations such as sensitivity to initial conditions and the need to predefine the number of clusters may affect its reliability. The RFM model, while easy to implement and helpful in understanding transactional behaviour, is less suitable for B2B segmentation on its own. It lacks consideration of critical B2B-specific factors like industry type, company size, and relational dynamics. CLV is particularly useful in B2B as it focuses on long-term value and helps prioritize high-value relationships. LCA's application in B2B is limited due to its focus on consumer preferences and lack of established use cases in business markets, making it less suitable for complex B2B environments. Ultimately, according to Christen and Schlager (2022), data alone cannot determine how to segment customers, particularly for strategic segmentation. Therefore, customer segmentation should be considered a strategic choice, rather than just a statistical task (Christen & Schlager, 2022).

2.2 Customer segmentation process

A customer segmentation process (presented in Figure 4) is a structured approach formed from literature, encompassing various stages, from pre-segmentation to monitoring phases. The literature presents this process from multiple perspectives, highlighting different aspects. It is important to note that there is no single correct way to implement this process, and companies tailor it to meet their specific needs. However, common elements identified in literature can be used to develop a framework of the process. Despite this, it is crucial to prioritize the customer over the process, even if it requires more time (Liozu & Richardson, 2019).

Figure 4: Customer segmentation process

To ensure adoption and acceptance of the segmentation process, it is essential to gain repeated validation from the sales force, keep the process simple, and provide clear reasons and time for feedback (Liozu & Richardson, 2019). Involving managers, especially those in sales and operations who will implement the revised strategy, fosters buy-in from line managers, sales executives, and customer-facing staff. Forming a cross-functional team of managers, including those from sales, distribution channels, operations, aftermarket, and marketing, increases the likelihood of organizational acceptance of the resulting segments. (Simkin, 2008)

2.2.1 Preparing and defining the segmentation objectives

The pre-segmentation phase is a critical foundation for the customer segmentation process, involving thorough preparation and a clear understanding of the objectives and scope of the segmentation effort. Foedermayr and Diamantopoulos (2008) and Cortez et al. (2021) highlight the importance of defining market before doing market segmentation. This principle also applies to customer segmentation, indicating that it is crucial to define what constitutes a customer in the context of the company conducting segmentation before proceeding with it. The steps in pre-segmentation phase are presented in Figure 5.

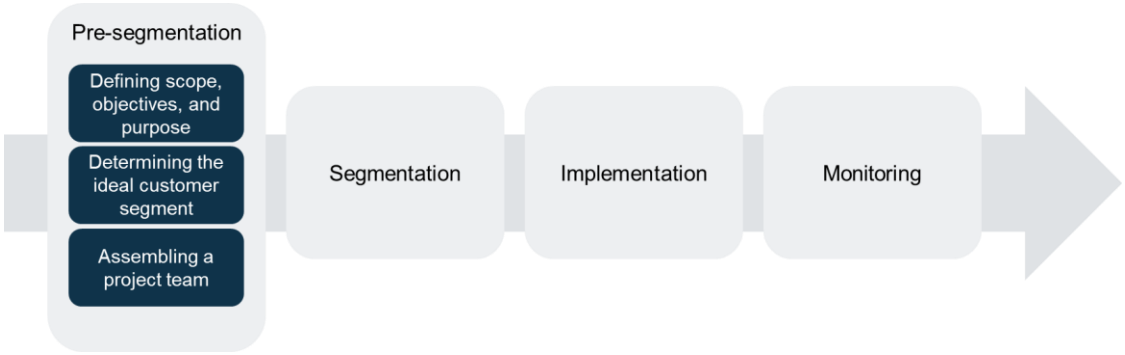

Figure 5: Steps in the pre-segmentation phase

First, understanding the company's overall business strategy and the purpose of customer segmentation within that strategy is essential (Clarke et al., 2024; Cortez et al., 2021). The purposes of segmentation can be any of the use cases discussed in Chapter 2.1.2 from identifying target segments, improving salesperson performance, developing a targeted marketing strategy that effectively reaches and engages specific customer segments, to planning future product offers by understanding the needs and preferences of different customer segments (Clarke, 2009; Palmer & Miller, 2004, cited in Cortez et al., 2021; Terho et al., 2015). Different purposes impact the organization in various ways and determine how easily segments can be implemented, depending on the changes required in the company's activities, stakeholders, and resources (Clarke et al., 2025). Tang and Mantrala (2024) emphasize the importance of setting strategic marketing objectives before jumping into segmenting. Liozu and Richardson (2019) highlight the customer segmentation process to already begin with execution in mind, otherwise companies may work on segmentation and end up with a PowerPoint deck without ever utilizing it later.

Dolnicar et al. (2018, cited in Christen & Schlager, 2022) emphasize characterizing the ideal customer segment as the first step of segmenting. This involves anticipating and describing the ideal segment and its solution. This step ensures that the segmentation aligns with the company's overall strategy and objectives, and the company does not end up with segments that will not be used due to its conflict with the company policy. For example, a company may focus on niche segments or mass segments depending on their resources and goals. (Christen & Schlager, 2022).

As a practical starting point, Liozu and Richardson (2019) recommend assembling a multi-functional team and spending half a day educating them on what customer segmentation is and how it has been successfully implemented. Dibb and Simkin (2009) suggest an internal scoping workshop as the first phase of customer segmentation. This preparatory phase involves exploring the current customers with the organization's senior leadership team, external industry experts and the research team. The purpose of the workshop is to identify the desired level of change, the segmentation scope, people to involve, data requirements, anticipated schedule and budget. (Dibb & Simkin, 2009)

2.2.2 Selecting segmenting criteria and creating the segments

After establishing the purpose and objectives of customer segmentation, the customer segmentation process continues with the segmentation phase. The steps in this phase are presented in Figure 6.

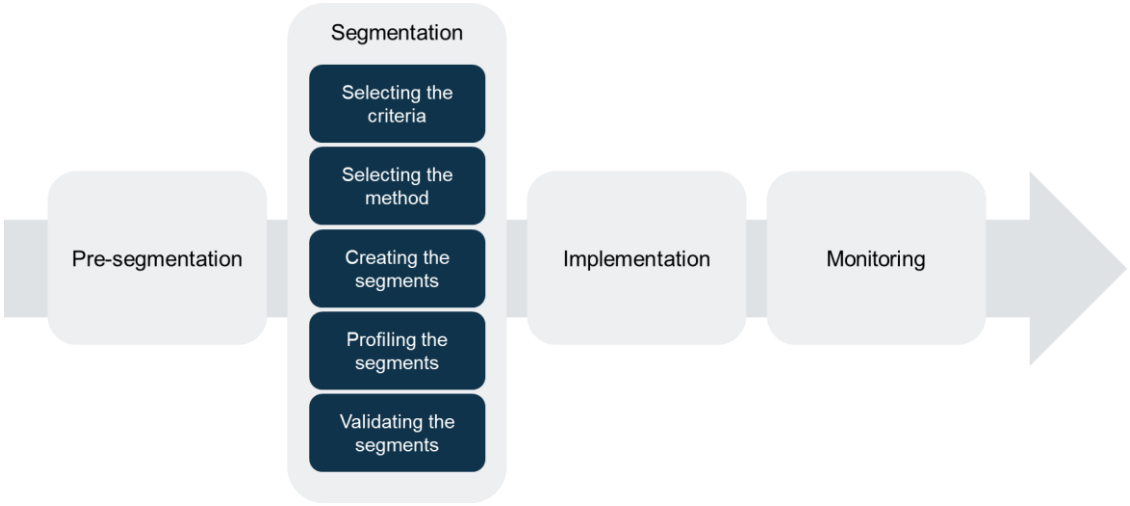

Figure 6: Steps in the segmentation phase

The segmentation phase begins with considering the criteria that could be utilized for segmentation (Dibb & Simkin, 2008). Segmentation criteria are the variables used to differentiate customers into precise segments, which companies must determine prior to conducting segmentation (Christen & Schlager, 2022). Liozu and Richardson (2019) suggest starting the segmentation criteria process by first listing all potential criteria. Tang and Mantrala (2024) recommend using two or more segmentation criteria, depending on how fine-grained segments the company wants to obtain. The criteria must be selected to effectively indicate the differences between the segments (Dibb & Simkin, 2008). Traditional segmentation often relies on direct customers' expressed needs and evident behaviours. However, incorporating a third base, such as the needs of downstream customers, can enhance segmentation accuracy. This approach allows for more precise targeting and communication strategies by uncovering actionable segments based on behaviours, needs, and downstream customer needs. (Mantrala & Tang, 2024)

Literature categorizes customer segmentation criteria into macro-variables, which are better observable and accessible, and micro-variables, which are harder to observe and typically require data collection (Clarke et al., 2025; Diamantopoulos & Foedermayr, 2008). Macro-variables refer to the common bases in B2B markets, including ownership status, product usage, economic factors, technological characteristics, geographical factors, and cultural dimensions (Diamantopoulos & Foedermayr, 2008; Tang & Mantrala, 2024). These criteria also include demographic factors such as customer's location, industry, company size, age and competitive set (Dibb & Simkin, 2009; Simkin, 2008). Boersma and Vos-van Gool (2009) highlight the importance of financial legislation in addition to technical or consumption criteria. In macro-level segmentation, companies

often use industry-based segmentation to align customer needs that vary by industry. Additionally, companies segment customers based on size and strategic importance into categories such as strategic accounts, key accounts and national accounts. (Cortez, Clarke & Freytag, 2021)

Compared to macro-variables, micro-variables are directly associated with specific customer needs, characteristics, and desired benefits (Diamantopoulos & Foedermayr, 2008). Micro-variables focus on the benefits customers seek, purchasing behaviours, company characteristics, purchasing patterns and sourcing strategies (Cortez, Clarke & Freytag, 2021; Simkin, 2008). Customers can be divided based on whether they buy primarily for value, price, or technology. Customers who prioritize value will receive higher service levels that they are willing to pay for, whereas a technology-driven supply chain approach may appeal more to buyers focused on sophisticated technology. Other micro-level segmentation criteria include service requirements intensity, technical maturity level, and outsourcing philosophy. (Liozu & Richardson, 2019) Christen and Schlager (2022) divide macro-variables into consumption specific and consumption unspecific categories. Consumption specific variables are customers' attitudes toward product and brand, needs, decision-making process and price sensitivity. Consumption unspecific variables include customers' values and strategic objectives (Christen & Schlager, 2022). Baoqun et al. (2019) suggest using customer needs as a segmentation criterion, while also highlight customer value and customer risk as segmenting variables. Cuadros and Dominiguez (2014) argue that micro-variables such as customer lifetime value and customer loyalty are more representative for decision making compared to micro-variables such as customer size and revenue.

The criteria can thus be roughly broken down into macro-level and micro-level criteria. Most of the criteria for both groups are entirely dependent on the characteristics and behaviour of the customer. From the micro-level criteria, customer value, customer risk and customer loyalty are dependent on the view of the company conducting customer segmentation. All criteria and their breakdown are shown in Table 1.

Table 1: Customer segmentation criteria

Macro-level segmentation criteria		Micro-level segmentation criteria	
Observable	• Location • Industry • Company size • Company age • Ownership status • Product usage • Economic factors • Technological characteristics • Cultural dimension	Inferable	• Customer needs • Customers' values • Purchasing behaviour • Sourcing strategy • Buying motivation (value/price/ technology) • Technical maturity level • Attitude toward product/brand • Price sensitivity • Decision-making process • Customers' strategic objectives <u>Criteria depending on the company's view</u>: • Customer value • Customer risk • Customer loyalty

In addition to selecting segmentation criteria, segmentation method can also be determined. Dolnicar et al. (2018, cited in Christen & Schlager, 2022) suggest differentiating between common sense and data-driven approaches to customer segmentation. Common sense segmentation involves iteratively assigning customers to groups based on selected variables, often using simple tools like paper and pencil to brainstorm reasons behind customer purchases, perceived value, and buying behaviour. In contrast, data-driven segmentation applies to multiple variables simultaneously, supported by model-based estimations for more systematic analysis. (Dolnicar et al., 2018, cited in Christen & Schlager, 2022)

Foedermayr and Diamantopoulos (2008) introduce a-priori and post hoc methods, also described as disaggregate and aggregative approaches (Rao & Wang, 1995, cited in Cortez et al., 2021). A-priori segmentation relies on predefined segments determined by prior experience or secondary data without statistical analysis, while post hoc segmentation identifies segments through data analysis results, grouping customers without knowing the segments beforehand. Christen and Schlager (2022) and Clarke et al. (2024) emphasize the importance of data, whether it needs to be collected or if there is

existing data companies can utilize. For B2B companies, CRM databases can be beneficial, as they store readily accessible information about a company's existing customers, typically including demographic details, interaction records such as past sales engagements, and transactional data. (Christen & Schlager, 2022) There is no consensus on the best method, and sometimes segmentations are based on intuition due to unfamiliarity with the segmentation methods (Foedermayr & Diamantopoulos, 2008). Companies may also leverage the data-driven models discussed in Chapter 2.1.1 or combine multiple methods simultaneously to align more effectively with their specific objectives.

When creating the segments, the objective is to minimize variations within each segment and amplify the differences between segments (Thomas, 2016, cited in Cortez et al., 2024). It is essential to understand the common needs and behaviours that characterize each segment and set them apart from one another. It is also important to determine the number of segments and how many customers should belong to each segment. (Christen & Schlager, 2022) McDonald and Dunbar (1995, cited in Foedermayr & Diamantopoulos, 2008) suggest creating segments with an economical minimum number of customers while ensuring the number of segments remains manageable for the company.

Once the segments have been identified with the chosen criteria and methods, the next crucial step is to profile these segments in detail. Dibb and Simkin (2008) suggest identifying distinctive characteristics that might influence customer needs and buying patterns, using descriptor variables for profiling. They highlight the importance of a deep understanding of customers for effective segmentation. Liozu and Richardson (2019) recommend conducting multiple iterations to determine if there is excessive overlap and to ensure that all relevant customers are appropriately placed into the identified segments. In Dibb's and Simkin's research (2009), the case company conducted workshops with their customers' personnel to test the emerging segments, ensuring their validity.

Before implementing, the customer segments created should be challenged, tested and evaluated to ensure they can be trusted as the basis for company strategy (Clarke, 2009, cited in Cortez et al., 2021; Clarke et al., 2024). All factors suggested to assess segment quality are summarized in Table 2.

Table 2: Factors assessing the quality of customer segments (Christen & Schlager, 2022; Dibb & Simkin, 2008)

Factor	Description
Measurability	Ability to measure and evaluate the market potential of the segments
Identifiability	Segments can be identified using observable criteria – unobservable criteria make identification more challenging
Accessibility	Ability to cost-effectively develop and implement a marketing program that successfully reaches the intended segment
Responsiveness	Segments should respond differently to marketing efforts such as product features or price changes
Stability	Segments must remain consistent over time to allow companies to develop long-term strategies
Substantiality	Segments should be sufficiently large and profitable enough to justify targeting
Usefulness	Segments must offer clear advantages to the organization

Firstly, the segments should be measurable, referring to the ability to measure and evaluate the market potential of the segments (Dibb & Simkin, 2008). It is also advantageous if the segments can be identified using observable criteria. If segments are defined by unobservable criteria, such as attitudes, identifying them becomes more challenging and the identifiability is low. (Christen & Schlager, 2022) Another criterion to evaluate the viability of the segments is their accessibility, referring to the ability to cost-effectively develop and implement a marketing program that successfully reaches the intended segment. (Dibb & Simkin, 2008) Therefore, companies must consider whether their chosen segments can be effectively targeted. Segments should also respond differently to marketing efforts, such as product features or price changes. If segments do not respond in varied ways, the segmentation is ineffective. Differentiability in responses is crucial for creating efficient marketing strategies tailored to specific segments. (Christen & Schlager, 2022) Segments' stability must remain consistent over the short, medium or long term for the segmentation to be useful (Dibb & Simkin, 2008). Stability allows companies to develop long-term strategies based on these segments. Customer segments that rely on stable criteria tend to be more stable than those based on volatile factors. The segments created should also be sufficiently large and profitable enough to justify targeting. (Christen & Schlager, 2022) Each organization defines what constitutes a viable segment size based on its own criteria. In certain cases, businesses may choose to invest in smaller segments they anticipate will expand over time. Finally, the segments must be useful, offering clear advantages to the organization. (Dibb & Simkin, 2008)

2.2.3 Implementing and monitoring the segments

Once the customer segments have been established it is time for implementation. Figure 7 presents the steps under implementation phase.

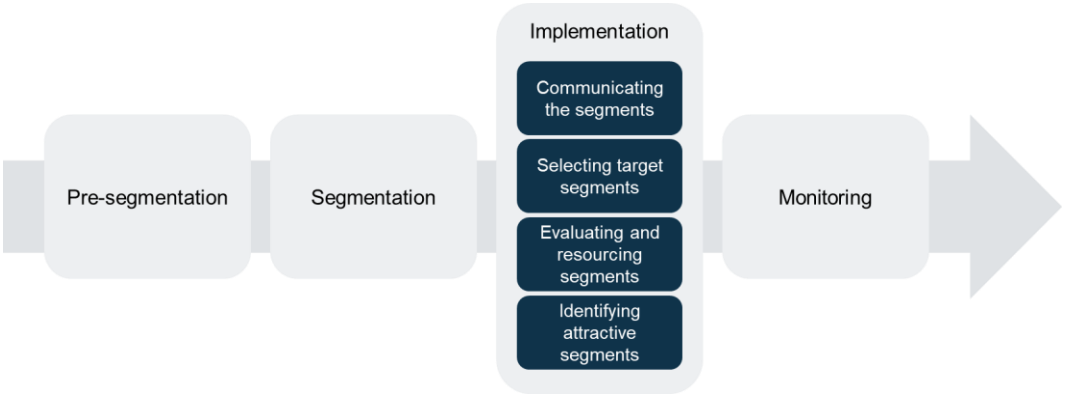

Figure 7: Steps in the implementation phase

Dibb and Simkin (2009) suggest developing a comprehensive plan to ensure that personnel, budgets, sales and marketing programs, product development, performance metrics, and the perspectives of senior managers are adjusted to align with the new customer segments. They also recommend using senior staff to promote the segmentation strategy and its conclusions through workshops and meetings (Dibb & Simkin, 2009). In some cases, successful implementation may require organizational changes (Croft, 1994, cited in Christen & Schlager, 2022).

The results of customer segmentation should be effectively communicated to employees. One way to ensure the customer segmentation is practically applied within the company is through personas. They are representative profiles that illustrate the attitudes and motivations of each customer segment. Personas help translate segment data into useful visualizations and can be updated to reflect changes in customer behavior. (Christen & Schlag, 2022)

Literature recommends selecting target segments and creating targeted strategies since companies may lack the resources or the desire to serve all available segments equally (Clarke et al., 2025; Dibb & Simkin, 2008). Weinstein (2014) outlines four targeting strategies: single segment, segment-of-1, differentiated and undifferentiated. Similarly, Dibb's and Simkin (2008) categorize targeting approaches as mass marketing, single-segment, and multisegment strategies. Christen and Schlag (2022) divide targeting strategies into unsegmented, differentiated and segment-of-one approaches.

Multisegment and differentiated strategies share a common approach, as both involve targeting multiple segments with different products or services. In this approach, the target audience may consist of either a single segment or multiple segments (Christen & Schlag, 2022). Multisegment strategy spreads the risks and allows resource reallocation, but it can be costly to target and sustain multiple segments (Dibb & Simkin, 2008). The competitive advantage for companies utilizing multisegment strategy is differentiation. On the other hand, the disadvantages with this strategy include high complexity and cannibalization, when a company's new product or service takes sales away from its existing offerings. (Christen & Schlag, 2022) However, multisegment strategy is most utilized among B2B companies, and Weinstein (2014) demonstrated its effectiveness as a successful B2B segmentation strategy in his research.

The undifferentiated strategy, also referred to as mass marketing or the unsegmented strategy, focuses on offering a single product or service to a broad customer base, with little to no customization. This approach is typically used when customer needs and buying behaviours are viewed as largely homogeneous, eliminating the need to focus on specific segments and instead aiming to reach the entire market (Christen & Schlag, 2022; Dibb & Simkin, 2008). Companies adopting this strategy often concentrate on mass production of physical products and achieve competitive advantage through cost efficiency (Christen & Schlag, 2022). However, this strategy often results in overly broad marketing programs that lack precision (Weinstein, 2014).

Segment-of-1 strategy involves tailoring products, services and marketing efforts to meet the unique needs of individual customers through personalized offerings. Companies adapting this strategy gain competitive advantage from personalization and mass customization. (Christen & Schlag, 2022) This strategy also provides a deep understanding of customers' needs and wants (Weinstein, 2014). A drawback of this approach is that it can result in significant costs due to increased variety and complexity, ultimately preventing the achievement of economies of scale (Christen & Schlag, 2022).

Finally, a single segment strategy focuses on a single segment with a tailored product or service. This strategy enables companies to build expertise in a specific area, making it beneficial for businesses with limited resources. On the other hand, single segment strategy creates a risk that the chosen segment becomes non-viable. (Dibb & Simkin, 2008; Weinstein, 2014) According to Weinstein (2014), the single segment strategy is a better fit with smaller companies entering new markets. In B2B environments, a more diversified approach, such as implementing multiple marketing programs or customizing offerings, is recommended to better address the diverse needs of customers. (Weinstein, 2014) All the targeting strategies and their characteristics are presented in Figure 8.

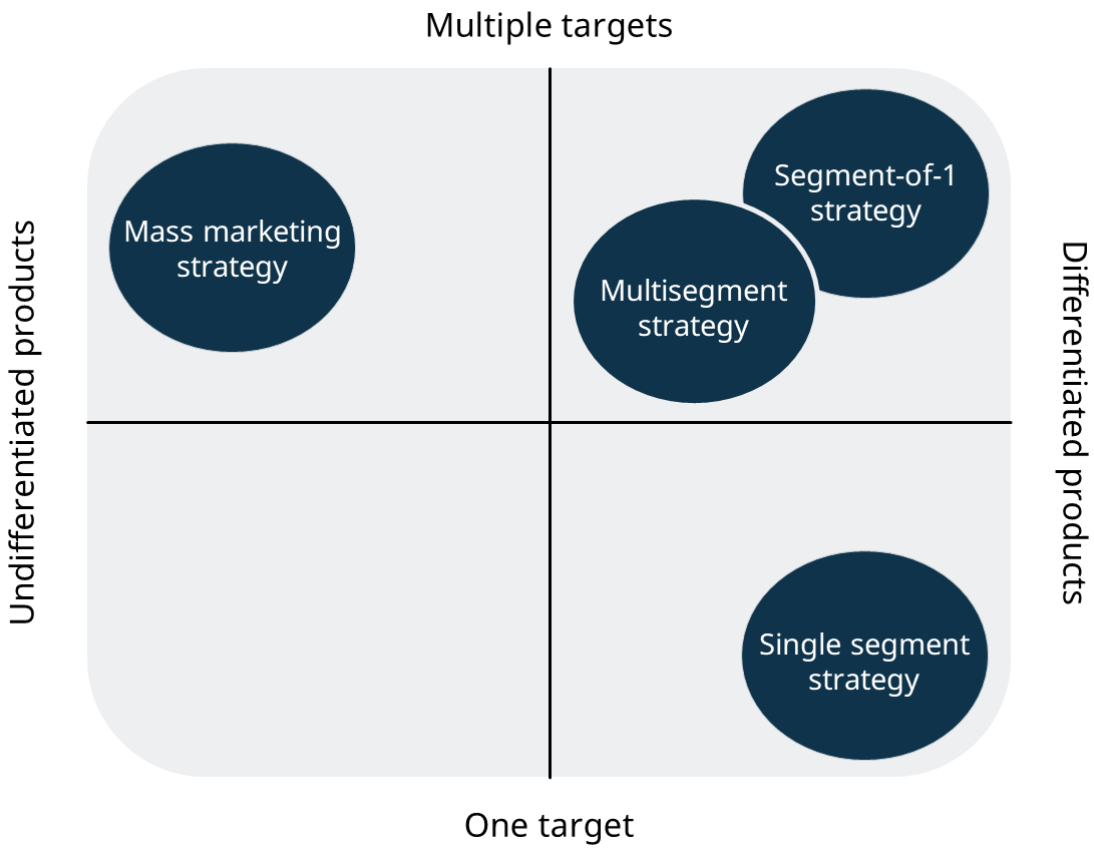

Figure 8: Targeting strategies for customer segments

A part of implementing is clearly defining responsibilities, timelines, and resources for each segment, ensuring that priority segments receive the necessary attention while low-priority segments are not over-resourced (Dibb & Simkin, 2009). To identify the most attractive segments, it is essential to conduct thorough studies of different segments. Such evaluations help companies pinpoint segments that are both appealing and compatible with their strengths, while avoiding segments that might be growing but difficult to penetrate and manage effectively. (Clarke et al., 2025) Companies should choose segments where they can create competitive advantages and achieve the desired market position. Attractive segments may not be suitable if the company cannot manage them effectively, and the process should reflect the company's unique situation, as no two companies are the same. (Freytag & Clarke, 2001) A mix of short- and long-term criteria should be used to assess segment attractiveness, avoiding an overemphasis on short-term profitability. It is also important to consider the capability of the organization to serve each segment when selecting target segments. (Dibb & Simkin, 2008)

Success stories of B2B companies in operationalizing customer segments

Operationalizing customer segmentation has proven to be a pivotal strategy for various organizations. By tailoring their approaches to distinct customer segments, these companies have achieved significant benefits. McKinsley's case study (Enger & Ye, 2020) on a Chinese steel manufacturer highlighted the company's need to become more customer-centric to gain a competitive edge and ensure resilience during market downturns. The main objectives were to enhance customer-centricity and improve the customer feedback system, and customer segmentation played a key role in achieving these goals. By segmenting their customers, the company identified prioritized segments for deeper analysis. This analysis revealed crucial phases for their customers, enabling the company to develop a new channel system for collecting customer feedback and maintaining customer contact. (Enger & Ye, 2020)

HCLTech's case study on a retail gas and electricity provider is another example of successful operationalization of customer segments. The company had noticed their customer acquisition costs were high compared to the lifetime value of customers. Previous attempts to segment customers using a simple model have been unsuccessful. Their objective now was to transform their existing data into customer insights and identify target segments. HCLTech utilized machine learning for segmentation and successfully identified a significantly larger number of customers willing to purchase complementary services. After implementation, the company experienced a 40% increase in campaign success rates, significantly reducing acquisition costs and enhancing profitability. (HCLTech)

Kaizen Institute advised a company in the food industry to classify its customers based on their customer lifetime value to create differentiated marketing approaches. Using data mining techniques, Kaizen Institute segmented customers according to purchasing patterns, analysing 28,259 transactions from 296 customers over one year. As a result, the model identified the lowest value customer, to whom the company could offer discounts and provide samples to encourage buying and experimentation. For high customer lifetime value clusters, the company could consider premium treatment and a closer relationship to maintain their value. This segmentation allowed the company to tailor marketing strategies effectively, focusing on the most valuable customer segments and thereby enhancing overall profitability. (Kaizen Institute)

B2B International had a case study for a delivery service and courier provider, who aimed to revamp its existing firmographic segmentation strategy after identifying shortcomings

in service performance and customer relationship management. Instead of the company's current value proposition, they wanted to have a new one based on customer value and needs and to offer segmented service offerings. The segmentation was conducted through extensive research, including telephone and online interviews with customers, after which they identified four value-based segments. By developing tailored value propositions for each segment, the company was able to design segment-specific customer experiences and products. (B2B International)

Table 3: Objectives, criteria, methods and implications of companies successful with customer segmentation

Company	Objectives for segmentation	Segmentation criteria	Segmentation method	Implications
Chinese steel manufacturer	• Enhance customer-centricity, ensure resilience • Improve the customer feedback system	• Similar stakeholder dynamic • Similar customer journeys		• Identification of crucial phases for customers • Development of a new customer channel system
Retail gas and electricity provider	• Improve decision making • Reduce high customer acquisition costs	• Behaviour patterns	• Machine learning	• Identification of potential new customer • 40% increase in campaign success • Reduction of acquisition costs
Food industry company	• Create differentiated marketing approaches	• Customer lifetime value	• Data mining techniques	• Identification of high-value customer • Tailored marketing strategies • Enhanced overall profitability
Delivery service and courier provider	• Reduce shortcomings in service performance • Improve customer relationship management • Develop new value propositions	• Customer needs • customer feedback	• Telephone and online interviews with customers and prospects	• Tailored value propositions for each segment • Segment-specific customer experiences and products

The customer segmentation process does not end with implementation, since it is important to monitor the segments. The steps in the monitoring phase are presented in Figure 9.

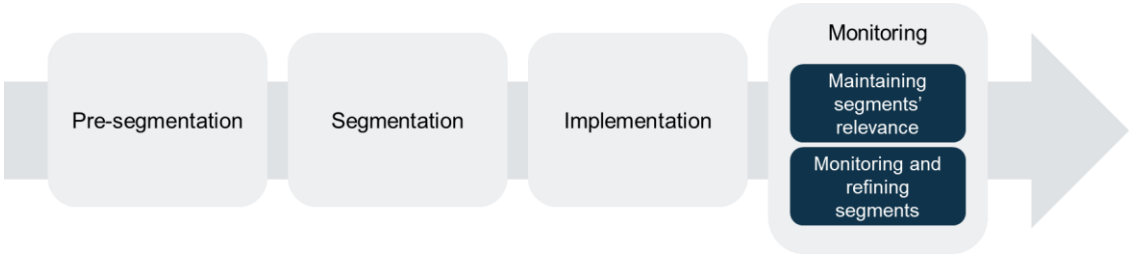

Figure 9: Steps in the monitoring phase

As discussed earlier, one criterion to validate customer segments is their stability, which allows long-term planning. Simultaneously, customer segmentation is based on customers' characteristics which change over time. A critical factor for the success of customer segmentation is maintaining its relevance over time by accounting for changes in both the environment and customer behaviour. Therefore, companies should not overlook the impact of customer trends, and the segments should be consistently assessed considering these trends. If new customers or customers' needs arise in the market, the segmentation criteria may need adjustments. (Christen & Schlager, 2022)

Dibb and Simkin (2009) suggest continuously assessing the implementation progress through meetings with senior executives and other stakeholders. They also recommend identifying internal implementation obstacles and addressing organizational weaknesses in managing specific customer segments (Dibb & Simkin, 2009). Monitoring expected performance improvements in targeted segments using a balanced set of short- and long-term performance measures is also essential. In addition to monitoring performance, the marketing strategies should be adjusted if the expected outcomes are not achieved, and the improvements should be communicated to personnel. (Clarke et al., 2024; Dibb & Simkin, 2009) Ultimately, monitoring and evaluating customer segments can also lead to need for re-segmentation (Clarke et al., 2024).

2.3 Challenges in customer segmentation

Customer segmentation poses challenges from the very beginning of the process to its implementation. These challenges stem from the inherent complexity of the segmentation process, the need for accurate and comprehensive data, and the resistance to change within the organization. Additionally, most customer segmentation literature focuses on consumer markets, leaving a gap in B2B-specific guidance (Cortez et al., 2021). This section will explore the various obstacles that companies face when attempting to segment their customer base. The challenges are categorized into those affecting the conduction phase and those impacting the implementation phase, as shown in Table 4.

Table 4: Challenges in customer segmentation

Phase	Challenge	Description
Conducting customer segmentation	Fundamental B2B complexity	• Limited access to customers • Structural and computational complexity • Demand shaped by downstream customers • Multiple stakeholders involved in decision-making process
	Rapidly changing business environment	• Constant technological advancements • Globalization and digitalization
	Lack of suitable methods	• Absence of a method that meets all objectives • Macro-micro approach trade-offs • Statistical methods over strategic insights
	Data availability and quality	• Scarcity of deep, customer-specific datasets • Dependence on generic industry analyses
	Internal resistance	• Managerial role-change resistance • Uneven support across business units • Iterative segment profiling and stakeholder buy-in requirements
Implementing customer segments	Leadership and resource allocation	• Lack of implementation expertise and competence • Difficulty of communicating the segmentation benefits
	Resistance to internal reorganization	• Necessity of cross-functional teams • Tendency to hold on to legacy structures • Managerial power and role threat concerns
	Marketing-sales misalignment	• Disconnection between segmentation design and execution
	Strategic commitment	• Conversion of analytical results into concrete actions • Identification of the most attractive segments • Resistance due to time and knowledge requirements
	Theory to practice literature gap	• Lack of practical guidance for implementation

2.3.1 Challenges in conducting customer segmentation

Conducting customer segmentation presents several challenges that organizations must navigate to achieve effective outcomes. One challenge is the **fundamental complexity in the B2B environment**, where customer segmentation is more complex than in consumer markets due to difficulties such as access to customers (Ortt & Rezaei, 2013, cited in Fuentes-Blasco et al., 2017). B2B customer segmentation also faces structural and computational complexities, and existing methods often fail to address these challenges comprehensively or provide guidance on selecting the most suitable solutions (Chen et al., 2020). Another layer to the complexity is that the demand for B2B products

is often influenced by the needs of the customers' customers (Mantrala & Tang, 2024). Identifying and understanding the needs of both direct customers and end-users, especially in B2B2B and B2B2C scenarios, poses a significant challenge (Brotspies & Weinstein, 2019). Another factor adding complexity to this is that decision-making in B2B context involves multiple actors (Cortez et al., 2021).

Continuously and **rapidly changing business environment** is another aspect making customer segmentation challenging. The fast pace of technological change and the increasingly complex business environment require new segmentation frameworks that can adapt to these challenges (Brotspies & Weinstein, 2019). Furthermore, globalization and digitalization have transformed customer segmentation, necessitating more sophisticated approaches to handle the abundance of data and the acceleration of different trends (Christen & Schlager, 2022).

Additionally, there is **no single segmentation method** that meets all objectives simultaneously, leading companies to often combine several methods to achieve their goals (Boersma & Vos-van Gool, 2009). For instance, the macro–micro segmentation methods both offer valuable insights but have their limitations. The macro approach, which identifies segments based on basic customer characteristics, lacks sufficient differentiation, while the micro approach delves deeper into the decision-making units of buyers. Combining both approaches can significantly aid the segmentation process. (Powers & Sterling, 2008, cited in Chen et al., 2020) Christen and Schlager (2022) also warn from overlooking strategic considerations, relying solely on statistical methods, or confusing segments with product categories. They also suggest not using only demographic variables, which fail to capture deeper motivational factors driving customer behaviour (Christen & Schlager, 2022).

Data availability and quality also pose significant challenges. A shortage of suitable data can hinder the creation of accurate market segments. Despite access to general industry analysis, in-depth customer data may be lacking, making segmentation challenging. To address this, organizations may need to extend segmentation workshops, involve more personnel with customer and competitor expertise, and commission targeted marketing research to fill data gaps. (Dibb & Simkin, 2009)

Furthermore, **internal resistance** and varying levels of support across the business can impede progress. Some managers may resist changes to their roles, so involving senior leadership from the start is crucial to encourage acceptance of the segmentation project.

The creation of actionable segment profiles can also be time-consuming, requiring multiple iterations and extensive workshops to gain support from all business functions. (Dibb & Simkin, 2009)

2.3.2 Implementation challenges

Implementing customer segmentation presents various challenges that can significantly impact an organization's ability to translate customer insights into actionable strategies. Moreover, the literature indicates that implementing customer segmentation represents one of its foremost challenges (Boejgaard & Ellegaard, 2010).

Leadership and resource allocation are critical during implementation. The earlier discussion highlighted the complexity of B2B customer segmentation, which in turn adds to the struggles managers face due to their lack of implementation experience and expertise (Aiken et al., 1995, cited in Cortez et al., 2021). Leaders must provide guidance and manage resources effectively to ensure the segmentation project is taken seriously and not merely seen as a marketing exercise (Dibb & Wensley, 2002, cited in Dibb & Simkin, 2009; Goller et al., 2002). Introducing new segments may necessitate the development of new roles and cause significant changes in resource allocation, prioritization, and employee skills. This process can lead to shifts in the power dynamics between the company's departments. (Clarke et al., 2024) Incompetent senior management involvement can have negative consequences, making it essential for leaders to explain the benefits of the new segmentation approach and facilitate internal and external discussions (Dibb & Simkin, 2001, cited in Dibb & Simkin, 2009).

To succeed in customer segmentation implementation, it may require **internal reorganization**, which is challenging. A major challenge stems from executives' failure to modify and realign organizational functions to deploy segmentation strategies effectively. Although companies embrace new customer segments, they often hold on to legacy structures, since existing structures may be well-entrenched. (Boejgaard & Ellegaard, 2010, cited in Cortez et al., 2021). The organizational changes to support implementing new customer segments include creating cross-functional teams, adapting the sales force, and rearranging distribution channels (Balboni & Terho, 2016, cited in Cortez et al., 2021). Managers may perceive reorganization as a threat to their positions and power, leading to resistance (Bonoma & Shapiro, 1983, cited in Cortez et al., 2021). If organizational structure adjustment fails, it often leads to further implementation problems (Palmer & Miller, 2004, cited in Cortez et al., 2021).

There is also a challenge with **aligning the marketing and sales departments**. Marketing typically handles segmentation, while sales is responsible for its execution. Successful segmentation relies on the availability of data within the CRM system, which is often generated by sales. This setup requires close coordination, particularly in organizational processes and IT systems. (Christen & Schlager, 2022) If companies are unwilling to embrace these organizational changes, even a potentially successful segmentation may not succeed (Dibb & Simkin, 2001, cited in Christen & Schlager, 2022).

Despite the potential of segmentation initiatives, many B2B companies fail to **adopt a truly strategic perspective**, limiting the impact of the customer segmentation work. Boejgaard and Ellegaard (2010, cited in Cortez et al., 2021) observe that organizations often struggle both to identify the most relevant segments and to convert analytical results into concrete marketing. Moreover, the process of adapting these strategies and executing plans designed to engage target customers can be challenging since it often provokes resistance as it requires considerable time and knowledge. (Palmer & Miller, 2004, cited in Cortez et al., 2021)

Finally, the **lack of practical guidance and support** for implementing segmentation strategies is a significant challenge. While academics focus on segmentation variable selection and techniques, literature does not offer enough practical help for implementing customer segmentation process in their companies (Simkin & Dibb, 1998, cited in Diamantopoulos & Foedermayer, 2008). The gap between theoretical segmentation models and their practical application in real-world business contexts can hinder the effectiveness of segmentation strategies (Kesting & Rennhak, 2011). This inconsistency highlights the need for more practical insights and guidelines to help companies operationalize segmentation efforts effectively (Diamantopoulos & Foedermayer, 2008).

2.4 Synthesis of the literature review

In the literature, customer segmentation is traditionally framed as a process of dividing customers into subgroups that demonstrate homogeneity within segments and clear differentiation between segments. It is widely recognized as a core practice in strategic marketing and management, forming the backbone of tailored targeting, resource allocation, and customer relationship initiatives. Industry case studies demonstrate the tangible benefits of successful segmentation from improved customer-centricity and optimized marketing investment to enhanced profitability and new value proposition development. Companies leveraging sophisticated, data-driven segmentation have achieved measurable improvements in campaign effectiveness and discovered new growth opportunities by better identifying and serving high-value customer clusters.

The customer segmentation process combines approaches from multiple authors, resulting in a framework that begins with defining the organization's objectives and scope, followed by selecting segmentation criteria, creating and profiling segments, implementing targeted strategies, and ongoing monitoring. Criteria for segmentation fall into macro-level factors such as industry, company size, and geography, as well as micro-level attributes like buying behaviour, customer needs, and price sensitivity. Methods range from common sense, intuition-based groupings to quantitative, data-driven techniques like cluster analysis, RFM modelling, and customer lifetime value analysis, with hybrid approaches often recommended in complex B2B contexts. Targeting strategies emerged from the literature include mass marketing strategy, single segment strategy, multisegment strategy and segment-of-1-strategy. Key use cases include better resource allocation, improved customer relationship management, tailored marketing, pricing, and product differentiation, as well as discovery of growth opportunities. Nevertheless, the process faces challenges such as difficulties in accessing high-quality data, aligning cross-functional teams, organizational resistance to change, the complexity inherent in B2B markets compared to B2C, and the risk of segments losing relevance over time, necessitating continuous assessment and potential re-segmentation to maintain effectiveness and alignment with dynamic market realities.

Figure 10 summarizes these main findings from the literature review, presenting a customer segmentation process framework together with use cases for customer segmentation and the associated challenges. This framework allows the empirical results to be compared with the theoretical findings, examining whether the case company's practical exercise followed the process, whether they encountered similar challenges, and whether the interviewed companies reported these challenges and use cases.

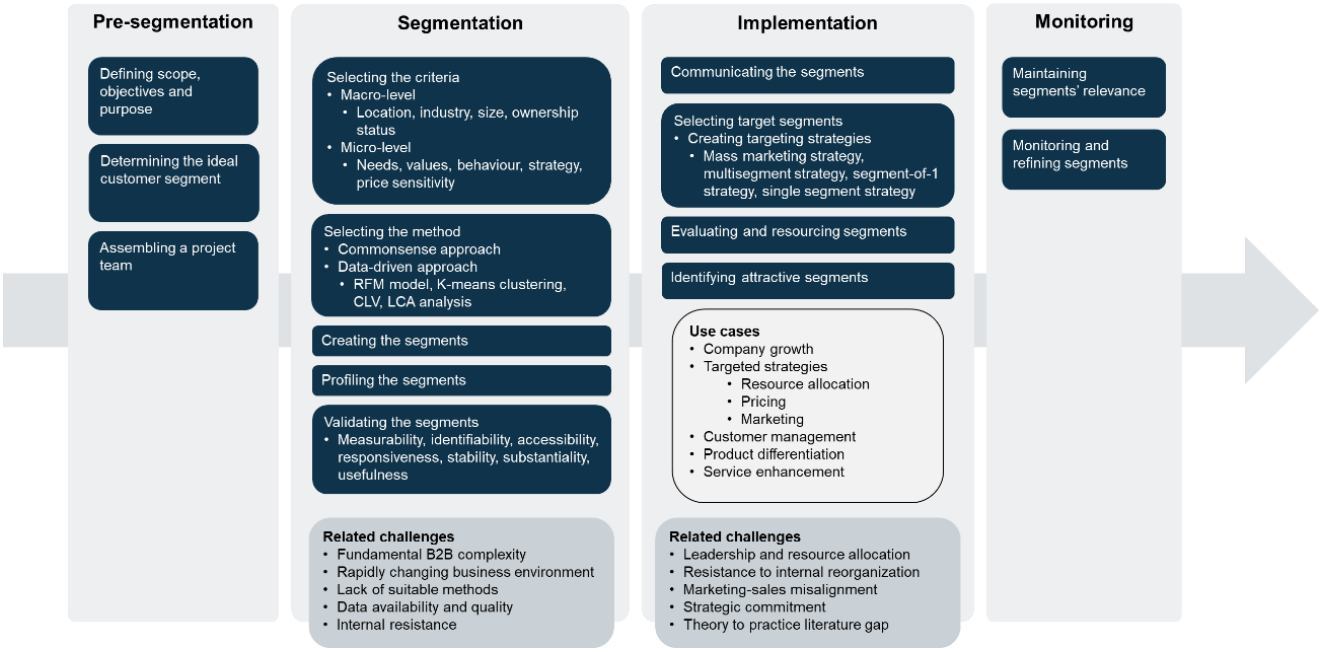

Figure 10: Customer segmentation process framework with related use cases and challenges

However, much of the existing literature predominantly focuses on the B2C context, where data is more readily available, and the complexity of segmentation is comparatively lower. B2C segmentation commonly relies on variables such as demographics, psychographics, or lifestyle, reflecting rapid, individual-level decision-making. Conversely, B2B segmentation wrestles with greater complexity due to longer sales cycles, higher transaction values, and involvement of multiple decision-makers. B2B segmentation involves understanding not just the direct customer, but also the needs of downstream customers, long-term relationships, and collective, rather than individual, purchasing processes. Although the literature often calls for frameworks to handle these more complex dynamics, practical methods for B2B-specific segmentation are still not well developed.

Practical implementation is a major hurdle emerged from the literature. Even if actionable segments are successfully created, embedding the customer segmentation insights into business processes proves difficult. Organizational inertia, resistance to change, and poor alignment between strategy and execution can block segments from turning into profitable actions. Internal challenges, like a lack of cooperation across teams, unwillingness to change established ways of working, and unclear responsibilities, are also mentioned as reasons why segmentation fails to deliver its full potential.

Although big data and analytics have transformed how segmentation is done, those tools are only as good as the data they use, and in B2B settings, deep, customer-specific datasets are often scarce or challenging to collect. Relying purely on quantitative methods like cluster analysis or the RFM model, can oversimplify or overlook important relationship-based factors that matter in business markets. Also, segmenting customers based just on easily available demographic information can hide the deeper reasons behind customer behaviour, while more complex methods may be too difficult to use for companies without strong analytical resources or expertise.

3. RESEARCH METHODOLOGY

This chapter introduces the research methodology applied in this study. Chapter 3.1 presents the research design, including an overview of the methodological decisions made. Chapter 3.2 outlines the data collection methods and provides justifications for their suitability. Finally, Chapter 3.3 explains how the collected data has been analysed for the purposes of this research.

3.1 Research design

Saunders et al. (2019) have developed a research onion model to support considering elements of the research design, ensuring a comprehensive and coherent approach. This model includes the research philosophy, approach to theory development, strategy, time horizon and techniques and procedures (Saunders et al. 2019). The methodological decisions made for this research are presented in Table 5.

Table 5: The research design (adapted from Saunders et al. 2019)

Decision component	Methodological decisions
Philosophy	Interpretivism and pragmatism
Approach to theory development	Abduction
Methodological choices	Qualitative study
Strategy	Case study
Time horizon	Cross-sectional
Techniques and procedures	Data collection • Interviews • Observations • Internal documents Data analysis • Thematic analysis

The first component is the research philosophy, which refers to a set of beliefs about the appropriate methods for collecting, analysing, and applying knowledge related to a specific subject (Dingli & Sciberras, 2023). Determining research philosophy is crucial since it helps maintain internal consistency throughout the research process and exposes the assumptions the research carries, which improves the transparency of the study. Setting

the research philosophy also improves academic credibility since it allows others to better evaluate the validity and reliability of the research findings. This study follows the philosophies of interpretivism and pragmatism.

Interpretivism is a perspective that suggests social sciences should primarily focus on interpreting meaning, often using qualitative methods. It emphasizes understanding actions and practices through interpretations. This view posits that researchers interpret individuals' subjective meanings, such as emotions and desires, in response to situations. (Zahle, 2021) Interpretivism contrasts with positivism, which seeks objective descriptions of reality (Stahl, 2014). Interpretivism is suitable for this study, as the research questions do not seek definitive or quantifiable answers. Instead, they aim to explore individuals' experiences, interpretations, and perceptions related to customer segmentation within a specific organizational context. Both the internal discussions and external interviews conducted in this study are rooted in participants' memories, opinions, and subjective understandings, rather than numerical data or objective measures. Customer segmentation practices also differ widely across organizations and industries, and there is no universally correct approach. These practices are naturally context-dependent, shaped by the organization's specific goals, resources, and environment. Interpretivism provides a philosophical foundation for examining these contextual factors by allowing the researcher to explore the meaning behind segmentation efforts.

Pragmatism is a philosophical approach centred on the idea that the meaning and value of concepts, beliefs, and ideas are best understood in terms of their practical consequences and usefulness. It encourages a flexible and adaptive way of interpreting and engaging with the world, where the effectiveness and outcomes of ideas matter the most. (Godfrey-Smith, 2015) In this study, the pragmatic perspective complements interpretivism by emphasizing the practical implications and usefulness of the interpretations, ensuring that the research contributes to actionable insights for customer segmentation.

The second component of the research design is the approach to theory development. The approach in this research is abduction, which begins with an observation and seeks to find the most plausible explanation for it (Awuzie & McDermott, 2017). Unlike deduction, which tests existing theories, or induction, which builds new theories from observations, abduction focuses on understanding specific situations and suggesting new hypotheses. Abduction is suitable for qualitative research because it supports exploring new phenomena and developing new theories and allows for a back-and-forth movement between theory and data (Awuzie & McDermott, 2017; Kovács & Spens, 2005). Abduction is a good research method for this study, since the study topic is a real-world case. The ability to move between theory and practice enables comparing findings from the

case company or the interviews with existing theory and revising the understanding and possibly suggesting new theoretical insights.

This research adopts a qualitative methodology, as the objective is to understand underlying, non-measurable reasons behind actions and experiences, rather than simply measuring quantifiable data (Blair et al., 2020). Qualitative research is a broad term for methodologies that aim to describe and explain individuals' experiences, behaviors and interactions in which they occur. It offers a deeper understanding and insight into the reasons behind events compared to quantitative methods (Azari et al., 2012) To answer the research questions, it is crucial to understand the perspectives and interpretations of individuals, which are best accessed through qualitative methods like interviews and observations, both utilized in this research (Zahle, 2021). Since the operationalizing of customer segmentation insights is still understudied and there is limited literature on how companies should utilize their customer segments, qualitative methods are valuable because they offer exploratory insights and provide detailed explanations.

A case study strategy offers a comprehensive view of a subject in its real-world setting by capturing the perspectives of those involved (Stake & Visse, 2023). Case study is a commonly used method in qualitative research, and its structure can differ based on factors such as its objective, the amount of information available at the time, and the insights gained (Almeida et al., 2020; Koehler, 2020). This research adopts a case study, as it investigates the actual customer segmentation process of an existing company, with the aim of generating insights and outcomes that are directly applicable and actionable for the case organization. The time horizon refers to the selection whether the aim is to capture a snapshot of a specific moment in time or to track developments over an extended period (Saunders et al., 2019). This research is conducted on a cross-sectional time horizon, since it studies a specific event at a single point in time.

The case company is a Finnish listed company engaged in the engineering industry with a workforce of over 18 000 employees worldwide. It generates revenue through a blend of one-time equipment sales, long-term service and maintenance contracts, and digital subscription services. It's core processes include R&D, engineering, manufacturing, global service network and digital platform development. The organization is divided into three business divisions, and this research focuses exclusively on one of them.

3.2 Data collection

Data for this research is collected via semi-structured interviews and observations from the case company's customer segmentation exercise. All the conducted interviews in

this research are semi-structured meaning they follow a prepared guide containing key questions and topics while retaining the flexibility to explore new ideas and follow up on interesting responses that emerge during the conversation. Interviews are a primary data collection method in qualitative research, since they enable in-depth exploration of participants' views, experiences, beliefs, and motivations. In situations where little prior knowledge exists, interviews offer the depth and openness needed to generate new insights. (Chadwick et al., 2008) The insights gained from interviews align close with the goals of case study research, which seeks to provide a comprehensive understanding of a particular case within its real-life context (Petty et al., 2012).

A total of 12 interviews were conducted with professionals working in positions related to customers, marketing, business intelligence, strategy and product management. All the interviews were conducted via Microsoft Teams and the transcription of the conversation was recorded. In all interviews, only one person was interviewed at one time. Eight of the interviews were external with representatives from other companies and four were internal interviews with people from the case company's other business unit. Table 6 shows all interviewees, their field of expertise and the duration of each interview session.

Table 6: Interview parties and durations, and interviewees' fields of expertise

Party interviewed	Interviewee	Field of expertise	Duration
Nordic listed B2B company	C1	Customer marketing	51 min
	C2	Customer experience	49 min
	C3	Customer strategy	45 min
	C4	Commercial development	49 min
	C5	Business intelligence	40 min
	C6	Customer experience & marketing	27 min
	C7	Marketing	45 min
	C8	Customer strategy	53 min
Representative from case company's other business division	I1	Business intelligence	47 min
	I2	Product management & sales support	51 min
	I3	Product management	60 min
	I4	Director of a department	48 min

Interviewing other companies was valuable because the case company is developing an entirely new customer segmentation approach. Insights from these companies offered practical perspectives on segmentation challenges and mitigation strategies, suggested use cases, and general guidance for the segmentation process. The selected interviewees represented Nordic listed B2B companies, chosen for their operational similarity to the case company's environment. All external interviews were conducted independently, with the interviewees being contacted through the case company's networks. The structure for these external interviews is presented in Appendix A.

Internal interviews were conducted with four representatives from the case company's other business line, which operates independently and uses its own customer segmentation methods. These interviews explored their segmentation practices and captured their recommendations on effective and ineffective approaches. Responsibility for finding interview times, sending out invitations, and managing the transcripts was handled. During each session, the conversation was guided with prepared questions and follow-ups as needed, while two colleagues focused on notetaking and asking detailed questions. The structure for these internal interviews is presented in Appendix B.

In addition to the interviews, data was collected through observations. Observations involve systematically witnessing and recording behaviours, interactions, or events as they naturally occur (Chadwick et al., 2008). In this research, observations refer to the information absorbed from the case company's meetings, discussions, and workshops together with other gained material during the customer segmentation initiative. Observational methods are particularly well-suited for case studies because they provide direct, context-rich evidence about how complex activities and interactions unfold in practice. In qualitative research, observations are valuable for uncovering not just what occurs, but also how and why particular processes and behaviours emerge within the case company's context. (Chadwick et al., 2008; Choo et al., 2015)

3.3 Data analysis

This research utilizes thematic analysis, which is a qualitative research methods used to identify, analyse, and report patterns or themes within a dataset. It enables researchers to interpret the underlying meaning of recurring ideas or concepts that are relevant to the research questions, focusing on significance rather than the number of times something is mentioned. (Sanders & Scharp, 2019) In this research, thematic analysis enables identifying, interpreting, and organizing the patterns emerged from interviews and observations. Thematic analysis is also suitable for a case study since it helps uncover shared

concerns, key success factors, and practical lessons. The data analysis process of this study is illustrated in Figure 11.

Figure 11: Data analysis process (adapted from Howell et al., 2023; Sanders & Scharp, 2019; Xu & Zammit, 2020)

The data analysis started with collecting data as described in Chapter 3.2. After the data collection, data was familiarized by reading the interview transcripts and the material gathered from the observations. The familiarization phase included creating an initial understanding of the data collected, making it easier to know which way to go with the analysis. The analysis of the interview material continued by importing the transcripts into the Atlas.ti software, where the data was examined through coding. The coding was conducted by highlighting citations from the interviewees when providing insights relevant to the research objectives. This enables breaking down the transcripts that are often extensive and unstructured (Howell et al., 2023). Following the principles of thematic analysis, the purpose of coding was to identify and categorize recurring themes. Due to the interview structure, certain theme categories were anticipated in advance, such as challenges experienced during customer segmentation and the use cases identified for the segments. However, during the analysis phase, new recurring themes also emerged. The main themes that ultimately formed were *advice for customer segmenting*, *challenges in customer segmenting*, *segmenting criteria*, and *use cases for customer segmentation*. Once these themes were identified, each was further explored in more depth. Ultimately, the data analysis ends with interpreting it compared to the literature to answer the research questions.

4. RESULTS

In this chapter the empirical findings of the collected data are presented. Chapter 4.1 provides a detailed description of the customer segmentation process in the case company. Chapter 4.2 discusses the customer segmentation challenges emerged from the interviews. Chapter 4.3 presents the segmentation criteria other companies have utilized, while Chapter 4.4 delves into the use cases these companies have applied. Finally, Chapter 4.5 concludes the advice for customer segmentation other companies shared.

4.1 Customer segmentation process in the case company

The structured customer segmentation process framework introduced in Chapter 2.2 provides a comprehensive approach for companies to tailor their segmentation efforts to meet specific needs. By applying this framework, the case company's segmentation process can be investigated, pinpointing the phases completed and identifying any additional stages encountered.

4.1.1 Laying the groundwork for effective segmentation

The customer segmentation initiative at the case company emerged after several years of ongoing discussions and growing recognition of its strategic importance. The project officially launched in August 2024, with a designated strategy team member taking the lead in coordinating and executing its activities. The first phase focused on articulating a clear problem statement and assembling a core project team. The resulting core team, composed of seven employees including the project leader, brought together expertise from key areas such as technology, services, business development, and strategy. By September, the team had developed the first version of the problem statement and established a set of preliminary objectives, which are detailed in Table 7. Nevertheless, as the project progressed, both the objectives and the project’s focus evolved, reflecting deeper insights and the dynamic needs of the organization.

Table 7: Case company's problem statement and goal for their customer segmentation exercise

The problem statement	Currently, the company has an **overly simplified segmentation strategy**, which affects its ability to create and capture value effectively. The current segmentation works for high-level communication but is not actionable, and there is a **shallow understanding of customers** beyond the frontline. Additionally, the **segmentation structure and definitions are unclear**, with multiple legacy categories.
The goal	To address the issues in the problem statement, the company plans to develop more **detailed, data-driven, and strategic customer segments**. This involves defining and aligning customer segments, value propositions, and related vocabulary within the organization. The objective is to enhance collaboration across different departments and improve market development, sales, and solution development processes. By doing so, the company aims to **increase customer-centricity and maximize lifecycle value creation** for both the company and its customers. For the case company, it is important to make the end-to-end perspective visible in the segmentation. **Building a clear structure and common language** to talk about customer segments is essential. The company should analyse market size, competitive field, positioning, and ways-to-win in key segments. Enriching the segmentation with clear value propositions and value-based selling perspectives is crucial. Ultimately, the **segmentation should be simple** (global level segments & sub-segments) **and actionable** (dynamic, considering market characteristics).

In October 2024, discussions were held with multiple internal experts across various departments to build a holistic understanding of the organization's current approach to customer segmentation. These conversations explored the company's existing segmentation models, opportunities for improvement, and the key criteria deemed most critical for effective segmentation moving forward. In addition to the identified segmentation criteria, relevant customer value drivers commonly seen among the case company's customers were noted from the discussions. These value drivers play an important role when it comes time to describe the specific needs of the created segments. The identified criteria and value drivers are presented in Table 8.

Table 8: Case company's identified segmenting criteria and customer value drivers

Segmenting criteria	Customer value drivers
• Customer's industry • Customer's ownership structure • Customer's product usage • Customer's market mechanism • Customer's business model • Customer's availability of financing	• Product's technical excellence • Product's price • Company's sustainability • Company's operation's predictability • Company's logistics and speed of delivery • Company's reputation

Internal discussions revealed a wide range of perspectives, with each participant bringing unique challenges, expectations, and priorities that they hoped a refined segmentation would address. Consequently, the project team revisited and sharpened the initiative's scope and objectives. To ensure segmentation effort would meet the most important organizational needs, the team identified and prioritized the use cases for the work, which are presented in Figure 12.

Use case

1. Strategic decision making
    a. Nuanced strategic focus
    b. Technology roadmap development
    c. Customer value driven technology + service alignment
    d. Building senior leader level customer understanding
2. Market development and marketing
3. Frontline sales and sales support
4. Services offering development

Figure 12: Prioritized use cases for customer segmentation

A deeper understanding of the company's existing customer segmentation practices was achieved through a thorough data analysis conducted over October and November. This analysis examined how customers were currently segmented across various platforms, such as CRM and ERP systems. The findings revealed the fragmented and inconsistent nature of the existing customer segmentation, as customers were labelled differently depending on the system, making it difficult to identify an unified classification. However, the analysis helped uncover patterns that could serve as a foundation for developing new segmentation.

In November, four discussions were conducted with representatives from the case company's other internal business unit. The goal was to understand their segmentation approach and history to gather both best practices worth adopting and pitfalls to be avoided. During these discussions, the representatives presented a previously utilized three-dimensional segmentation model that allowed categorizing customers based on purchasing behaviour. This model helped distinguish strategically important partnerships from

more transactional customers who purchased sporadically and with less consistency. While the model provided valuable strategic insights, it was deemed too complex due to the variability of purchasing behaviour, making consistent categorization challenging over time. This supports the goal to keep the segmentation simple.

In early December, the project team organized a workshop for the case company's product managers and other key stakeholders to explore how product management could benefit from customer segmentation. This session was particularly critical, as the development of technology roadmaps had been one of the most prioritized use cases. During the workshop, participants defined a set of requirements for the customer segmentation work. These requirements were categorized into must haves, should haves, could haves and won't haves, as presented in Table 9.

Table 9: Case company's product development department's requirements for customer segmentation

Must have	• A direct connection to our internal portfolio plan • A plan for how the outcome is to be utilized – otherwise the material will remain unused • Clear and not overcomplicated segmentation • A clear target for the exercise – why we are doing this?
Should have	• Alignment with R&D to ensure updates to be implemented straight away • Insights into product portfolio level decision making • Better understanding on the required technologies • Definition on what is the offering that will be added based on customer needs • Insights into targeted marketing and improved customer experience • Roadmap guiding in which order to develop new features and solutions
Could have	• Better business understanding from R&D stakeholders
Won't have	• Clear 5 year plan

Product managers hope to see customer segmentation initiatives to be directly linked to the internal portfolio plan. It is critical for them to have a clear plan for how the outcomes of the initiative will be used. Without this, there is a risk that the results may not be effectively applied, leading to wasted resources. Product managers also highlight the importance of keeping the work clear and simple. They want the segmentation work to have a clear purpose why it is being undertaken, and they want the segmentation outcomes to be clear and not too complex. In addition to the must haves, product managers expect customer segmentation insights to be aligned with R&D to ensure that any updates can

be implemented promptly and effectively. Customer segmentation should also give insights into product portfolio level decision making, targeted marketing and improved customer experience. They wish customer segmentation to provide better understanding on customers and their needs, leading to better understanding on the required technologies and what services and products could be added based on the needs. As one of the prioritized use cases in Figure 12, product managers also hope the new customer segments to guide product development roadmap.

4.1.2 Developing and refining segmentation strategies

Once the case company had developed a solid understanding of the current state and gathered ideas about the foundation for future segmentation, the segmentation criteria began to clarify. Internal discussions highlighted both the desire to maintain a simple segmentation closely aligned with the existing industry-based division, as well as the desire to design an entirely new segmentation that would capture more micro variables, such as customer value drivers. As a result of these discussions, the team had developed three segmentation options by November, presented in Figure 13.

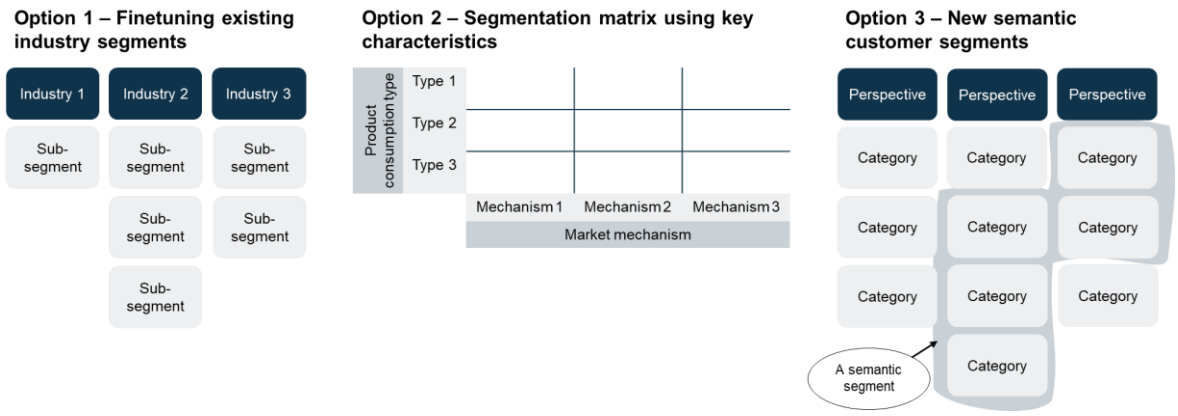

Figure 13: Case company's initial options for customer segmentation

The first option focuses on refining the definitions of the three existing industry segments, offering the advantage of clear, easily adoptable categories that align with the company's current structure. However, this approach was deemed insufficient for addressing the strategic objectives set for segmentation, as it was seen as too simplistic and superficial to meet the more nuanced customer characteristics.

The second option introduces a framework that categorizes customers based on two key dimensions: their market mechanism and their product usage profile. The x-axis considers the regulatory and contractual environment in which customers operate, while the y-axis focuses on the operational patterns of customers' product usage. This approach is aimed at segmenting customers according to the axis and identifying value drivers that frequently appear within specific segments. The advantages of this approach include enabling a more value-based segmentation, which aligns better with the project's objectives. However, it became clear that this option alone would be insufficient, as creating entirely new segments based solely on these dimensions, without considering the customers' industry, would be too complex and not fully aligned with all the project's goals.

The idea with the third option was to first identify all potential value drivers and then group them into segments. The grouping would be based on the profiles of current customers, aiming to determine which value drivers typically go hand in hand. The key benefits of this approach include its ability to facilitate value-based segmentation and support value-based sales strategies. However, this approach proved to be too novel, meaning its implementation and integration into the organization's operations would likely to be too challenging.

In November, the options were presented to the management team during the case company's strategy days. The primary objective of the presentation was to secure leadership buy-in and to define the final scope for the segmentation initiative. Prior to the strategy days, option 2 seemed to be the preferred choice, but the management team advised keeping the segmentation a bit simpler. Ultimately, the decision was made to combine the first two options to maintain the current industry division while creating a new framework to build value profiles.

In December, the chosen approach was presented during a workshop attended by representatives from services, product development, sales, regional areas, marketing, technology, and strategy. During the workshop, the proposed segmentation framework was introduced, feedback was collected, the selection of sub-segments was validated, and an understanding of customer value profiles was gained. However, it quickly became apparent that the initial value profile framework was not entirely satisfactory as it overlooked themes important to the case company. This sparked a series of discussions about the framework, both within the project team and with external parties, ultimately leading to the discovery of its final form. The x-axis was adjusted, shifting the focus from market mechanism to the customer's business model, and the y-axis was revised to focus on the customer's external operational environment. Simultaneously, the existing industry segments were also revisited, resulting in the selection of three main segments,

and eight sub-segments under them. By January, after iteration and validation, the final segmentation framework was selected. From the identified segmenting criteria, presented in Table 8, the case company ended up utilizing customer's industry, customer's product usage and customer's business model in their framework. The framework is illustrated in the Figure 14 below.

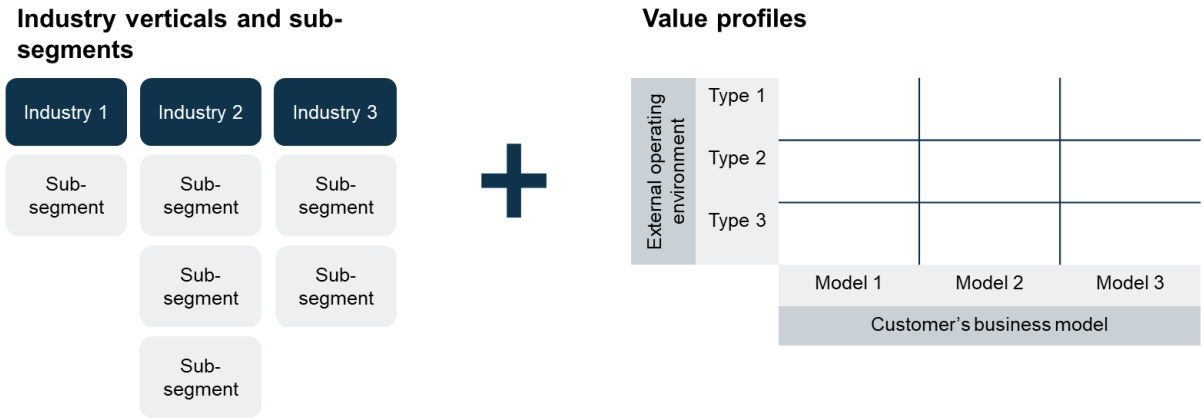

Figure 14: Case company's customer segmentation framework

In March, the project team initiated the data collection phase, focusing on analysing existing projects to determine which customer value drivers had been most influential in each case. To ensure a comprehensive and globally representative dataset, discussions were conducted with representatives from as many geographic regions as possible, maximizing the amount and diversity of insights gathered. Based on the data collected, the project team was able to group projects that occupy the same position in the matrix and share similar value drivers, ultimately forming the value profiles. From the customer value drivers identified earlier, presented in Table 8, the case company ended up utilizing product's technical excellence, product's price, company's sustainability and service availability to describe the value drivers in each value profiles.

4.1.3 Setting the groundwork for operationalization with a Power BI report

As this research on customer segmentation was ending, the case company had only just finalized its new customer segments and accompanying value profiles, with the full implementation phase scheduled to begin once this research is concluded. However, the

case company has already made strong progress in the implementation phase of communicating the segments. As previously discussed, the company has so far succeeded in conveying the outcomes of the segmentation process and the ongoing developments to the relevant stakeholders within the organisation. This has laid a solid foundation for the continuous implementation efforts and significantly reduces the risk of internal resistance of change.

At this stage, the sole concrete evidence of an implementation activity is a Power BI report, an operationalizing tool developed as part of this research to lay the groundwork and support the forthcoming implementation process. Due to today's data-driven business environment, the case company recognized the importance of keeping customer segments and value profiles simple and effectively communicating them to stakeholders. Insights from interviews and literature have highlighted that overly complex segmentation models can hinder practical implementation. During case company's internal workshops participants mentioned a clear and not overly complicated segmentation model as a 'must have' for the customer segmentation work. Simplicity was also emphasized in external interviews, as half of the interviewed companies mentioned keeping it simple as a piece of advice for customer segmentation. In response to these insights, a Power BI report was developed for the case company to centralize and visualize key customer segmentation data.

The report consolidates important data into a single, accessible location. By integrating data both from the case company's CRM and ERP, it provides a holistic view of the customer segments and value profiles, eliminating the need to navigate through different systems and reports. The report also offers dynamic visualizations, making it efficient to communicate the segments and profiles to both old and new employees, and to display segment-specific data. The report includes data related to business performance, operational profile, pipeline, technology, and services. In addition to these stakeholder-specific pages, the first page of the report provides an overview of the performance of each segment and profile over the years, using a unit pertinent to the industry. This page allows users to quickly identify which customer segments and value profiles are most frequently served by the case company and observe how this has evolved over time.

The business performance page includes both general and segment-specific data on sales and margins over the years. With the visuals on this page the user can get a quick view of which segments and profiles sell the most and have the best margins, and how the values have developed over the years. Additionally, the page includes a visual representation of overall sales and margins, allowing users to filter the data by specific years

or regions for more flexible analysis. Figure 15 illustrates examples of two visuals in the business performance page.

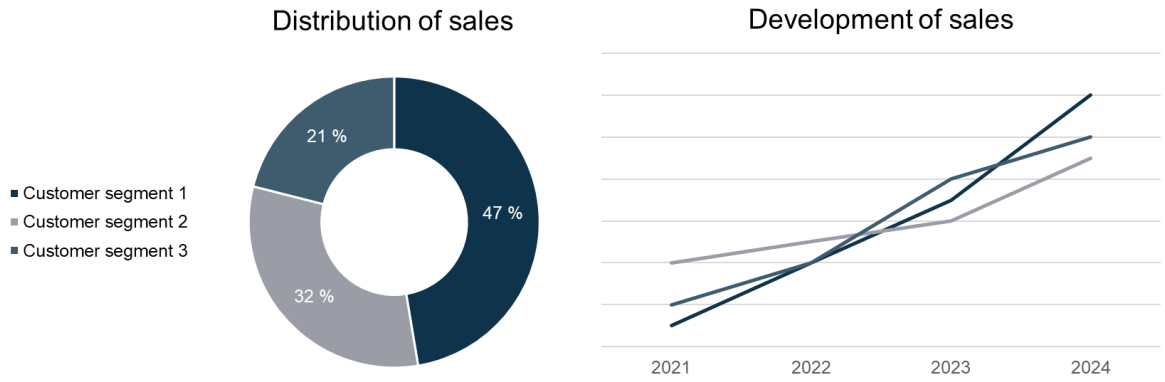

Figure 15: Example visuals adapted from the case company's Power BI report

Illustrating the correlation between product sales volume and the intensity of product usage by customers, the operational profile page provides segment-specific data that allows users to observe trends in product usage relative to sales over the years. The technology page visualizes the sales popularity of various product types, segmented to facilitate easy comparison of dominant products within each segment and profile. Users can also view this data over time to identify trends and observe if certain product types have experienced growth in specific segments or profiles in recent years.

Visualizing data on the number of customers with service agreements, such as maintenance the service page presents information on a segment-specific basis, allowing users to easily identify which segments and profiles excel in securing service agreements. This detailed view helps in understanding the performance of different segments and profiles in terms of service contract acquisition. Additionally, the page includes details on the types of agreements made, distinguishing between transactional-based agreements and larger contracts.

The pipeline page displays the number of deals anticipated to be sold in the near future, along with the associated service agreements. This data allows users to identify which segments and profiles are expecting the highest number of deals and assess their success in securing service agreements. Additionally, the page provides the expected monetary value of the pipeline, offering a comprehensive view of upcoming opportunities.

The report supports the prioritized use cases the case company established for the customer segmentation work. As a support for strategic decision-making, the report serves as a valuable starting point and acts as a justifier to strategic decisions. The report also helps identify key segments that drive the most value, allowing for targeted investments

and resource allocation that align with long-term strategic goals. The objective to set nuanced strategic focus is also supported by the report, since it makes all the created customer segments equally visible and contributes to making the new segments become familiar, thereby ensuring their utilization and integration into discussions. The report can be utilized for technology roadmap development, since it indicates which products are gaining traction and which products are losing their share in each segment. The combination of this data with product usage data allows for prioritized R&D efforts and innovation initiatives that cater to evolving customer needs. The case company wanted a better alignment with customer value driven technology and services. The report supports this objective by allowing the examination of service data through technological parameters, such as product types, and vice versa. Typically, technology and service data are treated separately in the case company, but the report enables an unified analysis. This approach helps identify clearer connections between product types, usage patterns, and the quantity or scope of service agreements. The report makes it easier to utilize segment-specific data as it is already presented in an easily understandable and visual form. This will hopefully lead to the use of visuals in a way that brings customer segments and value profiles closer to the senior leaders.

Another prioritized use case for the customer segmentation work is market development and marketing. By providing a comprehensive view of customer segments and value profiles, the report helps identify which segments are growing and which ones have the potential for further development. For instance, if a specific product type is gaining popularity in a new segment, the company can develop targeted marketing campaigns to further penetrate that segment. The report can also reveal the popularity of specific maintenance agreements within certain segments, enabling the company to confidently promote similar agreements in new markets. Examining the pipeline, if a significant number of deals are anticipated in a new geographic area, the company can strategically allocate resources to facilitate market entry and growth in that region. By understanding which segments are most frequently served and how their needs have evolved, marketing strategies can be tailored to target high-potential segments with precision. This data-driven approach supports the development of campaigns that resonate with specific customer groups, driving engagement and conversion.

Frontline sales and sales support is another important use case for the customer segmentation work. By providing detailed data on customer segments and value profiles, the report helps sales teams understand not just who their customers are, but also how they operate and use the products. This deeper understanding allows for more personalized and effective sales strategies. The report highlights which segments and value

profiles generate the most revenue and have the best margins. Sales teams can focus their efforts on these high-value opportunities to maximize their impact and efficiency. Insights into product usage trends and sales popularity help sales teams identify which products are most valued by different segments and profiles. This allows them to recommend the right products to the right customers, enhancing customer satisfaction and sales success. By showing which segments and profiles excel in securing service agreements, the report helps sales teams understand the types of agreements that are most appealing to different customers. This can guide them in negotiating and closing service contracts more effectively. The pipeline page provides data on upcoming opportunities, allowing the sales teams to prioritize their efforts on the most promising ones and manage their pipeline strategically.

The report supports the company in service offering development by highlighting trends in service agreement acquisition, helping to recognize which types of agreements (transactional-based or larger contracts) are more popular. This information can guide the development of new service offerings or the enhancement of existing ones. Currently, there is no readily accessible information on the types of customers who typically enter into service agreements. However, the report now provides this data on a segment-specific basis. This enables the case company to investigate the underlying reasons why certain customer types engage in more service agreements than others and identify which customers are more likely to secure larger contracts. All the corresponding benefits of the report to each use case are summarized in Table 10.

Table 10: Case company's prioritized use cases and the corresponding functionality of a created Power BI report

Prioritized use case	Report functionality
Strategic decision making	• Acts as a starting point and a justifier for strategic decisions • Identifies key segments driving the most value • Supports targeted investments and resource allocation
Nuanced strategic focus	• Makes all customer segments equally visible • Contributes to familiarizing new segments • Ensures utilization and integration of new segments into discussions
Technology roadmap development	• Indicates products gaining or losing traction in each segment • Combines product usage data for prioritized R&D efforts • Supports innovation initiatives catering to evolving customer needs
Customer value driven technology + service alignment	• Enables unified analysis of technology and service data • Examines service data through technological parameters

	• Identifies connections between product types, usage patterns, and service agreements
Building senior level customer understanding	• Presents segment-specific data in an easily understandable and visual form • Brings customer segments and value profiles closer to senior leaders
Market development and marketing	• Identifies growing segments and potential for further development • Supports targeted marketing campaigns for specific product types • Reveals popularity of maintenance agreements within segments • Facilitates strategic resource allocation for market entry and growth • Tailors marketing strategies to high-potential segments
Frontline sales and sales support	• Enhances personalized and effective sales strategies • Highlights high-value opportunities for revenue and margin generation • Identifies valued products by different segments and profiles • Guides negotiation and closing of service contracts • Prioritizes efforts on promising opportunities using pipeline data
Service offering development	• Guides development of new or enhanced service offerings • Investigates reasons behind customer engagement in service agreements • Identifies customers likely to secure larger contracts

In summary, the Power BI report is a powerful tool that centralizes critical data, provides insightful visualizations, supports strategic decision-making, focuses on recent trends, and enhances user familiarity with the customer segments. Its implementation represents a significant step forward in optimizing customer relationship management and driving business growth. To ensure relevance and focus on the latest trends, the report exclusively considers data from 2020 onwards. This approach allows stakeholders to concentrate on recent developments and emerging patterns, enhancing the accuracy and applicability of the insights derived from the report.

4.2 Challenges in customer segmentation

The external interviews identified a total of 14 types of challenges, which can be divided into three sets of challenges. The first set includes phenomena that complicate the concrete grouping of customers. The second set consists of challenges related to knowledge and data, such as data limitations, updating, or reliability. The third set encompasses challenges that indicate a lack of internal appreciation; segmentation is difficult to perform if it is not valued or supported within the organization.

Grouping challenges refer to concrete issues that make it difficult to segment customers. One company shares a challenge with **unclear customer** roles and highlights the issue

when one customer can belong to multiple target groups simultaneously, which makes it harder to segment and can lead to conflicting marketing (C3). Another company highlights the challenge of segmenting customers while managing the transitions between different business lines and ensuring a seamless customer experience across the equipment's long operational life (C1). One company notes challenges when a customer operates in multiple industries and their involvement in the industry served by the company is unclear, but they do not view this as a significant challenge (C7). Another company mentions a situation where a customer can be, for example, their competitor or another stakeholder simultaneously, which makes it hard to assign a specific role to the customer (C2).

> *"…our customer may also be our competitor in some other country, or it may be a producer in which case the roles get so nicely mixed up."* (C2)

Companies C2, C5, and C8 share the challenge of dealing with the **complexity of customer needs**. One company describes customer segmentation challenging because different industries have vastly different requirements. These varying needs and capabilities make it difficult to apply segmentation strategies effectively. Moreover, the challenge with industry-specific needs goes both ways, since it can also affect the way businesses engage with customers. (C2) Within the company, the same customer can be prioritized in different ways, which becomes a challenge if internal business units are collaborating and one believes the customer should be prioritized while the other does not (C5). Industry-specific differences in purchasing behaviour are also highlighted. One company mentions a situation where customers in certain industries prefer to have a consultant to support their purchase, while others do not utilize consultants at all. Some industries typically buy by dividing the project into smaller parts and making purchases from different suppliers. In contrast, other industries prefer to buy a complete package from a single supplier all at once. Industry differences are also evident in the fact that seminars, trade shows, and other customer events in each field are very different. This makes it challenging to make the company visible in a way that appropriately addresses each segment in the given context. (C8)

> *"Well there may be a problem that our businesses are very different, so what is important for one business may not be an important customer for another business, so they prioritise customers differently."* (C5)

> *"Of course, we want to make our company visible to customers at various seminars and trade fairs, so these are completely different events for different segments."* (C8)

Individual companies raised other various grouping challenges related to their own way of doing segmentation. One explains how the initial segments may become irrelevant as **market evolves**, making it challenging to adapt and keep the segments and the offering relevant (C7).

> *"We have seen or, you know looked at a segment in a certain way and then time changes... and then we all of a sudden need to reach other people or other companies within those segments, so to speak... so trying to, you know, adapt maybe the view of the segment with time and also depending on the offer."* (C7)

Another company has faced a challenge with **setting the segmentation focus**. This company talks about how customers can be segmented based on a wide variety of criteria. The challenge is that with this wide range of criteria, segments could be formed in many ways, but it is necessary to find the most relevant way to segment from the company's perspective. (C3)

> *"We have quite a few criteria of sorts which we usually synthesize to form certain segments ... We usually then have to think about what type of segment we focus on at a given time."* (C3)

People also may have **different objectives for customer segmentation**. For example, the ideal outcome for the marketing side might be descriptive segment names that could be used as part of marketing efforts. At the same time, other groups within the organization might want to use segmentation for purposes such as sales development or prioritization. Therefore, it is challenging to perform segmentation when it is understood differently within the company and seen as having different priorities. (C2)

In addition to grouping challenges, another identified set of challenges relates to data collection and availability when performing segmentation. Three companies mentioned the challenge with **customer insight limitations**. One company noted that operating in a significant market position requires strict adherence to competition laws and compliance regulations, which limits the ability to deeply understand customers. Companies cannot inquire about contract terms or prices with competitors, and customers are often unwilling to disclose such information as it gives them a negotiation advantage. As a result, companies must rely on internal sources to gather tacit knowledge and customer insights held by their salespeople. (C2) Another company highlighted that on the B2C side, there may be thousands of customers, whereas on the B2B side, there may be significantly fewer. In such cases, there is less customer data to leverage, and segmen-

tation relies more on internal customer knowledge. (C4) A third company shares an experience of how a small number of customers produces little data, so you must rely more on individual data when volumes are low (C6).

Customer insight limitation challenge is strongly linked to the challenge with **balancing homogeneity and personalization**, which was experienced by two companies. One company describes the difficulty of using segmentation to make assumptions and streamline the customer experience, while not making too many assumptions about the customer. This requires balancing the creation of homogeneous segments that are large and comprehensive enough to meet the needs of a broad audience while still addressing the specific needs of the majority within that segment. (C3) Another company highlights how finding the differentiating factors for segmentation is challenging when there are not many customers. Grouping customers into segments inevitably leads to some loss of information and requires compromises to be made. Balancing between homogeneity and personalization requires careful consideration to avoid losing valuable insights. (C2)

> *"… Refining the information so that you can get customer groups has been difficult when there is no such large mass (of customers) ... And then when you group customers you kind of lose the information. You always have to make compromises."* (C2)

Two companies shared their experiences with the challenge of **capturing tacit knowledge**. One company emphasized that when information is limited, every piece of knowledge becomes significant, which deepens the challenge of systematically collecting tacit knowledge in a usable form to support segmentation (C2). Another company explained that they segment customers based on employee evaluations, making it difficult to convert such assessments into reliable data for segmentation purposes. This challenge is closely tied to the **reliance on human knowledge**, where subjective assessments must be trusted despite containing assumptions. The company also noted that in the future, it would be beneficial to utilize artificial intelligence for this kind of analysis. (C6) Another data-related challenge, experienced by a data-driven company, involves **maintaining data quality**. Sellers are required to fill in multiple data fields to ensure that the data is reliable and usable for segmentation. However, this requirement can be seen as frustrating or as an extra work to the sellers. (C5)

> *"Data quality is absolutely essential — you don't do anything with the segmentation if, first, the data isn't used, and second, no one takes care to keep it in good condition."* (C5)

The final set of challenges concerns the lack of internal valuation for customer segmentation. In some cases, the **value of customer segmentation** may be difficult to justify to the organization. If a company has a small customer base, segmentation might not add value since the customers are already well-known without categorization. Companies with thousands of customers benefit from customer segmentation in a completely different way, as they cannot maintain an understanding of each individual customer. On company created a prioritization model to prioritize certain customers, but in practice the company is able to serve all customers, which raises the question of whether such a model is truly necessary. This difficulty in demonstrating the value of segmentation has led to **internal resistance**. (C4) Another company described a similar challenge, noting that as a sales-driven organization, it is hard for customer segmentation to **offer additional value to salespeople** who already have a deep understanding of their customers (C1). All the customer segmentation challenges emerged from the interviews and their occurrence are listed in Table 11 below.

Table 11: Customer segmentation challenges emerged from interviews with Nordic B2B companies

Type	Challenge	C1	C2	C3	C4	C5	C6	C7	C8	Totals
Customer grouping	Evolving market trends							X		1
	Customer specific needs complexity		X			X			X	3
	Setting segmentation focus			X						1
	Unclear customer roles	X	X	X				X		4
	Diverse objectives for segmentation		X							1
Knowledge and data	Balancing homogeneity and personalization		X	X						2
	Capturing tacit knowledge		X				X			2
	Customer insight limitations		X		X		X			3
	Maintaining data quality					X				1
	Relying on human knowledge						X			1
Internal valuation	Creating value to sales	X								1
	Internal resistance				X					1
	Perceived value of segmentation				X					1

4.3 Utilized criteria in other companies

In total of 23 criteria was mentioned during the discussions with other companies. The criteria can be divided into three categories based on their observability. The criteria can be also divided into ones affected by internal perspectives and ones based on external context. All criteria emerged from external interviews are presented in Figure 16.

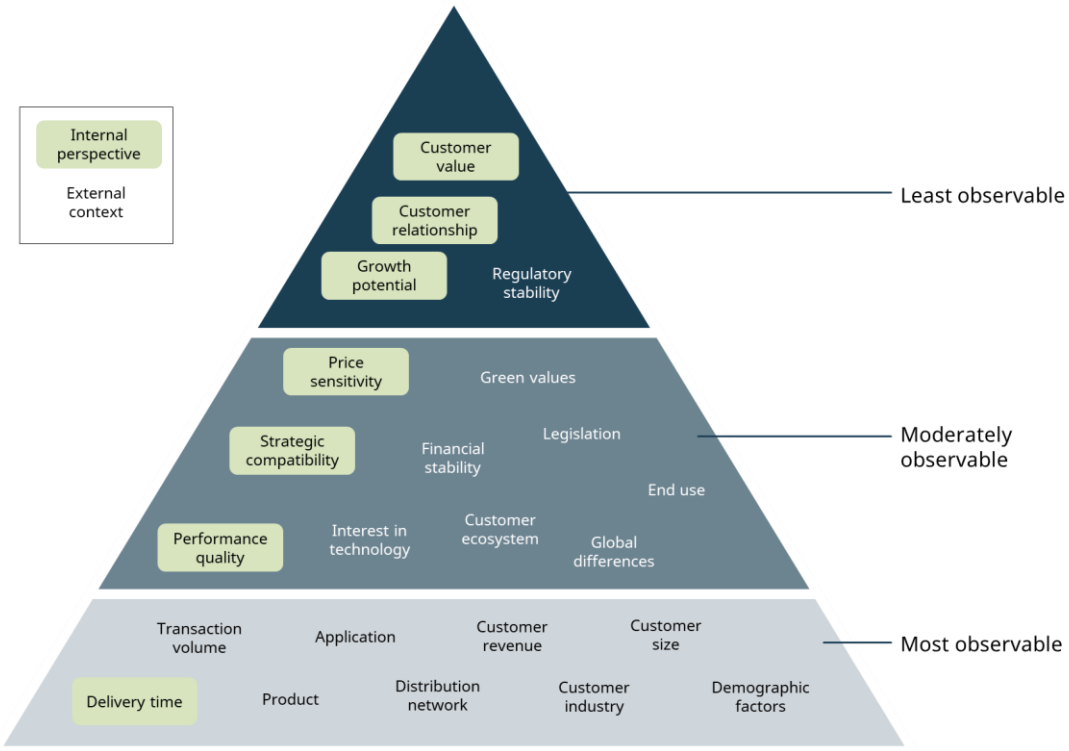

Figure 16: Customer segmentation criteria identified from external interviews

Starting from the least observable criteria, one company evaluates customers based on regulatory stability, which is hard to measure but relatively easy to determine without requiring an internal company perspective (C2). Another company segments customers based on customer value, which includes factors such as the quality of the customer relationship, sales activities, volumes, contracts, products, support, and services (C4). Two companies assess the quality of the customer relationship as part of their segmentation approach (C4 & C6). One company also considers customers' future growth potential when forming segments (C2). Customer value, relationship quality, and growth potential are all criteria influenced by an internal perspective, meaning that the same customer may be evaluated differently depending on the company's context.

Some companies consider customers' emphasis on green values and sustainability, which are moderately easy to observe (C6 & C8). One company segments customers based on industry-specific regulatory requirements (C8), while another evaluates their

customers' financial stability (C2). One company includes the end use of customer products as a segmentation criterion (C4). Additionally, some companies assess the roles and interactions within the broader customer ecosystem, including competitors and producers (C1 & C2). One company also segments customers based on their interest in technology (C6), while another highlights regional differences in customer behaviour and decision-making processes (C1). Price sensitivity is also considered as a segmentation factor (C6 & C8), and strategic compatibility is evaluated by two companies (C2 & C4). Finally, some companies segment based on performance quality requirements (C6 & C8). Price sensitivity, strategic compatibility, and performance quality are all criteria influenced by the internal perspective.

Finally, the most observable criteria include transaction volume and the breadth of business (C4 & C8). Some companies segment customers based on specific products or product lines (C7 & C8), while another evaluates the customer's distribution network and logistics capabilities (C2). One company also segments based on interest in specific applications (C7). Another company segments customers by the revenue they generate, giving priority to high-revenue accounts (C5). Industry is used as a segmentation criterion by several companies (C4, C5, C7 & C8). Company size, another observable metric, influences prioritization (C4 & C5). Additionally, as the most popular criterion, several companies segment customers geographically (C3, C4, C5, C6 & C8). One company also includes the need for quick delivery as a criterion, which, although observable, is influenced by internal perspective (C8).

4.4 Operationalizing customer segments

Various use cases emerged in the external interviews, with the most popular being *marketing*, *identifying trends and changes*, and *resource allocation and prioritization,* which were mentioned by five interviewed companies each. **Identifying changes and trends** was the most frequently mentioned use case by one company. By monitoring the development of segments, this company succeeded in identifying themes likely to have higher demand within the target audience, leading to the creation of a marketing campaign to reach those customers. (C3) Another company was also able to identify changes and themes essential to their business that industry competitors were increasingly focusing on (C1). One company explained that they used segments to analyse market and customer development, noting that without segmentation, it would be very difficult to digest such insights (C4). In strategic growth areas, understanding customer segmentation helps In maintaining market share by recognizing and adapting to the different directions

and volumes demanded by various customer groups (I3). Another company used segments to identify changes within their own business operations and to address their current state (C5). Grouping customers into segments and monitoring them also helps companies detect the emergence of new segments, as was the case for one company that identified a new potential segment and established a dedicated team to focus on its development. This allowed them to understand the segment's needs and develop tailored offerings by selecting products from various business lines to create a suitable portfolio. (C8)

> *"If you are able to analyse how the markets are developing, how the customers are evolving ... That is extremely important, and without segmentation, it's really difficult to digest."* (C4)

One company finds significant value in segments when **developing marketing strategies**, which stood out as their most important use case. Segments help identify what interests the customer, allowing marketing communications to be targeted accordingly. Profiling customers aids in approaching them effectively by highlighting the features they value. This enables personalized advertising and demonstrates that the customer is well understood, which is appreciated. (C6) Another company also emphasizes the value of segmentation for enabling relevant customer communication through better understanding (C7). One company uses high-level segments in communication, including brand building and positioning (C6). Another company has utilized customer segments to improve marketing and create marketing materials, although the volume of materials has become so extensive that distinguishing between content types is now a challenge (C1). In another case, marketing is mentioned as a use case, but more in the context of reaching the end user (C2). Another company explains that they use segments to enhance digital marketing and develop campaigns targeted at specific segments (C3).

> *"*H*aving a relevant message to them and also using the segmentation to save money because you can sort of decide which ones you want to speak to and you don't have to speak to everyone."* (C7)

> *"Specifically, it's about reaching the end user, meaning our customer's customer, through marketing and then creating demand from there. And then we have distributors whom we try to support in order to grow our brand."* (C2)

Resource allocation and prioritization was considered an important use case by multiple participants. Companies can utilize customer segmentation to effectively distribute resources, aligning them with the specific needs of different segments (I1). One company

wants to invest more in larger international customers, whose identification is made possible through segmentation. The created segments also influence the organization in terms of who are assigned as account managers. (C6) Another company explains how segmentation helps identify growing trends, which may lead to the recruitment of new experts to meet the increasing demand (C3). One company also mentioned utilizing segments and monitoring them to identify any rapidly growing segment, so they can allocate additional resources there (C7). In addition to segmentation, one company implements customer categorization, which serves as the basis for carrying out prioritization. They discussed the importance of customer prioritization for individuals who do not work closely with customers and therefore do not know them well. In such cases, categorizing customers helps identify which should be prioritized. By understanding the value categorization of customers, companies can prioritize high-value accounts, ensuring that dedicated account managers and support teams focus on nurturing relationships with these customers. (C4)

> *"So a bit like trying to steer the resources from a segment perspective, industry segment perspective like we know that this specific segment is going really well right now. So let's put our resources in there. Let's make sure that we're in business in there."* (C7)

> *"We also have support functions like planning and so on, and for those who aren't constantly interacting with the customers, segmentation is, in my opinion, even more important for them because they don't know the customers and may not know how to prioritize. For them, the customers are often just a line in an Excel sheet or a system, but then categorization immediately helps, like 'Hey, this is our big customer' or 'This is a key customer,' and so on."* (C4)

Improving customer experience was highlighted as the most important use case by one company. According to this company, segments help in designing the customer experience by identifying both the customers valuable to the company and the customers' own preferences. This can include recognizing whether customers prefer discussions and negotiations to take place on-site or remotely, or if they have a goal to actively reduce their emissions or wish to have a sustainability expert on the sales team. (C2) Another company also focuses their attention on improving customer experience. Their goal is to understand the customers so thoroughly through segmentation that the customers themselves need to know as little as possible, allowing them to serve the customers and provide the best suggestions based on the existing information. They aim to use segments to identify customer needs so that they can streamline the customer's path to the

right service and target the appropriate communication to the customer. (C3) One company also emphasizes the value of customer segments in being able to more precisely offer what the customer wants and minimize excessive over-promotion (C6). In another case, segments can help create a seamless experience when a customer is, for example, transitioning from new build to the maintenance business (C1).

> *"Our starting point and somewhat of a vision is that the customer and the end user should know as little as possible, so that we know what the customer needs and then we can give, based on the information they provide or their needs, the best possible recommendations."* (C3)

Targeting digital communication was highlighted as the most important use case by one company. They believe that understanding segments enables more targeted digital communication and the opportunity to strengthen customer relationships. This company also emphasizes that in B2B business, customers expect a similar customer experience as they do as consumers. Therefore, it is important to be able to identify the type of customer on the website and offer them targeted communication. (C1) Another company also has experiences showing that identifying customers enables more targeted communication. They aim to offer services that could be relevant to the specific segment through digital communication channels. (C3)

Improving the sales process is a use case highlighted by three companies, with one company specifically discussing the benefits of segments for salespeople. Segmentation does not necessarily benefit the approach to established customers, but when new, interesting players emerge, understanding segments helps in finding the best approach towards them. (C2) Another company mentions that customer segmentation is immediately tied to sales management. Segments break down customers, making it easier to analyse their development, which in turn supports sales. (C4) One company utilizes its own analysis or intelligence to determine what interests the customers, enabling targeted sales (C6). In general, segmentation helps companies identify what is important to each customer and what kinds of products or services should be offered to them. Segments provide one company with a structured way to engage and serve their customers without overserving them (C2).

> *"That not everyone needs everything … Sometimes, the customer might just want a very simple transaction, not any extra services or anything extra.* (C2)

Through segmentation, it is possible to identify not only the needs but also the features that certain customers do not want or need. Knowing the segments thus enables **tailor-**

ing offerings to meet customer needs. One company emphasizes the value of segments to understand what has been sold to each customer and to gain insight into what the customer needs next (C5). Companies can also utilize segments in **product development**, tailoring products to specific segments, for example, by adjusting the same product to meet the needs of different segments (C6 & I3). Another company also emphasizes the importance of product development as a use case, as in their business environment, customers expect companies to be innovative and stay at the forefront (C1).

Companies find value in customer segmentation for **customer relationship management**. Since segmentation helps to identify the most valuable customers, it enables the company to manage customer relationships in a way that ensures retaining their key customers (C3). One company states that, in addition to the usual industry classification, they categorize customers based on their purchase volume. The intensity of service provided is determined by the customer's priority category. For example, first-tier customers are assigned an executive sponsor from the management team in addition to their own account manager. Under a single customer, there may be multiple projects, each assigned its own responsible person. This also relates to the previously mentioned use case of resource allocation and prioritization. By segmenting, the company can distribute resources optimally, focusing on important customers. (C8)

Improving internal communication was one of the less frequently mentioned use cases. However, it emerged clearly as the most important use case for one company. With segmentation, the company has been able to communicate metrics related to segments, which helps in understanding the business better and identifying who the biggest and most important customers are. Segments are a communication tool, providing a common language so that everyone knows what is being discussed when referring to a specific segment by its name. (C4)

> *"For us, it's perhaps part of communication and just something that makes business easier—when you immediately understand, like, 'Hey, this is a big and important customer'."* (C4)

A communication-related use case is **reporting**, which emerged as the most important use case for another company. For them, it is important to be able to report on the current status and development of segments across all business units. (C5) Another company also utilizes segments for reporting, since they are continuously analysing each segment and providing insights for the upcoming quarter (C7). Out of all eight companies, only one reported creating **segment-specific strategies**. They develop annual plans and

strategies for their two main segments. (C8) However, the case company's other business unit also mentions creating segment-specific strategies. Each year they conduct a comprehensive review of the segments using external data sources and internal customer feedback. This analysis helps to create strategies for each segment, considering market trends, customer needs, and expected volumes. (I3) All customer segmentation use cases emerged from the interviews and their occurrence are compiled in Table 12 below.

Table 12: Customer segmentation use cases emerged from interviews with Nordic B2B companies

Use case	C1	C2	C3	C4	C5	C6	C7	C8	Number of companies
Customer relationship management				X				X	2
Improving customer experience	X	X	X			X			4
Improving internal communication				X					1
Improving sales process		X		X		X			3
Improving marketing	X	X	X			X	X		5
Product development		X				X			2
Recognizing trends and changes	X		X	X	X			X	5
Reporting					X		X		2
Resource allocation and prioritization			X	X		X	X	X	5
Segment-specific strategies								X	1
Tailoring offering to meet customer needs		X			X	X			3
Targeting digital communication	X		X						2

4.5 Advice for customer segmentation from other Nordic B2B companies

One topic of the external interviews was how would the interviewed companies advise other B2B companies do customer segmentation – what would they suggest focusing on. As introduced earlier, customer segmentation process can be divided into four stages: pre-segmentation, segmentation, implementation and monitoring. The advice

given can also be allocated under these stages, most tips falling under the segmentation phase, as illustrated in Figure 17.

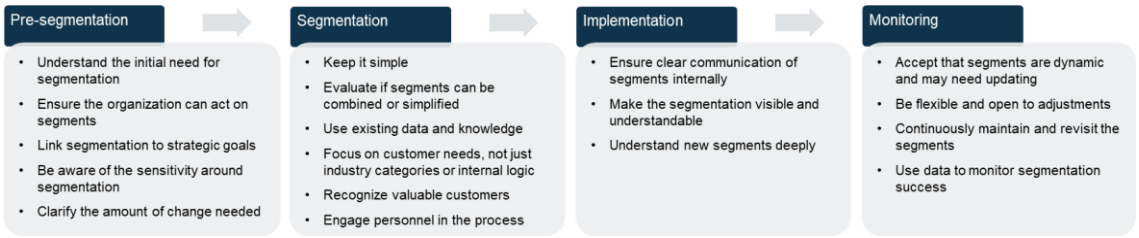

Figure 17: Advice for customer segmentation initiative

Understanding the initial need for segmentation is crucial. One company encourages giving a lot of time to comprehend what segmentation means for the company (C4). Another advises determining the driving force behind segmentation - what it aims to address and at what level segmentation is desired. Additionally, they illustrate how segmentation can prove to be unnecessary if its goal is to identify segments for more efficient engagement, but the company lacks the ability to effectively reach customers within those segments in the first place. (C3) Connecting segmentation to strategic goals is another vital step. One company suggests examining the company's strengths, revenue sources, strategy, and whether their goal is to maintain the current state or pursue growth. Following this, segments should be developed in alignment with the established strategy and goals. (C6) Before jumping into segmentation, it is also essential to understand the sensitivity of customer segmentation. One company shares an example where customer segmentation was attempted to be overhauled, causing significant disruption and emotional responses within the company. This underscores the importance of thoroughly understanding the business case and determining the optimal amount of change needed to ensure everyone is onboard and effectively utilizing the segments during implementation. (C4)

During the segmentation phase, the most frequent advice was to keep the segmentation simple (C4, C5, C6 & C8). One company emphasizes that complex segmentation can be costly and may not serve its intended purpose. They suggest evaluating whether the segments are similar enough to be combined or if there are other synergies that can simplify and reduce the number of segments, making them clearer and more manageable. (C8)

> *"So, segments should really be considered carefully, because it's easy to start creating very complicated systems, and that can be expensive and may not necessarily serve its purpose."* (C8)

Three companies mention utilizing existing knowledge and data as segmentation advice. One suggests starting with available data to identify relevant variables for segmentation and thinking about the current offering the company has (C3). Another recommends examining company strengths and revenue sources (C6), while another advises focusing on current sales volumes to identify key segments (C8).

> *"My starting point is often that what data we already have available and how can we use it to understand how to define relevant variables that actually impact customer segmentation. And then maybe think about it through the offering as well."* (C3)

Two companies highlight the importance of focusing on the customer while segmenting (C7, C1). One recommends starting with customer needs and segmenting based on these needs rather than industry segments, as similar needs can exist across different segments. They also advise focusing on the people of the customers rather than the customer organization, since the discussions are held with the people in the end. (C7) Another advises building the organization and customer relationships around what truly matters to the customer (C1).

> *“I would start with the customer needs. Trying to segment by customer needs and I would focus a bit more on the roles of the people or the persons at the customers rather than the customers themselves.”* (C7)

Recognizing valuable customers is another key aspect when grouping them. One company stresses the importance of understanding the long-term value of customer relationships and creating the segments around more valuable customers (C1). Another advises prioritizing customers based on current sales volumes and identifying the most important segments (C8). Finally, one company stresses the importance of listening to personnel when creating the segments. They advise engaging with employees to understand their needs and concerns, while maintaining simplicity and not trying to please everyone. (C5)

> *"People definitely have valid needs ... That need to be identified by talking to those people, but then you have to understand that to keep it simple, you can't please everyone."* (C5)

Implementation of the created segments tends to be more successful when they are communicated efficiently. One company advises investing energy in ensuring that the segments are visible and well-communicated within the organization (C4). Another also

highlights the cruciality of deeply understanding the created customer segments. If a company is unfamiliar with a created segment or discovers a brand-new one, they recommend considering external consultants to provide segment-specific information, including insights into what customers need and value in this segment, and to help create networks within that segment. (C8)

Monitoring and updating the segments over time is essential. One company emphasizes the need for flexibility, as segments are dynamic and require ongoing maintenance. They advise accepting that the segmentation created may not be optimal and recommend being prepared to revisit and make changes if necessary. They also point out that segments are not static and therefore require continuous maintenance. (C6) Another notes the evolving nature of business models and the need to adapt segmentation strategies accordingly (C8). Monitoring success with data is another aspect that has emerged. One company highlights the importance of using data to track whether the segmentation has been successful or not and identify room for improvement (C3).

5. DISCUSSION

This chapter compares the empirical findings with existing literature to address the research questions, with each sub-chapter focusing on a specific question. Chapter 5.1 focuses on RQ1 by comparing the case company's customer segmentation process to the process descriptions presented in the existing literature. The aim is to identify similarities and differences, thereby validating the theoretical frameworks and assessing the extent to which the case company's approach aligns with them. Chapter 5.1.1 answers RQ1a by discussing the general challenges related to customer segmentation that were identified both in the literature and through interviews. The analysis explores how closely the challenges identified in academic literature align with those encountered by the interviewed companies. These challenges are also reflected against the case company's experience, examining to what extent the case company faced similar issues and how they managed to address or overcome them. Chapter 5.1.2 addresses RQ1b by examining the potential future challenges the case company may face in customer segmentation, based on literature and empirical findings, and how the company can prepare for them. Following this, Chapter 5.2 will answer RQ2 by exploring how customer segmentation insights can be applied in practice, examining use cases from other B2B companies. Chapter 5.2.1 will give answers to RQ2a by assessing how these use cases could be applied in the case company's context and evaluate whether the case company's current framework imposes any limitations on their implementation.

5.1 RQ1: How does the case company’s customer segmentation process align with the findings in existing literature?

In Chapter 2.4, a framework from the literature review was developed to support the discussion between the case company’s customer segmentation process and the existing literature. This framework, completed by the case company’s process, related challenges and use cases are illustrated in Figure 18. As seen in the figure, the case company's process aligns quite well with the framework. A few additional steps have been added to the process, and the implementation and monitoring phases are still shown in grey, as the case company has not yet reached these stages in its own process. These phases will only become relevant later on.

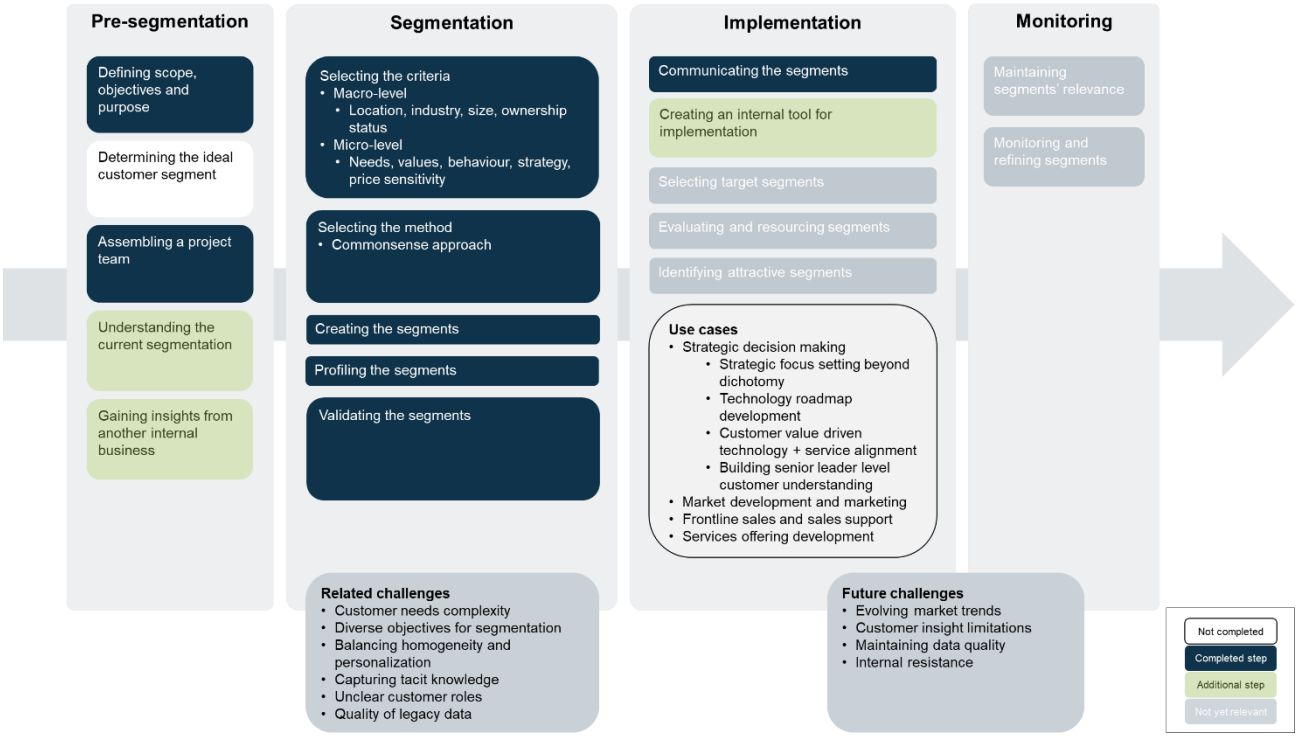

Figure 18: Customer segmentation process framework with related use cases and challenges, filled with the case company's context

The literature emphasizes that effective customer segmentation begins with thorough preparation, including clear definition of objectives, understanding the context, and assembling the right team. It is crucial to define both the purpose of segmentation and the criteria for what constitutes a customer within the company's specific environment. The case company's initiative began after recognizing the strategic importance of improved segmentation. The official project launch involved assembling a core team, as suggested in the literature. The project execution started with a focus on articulating a clear problem statement, setting objectives, and revisiting these as deeper insights were gained. These actions are very much in line with what the literature recommends for defining scope, objectives and purpose of the segmentation work. The project team did not determine a single ideal customer segment, but there was a shared understanding of the types of segments that would be desirable to establish.

While the literature often describes pre-segmentation as mainly focused on the future, such as setting goals and building teams, the case company took it a step further by adding a phase to carefully assess the current situation. This phase of *understanding the current segmentation* was an important step because of the company's past challenges and scattered data. They carefully analysed how customers were grouped in dif-

ferent systems like CRM and ERP, and found inconsistencies and unclear ways of classifying them. This review helped to make sure the new segments would be based on a realistic, data-driven view of current practices and problems, which is something the literature hints at but doesn't directly require. The second additional step was *gaining insights from another internal business unit* that has previously undertaken a segmentation initiative, identifying best practices and potential pitfalls.

The case company started to identify the potential segmenting criteria already during the pre-segmentation phase. However, at this stage the discussions about potential criteria were conducted as part of the *understanding the current segmentation* phase. The literature discussed about macro-level and micro-level segmentation criteria, while the case company divided these into segmenting criteria and customer value drivers. Table 13 presents the criteria mentioned in the case company's process, with those also emerging from the literature shown in bold.

Table 13: Case company's potential segmenting criteria and customer value drivers

Segmenting criteria	Customer value drivers
• **Customer's industry** • **Customer's ownership structure** • **Customer's product usage** • Customer's market mechanism • Customer's business model • **Customer's availability of financing**	• **Product's technical excellence** • **Product's price** • Company's sustainability • Company's operation's predictability • Company's logistics and speed of delivery • Company's reputation

As shown in the Table 14, half of the segmenting criteria discussed in the case company was also highlighted in the literature. In addition to mentions in the literature, the empirical phase showed that other companies also use the criteria of customer's industry, customer's product usage and customer's availability of financing. The literature does not address customers' market mechanisms or business models, both of which were important in the case company's approach. The customer's business model was eventually selected as the second axis in the company's value profile matrix. Regarding customer value drivers, the literature does not mention sustainability, predictability, logistics, or reputation factors. All of these were identified in the case company's internal discussions as important to their customers, suggesting that customers of other B2B companies may also consider these factors valuable. However, the literature highlights product technical

excellence and price as key customer value drivers, both of which were incorporated into the case company's final value profiles alongside sustainability.

Literature recommends seeking repeated feedback from internal stakeholders and ensuring the model remains practical and actionable rather than overly complex or abstract. Before creating the segments, the case company developed several options for their customer segmentation framework. Throughout this process, management and key stakeholders were regularly consulted to ensure that each proposed model remained clear, actionable, and sufficiently simple reflecting the literature's caution against excessive complexity. In the end, a hybrid solution was adopted that preserved the strengths of the legacy structures while integrating fresh, value-based perspectives, and this final model was validated through additional workshops and refinements. The case company also directly incorporated input from product development and aligned requirements, which further strengthened the practical focus suggested in the literature.

Literature suggests that clear communication, buy-in, and operational tools are essential for implementation. The process must not end with the analytic phase, but rather ensure the organization adopts and uses the segmentation in practice. Recognizing this, the company developed a Power BI report as an operationalization tool to support implementation and visualization of segment data. This report combines data from different systems, facilitates actionable insights, supports a range of use cases, and addresses one of the literature's key concerns: making complicated segmentation models understandable and useful for a broad internal audience. Moreover, the case company communicated the segmentation work and its outcomes throughout the organization, integrating feedback, and minimizing resistance, directly echoing the recommendations found in the literature.

As a conclusion, the case company's approach to customer segmentation closely mirrors the process framework established in the literature, while also introducing adaptations based on organizational context and lessons from previous internal attempts. The case company placed greater emphasis on understanding their existing customer segments, which is especially important for companies that have previously carried out customer segmentation efforts. They valued the existing segments and chose not to pursue a completely new segmentation approach, which will make the implementation phase smoother and help avoid internal resistance. The case company used both macro-level and micro-level criteria, creating a segmentation model that could be applied in high-level discussions while also supporting deeper conversations and strategic decision-making. The main difference compared to the literature was that the case company did not use any researched segmentation methods.

5.1.1 RQ1a: To what extent did the case company encounter common customer segmentation challenges, and how were they addressed?

The case company's segmentation process also revealed several challenges that were mentioned both in the literature and in interviews with other B2B companies. A total of 17 challenges were identified across the literature and interviews, with 6 of them occurring during the case company's own process. Table 14 presents all the identified challenges and indicates where each one took place.

Table 14: Customer segmentation challenges and their occurrence

Challenge	Literature	Other companies	The case company
Evolving market trends and changing business environment	X	X	
Fundamental B2B complexity	X	X	X
Data availability and quality	X	X	X
Internal resistance	X	X	
Perceived value of segmentation among management	X	X	
Lack of suitable methods	X		
Marketing-sales misalignment	X		
Strategic commitment	X		
Theory to practice literature gap	X		
Customer insight limitations		X	
Setting segmentation focus		X	
Unclear customer roles		X	X
Diverse objectives for segmentation		X	X
Balancing homogeneity and personalization		X	X
Capturing tacit knowledge		X	X
Relying on human knowledge		X	
Creating value to sales		X	

The case company also had to deal with **the fundamental complexity of B2B environment**. Prior to the internal interviews, the potential customer value drivers were already identified. The interviews helped to further expand this list and recognize all the factors that customers value when making purchasing decisions. The customer value drivers

included technical excellence, sustainability, price, predictability, delivery terms, and the case company's local presence and reputation. In addition to value drivers, customers could be segmented based on their own characteristics such as product usage type, market mechanism, business model, financing model, industry, or ownership structure. The challenge for the case company was to narrow down the most important segmentation criteria on which to base the segments, while customers seemed to have different and complex needs. This challenge was overcome by prioritizing segmentation criteria and iterating the two most important parameters into the framework. The remaining identified value drivers were incorporated when building the value profiles.

As mentioned in the literature, the case company also faced the challenge with **legacy data**. The customer segmentation effort was complicated by fragmented data, as different terms were used for customer groups across various platforms over time. On some platforms, customers were grouped in ways unfamiliar to others, while on other platforms, the same customer was grouped based on entirely different criteria. This made it difficult to derive clear guidance from the data about the types of customers and whether distinct major customer groups could be identified. As part of the segmentation process, the legacy data from five years was mapped to fit it into the new data fields.

Like half of the interviewed companies, the case company also faced the challenge of **unclear customer roles**. Specifically, the case company struggled to define what constitutes a customer. In their context, a customer could be seen at various levels, from direct customers to end users. This ambiguity needed to be addressed when discussing customer segments, clarifying who they refer to with the term *customer*.

The challenge with **diverse objectives for customer segmentation** was also present in the case company. Some wanted segmentation to support strategic long-range planning, others wanted it to assist in prioritizing segments to better resource allocation. Some wished to comprehend which products work for which segments and how should the products be developed in the future, while others desired to understand the customer's business cases better. There were also those who wanted to increase understanding of how to succeed in each segment and how to approach each segment's customers. Many desired use cases were also mentioned related to sales and marketing such as developing segment-specific sales and pricing strategies, improving marketing materials, creating segment-specific value propositions, conducting market development and creating effective and targeted messages to each segment. So, there were numerous objectives that people wanted the segmentation to achieve. Prioritizing use cases was crucial to addressing this challenge.

The challenge of **balancing homogeneity and personalization** was evident when the case company developed the three initial segmentation options. The first was too simple and homogeneous, meaning it would not provide added value to the company on its own. The third option was overly personalized, considering many micro-variables, making it difficult to create clear segments with distinct common characteristics among customers. Additionally, it was already discovered that literature does not provide segmentation methods that account for both micro and macro variables. If ready-made methods suitable for the case company's needs had been available, the company might not have needed to invest as much time and resources in developing a completely custom approach. This challenge was faced by choosing a combination of the first two options, maintaining clear segments while also adding value through a value profile framework.

The case company began building customer value profiles by having the project team interview experts who were well-acquainted with individual projects. This approach helped gather information on which value drivers were associated with each value profile. The challenge at this stage was identifying whom to interview and how to **capture the tacit knowledge** obtained into meaningful data. Simply knowing that price was important for every project would not provide significant added value, as it would not differentiate the projects from one another. Therefore, a rating system was developed where interviewees rated the value drivers for each project from most important to least important. This helped create a better understanding of which factors influenced customers the most in different projects. Table 15 concludes all realized challenges in the case company's process, and how they were addressed.

Table 15: Case company's realized customer segmentation challenges and how they were resolved

Past challenge	Description		How was it resolved
Customer needs complexity	Customers have unique needs depending on industry, product usage and culture	→	Prioritizing the criteria
Diverse objectives for segmentation	Multiple desired use cases identified for segmentation	→	Prioritizing use cases
Balancing homogeneity and personalization	Segmentation option 1 too general and option 3 too novel	→	Selecting the combination of options 1 and 2

Capturing tacit knowledge	Information to create value profiles hard to get and to convert to data	→	Interviewing people from different areas and creating the rating system
Unclear customer roles	Customers can be seen on several levels (direct customer vs. end user)	→	No solution
Quality of legacy data	Fragmented and inconsistent legacy data	→	Simplifying legacy data to fit new customer segment and value profile data fields

5.1.2 RQ1b: What challenges might arise in the future of the customer segmentation process, and how can the case company prepare to mitigate them?

In addition to recognized past challenges, there are also challenges that the case company may face in the future. These challenges were discussed together with the case company's core team, to identify ways to eliminate them. All these potential future challenges and the ways to mitigate them are presented in Table 16.

Table 16: Case company's potential future customer segmentation challenges and how they can be resolved

Future challenge	Description		How the case company can resolve it
Evolving market trends	Emergence of new attractive segments	→	Agreeing on periodic monitoring rounds
Customer insight limitations	Drawing conclusions from a small amount of information	→	A sufficiently large sample, direct conversations with customers
Maintaining data quality	How to ensure that segment data is entered into CRM with high quality	→	Data ownerships, support material to understand the value profiles
Internal resistance	Questioning and distrust of change	→	Providing a storyline of the process and hosting workshops and discussions

Recently, the case company identified a new growing industry that they aim to serve in the future. This rapidly emerging industry was also selected as one of the sub-segments under the main customer segments. This example demonstrates that similar situations with **evolving market trends** may arise in the future. Therefore, it is important for the case company to periodically monitor its segments to identify potential new segments and validate the relevance of existing ones. Additionally, it would be beneficial to maintain a flexible CRM system to accommodate new data fields for future segments or sub-segments.

When creating value profiles, the case company may encounter challenges due to **limitations in customer insights**. To support the creation of these profiles, the project team interviewed multiple experts who can provide information on the value drivers of individual projects. However, the data collected for profile creation is limited, requiring the case company to rely on a relatively small amount of information to draw conclusions. This could be solved by directly discussing with the customers or expanding the number of projects to be investigated.

The most significant future challenge for the case company is likely to be **maintaining data quality**. The case company adds data fields for customer segments, sub-segments and value profiles to the CRM system. These fields are mandatory for users, with options provided in a picklist to ensure that fields are filled out and users select from predefined values rather than creating new ones. However, it may be challenging to ensure that CRM users select the correct value from the picklist. Choosing customer segments and sub-segments may be easier, but selecting the right value profile can be uncertain. It is crucial to ensure that individuals filling out these data fields are familiar with the value profiles so they can accurately identify which profile the project belongs to. It would be also beneficial to dedicate an owner for this data.

The final potential future challenge is **internal resistance**. As noted in the literature, it is common for organizations to experience resistance to change. When new customer segments are integrated, there may be numerous questions about why certain decisions were made and suggestions that alternative approaches would have been better. It is important for the project team to be prepared for such situations. The project team should provide a description of the entire process, including the starting point, the rationale behind decisions, the final outcome, and the steps taken to reach it. This approach helps justify the current state and explain why segmentation was not done differently.

5.2 RQ2: How can insights from customer segmentation process be operationalized?

The use cases mentioned in the literature closely resemble those described by the other companies regarding their customer segmentation practices. The only notable differences were that the literature emphasized how segmentation enables the development of segment-specific **pricing strategies**, which the other companies did not mention. On the other hand, the interviewed companies highlighted that customer segments are often used when **reporting** company data, allowing information to be shown by segment, which is something the literature did not cover. Several companies highlight **sales process improvement** as a key use case for customer segmentation, while literature does not mention about it. Additionally, companies mentioned that customer segmentation supports **targeted digital communication**. While this was not directly mentioned in the literature, it closely aligns with the use cases of segment-specific strategies and marketing. Table 17 lists all the use cases and their occurrence.

Table 17: Customer segmentation use cases and their occurrence

Use case	Literature	Other companies
Pricing	X	
Segment-specific strategies	X	X
Resource allocation	X	X
High-value customer prioritization	X	X
Customer management	X	X
Improving customer experience	X	X
Improving internal communication	X	X
Marketing	X	X
Offering development	X	X
Recognizing trends and changes	X	X
Improving sales process		X
Reporting		X
Targeting digital communication		X

The literature consistently highlights customer segmentation as an essential tool for supporting strategic decisions. It enables organizations to set strategic focus, allocate resources wisely, identify competitive advantages, and prioritize high-value customers for targeted growth and investment. Even though **segment-specific strategies** were mentioned during the external interviews, it was mentioned only by one external company and the case company's other business unit.

Both the literature and other companies agree that customer segmentation enables **targeted resource use**. Literature highlights that segmentation helps companies allocate resources to high-value customers, leading to higher profitability. Other companies use segmentation to invest more in certain customer types and to guide decisions like hiring needs. Companies stress the importance of segmentation for employees who lack direct customer interaction, helping them prioritize correctly. The literature does not address this internal communication aspect.

Literature emphasizes **identifying high-value customers** as the core benefit of segmentation, tied to competitive advantage and profitability. Both literature and interviewed companies agree that knowing the customer value drivers, companies can develop better offerings and cater to their needs more effectively, leading to an **enhanced customer experience**. Some of the interviewed companies complete this with a practical example, saying that prioritization enable investing more in large or strategically important customers. This identification can also lead to better **customer management**, which is a valuable use case according to both literature and other companies. Other companies emphasize how identifying the most valuable customers, companies can put more effort into creating a good relationship with them. Literature also highlights the possibility of building strong, long-term relationships with valuable customers.

One of the interviewed companies highlighted **improving internal communication** as their most important use case. According to this company, segmentation provides common language and enables communicating segment-specific metrics, which helps in understanding the business better. Literature creates a connection between improving internal communication and accelerating company growth. Customer segmentation enables clarifying the vision and message of the company, leading to business improvements.

Customer segmentation is widely used by companies to enhance **marketing strategies**. Customer segments can be used to tailor marketing communications, personalize advertising, and support brand building and positioning. Literature emphasizes the importance of value propositions in marketing. Literature advocates that a single value

proposition limits market reach, suggesting creating segment-specific value propositions and marketing plans.

Product development, product differentiation and tailoring offerings to meet customer needs are all use cases that go hand in hand, and in this synthesis, they are combined into a use case called ***offering development***. Literature presents a more comprehensive view of how segmentation enhances both product and service differentiation. Other companies offer real-world examples of how companies apply segmentation to customize products and offerings in response to customer expectations.

Lastly, both literature and other companies argued that customer segmentation insights help **recognizing trends and change**. Literature highlights the power of customer segmentation in discovering new growth opportunities. In the interviews, this use case was the most mentioned one. Companies use segmentation to identify important trends and spot emerging ones. They highlight how segmentation aids in analysing market and customer development, which would be difficult without it. Ultimately, one company identified new segments by monitoring their current ones.

As a conclusion, most of the use cases that appear in real companies' segmentation were also mentioned in the literature, validating its relevance. The biggest differences in the aligned use cases were segment-specific strategies and recognizing trends and changes. The former was heavily emphasized in the literature, while it was not as prominent in the interviews. On the other hand, recognizing trends and changes was a major focus in the interviews but was less emphasized in the literature. In addition to these differences, the literature presented one use case not found in practice, while three use cases emerged from the practical interviews that were not discussed in the literature.

5.2.1 RQ2a: How can the case company apply operationalization practices considering its current segmentation framework?

The case company created their own framework to meet their customer segmentation needs, illustrated in Figure 14. The framework consists of two components, the industry verticals and sub-segments, and value profiles. Both parts have their own benefits and limitations, and are suitable for different purposes. Figure 19 presents all customer segmentation use cases identified through literature and the empirical phase. The use cases are grouped based on which part of the case company’s framework is most appropriate to apply in each case. The middle column labelled ‘Both,’ includes use cases that are

applicable across both components of the framework. However, this division is not absolute, and the relevance of each use case to the case company is discussed in more detail below the figure. As seen in the figure, most use cases allocate under value profiles. This suggests that the creation of value profiles was a major success, as they provide the greatest practical benefit when aiming to put customer segmentation results into real use.

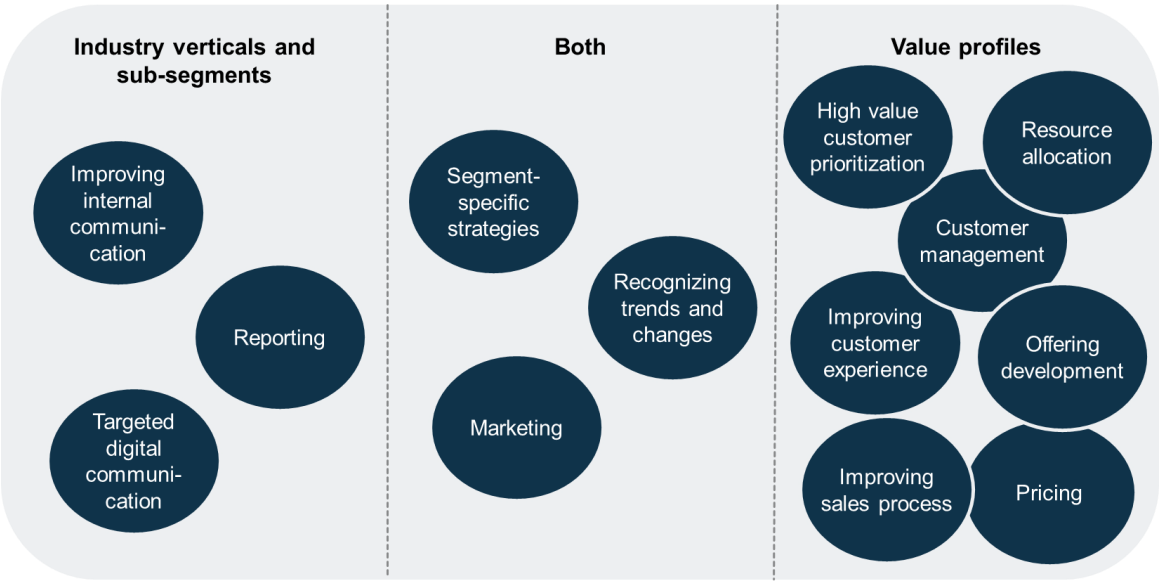

Figure 19: Utilizing the components of the case company's framework across different use cases

The case company can easily utilize their industry verticals and sub-segments for better **internal communication** by stabilizing the customer segments that were already familiar. The clear segments will facilitate consistent communication and help in understanding the business better and identifying easily where the business mostly comes from. This use case also supports the case company's goal with customer segmentation to build a clear structure and common language to talk about customers. It is possible that the value profiles will also become a common language, but it requires much more effort since the profiles are more complex and brand new in the organization. **Reporting** is another use case that aligns well with industry-based segmentation. As the case company begins collecting segment-specific data, this approach enables clearer and more efficient reporting for both internal and external purposes. While data is also gathered for individual value profiles, it is not primarily intended for reporting. Reporting is already an established practice within the case company and is reflected in its existing Power BI report. To some extent, segmentation can enhance the case company's **targeted digital**

communication. However, this largely depends on how digital communication is currently managed and whether there is a need to tailor it more specifically to different segments. In general, the use cases that are most naturally implemented through industry-based segmentation tend to rely on the clarity and simplicity of categorizing customers into distinct groups. These use cases do not delve deeply into customer-specific insights. Interestingly, only these three particular use cases were not highlighted in the literature, which suggests that academic sources tend to emphasize use cases that focus more on customer value drivers or overall customer value.

Value profiles are a powerful tool for recognizing the potential value that customers within each profile can offer to the case company. By analysing the potential value, the case company can identify and **prioritize the high-value customers**. Identifying high-value customers allows for more efficient **resource allocation**, as the case company can focus its efforts on prioritizing their needs. The case company can also apply its understanding of key customers to **customer management** by focusing on retaining high-value customers and building long-term, sustainable relationships with those identified as strategically important.

In addition to recognizing the valuable customers, value profiles are a great tool to identify the customer value drivers. By understanding what customers in each value profile value, the case company can tailor its approach to better meet their needs, ultimately **improving the customer experience**. Being familiar with the customer value drivers also supports **offering development**. In the prioritized use cases the case company has *technology roadmap development* and *services offering development*. In the future, the case company can implement the customer value drivers closer to their product and services offering development, and tailor their offerings to specific value profiles. Ultimately, the case company is able to develop targeted product bundles and product-service packages, which aligns with their desire to create customer value driven technology + service alignment. **Improving the sales process** is also a potential use case for the case company, and it aligns with case company's goal for customer segmentation to support sales. If a new interesting customer emerges, they can more easily understand its needs by setting it to the value profile matrix. Thus, the salespeople can find a suitable way to approach the customer. However, it might be challenging to set the customer into the matrix that early. Finally, the case company can apply **targeted pricing** by utilizing value profiles. By identifying the key value drivers for each profile, they can tailor pricing to reflect customers' willingness to pay for the aspects they value the most. The industrial breakdown does not support the creation of a segment-specific pricing strategy.

Use cases that are relevant to both components of the framework include segment-specific strategies, recognizing trends and changes, marketing and customer management. The case company is capable of developing **segment-specific strategies** for industries, sub-segments, and value profiles. Strategies at the industry level can remain more high-level, while sub-segments allow the company to design more focused approaches for efficiently serving the most attractive groups. Additionally, value profiles enable targeted strategies, as the case company can identify which profiles they wish to focus on and tailor their efforts accordingly. The case company's framework enables the **identification of changes and trends**. However, this requires continuous monitoring and refinement of their segments over time, as well as tracking how customers move within the value profile matrix. At its best, the matrix allows the case company to detect emerging shifts in how customers use their products or changes in business models, and to respond accordingly. In the case company's context, the **marketing** use case could involve developing value propositions tailored to specific segments and value profiles, as this was one of the stated objectives of their segmentation efforts. These value propositions can also serve as the foundation for creating value profile-specific sales materials. Crafting effective value propositions requires insights from the value profiles, which reveal what different customer groups truly need and value. On the other hand, industry segments support marketing by enabling more effective brand building and market positioning, providing a broader context for aligning the company’s messaging with industry-specific expectations and trends.

6. CONCLUSIONS

This chapter begins by presenting the key theoretical and empirical findings and providing answers to each research question. Following this, Chapter 6.2 discusses the theoretical contributions of this research. Chapter 6.3 explores the suggestions this research offers to other B2B companies to support customer segmentation. Chapter 6.4 analyses the research trustworthiness by evaluating the quality and reliability of the research. Finally, Chapter 6.5 presents proposals for future research within the customer segmentation field.

6.1 Key findings

The objective of this research was to bridge the gap between customer segmentation literature and real-world practices in B2B environments. To achieve this goal, a comprehensive literature review on customer segmentation was conducted, which served as the basis for creating a framework, as shown in Figure 10. To help achieve the goal, the case company's customer segmentation process was observed and analysed, and interviews were conducted with other B2B companies regarding their customer segmentation practices. The aim was to investigate how customer segmentation is applied in practice within the case company, compare it to existing literature, and explore practical methods for implementing and operationalizing the results of segmentation.

In academic literature customer segmentation has become a well-established concept, focusing on grouping customers based on shared characteristics that influence their purchasing behaviour, product usage, preferences, needs and values. (Bo et al., 2019; Kotler & Armstrong, 2006, cited in Tang & Mantrala, 2024). The goal of the customer segmentation process is to reduce variations within segments while maximizing differences between them (Thomas, 2016, cited in Cortez et al., 2024).

Customer segmentation boosts business performance by revealing growth opportunities and helping companies connect with core customers (Weinstein, 2014; Simkin, 2008). It enables targeted strategies, improves pricing, and identifies high-value customers for better relationship-building and resource allocation (Liozu & Richardson, 2019; Balci & Cetin, 2017). Segmentation also informs marketing, enhances product differentiation, and supports the development of services that meet specific customer needs (Chongwatpool & Kanchanapoom, 2021; Bo et al., 2019).

B2B segmentation is complex due to long sales cycles, multiple decision-makers, and shifting customer needs (Cortez et al., 2021). Rapid market changes, poor data quality, and limited customer insights further challenge its accuracy (Brotspies & Weinstein, 2019; Dibb & Simkin, 2009). Internal resistance, lack of stakeholder support, and weak implementation often hinder success (Aiken et al., 1995). Finally, there is a lack of suitable, actionable methods and practical guidance for translating segmentation analysis into real business outcomes (Powers & Sterling, 2008).

The customer segmentation process consists of pre-segmentation, segmentation, implementation, and monitoring phases. The pre-segmentation phase defines purpose of segmentation and ensures alignment with business objectives (Foedermayr & Diamantopoulos, 2008; Cortez et al., 2021). During segmentation phase, companies select segmentation criteria, including macro-variables like location and industry, and micro-variables such as customer needs and behaviours (Diamantopoulos & Foedermayr, 2008; Clarke et al., 2025). Effective segmentation minimizes internal variation and maximizes differences between segments (Thomas, 2016). Once segments are defined, implementation involves incorporating them into business strategies and selecting target segments based on factors like size and resources (Dibb & Simkin, 2009). Monitoring and adjusting the segmentation over time ensures ongoing relevance and effectiveness (Christen & Schlager, 2022).

The first research question focused on how closely the case company's customer segmentation process resembled the process presented in the literature. After the comparison, it can be concluded that he case company's customer segmentation process mostly follows the approach suggested in the literature, with some unique adjustments to fit its specific needs and past experiences. They started by setting clear objectives, understanding its situation, and forming the right team, as recommended in the literature. They also followed the advice to define goals clearly and review them during the process. However, the case company added an extra step to look at its existing customer segments, find issues with customer data, and figure out where improvements were needed. The case company’s segmentation criteria were similar to those in the literature but included additional factors like market mechanisms and business models. They used both broad and detailed criteria, focusing on value drivers like product quality, price, sustainability, and delivery, which were identified in internal discussions. However, the case company did not utilize any segmentation methods presented in the literature. The case company followed literature advice by getting input from key stakeholders and ensuring the segmentation framework was clear and practical. They created a Power BI report to help visualize and use the segmentation data, making the model easier for everyone to

understand. The case company communicated the process clearly to avoid resistance within the organization.

The sub-questions of the first research question were related to how much the case company encountered the challenges identified in the literature and empirical phase, how they overcame these challenges, what challenges can be expected in the future, and how to address them. The case company faced challenges such as dealing with the complexity of B2B markets, inconsistent customer data, and unclear definitions of customer roles. To solve these issues, they prioritized important criteria, cleaned up its data, and improved communication. They also had difficulty balancing broad and detailed segmentation, which was solved by creating a hybrid model that was both clear and useful. The case company also expects a few future challenges, including changes in the market, limited customer insights, keeping data quality high, and possible resistance to change. To address these, they plan to monitor the market regularly, gather more customer feedback directly, ensure data is entered correctly into the CRM system, and explain the segmentation decisions clearly to reduce internal pushback.

The second research question focused on how customer segmentation insights can be operationalized, specifically exploring the potential use cases for the segments. The use cases found in the literature are generally consistent with those in practice, though there are a few differences. The literature emphasizes segment-specific pricing strategies, which was not mentioned by the interviewed companies. On the other hand, companies highlighted reporting and sales process improvements, which were not covered in the literature. Both literature and companies agree that segmentation supports resource allocation, identifying high-value customers, improving customer management, and enhancing internal communication. Segmentation also aids in marketing, product development, recognizing trends, and improving the customer experience. While the literature focuses on value propositions and segmentation for product differentiation, companies apply segmentation more to customize products. Both agree that segmentation helps recognize emerging trends and growth opportunities. The main differences between the literature and real-world practice include the emphasis on segment-specific strategies in literature and the focus on recognizing trends in practice.

The sub-question of the second research question focused on how the case company could benefit from the use cases identified in the literature and the interviews. The case company developed a framework for customer segmentation consisting of industry verticals and sub-segments, and value profiles. Most use cases identified align with value profiles, showing their key role in customer segmentation. Industry verticals help with internal communication and reporting, while value profiles enable prioritizing high-value

customers and tailoring products, services, and pricing. Both components support segment-specific strategies, trend recognition, and marketing. Overall, value profiles provide the greatest practical benefit for applying segmentation insights.

6.2 Theoretical contributions

Customer segmentation is a deeply embedded concept in marketing and strategy literature, originating in the 1950s and maturing into a foundational strategic tool (Clarke et al., 2024). It is widely accepted to enhance marketing effectiveness, resource allocation, customer-centricity, and overall profitability (Bo et al., 2019; Pradhan, 2021; Thakur & Workman, 2016, cited in Komura et al., 2021). Academic frameworks emphasize forming internally homogenous and externally heterogeneous groups based on shared characteristics that affect purchasing behaviour and needs (Liozu & Richardson, 2019; Thomas, 2016, cited in Cortez et al., 2024). Segmentation's value also lies in enabling organizations to tailor offerings, identify unmet needs, and discover growth opportunities (Cuadros & Dominguez, 2014; Dibb & Simkin, 2009; Thomas, 2016). Simkin (2008) notes its indirect benefits such as fostering internal alignment and clarity across departments.

Despite its theoretical strength, much of the literature is conceptual or prescriptive, emphasizing *how segmentation should be done* rather than documenting *how it is actually implemented in practice.* The literature lacks practical guidance on how to implement and operationalize the outcomes of customer segmentation, so there is a need for empirical research that investigates actual company behaviours. (Clarke et al., 2024; Diamantopoulos & Adamantios, 2008) This research closely followed the customer segmentation process of a listed B2B engineering company, focusing on the pre-segmentation and segmentation phases, as well as the beginning of the implementation phase. The detailed process description provides a step-by-step view of how customer segmentation is actually carried out in a B2B organization. It highlights which stages of the process are truly important and what kinds of challenges can arise along the way. In addition to the case company's process description, the study included interviews with other B2B companies that had also carried out customer segmentation. These interviews provided valuable insights into how segmentation results are implemented in practice. The interviewees shared the criteria they used for segmentation, adding further practical perspective on how segmentation is done in real-world settings. They also discussed the challenges they encountered, offering important lessons on what to be prepared for when conducting segmentation work. As a conclusion, this study contributes to segmentation theory by **providing rare empirical insights into how customer segmentation is actually carried out** across multiple phases, highlighting critical steps, practical implementation

challenges, and real-world segmentation criteria that are often overlooked in conceptual literature.

The majority of research has focused on B2C contexts, where segmentation is typically more straightforward due to individual-level decision-making and abundant consumer data. Existing B2C-centric models, often built around demographic and transactional data, do not translate well to B2B settings, where segmentation needs to account for technical, relational, and organizational factors. (Bhandari et al., 2017; Tang & Mantrala, 2024) This study focuses exclusively on the B2B context, as both the case company and all interviewed companies operate in B2B markets. Therefore, all use cases and challenges identified during the empirical phase are based on actual experiences within B2B companies. These findings provide a valuable complement to the predominantly B2C-oriented customer segmentation literature by **offering tested practices specifically suited to B2B environments**.

One key theoretical contribution of this study is the **customer segmentation process framework** with related use cases and challenges, developed based on existing literature. This framework outlines the full customer segmentation process, encompassing pre-segmentation, segmentation, implementation, and monitoring. By integrating a focused view of practical challenges across both the segmentation and implementation stages, it equips organizations to anticipate and address common obstacles before they continue with execution. The inclusion of real-world use cases emerging from the implementation phase demonstrates how actionable insights translate directly into business value. This holistic framework represents a novel synthesis not yet found in existing literature.

6.3 Managerial implications

From a practical perspective, this research offers several managerial implications. The implications are intended for other B2B companies that are planning to conduct or are already engaged in customer segmentation efforts. These suggestions are grounded in the findings of this study and the key observations that emerged from the research. Four key managerial implications are:

1. Align customer segmentation with strategic objectives

Customer segmentation should begin with a clear understanding of the business's overall strategy and objectives. Aligning customer segmentation with strategic objectives is crucial to achieving meaningful business impact. Segmentation should not be performed in isolation; it must be closely tied to the company’s broader goals. By establishing these

objectives, companies can ensure that their segmentation approach is tailored to support critical strategic decisions, such as entering new markets, prioritizing key accounts, or developing new offering. A clearly articulated purpose helps prevent unnecessary or misaligned segmentation efforts and ensures executive buy-in. When grounded in strategy, segmentation moves beyond a theoretical exercise and becomes a powerful tool for driving focused, effective action.

2. Leverage existing data as a starting point for customer segmentation

Rather than pursuing exotic data sources or modelling techniques, organizations should start with the data they already have. Existing data reflects actual customer behaviours and company transactions, making segments derived from it immediately relevant and actionable. Utilizing existing data supports a culture of data-driven decision making. As people see real customer insights guiding segmentation and leading to concrete business actions, their trust in the process and its results increases. Companies can also reduce the time, cost, and effort associated with segmentation by first exploring and leveraging the data already contained in CRM, ERP, and other operational systems.

3. Keep the customer segments simple and actionable

To ensure customer segments are actually adopted in practice, it’s crucial to keep them simple and actionable. Straightforward segmentation drives both adoption and acceptance, whereas overly complex approaches can hinder practical implementation. In the case company's internal discussions and interviews, there was also a strong desire to keep the segmentation simple so that it could be truly implemented and actionable. The complexity had been an obstacle to the success of the case company's two previous customer segmentation efforts. Another business unit encountered the same issue, abandoning their model due to its complexity. The most frequent advice, emphasized by half of the interviewed companies, was to keep the segmentation simple. Complex segmentation can be expensive to implement and may not serve its original purpose. It’s therefore wise to iteratively refine the segments, combining any that overlap significantly to enhance clarity.

4. Establish a continuous monitoring and adaptation rhythm

To ensure that the created segments remain relevant and actionable, it is important to monitor them at regular intervals. Customer segmentation is based on customer characteristics or value drivers, which change over time. Therefore, it is essential to observe changes both in the external environment and in customer behaviour. Companies should track market trends and evaluate their segments considering these developments. Monitoring makes it possible to identify emerging needs or areas of interest in the market. It

also helps detect the emergence of new segments or the growth of existing ones, allowing for more targeted allocation of resources. Monitoring also involves assessing success, such as how well the target segments have been served or whether a segment has evolved as originally anticipated.

6.4 Research trustworthiness

As highlighted throughout this research, B2B customer segmentation is complex and varies greatly depending on the specific context of each company. Each company operates in a unique market environment, with distinct customer bases, products or services, and business strategies. Additionally, the representatives interviewed from each company bring their own individual backgrounds, experiences, and perspectives to the table. These differences in both organizational context and personal experience may lead to varied approaches to and understandings of customer segmentation, which in turn can result in diverse interpretations of the interview questions. As a result, each interviewee's responses are shaped by their particular viewpoint, which can lead to inconsistencies in the findings.

During the research, there were instances where researcher bias may have influenced the outcomes. Researcher bias refers to a situation when researcher's personal views or attitudes may interfere with the objective and accurate documentation and interpretation of participants' answers (Saunders et al., 2019). The interviews were semi-structured, allowing some questions to be developed spontaneously. During discussions about use cases, some interviewees were given the freedom to answer the question 'what are the use cases' openly, while in other interviews, options were suggested. In certain interviews, leading questions such as 'have you utilized the segments for creating value propositions' were posed. These types of questions tend to elicit a positive response as they might prompt the interviewee to recall additional uses for the segments. Consequently, interviewees who were not asked leading questions might have omitted mentioning some actual use cases.

As the interviews progressed, the questions became more refined, and the ability to ask follow-up questions improved. Initially, the understanding of the subject was limited, leading to a stricter adherence to pre-prepared questions. In later interviews, there was greater reliance on background knowledge, and previous interviews had been analysed and results documented. This affects the study's trustworthiness as the increasing reliance on prior knowledge and analysis may introduce inconsistency in how questions are asked across interviews.

This research applied thematic analysis, and some theme categories were defined before the interviews based on interview structure. It was necessary to define themes to some extent in advance because the interviews aimed to obtain responses on specific topics. However, during the interviews, the predefined themes may have influenced the types of follow-up questions asked, thereby directing the course of the interview. Additionally, when interpreting transcripts, existing themes may have guided the identification of supporting points in the material, potentially overlooking other important and unexpected findings.

This research details methodological choices, which enables repeatability and improves the transparency of the research. Data collection is thoroughly documented with transcribed interviews and transparent interviewee selection. Internal procedures, such as notetaking and detailed questioning, are also described, ensuring visibility. Data analysis is presented step-by-step, from transcript familiarization to systematic coding and thematic analysis. This comprehensive documentation enhances credibility and dependability, allowing others to track conclusions and assess rigor. It ensures academic integrity, grounding findings in a clear, logical process. Overall, transparency and careful documentation increase the trustworthiness of the research outcomes.

6.5 Proposals for future research

Future research could adopt a longitudinal approach by following companies over an extended period to better understand the long-term impact of customer segmentation on business performance. Unlike the majority of existing studies, including this one, which capture only a snapshot in time, longitudinal studies would offer deeper insights into how customer segments are implemented, adapted, and leveraged over time. This approach would allow researchers to evaluate not only whether segmentation strategies are sustained and effectively applied, but also how segments evolve, what triggers those changes, and what outcomes they produce. Such research would contribute to a more robust validation of which segmentation practices are truly effective in the long run and which may fall short.

Given that this research focuses on a specific context, future research could expand its scope by comparing segmentation practices, outcomes, and challenges across different industries and geographic regions. Exploring how segmentation is approached in different business environments, cultural contexts, and market structures would allow researchers to distinguish between factors that are widely applicable and those that are specific to certain settings. This type of comparative analysis would not only deepen the

understanding of segmentation as a strategic tool but also enhance the transferability and practical relevance of research findings to a broader range of companies.

Most customer segmentation research tends to be organization-centric, focusing primarily on how companies design and implement segmentation strategies based on internal goals, structures, and data. However, incorporating the perspectives of customers and external stakeholders could provide valuable, often overlooked insights into the actual impact of these strategies. By examining how customers perceive and respond to segmentation-driven changes, such as targeted communication and tailored product offerings, future studies could assess the effectiveness of segmentation from the end-user's point of view. This outside-in perspective would help determine whether segmentation efforts genuinely enhance customer experience, satisfaction, and loyalty, or if they risk misalignment with customer expectations. Such research could also uncover unintended consequences or blind spots in current segmentation approaches.

REFERENCES

Almeida, F., Andrade, P., Quintão, C., 2020. How to Improve the Validity and Reliability of a Case Study Approach? jise 9, 273–284. https://doi.org/10.32674/jise.v9i2.2026

Awuzie, B., McDermott, P., 2017. An abductive approach to qualitative built environment research: A viable system methodological exposé. QRJ 17, 356–372. https://doi.org/10.1108/QRJ-08-2016-0048

Azari, H., Behforuzi, H., Gold, M.S., Kobeissy, F.H., Razafsha, M., Wang, K.K., Zhang, Z., 2012. Qualitative Versus Quantitative Methods in Psychiatric Research, in: Kobeissy, F.H. (Ed.), Psychiatric Disorders, Methods in Molecular Biology. Humana Press, Totowa, NJ, pp. 49–62. https://doi.org/10.1007/978-1-61779-458-2_3

B2B International. Customer Needs and Value Segmentation. [Online] Available at: https://www.b2binternational.com/wp-content/uploads/2020/09/Case-Study-Segmentation.pdf [accessed 7.4.25]

Bai, Q., Liu, J., Wei, Z., 2017. Simulating and Modeling Dual Market Segmentation Using PSA Framework, in: Bai, Q., Ren, F., Fujita, K., Zhang, M., Ito, T. (Eds.), Multi-Agent and Complex Systems, Studies in Computational Intelligence. Springer Singapore, Singapore, pp. 3–18. https://doi.org/10.1007/978-981-10-2564-8_1

Balci, G., Cetin, I.B., 2017. Market segmentation in container shipping services: a qualitative study. MRR 40, 1100–1116. https://doi.org/10.1108/MRR-01-2017-0012

Beg, A.H., Islam, M.Z., 2016. Advantages and limitations of genetic algorithms for clustering records, in: 2016 IEEE 11th Conference on Industrial Electronics and Applications (ICIEA). Presented at the 2016 IEEE 11th Conference on Industrial Electronics and Applications (ICIEA), IEEE, Hefei, China, pp. 2478–2483. https://doi.org/10.1109/ICIEA.2016.7604009

Bhandari, A., Rama, K., Seth, N., Niranjan, N., Chitalia, P., Berg, S., 2017. Towards an Efficient Method of Modeling “Next Best Action” for Digital Buyer’s Journey in B2B, in: Perner, P. (Ed.), Advances in Data Mining. Applications and Theoretical Aspects, Lecture Notes in Computer Science. Springer International Publishing, Cham, pp. 45–56. https://doi.org/10.1007/978-3-319-62701-4_4

Blair, S., Cuthbertson, L.M., Robb, Y.A., 2020. Theory and application of research principles and philosophical underpinning for a study utilising interpretative phenomenological analysis. Radiography 26, e94–e102. https://doi.org/10.1016/j.radi.2019.11.092

Bo, W., Duan, L., Ren, S., Wen, Q., Zhang, C., 2019. Research on Customer Segmentation Method for Multi-value-Chain Collaboration, in: Sun, Y., Lu, T., Yu, Z., Fan, H., Gao, L. (Eds.), Computer Supported Cooperative Work and Social Computing, Communications in Computer and Information Science. Springer Singapore, Singapore, pp. 197–211. https://doi.org/10.1007/978-981-15-1377-0_15

Boejgaard, J., Ellegaard, C., 2010. Unfolding implementation in industrial market segmentation. Industrial Marketing Management 39, 1291–1299. https://doi.org/10.1016/j.indmarman.2010.06.004

Boersma, M., Vos-van Gool, M., 2008. Customer Segmentation in the Utility Industry, in: Bausch, A., Schwenker, B. (Eds.), Handbook Utility Management. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 559–574. https://doi.org/10.1007/978-3-540-79349-6_33

Bouguelia, S., Hadid, A.B., Kheddouci, H., 2024. A New Method of B2B Customer Segmentation Based on Firmographic Data, and RFM and Graph Models, in: 2024 IEEE International Conference on E-Business Engineering (ICEBE). Presented at the 2024 IEEE International Conference on e-Business Engineering (ICEBE), IEEE, Shanghai, China, pp. 81–86. https://doi.org/10.1109/ICEBE62490.2024.00021

Brotspies, H., Weinstein, A., 2019. Rethinking business segmentation: a conceptual model and strategic insights. Journal of Strategic Marketing 27, 164–176. https://doi.org/10.1080/0965254X.2017.1384750

Cazzaniga, S., Naldi, L., 2020. Research Techniques Made Simple: Latent Class Analysis. Journal of Investigative Dermatology 140, 1676-1680.e1. https://doi.org/10.1016/j.jid.2020.05.079

Chadwick, B., Gill, P., Stewart, K., Treasure, E., 2008. Methods of data collection in qualitative research: interviews and focus groups. Br Dent J 204, 291–295. https://doi.org/10.1038/bdj.2008.192

Choo, E.K., Garro, A.C., Meisel, Z.F., Morrow Guthrie, K., Ranney, M.L., 2015. Qualitative Research in Emergency Care Part I: Research Principles and Common Applications. Academic Emergency Medicine 22, 1096–1102. https://doi.org/10.1111/acem.12736

Christen, M., Schlager, T., 2022. Market Segmentation, in: Homburg, C., Klarmann, M., Vomberg, A. (Eds.), Handbook of Market Research. Springer International Publishing, Cham, pp. 939–967. https://doi.org/10.1007/978-3-319-57413-4_29

Clarke, A.H., Freytag, P.V., Mora Cortez, R., 2024. Revisiting the strategic role of market segmentation: Five themes for future research. Industrial Marketing Management 121, A7–A10. https://doi.org/10.1016/j.indmarman.2024.07.012

Clarke, A.H., Freytag, P.V., Mora Cortez, R., 2025. B2B market segmentation – An analysis of current practices and their implications. Journal of Business Research 189, 115144. https://doi.org/10.1016/j.jbusres.2024.115144

Cuadros, A.J., Domínguez, V.E., 2014. Customer segmentation model based on value generation for marketing strategies formulation. estud.gerenc. 25–30. https://doi.org/10.1016/j.estger.2014.02.005

Cui, X., Jin, F., 2023. Unraveling mobile internet behavior through customer segmentation: a latent class analysis. Electron Commer Res 23, 2379–2398. https://doi.org/10.1007/s10660-022-09542-y

Dedi, Dzulhaq, M.I., Sari, K.W., Ramdhan, S., Tullah, R., Sutarman, 2019. Customer Segmentation Based on RFM Value Using K-Means Algorithm, in: 2019 Fourth International Conference on Informatics and Computing (ICIC). Presented at the 2019 Fourth International Conference on Informatics and Computing (ICIC), pp. 1–7. https://doi.org/10.1109/ICIC47613.2019.8985726

Delimayanti, M.K., Faydhurrahman, M.B., Hidayati, A., Kurniawati, D., Rahmadani, N.Z., 2024. Customer Segmentation in Steel Sales : Optimizing Profitability with RFM Model and K-Means Algorithm, in: 2024 International Conference on Artificial Intelligence, Blockchain, Cloud Computing, and Data Analytics (ICoABCD). Presented at the 2024 International Conference on Artificial Intelligence, Blockchain, Cloud Computing, and Data Analytics (ICoABCD), IEEE, Indonesia, pp. 267–272. https://doi.org/10.1109/ICoABCD63526.2024.10704520

Dibb, S., Simkin, L., 2008. Market Segmentation Success, 0 ed. Routledge. https://doi.org/10.4324/9780203823484

Dibb, S., Simkin, L., 2009. Implementation rules to bridge the theory/practice divide in market segmentation. Journal of Marketing Management 25, 375–396. https://doi.org/10.1362/026725709X429809

Dingli, A., Sciberras, M., 2023. Research Philosophy—Pragmatic Paradigm, in: Investigating AI Readiness in the Maltese Public Administration, Lecture Notes in Networks and Systems. Springer International Publishing, Cham, pp. 25–27. https://doi.org/10.1007/978-3-031-19900-4_7

Enger, W., Ye, H., 2020. Case study: Building a customer-centric B2B organization | McKinsey [Online]. Available at: https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/case-study-building-a-customer-centric-b2b-organization [accessed 28.1.25].

Etemad, S., Masoumi, V., Mobini, M., Molavi, M., Rahmani, R., Tavakoli, M., 2018. Customer Segmentation and Strategy Development Based on User Behavior Analysis, RFM Model and Data Mining Techniques: A Case Study, in: 2018 IEEE 15th International Conference on E-Business Engineering (ICEBE). Presented at the 2018 IEEE 15th International Conference on e-Business Engineering (ICEBE), IEEE, Xi'an, pp. 119–126. https://doi.org/10.1109/ICEBE.2018.00027

Fitrianti Fahrudin, N., Rindiyani, R., 2024. Comparison of K-Medoids and K-Means Algorithms in Segmenting Customers based on RFM Criteria. E3S Web Conf. 484, 02008. https://doi.org/10.1051/e3sconf/202448402008

Foedermayr, E.K., Diamantopoulos, A., 2008. Market Segmentation in Practice: Review of Empirical Studies, Methodological Assessment, and Agenda for Future Research. Journal of Strategic Marketing 16, 223–265. https://doi.org/10.1080/09652540802117140

Freytag, P.V., Clarke, A.H., n.d. Business to Business Market Segmentation.

Fuentes-Blasco, M., Moliner-Velázquez, B., Gil-Saura, I., 2017. Exploring relationship variables and Information and Communication Technologies use in industrial segmentation. Management Decision 55, 1441–1459. https://doi.org/10.1108/MD-03-2016-0166

Godfrey-Smith, P., 2015. Pragmatism: Philosophical Aspects, in: International Encyclopedia of the Social & Behavioral Sciences. Elsevier, pp. 803–807. https://doi.org/10.1016/B978-0-08-097086-8.63064-7

Hamidi, H. (Hojatollah), Haghi, B., 2024. An approach based on data mining and genetic algorithm to optimizing time series clustering for efficient segmentation of customer behavior. Computers in Human Behavior Reports 16, 100520. https://doi.org/10.1016/j.chbr.2024.100520

HCLTech. Customer segmentation at an energy company. [Online] Available at: https://www.hcltech.com/case-study/customer-segmentation-at-an-energy-company [accessed 7.4.25].

Horák, P., 2017. Customer Lifetime Value in B2B Markets: Theory and Practice in the Czech Republic 12.

Hosseini, M., Shabani, M., 2015. New approach to customer segmentation based on changes in customer value. J Market Anal 3, 110–121. https://doi.org/10.1057/jma.2015.10

Howell, K., Naeem, M., Ozuem, W., Ranfagni, S., 2023. A Step-by-Step Process of Thematic Analysis to Develop a Conceptual Model in Qualitative Research. International

Journal of Qualitative Methods 22, 16094069231205789. https://doi.org/10.1177/16094069231205789

Kaizen Institute. Segmentation based on Customer Lifetime Value [Online]. Available at: https://kaizen.com/insights/case-study-segmentation-based-on-clv/ [accessed 7.4.25].

Kanchanapoom, K., Chongwatpol, J., 2023. Integrated customer lifetime value (CLV) and customer migration model to improve customer segmentation. J Market Anal 11, 172–185. https://doi.org/10.1057/s41270-022-00158-7

Kesting, T., Rennhak, C., 2011. Market segmentation in German business practice: relevance, procedures and challenges. WREMSD 7, 361. https://doi.org/10.1504/WREMSD.2011.042891

Koehler, M.G., 2020. Guidelines for Writing a Case Study. ACS Chem. Health Saf. 27, 3–7. https://doi.org/10.1021/acs.chas.9b00023

Kovács, G., Spens, K.M., 2005. Abductive reasoning in logistics research. International Journal of Physical Distribution & Logistics Management 35, 132–144. https://doi.org/10.1108/09600030510590318

L. Kuladeep Kumar, 2024. A Study on Customer Segmentation for Banking Sector Through Cluster Analysis: Ethical Implications. cana 31, 57–66. https://doi.org/10.52783/cana.v31.999

Laksono, F.A., Rachmat, B., Sutasrso, Y., n.d. B2B Customer Segmentation Based on Customer Lifetime Value Concept and RFM Modeling.

Liberato, C., Rose, P.M., 2007. Segmenting the heterogeneity of tourist preferences using a latent class model combined with the EM algorithm.

Liozu, S.M., Richardson, K., 2019. Designing and executing B2B customer segmentation, in: Pricing Strategy Implementation. Routledge, Abingdon, Oxon; New York, NY: Routledge, 2020., pp. 78–86. https://doi.org/10.4324/9780429446849-8

Liu, L., Wang, X., 2012. Customer Segmentation and Marketing Strategy of Commercial Banks Based on CLV, in: Zhang, T. (Ed.), Instrumentation, Measurement, Circuits and Systems, Advances in Intelligent and Soft Computing. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 261–267. https://doi.org/10.1007/978-3-642-27334-6_30

Maulina, N.R., Rus, A.M.M., Surjandari, I., 2019. Data Mining Approach for Customer Segmentation in B2B Settings using Centroid-Based Clustering, in: 2019 16th International Conference on Service Systems and Service Management (ICSSSM). Presented at the 2019 16th International Conference on Service Systems and Service Management

(ICSSSM), IEEE, Shenzhen, China, pp. 1–6. https://doi.org/10.1109/ICSSSM.2019.8887739

Mora Cortez, R., Højbjerg Clarke, A., Freytag, P.V., 2021. B2B market segmentation: A systematic review and research agenda. Journal of Business Research 126, 415–428. https://doi.org/10.1016/j.jbusres.2020.12.070

O'Brien, M., Liu, Y., Chen, H., Lusch, R., 2020. Gaining insight to B2B relationships through new segmentation approaches: Not all relationships are equal. Expert Systems with Applications 161, 113767. https://doi.org/10.1016/j.eswa.2020.113767

Petty, N.J., Stew, G., Thomson, O.P., 2012. Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. Manual Therapy 17, 378–384. https://doi.org/10.1016/j.math.2012.03.004

Pradhan, R., 2021. Customer Segmentation Using Clustering Approach Based on RFM Analysis, in: 2021 5th International Conference on Information Systems and Computer Networks (ISCON). Presented at the 2021 5th International Conference on Information Systems and Computer Networks (ISCON), pp. 1–5. https://doi.org/10.1109/ISCON52037.2021.9702482

Pragathi, J., Sagar, D., 2024. A Design and Analysis of Customer Characteristics-based Classification using Intelligent Algorithm, in: 2024 IEEE 9th International Conference for Convergence in Technology (I2CT). Presented at the 2024 IEEE 9th International Conference for Convergence in Technology (I2CT), IEEE, Pune, India, pp. 1–4. https://doi.org/10.1109/I2CT61223.2024.10543884

Punniyamoorthy, M., Sivaguru, M., 2021. Performance-enhanced rough k-means clustering algorithm. Soft Comput 25, 1595–1616. https://doi.org/10.1007/s00500-020-05247-2

Ray, M., Mangaraj, B.K., 2016. AHP Based Data Mining for Customer Segmentation Based on Customer Lifetime Value. IJDMTA 5, 28–34. https://doi.org/10.20894/IJDMTA.102.005.001.007

Sanders, M.L., Scharp, K.M., 2019. What is a theme? Teaching thematic analysis in qualitative communication research methods. Communication Teacher 33, 117–121. https://doi.org/10.1080/17404622.2018.1536794

Saunders, M. et al. (2019) Research Methods for Business Students. Eighth Edition. Harlow: Pearson Education, Limited.

Simkin, L., 2008. Achieving market segmentation from B2B sectorisation. Journal of Business & Industrial Marketing 23, 464–474. https://doi.org/10.1108/08858620810901220

Siyue, L., Baoqun, Z., Lu, Z., Hui, X., Jianxi, Z., Longfei, M., Peiyi, W., 2019. Prediction of Business User Segmentation Model Based on Customer Value, in: 2019 IEEE 4th International Conference on Cloud Computing and Big Data Analysis (ICCCBDA). Presented at the 2019 IEEE 4th International Conference on Cloud Computing and Big Data Analysis (ICCCBDA), IEEE, Chengdu, China, pp. 227–231. https://doi.org/10.1109/ICCCBDA.2019.8725722

Stahl, B.C., 2014. Interpretive accounts and fairy tales: a critical polemic against the empiricist bias in interpretive IS research. European Journal of Information Systems 23, 1–11. https://doi.org/10.1057/ejis.2012.58

Stake, R., Visse, M., 2023. Case study research, in: International Encyclopedia of Education(Fourth Edition). Elsevier, pp. 85–91. https://doi.org/10.1016/B978-0-12-818630-5.11010-3

Tang, Y.E., Mantrala, M.K., 2024. Incorporating direct customers' customer needs in a multi-dimensional B2B market segmentation approach. Industrial Marketing Management 119, 252–263. https://doi.org/10.1016/j.indmarman.2024.04.005

Thomas, R.J., 2016. Multistage market segmentation: an exploration of B2B segment alignment. JBIM 31, 821–834. https://doi.org/10.1108/JBIM-12-2015-0245

Viviani, J.-L., Komura, A., Suzuki, K., 2023. Integrating dynamic segmentation and portfolio theories for better customer portfolio performance. Journal of Strategic Marketing 31, 140–153. https://doi.org/10.1080/0965254X.2021.1881148

Weinstein, A., 2014. Target market selection in B2B technology markets. J Market Anal 2, 59–69. https://doi.org/10.1057/jma.2014.6

Xu, W., Zammit, K., 2020. Applying Thematic Analysis to Education: A Hybrid Approach to Interpreting Data in Practitioner Research. International Journal of Qualitative Methods 19, 1609406920918810. https://doi.org/10.1177/1609406920918810

Zahle, J., 2021. Interpretivism and Qualitative Research, in: Adair-Toteff, C. (Ed.), Stephen Turner and the Philosophy of the Social. BRILL, pp. 202–220. https://doi.org/10.1163/9789004449602_012

APPENDIX A: EXTERNAL INTERVIEW STRUCTURE

Interview theme	Main question	Follow up question
Introduction	What is your background and your role and in this company?	
	What is your connection to your company's customer segmentation?	
Creating the segments	What was the original reason and goal for segmentation?	
	What criteria did you use to define the segments?	
	What challenges are associated with segmentation?	How could these challenges be avoided?
	What would you do differently in the segment creation process?	
Implementing segments	How did you implement the created segments?	
	How do the segments appear in your own work?	
	How are the results of customer segmentation (segments) practically utilized in your company (use cases)?	
	Did you encounter challenges during implementation?	What other challenges might be associated with implementation?
		How did you address potential resistance or lack of commitment?
	How could these challenges be avoided?	
	Which use case has proven to be the most valuable? Why?	Can you think of other use cases where customer segments could be utilized?
	How do you ensure that segmentation data is accessible and usable across different departments?	
	What is missing from your segmentation - where could more focus be placed?	
Developing segments	Have you made changes to your customer segments over time?	What led to these changes?
	How do you ensure that your customer segments remain relevant and up-to-date regardless of market changes?	
Communicating segments	How do you communicate customer segments throughout the organization?	
	What methods or tools did you use to ensure that everyone understood the segments and could use them effectively?	
Final question (this was always asked)	How would you recommend other companies prepare for customer segmentation and its challenges?	

APPENDIX B: INTERNAL INTERVIEW STRUCTURE

Interview theme	Main question	Follow up question
Introduction	What is your background and your role and in this company?	
	What is your connection to your company's customer segmentation?	
Customer value drivers	What are the most relevant value drivers when doing customer segmentation?	
Current view of customer segments	What does your current segmentation ignore?	
Existing segmentation	How is it arranged today, how is it maintained?	
	To which extent is segmentation present in your business strategy?	
	What use cases there are for segmentation and segments?	What are the most valuable use cases?