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Generative AI-driven customer insights in marketing operations

Business-to-business environment

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TIIVISTELMÄ :
B2B-markkinointi nojaa nykyään vahvasti digitaaliseen teknologiaan ja lukuisat asiakaskosketuspisteet keräävät jatkuvasti suuria määriä asiakasdataa. Tämän takia, datavetoinen päätöksenteko on yhä merkittävämpää B2B ympäristössä. Generatiivisen tekoälyn käyttö on yleistynyt myös B2B ympäristössä viime vuosien aikana tehostaen toimintoja monipuolisilla liiketoiminnan alueilla. Generatiivista tekoälyä on hyödynnetty asiakasoivallusten keräämisessä ja oivallusten hyödyntämisessä markkinointioperaatioissa. Tämä tutkimus tarkastelee, miten B2B yritykset voivat tuottaa ja hyödyntää generatiivisen tekoälyn avulla tuotettuja asiakasoivalluksia kehittääkseen markkinointioperaatioitaan. Tutkimuksessa perehdytään siihen, millaista asiakasdataa voidaan hyödyntää asiakasoivallusten saamiseksi sekä miten generatiivisen tekoälyn tuottamia asiakasoivalluksia voidaan hyödyttää B2B markkinointioperaatioita. Lisäksi tutkimuksessa tarkastellaan teemaan liittyviä haasteita. Tutkimus tehtiin monitapaustutkimuksen avulla, B2B-markkinoinnin ammattilaisia haastattelemalla, sekä kirjallisuuskatsauksella. Tulokset osoittavat, että asiakasymmärrystä voidaan tuottaa monipuolisesta asiakasdatasta, joka voi olla sekä yrityksen ulkoista, että sisäistä, ja se voi olla joko reaaliaikaista tai historiallista dataa. Yritysten dataorientoituminen on merkittävää monipuolisen datan ja sen laadun varmistamiseksi, mikä vaikuttaa generatiivisen tekoälyn tuottamien asiakasoivallusten laatuun. Generatiivisen tekoälyn hyödyntäminen voi merkittävästi parantaa operatiivista tehokkuutta mahdollistaen ammattilaisen keskittymisen strategisempiin tehtäviin. Generatiivisen tekoälyn tuottamat asiakasoivallukset tukevat asiakaskeskeisiä strategioita mahdollistaen asiakkaiden ymmärtämisen syvällisemmin, hyödyttäen erimerkiksi markkinointimateriaalien ja kampanjoiden suunnittelua. Tehokkuutta tuo myös oivallukset markkinointitoimintojen toimivuudesta sekä datan perusteella tehdyt toimenpidesuositukset tietylle asiakasryhmälle. Kuitenkin ihmisen valvonta on edelleen keskeistä optimaalisten tulosten varmistamiseksi. Mahdolliset tietoturvariskit nousivat esille haasteena, erityisesti liittyen kaupallisesti tarjolla oleviin generatiivisiin tekoälymalleihin. Lisäksi datan laatu, eettiset näkökulmat sekä organisaatiollinen omaksuminen nousi esille. Haasteena ovat myös mahdolliset virheet, joita generatiiviset tekoälymallit voivat tuottaa. Tutkimuksessa nousivat esiin työntekijöiden pelot tekoälyä kohtaan, mikä saattaa hidastaa teknologian käyttöönottoa. Modernit teknologiat, kuten tekoäly, ovat kokoluokaltaan niin suuria, että niiden tehokas hyödyntäminen markkinointioperaatioissa vaatii suunnittelua ja yhteistyötä koko organisaatiota. Tämä tutkimus tarjoaa näkemyksiä siitä, miten B2B-yritykset voivat hyödyntää generatiivista tekoälyä optimoidakseen markkinointioperaatioitaan generatiivisen tekoälyn tuottaman asiakasymmärryksen avulla. Tutkimuksessa huomattiin, että generatiivisen tekoälyn hyödyntäminen asiakasymmärryksen kehittämisessä on vielä alkuvaiheessa. Generatiivisen tekoälyn optimaalinen hyödyntäminen asiakasymmärryksen kehittämiseksi vaatii teknologiaan liittyvien haasteiden tiedostamista. Vaikka tutkimuksessa tunnistettiin useita hyötyjä markkinointioperaatioille, generatiivisen tekoälyn kattava strateginen hyödyntäminen asiakasymmärryksen kehittämiseksi on vielä vähäistä.

Avainsanat: Customer insights, generative AI, B2B-marketing, customer data, data-driven marketing

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ABSTRACT :
Today's B2B marketing landscape relies heavily on digital technology, with numerous customer touchpoints constantly collecting vast amounts of customer data. As a result, data-driven decision making is increasingly important in the B2B environment. The use of generative AI has become increasingly common in the B2B environment in recent years. Generative AI has been used to capture customer insights and to leverage these insights in marketing operations. This study explores how B2B companies can generate and utilize generative AI driven customer insights to improve their marketing operations. The study explores the type of customer data that can be utilized to deliver actionable customer insights and how these generative AI driven insights can be utilized to benefit B2B marketing operations. In addition, the study examines the challenges related to the topic. The research was conducted through a multiple case study, interviews with B2B marketing professionals, and a literature review. The results show that customer insight can be generated from versatile customer data, which can be both external and internal, and can be either real-time or historical data. The data orientation of a company is important to ensure the quality of the data, which affects the quality of customer insights created with the help of generative AI. The use of generative AI can significantly improve operational efficiency, allowing professionals to focus on more strategic tasks. The generative AI driven customer insights support customer-centric strategies by enabling a deeper understanding of customers, for example, they can support in designing marketing materials and campaigns to better align with customer needs. Generative AI can also provide insights into the effectiveness of marketing strategies and offer data-driven recommendations tailored to specific customer segments. However, human oversight remains still key to ensure optimal results. Potential security risks emerged as a challenge, particularly in relation to commercially available generative AI models. Data quality, ethical considerations and organizational adoption also emerged as a challenge. Furthermore, generative AI models can produce errors causing a significant challenge. Modern technologies like AI are vast in scale, and their effective integration into marketing operations requires careful planning and collaboration across the organization. This study offers insights into how B2B companies can leverage generative AI to optimize their marketing operations using generative AI driven customer insights. The study found that the use of generative AI in the development of customer insights is still in its early stages. Optimal use of generative AI to develop customer insight requires an understanding of the challenges associated with the technology. Although the study identified several benefits for marketing operations, the comprehensive strategic use of generative AI for customer insight development is still limited.

KEYWORDS: Customer insights, generative AI, B2B-marketing, customer data, data-driven marketing

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1 Introduction

Today's B2B marketing landscape is defined by a strong reliance on digital technology to manage and analyze vast amounts of data, enabling the delivery of actionable insights (El Horma, 2024). In the B2B environment, the understanding of both the customers in the market as well as the specific business customers is needed (Neu & Brown, 2005). This complexity is further challenged by the rapid pace of market changes and the increasing complexity of both products and customer expectations (Fischer et al., 2022). As a result, developing effective marketing strategies requires a deep understanding of various factors, including market trends, customer behavior, and technological advancements (Fischer et al., 2022).

Research by Harrison et al. (2021) points out that B2B customers are regularly using over ten different channels in their interaction, which has increased by five since 2016. These digitalized touchpoints continuously gather extensive amounts of customer data, allowing for better insights into customer interactions (Plangger & Watson, 2015). Despite, various organizations face challenges in developing valuable customer insights from the data that are captured from the various touchpoints interacted with customers (Said, 2015).

The importance of analyzing customer data has been increasingly emphasized in recent years due to its potential to drive valuable customer insights (Akter et al., 2016). Data-driven customer insights enable comprehensive customer understanding, facilitate behavioral segmentation, support data-informed decision-making, enhance customer integration efficiency, and ultimately strengthen customer relationships (Torpo, 2023). Customer data is one of the major drivers in digital economy and collecting and analyzing customer data helps in creating personalized offerings that cater to individual preferences and behaviors (Chandra, 2022).

Artificial intelligence is expected to disrupt digital technologies elementary changing how businesses interact with customers and manage their operations (Devang et al., 2019). AI has appeared as a transformative force across various sectors, with particularly significant implications for the field of marketing (Devang et al., 2019). 73% of U.S. organizations had implemented generative AI tools in their marketing activities as of March 2023 (Kshetri, 2024). The AI marketing sector is valued at $15.84 billion in 2021, and projected to grow to $107.5 billion by 2028 (Dencheva, 2023b). Feuerriegel et al. (2024) emphasize generative AI's ability to automatically generate new knowledge from large volumes of unstructured data.

Generative AI has significant potential in generating data-driven customer insights (Kshetri et al., 2024). For example, retailers utilize generative AI to create personalized recommendations, enhancing customer engagement and loyalty, thereby driving more purchases (Kshetri et al., 2024). Similarly, banks utilize generative AI to offer tailored investment advice based on customers' risk profiles, derived from analyzing their data (Kshetri et al., 2024). Companies utilize generative AI for market and consumer research, that supports in tweaking products and services (Parikh, 2023). Moreover, AI significantly reduces the time needed to generate insights from raw data and enables real-time responses (Kshetri et al., 2024). AI technologies can produce insights in seconds while this task might take humans weeks to accomplish (Kshetri et al., 2024).

The application of AI technologies can enhance the efficiency of marketing processes, facilitating more informed decision-making and reducing the need for human effort. Mikalef et al. (2021) desribes AI's ability to improve market sensing by identifying changes and opportunities and transforming marketing operations to adapt to market dynamics. AI-powered tools show potential in enhancing customer insights, efficient resource allocation, and even personalized marketing strategies, thereby offering competitiveness and agility to B2B marketing operations (Mikalef et al., 2021).

Today, numerous companies find it difficult to comprehensively analyze existing customer data to generate meaningful insights from it (Ooi et al., 2023). A common challenge is the time-consuming nature of data analytics and the lack of knowledge on how to effectively conduct it (Plangger et al., 2023). Generative AI offers opportunities for enhancing marketing and sales operations by utilizing data collected from customers to generate insights and recommendations (Ooi et al., 2023). According to a McKinsey analysis (2023), commercial leaders are increasingly utilizing generative AI, yet many believe the technology remains still underutilized (Holmlund, 2020). This indicates a clear need for further research and more guidance on maximizing the use of this technology.

The growing use of digital touchpoints has led to a significant increase in the availability of rich data sources related to customer behavior, interactions, and needs. However, companies face challenges in creatively managing multiple data sources and large volumes of data. They struggle with effectively collecting data and understanding how and where to utilize it for optimal results. (Lilien, 2016)

The utilization of generative AI in marketing operations is continuously increasing, and there are numerous applications of it across the broad marketing field (Ooi et al. 2023; Kshetri et al., 2024). However, yet various companies are not able to comprehensively analyze the existing customer data for customer insights (Ooi et al., 2023).

1.1 Research gap

Generative AI holds versatile opportunities for improving marketing operations by utilizing the big data collected from customers and generating insights from it (Ooi et al., 2023). Generative AI holds potential to enhance customer understanding as it can efficiently identify and generate essential customer insights from customer data (Deveau et al., 2023).

Although AI technologies are increasingly employed to enhance B2B marketing operations, understanding their benefits and operational areas remains limited (Mikalef et al., 2021; Peltier, 2024). This knowledge gap regarding AI's capabilities and benefits can hinder the effective implementation and optimization of AI technologies within marketing strategies (Peltier, 2024). Verma and Kumari (2023) highlight the academic community's focus on improving methodologies behind AI-driven data analysis to provide more accurate and actionable insights.

There is still a lack of research on the specific ways certain AI tools have been used in marketing and their effectiveness (Kshetri, 2024). Generative AI is recognized for its significant potential in data analysis for businesses, yet more research is needed in this field (Verma & Kumari, 2023).

Therefore, this research aims to address this gap by exploring how B2B companies can generate and utilize generative AI-driven customer insights in their marketing operations.

1.2 Research objectives

The study aims to analyze existing literature on the potential of generative AI for customer insights and conduct qualitative research with interviews for B2B marketing executives to understand their perspectives on its practical application.

The primary research question of this study is:

> *RQ: How can B2B companies generate and utilize generative AI-driven customer insights to improve their marketing operations?*

The thesis has the following sub-questions to better explore the topic:

RQ1: What kind of customer data can be utilized and processed by generative AI to generate actionable customer insights?

RQ2: How can generative AI-driven customer insights benefit B2B marketing operations?

RQ3: What are the key challenges and limitations companies face when using generative AI to capture and utilize customer insights from customer data?

This study aims to provide managerial contributions by highlighting the importance of data driven insights and demonstrating how generative AI can enhance this process. Specifically, it seeks to help managers to understand the potential of using generative AI to gather insights and how these insights can improve marketing operations. The research offers practical implications by identifying the customer data sources from which insights can be generated using generative AI, presenting use cases for applying these insights in B2B marketing operations, and addressing the key challenges that companies may encounter.

Additionally, this study aims to contribute to theory on a relatively underexplored topic. By focusing on the role of generative AI in extracting customer insights for B2B marketing, it aims to fill gaps in existing research and outline opportunities for future studies in this topical area.

This research is specifically concentrated on the B2B environment. Moreover, given that artificial intelligence encompasses a wide range of technologies, this study focuses specifically on generative AI, particularly emphasizing large language models (LLMs) as a key component within the generative AI technology.

1.3 Research structure

This thesis is organized into five main chapters. The first chapter provides the background and context of the research, outlining the research objectives and key definitions relevant to the study. The second chapter presents a literature review, forming the theoretical framework for the research. It explores existing studies on generative AI and customer insights within B2B marketing. Chapter three introduces the research methodology, detailing the research approach and design, data collection methods, and data analysis techniques used in the study. The fourth chapter presents the key findings derived from the data analysis, highlighting the insights gathered from the research. The fifth and final chapter discusses the findings in relation to the theoretical framework, providing answers to each research question. It concludes with recommendations for future research and summarizes the overall conclusions of the study.

1.4 Key definitions

Customer insights

Customer insights are any customer-related knowledge that is beneficial to the business (Smith, 2006). To gather valuable customer insights, customer information must be transformed, which is why customer insights are different from customer information (Smith et al., 2006). Customer insights are derived from information about customer behavior, requirements, and needs, which is then analyzed and transformed into actionable knowledge (Said, 2015).

Generative artificial intelligence

Generative AI encompasses a wide range of technologies that refer to computational methods capable of producing new, meaningful content like images, text, audio, and video, based on patterns learned through training data (Feuerriegel et al., 2024). This research particularly focuses on the use of large language models (LLMs), which are

designed to understand and generate human language, making them a key component of generative AI in text generation. A prominent example of LLMs is the Generative Pretrained Transformer (GPT) architecture. GPT represents a transformer-based large language model that utilizes deep learning techniques to generate human-like text (Yenduri et al., 2024). The GPT model involves training a high-capacity language model on a vast corpus of text and fine-tuning it with labeled data for specific tasks (Bengesi et al., 2024). The most widely known models of this type are GPT-3 and GPT-4, both developed by OpenAI, which have set new benchmarks for performance in various language processing tasks. GPT-4, in particular, demonstrates performance comparable to human levels across various professional and academic benchmarks (Nori et al., 2023).

It is important to note that in this research, references to 'generative AI' primarily refer to the use of large language models. While I use the terms 'AI' and 'generative AI' for simplicity, I acknowledge that these are broad and somewhat generalized terms, encompassing a wide and diverse range of technologies.

2 Literature review

In this chapter, I begin by briefly discussing the potential of acquiring customer insights using generative artificial intelligence technologies. I then examine the various types of customer data and the key sources from which valuable insights can be generated, particularly using generative AI. Next, I explore how these AI-driven insights can be leveraged to enhance and optimize marketing operations within the B2B environment, i.e. the potential benefits associated with generative AI Finally, we address the potential challenges and limitations associated with implementing AI-based solutions in this context.

2.1 Acquiring customer insights with generative AI

Customer data and information alone cannot provide direct insights. Thus, **customer insights are derived from the transformation of data through analysis and interpretation,** allowing organizations to **draw meaningful conclusions** (Frost & Kumar, 2000).

In recent years, many major software vendors have integrated generative AI solutions into their platforms, significantly streamlining the process of generating customer insights (Horsey, 2023). Large language models, like GPTs, are a form of generative AI that can analyze and process vast amounts of text-based data, generating meaningful insights through tasks like summarization, interpretation, and content creation (Horsey, 2023; Amin & Amin, 2024).

A key feature of large language models is their ability to produce human-like text and assist in decision-making by offering interpretations of analyzed data (Amini & Amini, 2024). This capability extends to automating tasks such as data summarization, report generation, and data cleaning, which are critical in marketing and customer research.

LLMs not only streamline these processes but also support the creation of synthetic respondents for market research, enhancing the depth and efficiency of data analysis (Amini & Amini, 2024).

One of the significant advantages of large language models is their proficiency in **processing large volumes of unstructured data**, which allows marketers to extract actionable insights efficiently (Amini & Amini, 2024). Generative AI's strength lies in its ability to generate content at scale and analyze customer behavior trends from customer data which is particularly beneficial in several marketing operations. Large language models excel in analyzing market data and competitor strategies, generating comprehensive insights that support data-driven decision-making (Amini & Amini, 2024). As the role of big data in marketing decisions continues to expand, LLMs provide faster, more accurate analysis, thereby reducing the reliance on human input for repetitive tasks (Amini & Amini, 2024). However, Schweidel et al. (2024) stress the importance of human oversight in ensuring that LLMs deliver the best results, emphasizing the balance between automation and expert intervention.

LLMs improve in performance as they grow in size and complexity, leveraging larger datasets to produce more coherent and nuanced responses (Teubner et al., 2024). Their scalability enables them to perform a wide range of tasks across multiple domains without requiring extensive fine-tuning for each specific task (Teubner et al., 2024). This adaptability is particularly valuable in marketing, where the ability to respond to diverse customer needs and evolving market conditions is essential.

In competitive B2B environments, the ability to leverage data-driven decision-making is crucial. Charllo and Kathiriya (2023) highlight how generative AI empowers marketing operations by providing real-time insights from large, complex datasets. This capability allows businesses to better understand customer behavior, predict sales outcomes, and identify emerging market trends. Such insights are significant in shaping marketing strategies and informing product development (Charllo & Kathiriya, 2023).

Generative AI's ability to synthesize and analyze vast datasets, such as demographic information, customer behavior, and market trends, makes it an valuable tool for acquiring customer insights (Deveau et al., 2023). By automating and enhancing many marketing activities, these AI-driven insights support more informed decision-making and allow companies to respond effectively to shifting market dynamics.

2.2 Acquiring customer insights from customer data

Customer insights are any customer-related knowledge that is beneficial to the business (Smith, 2006). To gather valuable customer insights, customer information must be transformed, which is why customer insights are different from customer information (Smith et al., 2006). Customer insights are derived from information about customer behavior, requirements, and needs, which is then analyzed and transformed into actionable knowledge (Said, 2015).

2.2.1 Customer data

Customer insights can be derived from customer data, revealing identified patterns that indicate customers' future purchasing behavior, preferences, personalities, and other relevant attributes (Chandra, 2022). Most of the customer data that companies have today is **unstructured, large, and complex**. These datasets are challenging to process and analyze using traditional methods, such as analyzing the data manually (Urbinati et al., 2019). These large volumes of customer-related data can provide insights into emerging sales trends, valuable service attributes, and preferred communication methods, enabling businesses to enhance their services and offerings based on these data-driven insights (Urbinati et al., 2019).

Companies are increasingly collecting data from various sources and ways, both internally and externally in order to extract valuable insights (Abbasi et al., 2016). For generating meaningful customer insights, it is essential to gather data from diverse customer data sources (Plangger, 2023). By leveraging large datasets from multiple sources, companies can produce accurate insights into their markets and customers (Ghasemaghaei & Calic., 2019). Findings by Ghasemaghaei and Calic (2019) highlight that the **diversity, accuracy, and velocity** of data are crucial factors that significantly affect the quality of data-driven insights generated by a company.

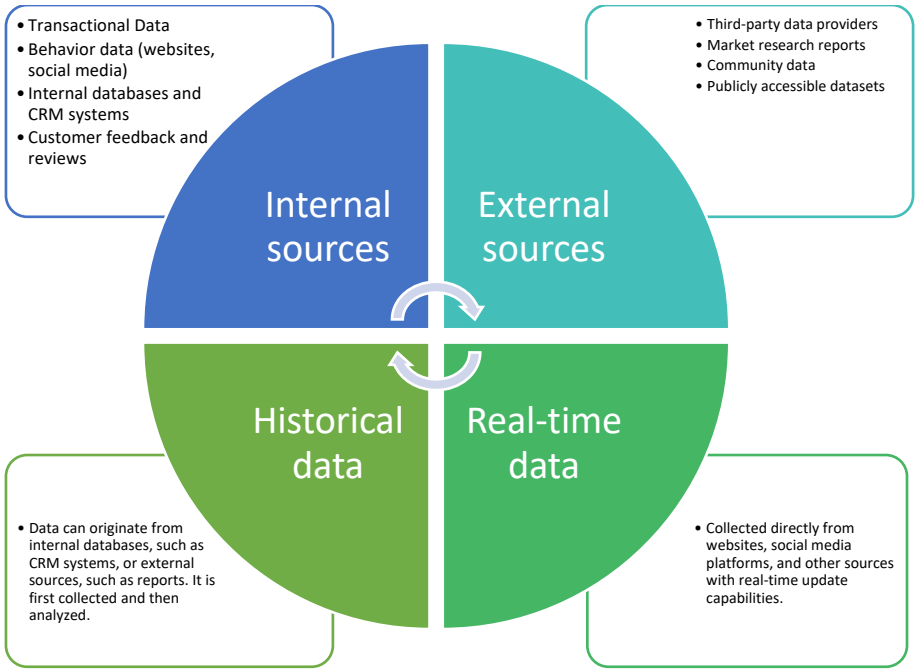

Figure 1. Categorization of customer data by source and time frame.

There are various customer data sources, and **some are more useful for predicting specific customer insights than others**. Gathering customer insights from data can be challenging due to the vast number of available sources and the large amount of data. Therefore, planning and implementing effective strategies to gather customer insights is crucial (Seiler et al. 2021, Plangger et al. 2023).

Research literature identifies several important customer data sources in B2B environments. One of the key sources is **transactional data**, which includes detailed information about customer purchases and transactions (Mendia & Flores-Cuautle, 2022). This data is typically collected internally through systems such as point-of-sale, e-commerce platforms, and other transactional systems (Mendia & Flores-Cuautle, 2022). Transactional data provides insights into purchasing patterns, customer preferences, and average transaction value. While it is generally considered historical data, collected and stored over time, it can also be updated in near real-time depending on the system used (Anitha & Patil, 2022).

Another significant data source is **behavior data**, which encompasses information generated from customer interactions with the company's website and social media platforms. This includes metrics such as page visits, time spent on pages, clicks, and social media engagements. Analyzing this data helps reveal customer interests, navigation patterns, and engagement levels, and assesses the effectiveness of marketing campaigns and website content. Website behavior data is typically collected in real-time, making it a valuable internal data source for immediate analysis. (Lilien, 2016; Chaudhary et al., 2021).

Internal data sources also include data collected from internal databases and CRM (customer relationship management) systems within the organization (Lilien, 2016). This data can include for example customer profiles, support interactions, and communication records providing insights into customer behavior, preferences, engagement levels and support needs. Such data supports customer segmentation, and facilitates personalized marketing strategies (Stone et al., 2017). The importance of CRM data for B2B companies is increasingly recognized, as it holds significant potential to help businesses analyze and enhance their customer focus (Hallikainen, 2020). CRM data generally provides insights to enhance customer profiling, enable targeted marketing strategies and optimize CRM processes (Kopare et al., 2024). It is generally historical, as it is

collected over time and stored, but this data can also be collected real-time (Stone et al., 2017).

Furthermore, companies are analyzing customer reviews to enhance feedback management, gain insights into customer satisfaction, and identify areas for improvement that can strengthen customer experiences. This type of data is typically collected over time and analyzed afterward, making it historical in nature. (Katsiuba et al., 2023).

In addition to internal sources, **external data sources** play a significant role (Lilien, 2016). These are collected from outside the organization, such as third-party data providers, market research reports, competitor analysis, community data (eg. generated by individuals in social media platforms) and public databases (Plangger & Watson, 2015; Piccoli & Pigini, 2013). External data provides a broader perspective on the market, including market insights, customer behavior trends, and market dynamics that may not be visible from internal data alone (Piccoli & Pigini, 2013). This data is typically historical, as it is collected, analyzed, and reported over specific periods.

While the customer data types mentioned above are primarily historical, **real-time data** can also be collected to enable immediate analysis and decision-making (Xu et al., 2016). Real-time data, which can be both internal and external, is collected and made available for analysis almost immediately after its generation. Companies can collect real-time data for example from customer behavior, market trends or social media (Xu et al., 2016). There are various platforms that companies can utilize to gather real-time data that can be collected for example from social media or search engines (Jabbar et al., 2020). This capability allows organizations to respond promptly to changing conditions, customer behaviors, and market trends (Torpo, 2023).

2.3 Refining marketing operations with customer insights

Customer insights are valuable assets in shaping marketing operations, optimizing product offering and predicting future customer needs (Seiler et al. 2021; Torppo, 2023; Plangger et al. 2023). Generative AI technology is capable of processing and interpreting extensive amounts of customer data, revealing valuable insights into customer preferences, behavioral patterns, and emerging trends (Verma & Kumari, 2023). By encompassing the various customer data sources, generative AI is able to gather comprehensive understanding of the customer needs providing valuable customer insights (Ooi et al. 2023 ; Verma and Kumari, 2023). In this chapter, we explore how insights derived from customer data can benefit marketing operations specifically within the B2B context.

Figure 2. Benefits of customer insights for marketing operations.

2.3.1 Strategic benefits and innovation

Customer insights provide significant strategic advantages to companies, helping them differentiate in competitive markets by for example developing innovative offerings and responding to market changes to improve responsiveness to threats and opportunities (Rosiello et al., 2021). In the B2B environment, data-driven customer insights are

critical for sustaining a competitive edge (Hallikainen, 2020). These insights continuously generate new knowledge, keeping businesses aligned with evolving customer needs and market shifts (Macinnis, 2022). This process enhances decision-making and fosters strategic agility (Torpo, 2023). One key outcome is the ability to refine value propositions, leading to a stronger market position (Bharadwaj et al., 2012; Hartline et al., 2000). These insights empower companies to enhance service quality and increase customer satisfaction by tailoring products and services to specific customer needs (Bharadwaj et al., 2012). By strategically designing market intelligence operations, companies can continuously extract valuable insights, uncover hidden customer needs, and optimize offerings. This fosters long-term customer loyalty and drives greater value (Urbinati et al., 2019; Plangger et al., 2023).

By analyzing customer data, companies can uncover new previously hidden customer needs and adjust operations to meet these demands (Urbinati et al., 2019). These insights can also help identify both latent and expressed needs. Latent needs, which are often hidden, offer opportunities for breakthrough innovations, while expressed needs drive incremental innovation (Seiler et al., 2022; Frost & Kumar, 2000). Moreover, data-driven insights facilitate ongoing dialogue with customers, fostering deeper understanding and long-term loyalty (Plangger et al., 2023; Torpo, 2023). Continuous insights help align operations with customer expectations and market trends, ensuring relevance and efficiency (Torpo, 2023). In B2B contexts, these insights also streamline customer integration efforts, making operations more efficient and better aligned with client needs (Torpo, 2023).

Thiruneelakandan & Umamageswari (2024) highlight that generative AI has brought revolutionary benefits to business intelligence, particularly by enhancing predictive analytics, handling and analyzing datasets and automating reporting. These advancements enable companies to uncover hidden customer needs, offering new opportunities to improve customer experience while driving innovation and supporting strategic decision-making.

2.3.2 Operational efficiency

Generative AI-powered customer insights enhance decision-making efficiency and accuracy by leveraging advanced algorithms to detect patterns in customer and market data. This enables more precise audience targeting and significantly optimizes overall marketing strategies. (Deveau et al., 2023).

Kshetri et al., (2024) emphasize that utilizing generative AI as a part of organizations marketing operations significantly enhances the efficiency and productivity of marketing activities compared to earlier digital technologies.

The role of generative AI in automating various marketing tasks that used to require human labor is significant. Generative AI can automate tasks like data analysis, content creation and reporting that can lead to significant cost savings (Thiruneelakandan & Umamageswari, 2024). Lontzek (2024) demonstrates how generative AI tools can significantly enhance the efficiency of B2B marketing campaign development by streamlining data consolidation and enabling content creation.

When generative AI is utilized to support customer insight processes, such as in market research and idea generation, it has led to reduced time and costs, improved product development, and enhanced customer experiences (Parikh, 2023). In addition, AI-generated insights have been performing well in novelty and customer benefit compared to human-generated insights (Joosten et al., 2024).

2.3.3 Customer-centricity and relationship management

Customer insights are vital for deepening relationships and fostering customer-centric marketing strategies. Analyzing customer data enables businesses to understand behaviors and preferences, providing possibility for personalized and effective marketing operations (Torpo, 2023). Personalization is a key application of customer insights, and generative AI significantly enhances these efforts. Generative AI enables hyper-personalized marketing, allowing businesses to deliver content and communication that make customers feel understood and valued, driving higher satisfaction and loyalty (Verma & Kumari, 2023). Organizations increasingly use personalization in content recommendation systems, yet traditional algorithms often struggle to accurately predict individual preferences (Kshetri et al., 2024; AI & Insights, 2023).

In addition, generative AI driven customer insights are particularly useful in account-based marketing (ABM), where B2B companies implement personalized marketing strategies for key customers (Agaba, 2021). This customer-centric approach improves relationships, enhances reputation, and eventually drives revenue growth (Agaba, 2021). Companies are using analytics to gain deeper insights into their target accounts and deliver more personalized marketing campaigns (El Horma, 2024). Additionally, with the help of data-driven insights, companies can achieve a comprehensive understanding of their customers, enabling them to create tailored experiences that drive long-term loyalty and satisfaction (El Horma, 2024). Customer insights in B2B marketing are further also utilized when creating data-driven value propositions that can be tailored to specific customers supporting the ABM approach (Ritala et al., 2024).
The use of data analytics in B2B marketing has been shown to significantly improve customer relationship performance and sales growth (Hallikainen, 2020).

Customer insights provide opportunities for behavioral segmentation that allows companies to target various customer segments with tailored strategies, enhancing engagement (Torpo, 2023). Data-driven customer insights help marketeers in **identifying previously overlooked segments within customer data**. The advanced algorithms in

generative AI are able to detect patters in customer and market data, enabling more precise audience targeting (Deveau et al., 2023).

Companies can now leverage generative AI directly through their CRM systems, as some service providers have integrated this technology into their platforms. For example, Salesforce Einstein GPT demonstrates how generative AI can enhance customer relationship management by combining proprietary AI models with OpenAI's GPT. Einstein GPT enables highly personalized interactions, such as crafting tailored emails, generating customer service responses, and creating targeted marketing content. (Salesforce, 2023; Kerner, 2023).

Generative AI has been utilized to analyze customer feedback to uncover sentiments, trends and needs to allow companies to improve customer experience by understanding the customers better. Furthermore, the feedback has been utilized to refine products and services better to improve customer satisfaction. (Sterne & Davenport, 2024)

In addition to the above benefits, generative AI demonstrates capabilities in predictive analytics, accurately forecasting customer behaviors and preferences by leveraging the past customer data (Kopare et al., 2024).

2.4 Challenges related to the usage of generative AI in marketing

While leveraging AI for generating customer insights offers several advantages as presented above, there are also various challenges that must be addressed. The chapters below present some of the common challenges regarding the usage of generative AI in marketing, especially in acquiring customer insights as outlined in the research literature.

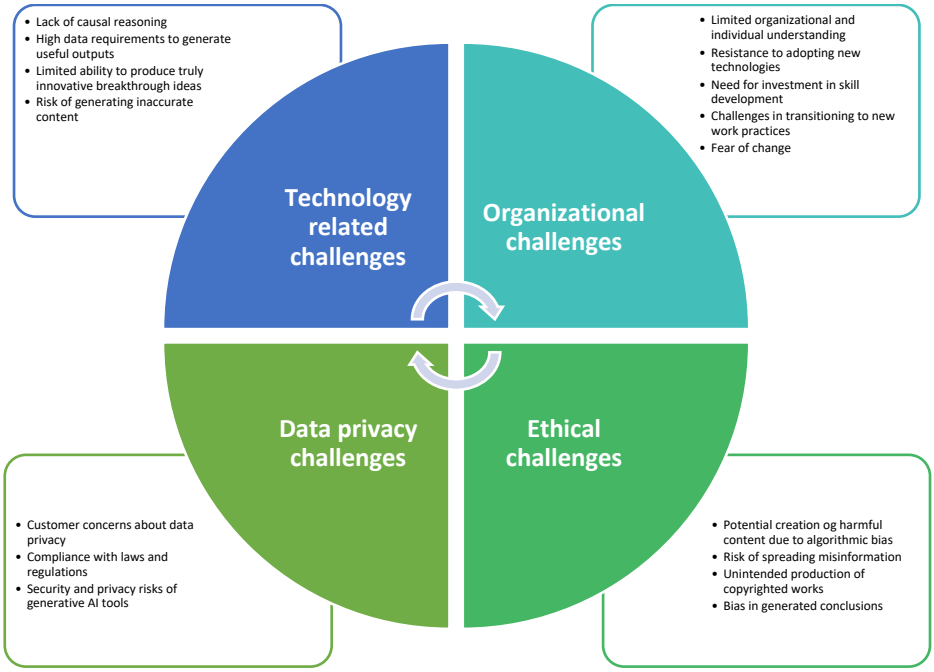

Figure 3. Challenges related to the usage of generative AI in marketing.

2.4.1 Technology related challenges

Despite the vast potential of generative AI in marketing, there are notable challenges associated with the technology. One major limitation of large language models as a form of generative AI is their lack of causal reasoning. Although these models excel at identifying patterns and correlations within large datasets, they often struggle with causal inference (Amini and Amini, 2024). In other words, while they can predict trends based on data, they do not always understand the underlying causes of these trends. Without this deeper understanding, LLM-driven decisions may miss key insights that could be essential for effective marketing operations (Amini & Amini, 2024).

Another challenge is the heavy reliance of LLMs on large, high-quality datasets (Amini & Amini, 2024; Schweidel et al., 2024). These models require vast amounts of data to generate accurate and useful outputs. However, acquiring high-quality datasets can be

difficult, especially in industries or markets where such data is scarce. This reliance on data volume presents an obstacle for companies that may not have the resources to obtain or generate such datasets (Amini & Amini, 2024). LLMs rely heavily on large amounts of historical data for training, which restricts their ability to handle innovative or 'outside-the-box' tasks that require creativity or address entirely new concepts (Schweidel et al., 2024). LLMs are capable at creating content based on known patterns but fail in producing genuinely new ideas or breakthrough innovations (Schweidel et al., 2024). Schweidel et al. (2024) emphasizes that LLMs are not yet effective in highly customized tasks, like launching a completely new product or responding to unique challenges like handling a brand crisis since these types of tasks require “outside the box thinking”. In addition, large language models like, ChatGPT, have been accused by the lack of arithmetic and logical reasoning (Teubner et al., 2024).

Especially when acquiring customer insights with the help of generative AI, it is significant to remember that generative AI models can create inaccurate content that can mislead decision-making processes and affect the quality of customer insights (Abumalloh et al., 2024). That is why it is important to review the content and insights generative AI is producing. Another notable issue is that the complex AI models can lack transparency regarding their processes thus resulting in difficulties for companies to understand and trust the insights that are created (Abumalloh et al., 2024).

2.4.2 Organizational challenges

The limited organizational understanding of generative AI's full capabilities has been emphasized as a key challenge (Kshetri et al., 2024). Related to the lack of transparency mentioned above, marketers struggle to understand how these models make certain decisions, which can degrease their trust in the technology (Amini & Amini, 2024). Although generative AI interfaces are generally user-friendly, they still require employees to acquire new skills. The pressure to reskill can be overwhelming for employees and may lead to increased resistance to adopting the technology (Bankins et al., 2024).

To fully leverage the potential of generative AI, companies must invest in hiring the right talent and educate their existing workforce to maintain a competitive edge (Yoo & Piscarac, 2023; Ooi et al., 2023).

One of the challenges highlighted by Kshetri et al. (2024) is the potential risks and costs, such as investment in technology, employee training, and workflow disruptions, companies perceive when transitioning to a new way of running marketing operations. This perception can lead to marketing employees' reluctance to incorporate generative AI into their daily work. Additionally, there are concerns about how AI would fit into the company culture and the potential for job losses due to AI utilization (Kshetri et al., 2024). Employees may view generative AI as a threat to their roles and unique skills because the technology can replicate tasks that were traditionally considered exclusive to humans (Bankins et al., 2024). The potential resistance to change within organizations is highlighted (Deveau et al., 2023, Kshetri et al., 2024). Transitioning to a new method of running marketing operations with generative AI requires organizational change, making openness to change essential. Bankins et al. (2024) highlight that a lack of supportive organizational culture in AI adoption can contribute to employee fears and resistance. Moreover, challenging or poorly designed AI systems may further hinder employee engagement with the technology, reducing its effectiveness in the workplace. In addition, integrating generative AI tools into existing systems and operations can be challenging and require efforts to ensure seamless operation and compatibility (Ahmed & Ali, 2024).

2.4.1 Data privacy challenges

Many customers are unaware of how their personal data is being used or where it is being utilized, which often leads to concerns about losing control over their own information (Puntoni et al., 2021). When collecting customer data for use as input in generative AI models, it is crucial to comply with local laws and regulations (Ooi et al., 2023). Concerns about data security and privacy are raised, when handling sensitive customer

data with generative AI. Thus policies to protect customer information are needed (Abumalloh et al., 2024).

Marketing executives are increasingly worried about the privacy and security of AI tools, particularly regarding the potential exposure of sensitive customer data (Moradi & Dass, 2022). Data privacy is equally important to customers, who are less likely to engage with businesses that fail to adequately protect their sensitive information (Kshetri et al., 2024). When using generative AI to deliver insights from customer data, issues such as the integration of private and public data, data ownership, intellectual property rights, and privacy concerns must be addressed (Ooi et al., 2023).

2.4.2 Ethical challenges

While generative AI is able to imitate certain aspects of human decision-making in controlled environments, they are not flawless (Amini & Amini, 2024). The increasing use of generative AI in marketing has raised various ethical issues, including earlier addressed concerns about customer data privacy, the potential creation of harmful content due to algorithmic bias, the risk of AI unintentionally spreading misinformation, and the production of copyrighted works that need to be addressed (Yoo & Piscarac, 2023).

In some instances, these models fail to represent diverse perspectives, potentially leading to incomplete or biased conclusions (Amini & Amini, 2024). The potential for biases in generative AI, which can lead to discriminatory outcomes in the content it creates, has been identified as a key ethical challenge associated with the technology (Amini and Amini, 2024; Yoo & Piscarac, 2023). This limitation becomes particularly problematic in areas where inclusivity and representation are essential for drawing accurate insights (Amini & Amini, 2024). Especially in marketing operations, human oversight is still essential to ensure that the content generative AI is producing is accurate, aligns with brand tone and avoids replicating inappropriate or toxic language

(Schweidel et al., 2024). Furthermore, generative AI may encounter challenges with understanding the contextual marketplace nuances, subtle customer emotions, and emotionally charged conversations (Ooi et al., 2023).

2.5 The theoretical framework

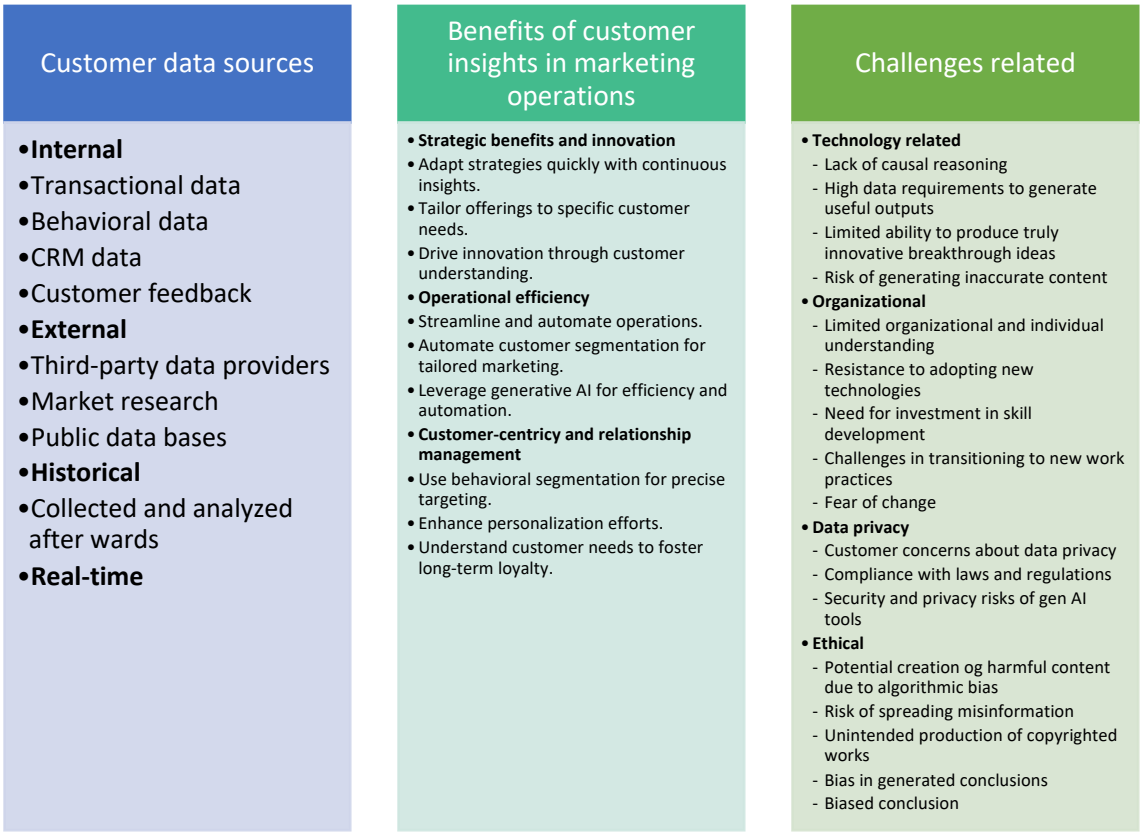

Figure 4: Theoretical framework

Customer data is a significant source of customer insights, since large customer data volumes can provide companies valuable insights into enhancing their operations and improving customer relationships (Chandra, 2022; Urbinati et al., 2019; Torpo, 2023). There are various datasources where valuable customer data can be collected. Based on this litterature review, I categorize these customer data sources into internal

sources and external sources and by time historical data and real-time data (Lilien, 2016; Plangger & Watson, 2015; Xu et al., 2016).

Generative AI's ability to analyze and process large datasets allow the technology to efficiently extract valuable customer insights, even in real-time, significantly enhancing the speed and accuracy of insight generation (Deveau et al., 2023; Amini & Amini, 2024). This real-time capability greatly boosts the overall efficiency of the process (Charllo & Kathiriya, 2023). Customer insights offer numerous advantages in marketing operations. Generative AI-powered insights enable marketers to enhance efficiency and adopt customer-centric approaches by gaining a deep understanding of customer needs (Deveau et al., 2023; Kshetri et al., 2024). These insights provide a competitive edge by offering a comprehensive view of both customers and the market, ensuring that all marketing activities remain relevant and aligned with customer expectations (Torppo, 2023; Urbinati et al., 2019).

Despite the many benefits of generative AI-driven customer insights, there are also challenges associated with its use. Generative AI technology still faces limitations in its capabilities (Amini & Amini, 2024). To extract valuable customer insights, high-quality datasets are essential (Amini & Amini, 2024; Schweidel et al., 2024). Large language models require vast amounts of data to produce accurate and meaningful insights. In this literature review, several organizational challenges associated with utilizing generative AI in marketing operations were identified. These include a limited understanding of the technology within the organization, company culture barriers, and fears or resistance to its adoption (Bankins et al., 2023; Deveau et al., 2023; Kshetri et al., 2024). Additionally, concerns around data privacy have been raised, particularly regarding the use of personal data and the security of AI systems (Puntoni et al., 2021). Finally, it is important to note that generative AI-generated content is not always flawless (Amini & Amini, 2024). There is potential for biases and discriminatory outcomes, making human oversight essential (Amini & Amini, 2024; Yoo & Piscarac, 2023).

3 Methodology

This chapter presents an overview of the research methodology and design utilized in this thesis. It begins with a discussion of the research approach and methods with providing justifications for their selection. This is followed by an explanation of the data collection process and analysis methods. Finally, the chapter concludes with an evaluation of the research's reliability.

3.1 Research approach and method

This research explores how B2B companies can generate and utilize generative AI-driven customer insights to improve their marketing operations. Given the evolving and current nature of this topic, a **qualitative research approach** was chosen as it enables an in-depth understanding of complex phenomena in a comprehensive way (Eriksson & Kovalainen, 2015). Qualitative research is particularly suited to researching emergent trends, such as the application of AI in marketing contexts, where traditional quantitative methods may struggle to capture the fast-evolving environment (Eriksson & Kovalainen, 2015).

The research theme is relatively current, making it essential to utilize methods that are flexible and capable of revealing insights into complex, real-world scenarios (Eriksson & Kovalainen, 2015). A qualitative approach is well-aligned with these objectives, as it allows for an exploration of the dynamics involved in how companies are adapting to and utilizing generative AI technologies when acquiring customer insights. More specifically, a **multiple case study method** was selected for this research. This method was selected appropriate due to the limited theoretical framework surrounding the use of generative AI in marketing in B2B contexts (Eisenhardt, 1989). Multiple case studies are particularly well-suited in research areas where a comprehensive theoretical background has not yet been established (Eisenhardt, 1989). Through the comparative analysis of different B2B companies' use of generative AI in marketing, this approach

facilitates a perspective of addressing the topic from different angles that integrates context with emerging theoretical understandings (Welch et al., 2022).

Case studies are recognized for their strength in investigating "how" and "why" questions, offering a deep exploration of real-world examples that reflect the complexity of the phenomenon under study (Welch et al., 2022). According to Eriksson and Kovalainen (2015) case studies are able to present complex research problems and themes in a practical and “down—to-earth” way. In this research, multiple case studies allow for a comparison across diverse business environments, providing insights into the benefits and challenges associated with the use of generative AI in generating customer insights. This methodological choice also supports the creation of contextually rich explanations, enhancing the relevance of the findings for both academic and practical applications (Welch et al., 2022). Case studies allow researchers to investigate contemporary phenomena within their real-life contexts, offering explanations that are both specific and, when appropriate, generalizable (Piekkari et al., 2009).

3.2 Case selection

The interviewees were selected according to their relevant experience with working with AI and marketing. The interviewees were representing various industries, but all had experience in working with B2B environments. The companies where the interviewees had experience with utilizing AI in their work were relatively large companies.

All the interviewees had more than one year experience on working with AI technologies on marketing. Case 1 had experiences of utilizing AI especially for improving customer experiences and support in B2B context already 4-5 years ago, before the recent surge in AI development and utilization. The experiences of Case 2, 3, 4 and 5 are mainly from the past few years, during which the use of generative AI has taken off strongly and commercial AI providers begun to emerge rapidly. Case 2 highlights that

mainly starting this year (2024) the use of AI in marketing functions especially in tracking and efficiency assessments has become a central theme. Case 4 and 5 described that the use of AI for customer insights is relatively new for this company and that they are still in the adoption process, exploring the most suitable workflows and platforms.

3.3 Data collection

To gather data, interviews with B2B marketing executives were conducted, ensuring that the research collects evidence from practitioners directly involved in the application of generative AI. The data for this research was collected using semi-structured thematic interviews, conducted between September and December 2024. The interviews were held online via Microsoft Teams and conducted in both English and Finnish, depending on the participants' preferences. All interviews were recorded to ensure accuracy during the analysis.

The interview questions were designed to gather objective and measurable information relevant to the research questions, such as the types of data and technologies used by participants and the insights they derived from these (Eriksson & Kovalainen, 2015). The interviews followed a constructionist research style, aiming to explore how the selected interviewees construct and interpret the phenomenon based on their personal perspectives and experiences (Eriksson & Kovalainen, 2015). While the interviews followed a pre-determined set of themes, flexibility was allowed in the structure of the conversation to accommodate variations in how participants articulated their answers. The interview questions are outlined in **Appendix 1**.

The interview questions were developed based on the research objectives and insights from the literature review. The interviewees were selected based on their relevant experience in utilizing AI technologies in marketing, particularly within the B2B sector,

and represented a variety of industries to ensure diverse perspectives. **Table 1** provides an overview of each interviewee's role, industry, and the duration of their interview.

All interviews were recorded with participants' consent. After transcription, the recordings were thematically coded based on the core topics explored in the interviews. This process helped ensure that the analysis was systematic focusing on identifying clear patterns and objective insights across the data.

Reference name	Role	Industry	Time	Date
Case 1	Head of Marketing Operations and CX	IoT and Software	45min	19.10
Case 2	Sales Manager	IT & Data solutions	45min	4.10
Case 3	CRM & Content Lead	Teleoperations	35min	7.10
Case 4	Customer insight professional	Media industry	35min	26.11
Case 5	Marketing Strategist	Marketing consultancy	30min	9.12

Table 1. Overview of the participants

3.4 Data analysis

In case analysis, it is essential to begin data analysis for each case individually following the interview, allowing the researcher to become familiar with the data and facilitate

theory building (Eisenhardt, 1989). Each of the interviews were first transcribed and then coded systematically based on the research sub-questions (Eriksson & Kovalainen, 2015). The coding was conducted utilizing different colors to code the interview transcripts with different categories. The categories that were utilized include: the types of customer data processed by generative AI, how these insights benefit B2B marketing operations and finally, the key challenges involved. Additionally, a fourth category was used to identify the AI technologies that were utilized.

In the second phase of the data analysis, the findings from the coding phase were inserted to a table to compare the differences and similarities between the different cases following a cross-case analysis (Eisenhardt, 1989). The third step of the analysis was a **thematic analysis** to analyze the data. This method allowed for the identification of recurring themes and patterns across the interviews, providing a structured way to organize and interpret the data. The coding process focused on categorizing the participants' responses into themes that reflected the key research objectives, ensuring that the analysis captured and comparable information while allowing for differences between participants' responses (Braun & Clarke, 2006).

Eriksson and Kovalainen (2015) introduce 'sensitizing concepts' as a way to analyze and describe empirical results and their meanings, with the support from previous research. Accordingly, the literature review is supporting the discussion and presentation of the empirical findings.

3.5 Reliability of the research

It is significant to assess the reliability of a qualitative research and presenting and evaluation criteria to present and assess the strengths and limitations of the research transparently (Eriksson & Kovalainen, 2015). In this research I utilized the concepts to evaluate the reliability of the research by (Lincoln & Guba, 1985): credibility, transferability, dependability and confirmability.

Credibility

The concept of credibility focuses on ensuring the trustworthiness of the research by evaluating the researcher's familiarity with the topic, the sufficiency of the data to support the claims, the logical connections between observations and categories, and whether other researchers could reasonably agree with the interpretations based on the provided materials (Lincoln & Guba, 1985). The credibility of this research has been strengthened by utilizing a multiple case study approach, collecting data from several cases rather than focusing on a single case. Additionally, the literature review was developed based on a wide range of sources to support the study's foundation. The researcher had already gained a thorough understanding of the topic prior to the research process, by reviewing existing studies related to the theme. However, while the data collected was sufficient to support the claims, incorporating even more cases could have further enhanced the robustness of the findings. The logical connections between observations and categories were ensured by consistently adhering to the research plan and structure, with careful analysis of the research methods and approach, supported by relevant literature.

Transferability

This concept focuses on highlighting the consistency of the study with other research, in order to establish connections between this study and previous ones (Lincoln and Guba, 1985; Eriksson and Kovalainen, 2015). The transferability of this research can be assessed through the comprehensive literature review that was conducted. In addition, the results of the empirical analysis are compared and reflected upon in relation to the literature review of the study highlighting the existing research. This approach helps to identify connections with previous studies. However, it remains somewhat challenging because the topic of this research, generative AI-driven customer insights in B2B marketing environments, is relatively new, and there is a limited amount of research available on this subject.

Dependability

This concept is used to assess the logical coherence, traceability, and documentation of the research process (Lincoln & Guba, 1985). This work has been built consistently upon a clear structure, and the stages of the research as well as its execution have been described as transparently as possible. For instance, methodological choices, data collection, and analysis have been explained in detail. The language used in the work is of high quality, and references to existing research literature have been presented transparently.

Confirmability

Confirmability refers to the idea that the data and interpretations of a study are formatted based on evidence rather than being the result of the researcher's imagination. It focuses on ensuring that findings and interpretations are clearly linked to the data in a way that can be easily understood and validated by others (Lincoln and Guba, 1985; Eriksson and Kovalainen, 2015). In this study, confirmability has been prioritized through a transparent data collection and analysis process. Additionally, by aligning the empirical results with existing literature, the study ensures that the findings are grounded in evidence, minimizing the risk of personal bias. All conclusions are derived directly from the data gathered in the research, further reducing the possibility of subjective interpretation.

3.6 Use of artificial intelligence in the study

Generative artificial intelligence has been utilized in this thesis. More specifically, ChatGPT 4o has been utilized in the study to support with brainstorming and refining the topic and research objectives. In addition, I have used it to provide suggestions for better structure of specific chapter. Moreover, I have use it to understand few concepts better, for example regarding the large language models and generative AI technologies. Since I am not a native English speaker, I have used ChatGPT throughout the

study at times to proofread sentences. It has reviewed whether the sentences were correctly written and provided suggestions for improving grammar and structure where needed. I have also used it to refine the interview questions, translate the originally Finnish-written questions into English, and assist in translating some of the Finnish notes from the interviews into English. Furthermore, Transkriptor program has been used to support in transcribing the interviews. ChatGPT 4 has also been slightly utilized in searching for suitable literature for this study. It has analyzed a few research papers and summarized their content, allowing me to quickly assess whether a specific study could be relevant and worth further analysis for this research.

All the outputs gathered from ChatGPT, has been carefully reviewed by the researcher and all the insights and inputs processed by ChatGPT are generated by the researcher. Generative AI has been utilized in this research simply to achieve the best possible outcome and quality of the research. Thus, I as a researched are behind and responsible for all the content of this study.

4 Findings

This chapter analyses the empirical findings of the research collected from the analysis of the data from the interviewed cases. The first part explores the customer data that is utilized for the insights and provides an overview of the insight generation method with generative AI. In the second part I examine more deeply what kind of insights have been generated and how these insights have been utilized as a part of marketing operations according to the interviewed cases. Finally, I research the key challenges and limitations that the interviewed cases brought up.

When inquiring about the interviewees' experiences of utilizing generative AI for generating customer insights, some of the cases described that they collected customer data in excel files, which were then fed into AI engines to enable question-based analysis. Some interviewees also reported that more platforms are integrating AI features directly into their services, making the generation of customer insights within the tools that are already used in marketing operations easier. For example, Google Analytics and Microsoft 365's Coplot now offer a built-in AI functionalities that improve the ability of companies to analyse and interpret customer data within the platforms and services they are using.

Most of the cases had gained experience with generative AI within the last few years. Their usage primarily involved commercially available generative AI models, such as Microsoft Copilot, Google's Gemini, and ChatGPT from OpenAI. Case 1 also shared earlier experiences of utilizing AI in customer experience development, by analyzing chatbot inputs and customer loyalty data, starting already 4–5 years ago. During this time, they collaborated with a commercial AI provider supporting in both analyzing customer loyalty data and another solution to build up a chatbot. to develop a customized solution tailored to their unique needs. Case 3, 4 and 5 described the use of commercial service providers but under a secure company license. In addition, Case 3 had experiences in utilizing an in-house AI platform developed using proprietary data. This

platform was created as part of a project focused on ensuring security and meeting specific organizational needs.

4.1 Customer data types and sources

When discussing the customer data analyzed for generating insights, the cases highlighted a variety of customer data types. Most cases relied on internal data collected from the company's own data sources. However, some also made use of external customer data. All the cases mentioned that the customer data they worked with was primarily large and unstructured. The table below provides a summary of the different customer data types along with the insights they generated. The following sections offer a more detailed description of these data types.

Case 2 highlighted that **valuable customer insights can only be derived from customer data if it is as current and reliable as possible**. The quality of input data is equally as important as the objectives intended to be achieved with it. The importance of the data quality is critical to extract meaningful customer insights. Case 2 emphasized that ensuring the data's relevance and alignment with analytical goals is essential. Proprietary customer data remains the most frequently used data source, and maintaining its quality continuously is vital in order to acquire customer insights. Furthermore, a thorough understanding of the data is important since without a clear understanding of the data's content, implementing AI-driven actions effectively is significantly restricted.

	Customer data	**Insights provided**
Internal data	- CRM data - Customer loyalty/ NPS data (Net Promoter Score) - Customer inputs for chatbot	- Customer satisfaction/experiences - Customer challenges - Content engagement (click rates) - Customer profiles

	- Customer feedback (from CRM) - Behavioral data - Customer and market research	- Customer preferences - Demographic insights
External data	- Customer and market research	- Market trends (consume, preferences, behaviors)

Table 2. Categorization of the customer data utilized

Many of the cases highlighted the role of customer data from CRM (customer relationship management) systems. This was the most common customer data source that was analyzed for customer insights. These systems collect versatile customer information consolidating information from various sources that can be utilized to improve marketing operations. Especially Case 3 described the role of CRM data in their operations. The data they are evaluating from CRM is especially data from contact information, send and open rates, click-through rates and message engagement levels. This data helps in assess the effectiveness of the communication, identify customer preferences and eventually optimize marketing strategies. In addition, lead tracking is being analyzed and conducted on an ongoing basis.

Both written and numerical customer feedback was being analyzed and collected by some of the cases. Case 3 highlighted customer feedback that was gathered through the CRM systems as a significant type of customer data for their operations. This comprises both numerical ratings and written comments. Case 3 describes that they are analyzing this feedback to identify positive and negative factors that influence customer evaluations, providing deeper insights into customer perceptions and experiences. Similarly, Case 1 described experiences in utilizing customer loyalty data, NPS

data (Net Promoter Score), which included unstructured feedback from customer comments indicating whether most customers would recommend the company. Case 4 described that the company conducts researches and generates large amount of especially quantitative data about customers and the market. Due to the nature of the industry, the company is highly data-oriented, regularly collecting data both through their own research efforts and by analyzing behavioral data (digital). Behavioral data is gathered across customer segments to identify areas of interest and better understand different customer groups. The company also collaborates with partners in its data collection.

Case 5 reported conducting extensive customer research, both qualitative and quantitative, especially when starting a new customer project. This research involves engaging directly with customers and other stakeholders to gain a deeper understanding of the customer and the specific case. The company conducts these studies regularly, using methods such as interviews, surveys, mappings, and customer satisfaction surveys to collect comprehensive data. This data was then further processed with generative AI.

Similar to written customer feedback, Case 1 had experiences in analyzing outputs that customers were typing to AI-powered chatbot that was used to support the customers using a technically complex product. The chatbot was initially designed to enhance customer support; however, it was also proven valuable in providing insights into customer experiences. It featured an open text field where customers could freely type their questions, offering possibility to analyze these outputs and deepen understanding of the customer challenges and needs.

The interviewees were highlighting the rapid advancements in output quality of the commercially available generative AI models, like OpenAI's ChatGPT. Additionally, interviewees with experience from proprietary generative AI solutions developed in-house by companies, highlighted the enhanced agility and control such approaches

provide. Case 4 mentioned their current initiative to develop a company-owned generative AI tool specifically designed to push the boundaries of thinking further, enhance insight generation, and identify actionable ideas more effectively than the general platform they currently utilize. By developing generative AI solution in-house, companies have control over the data, which is used to train the models, which in turn allows them to tailor use cases and outputs to meet specific needs. Case 5 reported that to reach the full potential of generative AI solutions in acquiring customer insights, entirely company-developed internal generative AI platform could be needed.

Interviewees with experience in utilizing commercially available generative AI models highlighted the significance of effective prompting to accomplish intended outcomes. They also emphasized that mastering this skill is an ongoing learning journey, involving continuous refinement of the criteria provided to the AI models.

"In addition to data quality, it is important to focus on the criteria and prompts set for the AI, as these significantly impact the value of the results".
Case 2

4.2 Potential benefits of generative AI-driven insights in B2B marketing operations

One of the key objectives of this research is to explore how generative AI-driven insights can benefit marketing operations, especially in the B2B context. In this chapter I explore the experiences of the case interviewees in utilizing generative AI-driven insights in B2B marketing operations.

Case 2 noted that, based on their experience, the most effective use cases for generative AI involved automating manual tasks, streamlining operational processes, and enhancing overall understanding through the advanced analytics enabled by the technology. Generative AI offers diverse applications in B2B marketing operations, ranging

from supporting graphic designers and content creators to assisting managers in developing executive-level strategies. Interviewees underlined that AI's potential extends to companies of all sizes; various organizations can leverage it differently according to their specific needs. Many of the interviewees highlighted the positive potential of generative AI-models as a "sparring partner" to support their work, providing ideas, refining strategies, and offering perspectives for decision-making.

4.2.1 Operational efficiency

Many of the interviewees revealed that the primary motivation for implementing generative AI in their marketing operations was the large volumes of data and the slowness and complexity of analyzing it manually. **Time** emerged as a significant benefit that interviewees emphasized when discussing the use of generative AI-driven insights in marketing operations. Time was saved, allowing for a greater focus on more time-intensive tasks. Case 4 highlighted that while they are still in the early stages of leveraging generative AI solutions for customer insights, generative AI has already shown significant potential, especially in improving efficiency.

"I think that AI presents and opportunity, particularly by streamlining routine tasks, freeing up time for more complex operations that require deeper, critical thinking." Case 5

Additionally, many of the interviewees mentioned that when customer data was analyzed with AI, **new insights emerged** during this way of working that would not have been noticed otherwise. Thus, the role of generative AI driven customer insights in improving the **operational efficiency** of marketing operations was highlighted among all the interviewees. In addition, Case 3 pointed out that one of the most valuable advantages of generative AI is its ability to identify **profitability drivers** by analyzing

which elements of marketing campaigns led to success and determining the components of profitable activities. Case 4 also emphasized the use of generative AI for reporting on marketing campaign performance.

"It (generative AI platform) collects and categorizes insights from data to a summarized form, clearly. No need to manually read through each piece of customer feedback or campaign metric."
Case 3

Furthermore, Case 4 described that generative AI has at its best been helpful in generating and summarizing different types of data and insights and in making recommendations based on the data. In the best use cases, generative AI has been used to provide actionable suggestions for marketing communications tailored to specific customers based on input data. Thus, these suggestions have supported in identifying suitable actions for specific target groups. Furthermore, generative AI enhances operational efficiency by supporting the preparation for customer meetings, particularly through the creation of pre-negotiation briefs as described.

Case 5 reported that generative AI has been particularly useful in processing and structuring customer research data into a more organized and comprehensible form. However, their experience with using generative AI to produce major insights remains limited. Regardless, the structured data generated by AI is subsequently analyzed by the company's experts to extract deeper insights and conclusions.

4.2.2 Customer relationship management

The empirical findings of the research demonstrate the benefits of generative AI driven customer insights in customer relationship management. Case 1 described that the customer chatbot inputs that were analyzed with AI were providing valuable customer insights that benefited the marketing team. These insights significantly improved the

understanding of **real customer challenges,** as the feedback was directly gathered from customer inputs provided to the chatbot. This analysis led to **refined technical documentation,** ensuring that customer-facing materials aligned more closely with customer needs and expectations. This initiative helped the company better incorporate the customer perspective into its operations.

"We realized fairly soon that we were essentially writing manuals for experts on the product, which obviously wasn't always the case."
Case 1

The insights gathered from chatbot interactions enabled the company to enhance the bot's responses, adding practical and detailed answers to customer questions that had not been initially anticipated. The chatbot functioned as a feedback loop, allowing customers to raise issues in an open-text format, which revealed topics and concerns the company had not previously considered. Additionally, cases where generative AI was used to analyze customer feedback, generative AI supported in highlighting the most influential and critical feedback and even presented underlying factors and pinpointed areas for improvement based on this analysis. Thus, this supported marketing teams to better understand what matters most to their audience allowing for more targeted allocation of resources ensuring that marketing operations addresses the most important customer needs.

"Generative AI has been analyzing both numerical and written customer feedback on a monthly basis, identifying key drivers behind the feedback, including factors contributing to both positive and negative responses."
Case 3

Case 3 described the significant role of generative AI in supporting data analysis of internal customer data by helping to "connect the dots" between profitable and non-profitable activities. For example, Case 3 described how generative AI was employed to

assess campaign profitability across various metrics, enabling a comprehensive view of campaign performance. This analysis helped the marketing team to identify successful elements in their campaigns and understand which factors contributed most to their impact.

"AI helps quickly produce insights when tracking numbers and various metrics within campaigns, allowing us to monitor multiple aspects simultaneously. For example, a campaign might still be considered commercially successful, even if it hasn't generated a specific revenue figure, because it has produced a significant number of leads. In that sense, AI supports us in recognizing and highlighting where we have succeeded."
Case 3

The interviewees highlighted the potential of generative AI in creating targeted content based on customer data, enabling the development of personalized messaging for campaigns, customer communications, and articles tailored to specific customer segments. This capability significantly accelerated content creation, providing advantage in speeding up workflows.

Case 2 pointed out market research as an example of a potential utilization area of generative AI in marketing operations. AI could be used to enhance internal market exploration without relying on external service providers. These AI-driven insights can support the development of go-to-market strategies and suggested operational actions by analyzing scenarios derived from customer data. This approach can accelerate ideation process, helping to identify potential market gaps more effectively. Furthermore, Case 4 shared their experiences using generative AI for market and customer research. AI was effective in gathering background information and identifying key trends, streamlining and accelerating these traditionally time-intensive processes.

4.3 Challenges and limitations in using Generative AI in customer insights

In one of the interviews, it was mentioned that many companies and individuals are expressing their interest in using AI-technologies effectively in their operations, but at the same time, several studies show that only few companies implement its use thoroughly and systematically in the operations. While generative AI-driven customer insights offer significant benefits to marketing operations, as outlined above, interviewees also pointed out several associated challenges. The following chapters presents the challenges related that were desribed by the interviewed cases.

4.3.1 Security

Interviewees raised concerns about potential security risks associated with using commercially available generative AI models, such as ChatGPT and Copilot. Specifically, they pointed out the danger of inadvertently exposing trade secrets through data inputs provided to these publicly accessible AI systems. However, most of the cases were utilizing commercially available models with secure company license or generative AI solutions that were developed specifically to the needs of the company.

Case 5 points out that especially when utilizing customer data, it is critical to keep data protection and GDPR in mind. It is not permissible to feed any data directly into a commercial generative AI platform due to the security risks. Case 5 reported that currently all the data they utilize with generative AI tools must be anonymized. Case 5 brings up that there should be clear company policies with the topic to avoid situations where employees are accidentally utilizing commercially available generative AI tools with vulnerable customer data.

"What I've been thinking about is what exactly ends up being inputted into these systems and how careful each employee is with their data. Often, as casual user, you don't stop to consider whether you're even allowed to input this data into the tool."
Case 5

Case 5 describes that the security aspect is a significant barrier in their way of utilizing generative AI in customer insights.

"If there were a way to feel completely secure about the usage, everything could potentially—and most likely—be analyzed automatically, enabling the generation of greater insights."
Case 5

Case 2 highlighted that most commercial AI providers currently originate from North America, with some from China, while European providers are leaving slightly behind. A key reason for this distinction is the legislation from the European Union, which strongly prioritizes individual rights. While commendable, this focus may result in reduced innovation and competitiveness with the solutions from Europe, as investments are directed towards other markets. Case 2 describes that this presents a potential challenge for companies relying on generative AI platforms developed outside Europe. In the future, specific functionalities may be limited to certain markets and unavailable in the EU due to regulatory constraints. Therefore, the legislative framework plays a critical role in shaping how AI can be utilized effectively.

4.3.2 Technological limitations

While the outputs from generative AI models were recognized as having compelling potential, several interviewees highlighted concerns about the possibility of errors these models can produce. Several interviewees had experiences where generative AI models had produced incorrect or incomplete information. Interviewees were

highlighting that the reliability of AI-generated results must be always analyzed and validated. However, when discussing this, several interviewees were mentioning that the amount of errors has decreased as the AI models have improved. Case 5 highlights that, at times, it is uncertain where the insights generated by generative AI originate. In some cases, the insights appear to be based on the platform's own knowledge rather than the data provided. This underscores the importance of effective prompting and careful selection of the AI platform.

"There are times when generative AI applications claim they can access to certain data, such as when analyzing social media channels. While data from some channels is available, data from others is not. This can lead to challenges where AI tools may start generating results based on incomplete or unavailable data."
Case 5

Moreover, Case 4 described that according to their experiences, generative AI falls short in creating actually groundbreaking insights or perspectives. Insights generated with generative AI based customer data analysis might occasionally miss key considerations, thus Case 4 highlights that this way generative AI cannot still replace the tacit knowledge of expertise that specialists have regarding customers and industries. Some insights have been incomplete, and they do not yet have experiences where generative AI has been able to generate transformative recommendations. Furthermore, Case 4 emphasizes that generative AI has still difficulties in bridging the gap created by the experience and nuanced expertise of professionals according to their experiences.

" According to my experience, AI cannot capture all the tacit knowledge that industry specialists have. The depth and nuances brought by experience are often missing from the outputs it generates."
Case 5

4.3.3 Data quality and inputs

The importance of the data quality was highlighted by several cases. **Lack of data quality** is a significant challenge regarding the usage of generative AI as a part of marketing operations. When searching interviewees for this research, some potential candidates did not want to participate due to the lack of experience on the topic caused by the poor data quality.

”The quality of the data being input is just as important as the goals intended to be achieved with it.” Case 2

Case 4 highlights the significance of critically evaluating the choice of platform when utilizing generative AI, including careful consideration of the sources from which the platform delivers its outputs. Is the data utilized up-to-date and reliable? To generate useful outputs, well-structured inputs regarding the background information such as industries and customers is required. The importance of prompting was highlighted by the interviewees. Prompting, especially at the beginning, is time-consuming and well-created prompts are essential for desired outputs especially If utilizing general commercial generative AI models.

“I believe that with better prompting, we could achieve even more tailored and effective recommendation and support for our marketing operations, such as which marketing actions to implement and when." Case 4

4.3.4 Organizational challenges

Although artificial intelligence technologies are currently in the spotlight, they also raise concerns about potential **job losses** among employees. Several of the interviewed cases pointed out this challenge, particularly among more skeptical employees

who expressed concerns about the adoption of AI technologies. Fears towards the utilization of generative AI might reduce interests in its use. However, some of the interviewed cases pointed out that the fears have decreased once people are getting more and more familiar with the technology, it's possibilities and limitations.

"Even though AI technologies are currently trending, there are several fears, particularly concerning potential job losses among employees."
Case 2

With many of the interviewees, change resistancy within B2B organizations was discussed as a challenge concerning the utilization of AI technologies. Some cases brought up that there were mix of reactions within the organizations when AI technologies were implemented. Some employees were more skeptical and dismissive towards new AI solutions while others were open to experimenting with new technologies despite uncertain returns. Case 4 describes that according to their experiences; AI is most effectively utilized inside the organization if there is clarity about its use cases and benefits it brings. If it is perceived as just another tool, its adoption may remain limited. Moreover, Case 5 brings up the importance of training all employees and ensuring that the generative AI platforms are accessible to everyone for use.

Case 2 describes the importance of a strategic and comprehensive approach to integrating AI into company operations, including marketing operations, as organizations differ significantly in their readiness to embed new operational models. Case 2 pointed out that the best examples of utilizing generative AI to foster marketing operations arise when different departments within the organization colaboratively plan the use cases for AI technologies and consider challenges related to the technology together. Several interviewees emphasized that AI solutions should not be implemented exclusively for the purposes of marketing teams. For example, if implementing generative AI solutions into marketing functions, product development might benefit for the same

solution. Deploying such a broad and transformative technology across functions requires support from the entire organization, as well as careful, strategic planning. Taking diverse perspectives into account is essential and facilitates the wise integration of solutions in a way that benefits multiple teams.

"AI technologies represent such a fundamental shift that no organization or department is untouched by its influence."
Case 1

Case 2 emphasized that developing a common language within the organization and establishing a company-wide vision for AI implementation can significantly enhance the effective utilization of AI solutions in operations.

"Resistance to change can be an obstacle to organization-wide adoption. Finding a common language and shared understanding of AI usage within the organization is important, as it can help address this resistance and ensure communication effectively reaches different target groups."
Case 2

Furthermore, Case 5 highlights the challenge of not fully understanding how to utilize generative AI most efficiently in marketing operations. This uncertainty can even be somewhat stressful, raising questions such as: What are the best use cases? How should I leverage it in the most effective way?

Several interviewees outline ways that have supported to effectively implement AI technologies in their organization. Case 3 mentions change programs and ambassadors that they have had inside the company fostering ongoing and diverse discussions about AI. A company-wide approach to leveraging AI solutions has been established ensuring that all members of the organization are considered. Some interviewees pointed out the significance of support and commitment at the top leadership level for

the successful implementation of AI technologies. Such support not only ensures alignment with organizational goals but also encourages a culture of innovation and accountability, enabling more effective and impactful results.

Case 3 illustrates that one key reason for their team's success in experimenting with generative AI in marketing operations lies in the regular use of generative AI tools by all team members. The interviewee emphasizes that effectively leveraging generative AI in marketing requires practice, patience, and a continuous exploration of new use cases and applications. Furthermore, it highlights that utilizing AI in the workplace is an ongoing journey, as the tools are constantly evolving.

"Within my team, we all use generative AI in our work, although our use cases vary slightly. We are still at the beginning of this journey and are actively exploring the possibilities with open attitude."
Case 3

5 Discussion

This chapter reflects the empirical findings of the research with the findings from the theoretical framework by answering to the research questions that were presented in the introduction chapter. Subsequently, I will discuss managerial implications of this research and cover insights for future research. Lastly, the final chapter provides the key takeaways of the research.

In addition to exploring how B2B companies can generate and leverage generative AI-driven customer insights to enhance their marketing operations, in the B2B environment, this research also addresses the broader challenges associated with utilizing generative AI in marketing contexts. Furthermore, this research provides insights for the limitations and possibilities of generative AI in marketing operations is discussed. This study highlights the potential of generative AI for gathering customer insights to enhance B2B marketing strategies, as supported by existing literature. In order to make meaningful use of generative AI in marketing operations, the challenges involved need to be understood and addressed. Nonetheless, its practical utilization in this operational area is still in the early stages of development.

RQ: How can B2B companies generate and utilize generative AI-driven customer insights to improve their marketing operations?

To generate and utilize generative AI-driven customer insights to improve marketing operations in the B2B environment, the data orientation of the company is being emphasized. The quality of the data is essential for valuable insights. Utilization of versatile customer data from different sources is significant. Data quality is also being emphasized when involving generative AI technologies, since the technologies are relying on large amounts of data. This research provides meaningful evidence of the benefits generative AI technologies offer for marketing operations overall, and more specifically, for generating valuable customer insights. These benefits range from improving the operational efficiency, strategical aspects and more importantly, improving the

customer understanding, relationship and experience. Despite the several benefits, when involving AI-technologies into companies' operations, there are several potential challenges that are crucial. These challenges range from legislation, security, reliability and organizational challenges. Thus, when involving generative AI solutions into marketing operations, these challenges need to be addressed. The proper skill development, knowledge and choice of technologies is significant. The findings of this research particularly highlight the importance of a company-wide approach and support for AI technology utilization to fully unlock the benefits of these technologies.

RQ1: What kind of customer data can be utilized and processed by generative AI to generate actionable customer insights?

As a first research objective, this study researched the different data types that can be utilized and processed by generative AI to generate actionable customer insights. Customer insights were defined as insights revealing patterns from customer data that are supporting in understanding customers future behavior, preferences and other attributes (Chandra, 2022). Existing literature highlighted versatile internal and external data sources as important for generating customer insights. The customer-related data that companies collect can be categorized based on its source - internal or external - or its time frame, such as real-time or historical data. Number of relevant customer data sources were identified with existing literature.

The empirical findings also confirmed this categorization of customer data as significant for valuable customer insights. Regardless, interviewed cases were most commonly utilizing internal data with their operations for customer insights. In addition to the data sources presented with the literature review also customer loyalty (NPS) data and customer chatbot inputs was begin highlighted as a relevant source when gathering customer insights by the interviewed cases. Furthermore, some interviewed cases reported the use of customer research revealing significant insights from the market

and customers. Even though the interviewed cases collectively showcased versatile range of customer data sources, each case primary focused on only a few specific ones. Based on the versatile data sources discussed in the literature review, mapping customer journeys to identify key touchpoints for data collection could be highly beneficial. This approach could help companies pinpoint more significant customer data sources, which could then be analyzed to generate valuable customer insights,

Since the customer data sources described by the case interviewees were mostly specific to individual case, it appeared that the operational use of generative AI with customer insights had not yet been widely strategized or planned to maximize the utilization of multiple customer data sources. In all cases, the decision to use generative AI for analyzing specific data came from the large volume of the data, which would have required significant time for manual analysis. At this point, it was recognized that AI could assist in processing the data, and later its potential benefits in generating customer insights became apparent.

The existing research highlighted the importance of collecting customer data from diverse sources in order to gather accurate and high-quality insights (Ghasemaghaei and Calic, 2019). Interviewed cases also pointed out the use of large, unstructured customer data for generating customer insights, even though it was not necessarily gathered from a wide variety of sources. Critical factors affecting the data-driven insights was diversity, accuracy and velocity of the data (Ghasemaghaei and Calic, 2019). The critical role of data quality was also underscored by the interviewed cases in the empirical research. Reliable and current data is essential for generating meaningful customer insights. Moreover, the role of data orientation of the company, effective strategies in collecting and analyzing the data is essential in order to gather valuable customer insights. Additionally, the accuracy of the data was highlighted by the interviewed cases as particularly significant for leveraging generative AI driven actions.

The importance of the data quality came up several times during the research process. When looking for potential interviewees for the study, some potential cases declined since they said that they are not yet able to process customer data with generative AI to a large extend due to poor data quality.

RQ2: How can generative AI-driven customer insights benefit B2B marketing operations?

As a second research objective, this thesis researched the role of generative AI-driven customer insights in B2B marketing operations. Based on the existing literature, I categorized the benefits of generative AI-driven customer insights in marketing operation into strategic benefits and innovation, operational efficiency and customer relationship management. With the empirical study, the benefits that emerged from the case interviews were categorized to operational efficiency and customer relationship management.

As a significant benefit, both literature and the interviewed cases were highlighting the **operational efficiency** the use of generative AI in customer insights can bring. The ability of generative AI models in analyzing and processing large unstructured datasets, automating data analysis, report generation and content creation and capability leading to operational efficiency and cost savings was highlighted (Thiruneelakandan & Umamageswari, 2024). Enhanced operational efficiency and saved time was also highlighted by several interviewed cases. For many, the primary motivation was the need to manage large volumes of unstructured data to generate valuable insights, which drove the decision to adopt the technology for marketing operations. The interviewed cases were highlighting the time savings generative AI driven processes can bring, allowing them to focus on more strategic tasks. The empirical findings highlighted the benefits of generative AI in enhancing data-driven decision-making within marketing

operations in general by streamlining traditionally time-intensive tasks, such as background research and trend analysis.

Due to the operational efficiency highlighted above, it will be interesting to observe how its adoption might change the operations of marketing teams. By automating routine tasks, generative AI could allow teams to focus on more strategic activities that require human input. This change towards strategic tasks could potentially enhance the team's innovation capabilities, thereby contributing to a stronger competitive advantage. However, based on the interviewed cases, that emphasized the need to use generative AI to manage large volumes of data, its current use in this operational area appears to be more reactive than strategically planned.

Existing literature stressed the strategic benefits of generative AI-driven customer insights in supporting the development of innovative offerings that enhances responsiveness to market changes and supports in refining value propositions, strengthening competitive edge in B2B environment (Rosiello et al., 2021; Hallikainen, 2020; Bharadwaj et al., 2012; Hartline et al., 2000). This became apparent also in the empirical part thus some of the interviewed cases reported the benefit of faster identification of market and customer trends in helping businesses adapt and respond effectively to changing market conditions. With the effective data processing and pattern detection capabilities, generative AI can uncover insights that might otherwise be overlooked by humans. These previously uncovered insights could prove valuable in tweaking existing value propositions to better address customer needs and potentially even anticipate future needs. Consequently, these insights support companies in adapting to evolving market dynamics and customer needs that can foster long-term loyalty and support in competitive advantage (Macinnis, 2022; Urbinati et al., 2019; Torpo, 2023).

The data consolidation and idea generation capability of the technology are seen effective also in B2B marketing campaign development (Lontzek, 2024; Parikh, 2023). Some interviewed cases reported the benefits of generative AI-driven insights in marketing

campaign development, particularly in identifying profitability drivers from previous campaigns, analyzing components that contributed to success, and improving resource allocation. For example, by analyzing the campaign data, generative AI can pinpoint messages or materials that resonated most with the target audience providing suggestions for actions to be conducted in the following campaigns. Moreover, the empirical research pointed out the benefit of generative AI-driven insights in connecting the dots between profitable and non-profitable marketing activities. The technology's effective data analysis capabilities can help connect marketing actions, such as campaign initiatives, to positive reactions from the target audience, and vice versa.

The findings from the literature review presented potential of generative AI enabling personalized marketing strategies by delivering tailored content and communications improving customer satisfaction and loyalty (Verma & Kumari, 2023; Agaba, 2021). Additionally, empirical evidence underscores the benefits of generative AI in creating personalized marketing campaign content through the analysis of customer data, such as developing campaign messaging and articles for marketing communications. The advanced algorithms in generative AI can detect patterns in customer data enabling accurate audience targeting and the identification of possibly preciously overlooked customer segments (Deveau et al., 2023; Torpo, 2023).

When AI was applied to analyze both numerical and written customer feedback, collected from CRM systems and customer service chatbot, it revealed new insights that enabled better alignment with customer expectations and challenges. These insights enhanced marketing operations by improving technical documentation and tailoring marketing communication to more effectively meet customer needs. A key benefit of AI-driven customer insights was the enhanced understanding of customer needs, as highlighted by the findings. This improved understanding not only addressed customer challenges more effectively but also helped refine customer-facing materials and develop marketing strategies tailored to customer concerns. Therefore, generative AI driven customer insights can support marketing operations by reviewing that the focus

of the operations remains “outside-in” instead of “inside-out” assuring that the customer needs are addressed.

RQ3: What are the key challenges and limitations companies face when using generative AI to capture and utilize customer insights from customer data?

While generative AI can bring several benefits to marketing operations, human expertise remains still crucial to ensure the accuracy and relevance of customer insights generated. Thus, generative AI tools complement **human decision-making** by reducing the workload and enhancing the data analyzing. Furthermore, in the competitive B2B environment, leveraging AI-driven customer insights empowers companies to innovate, refine offerings and respond effectively to shifting market dynamics.

The empirical findings of the research highlighted concerns regarding the risks of exposing possible trade secrets and sensitive customer data through the commercially available generative AI platforms. This is a relevant challenge to address, and several interviewees raised concerns about it. To prevent this, it would be important to increase knowledge of how the AI platforms, that are used, actually work. Clear rules and guidelines on how to use them are essential. Moreover, it is significant to focus on the regulatory and legislation aspect of generative AI when planning the utilization in marketing operations. Furthermore, the dominance of AI providers from areas outside the Europe, such as US and China, present possible challenges due to difference in legislation.

Additionally, generative AI-driven customer insights face a reliability challenge due to the possibility of generative AI models of producing incorrect, incomplete of contextually irrelevant insights. The origin of some AI-generated insights can be unclear. Large language models, powering the generative AI technology, may produce inaccurate or incomplete information, requiring careful validation. Challenges with the technology

occur also with the lack of transparency with the process making it difficult for users to understand how the insights have been generated (Abumalloh et al., 2024). Likewise, generative AI models may produce biased content or fail to represent diverse perspectives leading to discriminatory outcomes (Amini & Amini, 2024).

The empirical findings were also pointing out that the current generative AI platforms the interviewees utilized still fail in providing groundbreaking or nuanced insights that could replace the expertise and tacit knowledge of industry professionals. The existing literature also pinpoints this finding. Large language models exceling in identifying patters from customer data however struggle in understanding underlying causes, limiting the ability to provide groundbreaking insights (Amini & Amini, 2024). Therefore, the role of generative AI driven customer insights should not be over-emphasized, and the creation of customer insights should not be left to AI alone. As mentioned earlier, the best results occur when the generative AI-tools are used together with humans.

Several organizational challenges were identified with the research. Limited understanding of generative AI's capabilities can reduce trust and hinder the adoption (Kshetri et al., 2024). Both the literature and the interviewed cases emphasized concerns about potential job losses and the pressure to reskill, which can contribute to employee resistance towards adopting generative AI. The lack of understanding on how to utilize generative AI technologies creates uncertainty and can be visible in the skepticism about the usage. Thus, regular training and exploration of different use cases are significant. Moreover, the lack of supportive organizational culture can also exacerbate these fears (Bankins et al., 2024). Effective implementation requires collaboration across departments, a strategic vision and support from the leadership. It will be interesting to see how AI technologies will change the operational models or even the organizational structures of companies in the future, assuming that the development and growth of the technology will continue in the future.

The concerns regarding the technology are understandable due to the challenges addressed with this thesis. Transparency and clear guidelines on how and where to use the technology are needed. Fears regarding potential job losses were raised as a challenge by the interviewed cases and the existing literature. However, as some of the cases described, the fears have decreased as the technology has become more familiar and its possibilities and limitations have become clearer. Based on this research, it seems that the use of generative AI together with human oversight is crucial to achieve optimal results.

When discussing with the interviewees, a few interviewees mentioned the pressure to take advantage of the AI technologies and keep up with the fast-evolving technology. They wondered whether they had made the best use of the technology now and how it could be used more widely. Hence, considering the challenges and opportunities of the AI technologies is important and supports companies to successfully plan new areas of exploitation.

5.1 Managerial Implications

The outcomes of this thesis stress the potential for generative AI-driven customer insights in the B2B marketing operations. Regardless, implementing generative AI technologies in the customer insight process requires careful consideration of several key aspects. In addition to providing valuable evidence of the potential and successful use cases of generative AI, this research highlights the challenges and areas requiring further attention.

The role of data is fundamental in leveraging generative AI-driven customer insights in marketing operations. Companies must have a robust data-driven focus to implement the full potential of these technologies. This thesis presents diverse operational areas where generative AI can be applied in marketing operations. Valuable customer in-

sights can be derived from versatile data sources. With these remarks, creativity becomes the primary limit to identifying areas within marketing operations that can benefit from generative AI-driven insights. As highlighted by the interviewed cases, significant advancements in generative AI capabilities have already been presented, suggesting that organizations should act now to prepare for this shift by integrating generative AI into their marketing operations.

The challenges presented in this research point to several critical managerial implications. One of the important considerations is the role of company culture in adopting new technologies such as AI. A supportive and forward-thinking organizational culture can significantly influence the successful implementation of AI initiatives. Furthermore, organizational structure and operations must be adapter to accommodate the transformative potential of the modern technologies.

Finding the optimal approach to integrating AI technologies and selecting the appropriate platforms may require time and experimentation. The interviewed cases emphasized the importance of starting small by exploring the possibilities through piloting. Identifying clear and actionable use cases early on can accelerate the adoption process and allow organizations to scale up their efforts effectively, maximizing the benefits of generative AI.

When talking about data-driven marketing and customer insights, cross-departmental collaboration is another critical factor due to the various customer data sources. Furthermore, this is stressed when implementing AI-technologies. The implementation of AI technologies should not be limited to the operations of a single function, as marketing, but rather viewed as an opportunity to deliver transformative benefits across multiple departments, as various functions can leverage AI-driven processes in unique ways. The holistic approach may challenge and potentially reshape strict organizational structures and traditional ways of working.

5.2 Future research

As discussed in the previous sections, established and widely recognized operational models for leveraging generative AI-driven customer insights to benefit B2B marketing operations, remain still in their early stages of development due to the novelty of generative AI technologies. Consequently, more research on this topic is significant. Given the broad scope of this thesis, several promising research opportunities arise in relation to the study's objectives.

One interesting area would be to revisit this research topic in the future to examine the use cases of generative AI-driven customer insights in marketing operations. It would be valuable to explore whether and how these use cases evolve as the technology becomes more embedded in company cultures – assuming the relevance of the technology continues.

Furthermore, some of the interviewed cases reported that some platforms and tools utilized in marketing operations, for example marketing automation tools, already integrate capabilities of generative AI technologies directly into the platforms. This integration presents another interesting research opportunity as it becomes more established. For instance, what types of tasks or operations could such platform-level AI integration eliminate from marketing operations? Moreover, would these changes have a significant impact on customer experiences?

As a benefit of generative AI-driven customer insights in marketing operations, personalization was described. Due to the critical role of personalization in marketing operations in general, utilization of AI-driven personalization in marketing operations could be highly relevant research topic. Additionally, it would be relevant to research more specifically the challenges presented in this research and examine methods to solve

them. For example, study the balance between hyper-personalized marketing conducted utilizing AI-driven customer insights and concerns about privacy and data security.

Since the use of generative AI tools in customer insight generation is still in relatively early stages, this thesis could not investigate the quality of the insights generated through generative AI tools comprehensively. Hence, in the future, the impact on the customer insight quality could be further researched. By investigating the impact on the quality of insights, the true contribution of generative AI tools in providing customer insights could be determined.

5.3 Conclusion

This thesis has researched how B2B companies can utilize generative AI-driven customer insights in their marketing operations. Customer insights can be delivered from versatile customer data sources. The customer data can be both external and internal and it can be either real-time or historical. The utilization of generative AI technologies in the customer insight process can streamline marketing operations with creating operational efficiency, strategical benefits and finally by improving customer-centricity and customer experiences. When utilizing generative AI-driven customer insights in marketing operations, there are several challenges associated. These challenges encompass security concerns, data quality challenges, technological limitations and possible organizational barriers. Despite these challenges, generative AI has immense potential in the process of acquiring customer insights and further leveraging these insights, making its implementation highly beneficial in B2B marketing operations. The adoption of generative AI in this context is still in its early stages, and following advancements and learnings are anticipated as the field evolves.

References

Abumalloh, R. A., Nilashi, M., Ooi, K. B., Tan, G. W. H., & Chan, H. K. (2024). Impact of generative artificial intelligence models on the performance of citizen data scientists in retail firms. *Computers in Industry*, *161*. Scopus. https://doi.org/10.1016/j.compind.2024.104128

Abbasi, A., Sarker, S., & Chiang, R. (2016). Big Data Research in Information Systems: Toward an Inclusive Research Agenda. *Journal of the Association for Information Systems,* 17(2), I-XXXII. https://doi.org/10.17705/1jais.00423

Agaba, M. (2021). *Account-based Marketing in B2B-Marketing*. Druck und Verlag: Hochschule Hof. https://opus4.kobv.de/opus4-hof/frontdoor/index/index/docId/118

Ahmed, A. A., & Ali, M. K. (2024). User-Centric Adoption of Democratized Generative AI: Focus on Human-Machine Interaction and Overcoming Challenges. *International Journal of Engineering Trends and Technology*, *72*(9), 78–95. Scopus. https://doi.org/10.14445/22315381/IJETT-V72I9P107

Akter, S., Wamba, S. F., Gunasekaran, A., Dubey, R., & Childe, S. J. (2016). How to improve firm performance using big data analytics capability and business strategy alignment? *International Journal of Production Economics*, *182*, 113–131. https://doi.org/10.1016/j.ijpe.2016.08.018

Anitha, P., & Patil, M. M. (2022). RFM model for customer purchase behavior using K-Means algorithm. *Journal of King Saud University - Computer and Information Sciences*, *34*(5), 1785–1792. https://doi.org/10.1016/j.jksuci.2019.12.011

Bankins, S., Ocampo, A. C., Marrone, M., Restubog, S. L. D., & Woo, S. E. (2024). A multilevel review of artificial intelligence in organizations: Implications for organizational behavior research and practice. *Journal of Organizational Behavior*, *45*(2), 159–182. https://doi.org/10.1002/job.2735

Bengesi, S., El-Sayed, H., Sarker, M. K., Houkpati, Y., Irungu, J., & Oladunni, T. (2024). Advancements in Generative AI: A Comprehensive Review of GANs, GPT, Autoencoders, Diffusion Model, and Transformers. *IEEE Access*, *12*, 69812–69837. IEEE Access. https://doi.org/10.1109/ACCESS.2024.3397775

Bharadwaj, N. (2012). Explicating Hearing the Voice of the Customer as a Manifestation of Customer Focus and Assessing its Consequences. *The Journal of Product Innovation Management*, *29*(6), 1012–1030. https://doi.org/10.1111/j.1540-5885.2012.00954.x

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Chandra, S. (2022). Personalization in personalized marketing: Trends and ways forward. *Psychology & Marketing*, *39*(8), 1529–1562. https://doi.org/10.1002/mar.21670

Charllo, B., & Kathiriya, S. (2023). *The Future of B2B Sales: How Generative AI-Driven Tools are Changing the Game*. *10*, 71–76.

Chaudhary, K. (2021). Machine learning-based mathematical modelling for prediction of social media consumer behavior using big data analytics. *Journal of Big Data*, *8*(1), 1–20. https://doi.org/10.1186/s40537-021-00466-2

Devang, V., Chintan, S., Gunjan, T., & Rai, K. (2019). Applications of Artificial Intelligence in Marketing. *Annals of Dunarea de Jos University of Galati. Fascicle I. Economics and Applied Informatics*, *25*, 28–36. https://doi.org/10.35219/eai158404094

Dencheva, V. , (2023a). Share of marketers using generative artificial intelligence (AI) in their companies in the United States as of March 2023, https://www.statista.com/st atistics/1388390/generative-ai-usage-marketing/

Deveau, R., Griffin, S. J., & Reis, S. (2023). *AI-powered marketing and sales reach new heights with generative AI*. https://www. mckinsey. com/capabilities/growth-marketing-and-sales/our-insights/aipowered-marketing-and-sales-reach-new-heights-with-generativeai

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, *14*(4), 532–550. https://doi.org/10.2307/258557

El Horma, S. (2024). The Impact of Artificial Intelligence on B2B Sales. *Medium*. https://medium.com/@selhorma/the-impact-of-artificial-intelligence-on-b2b-

sales-656589add532

Feuerriegel, S., Hartmann, J., Janiesch, C., & Zschech, P. (2024). Generative AI. *Business & Information Systems Engineering*, *66*(1), 111–126. https://doi.org/10.1007/s12599-023-00834-7

Fischer, H., Seidenstricker, S., Berger, T., & Holopainen, T. (2022). *Artificial intelligence in B2B sales: Impact on the sales process*. 13th International Conference on Applied Human Factors and Ergonomics (AHFE 2022). https://doi.org/10.54941/ahfe1001456

Ghasemaghaei, M. (2019). Does big data enhance firm innovation competency? The mediating role of data-driven insights. *Journal of Business Research*, *104*, 69. https://doi.org/10.1016/j.jbusres.2019.07.006

Hallikainen, H. (2020). Fostering B2B sales with customer big data analytics. *Industrial Marketing Management*, *86*, 90–98. https://doi.org/10.1016/j.indmarman.2019.12.005

Harrison, L., Plotkin, C. L., Reis, S., & Stanley, J. (2021). *B2B sales: Omnichannel everywhere, every time*. McKinsey & Company. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/b2b-sales-omnichannel-everywhere-every-time

Holmlund, M. (2020). Customer experience management in the age of big data analytics: A strategic framework. *Journal of Business Research*, *116*, 356–365. https://doi.org/10.1016/j.jbusres.2020.01.022

Horsey, J. (2023, November 6). *Dall-E 3 vs Stable Diffusion vs Midjourney*. Geeky Gadgets. https://www.geeky-gadgets.com/dall-e-3-vs-stable-diffusion-vs-midjourney/

Jabbar, A., Akhtar, P., & Dani, S. (2020). Real-time big data processing for instantaneous marketing decisions: A problematization approach. *Industrial Marketing Management*, *90*, 558–569. Scopus. https://doi.org/10.1016/j.indmarman.2019.09.001

Joosten, J., Bilgram, V., Hahn, A., & Totzek, D. (2024). Comparing the Ideation Quality of Humans with Generative Artificial Intelligence. *IEEE Engineering Management*

Review, *52*(2), 153–164. Scopus. https://doi.org/10.1109/EMR.2024.3353338

Katsiuba, D., Kew, T., Dolata, M., Gurica, M., & Schwabe, G. (2023). *Artificially Human: Examining the Potential of Text-Generating Technologies in Online Customer Feedback Management*. International Conference on Information Systems, ICIS 2023: 'Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies'. Scopus.

Kopare, A., Shaikh, A., Sharma, J. K., & Waghmare, G. (2024). *AI-Enabled Customer Insights: Transforming Marketing and Customer Relationship Management*. 2024 International Conference on Knowledge Engineering and Communication Systems, ICKECS 2024. Scopus. https://doi.org/10.1109/ICKECS61492.2024.10616723

Kshetri, N. (2024). The academic industry's response to generative artificial intelligence: An institutional analysis of large language models. *Telecommunications Policy*, *48*(5), 102760. https://doi.org/10.1016/j.telpol.2024.102760

Kshetri, N., Dwivedi, Y. K., Davenport, T. H., & Panteli, N. (2024). Generative artificial intelligence in marketing: Applications, opportunities, challenges, and research agenda. *International Journal of Information Management*, *75*, 102716. https://doi.org/10.1016/j.ijinfomgt.2023.102716

Lilien, G. L. (2016). The B2B Knowledge Gap. *International Journal of Research in Marketing*, *33*(3), 543–556. https://doi.org/10.1016/j.ijresmar.2016.01.003

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. SAGE.

Lontzek, N. (2024). Co-Creation with Artificial Intelligence in Marketing: The Case of the Data Analytics Company Dataiku. In *Artificial Intelligence, Co-Creation and Creativity: The New Frontier for Innovation* (pp. 194–205). Scopus. https://doi.org/10.4324/9781003453901-18

Macinnis, D. (2022). Customer insights that matter. *Applied Marketing Analytics*, *7*(4), 355–361. Scopus. https://doi.org/10.69554/pdbi9488

Mendia, J. M. V., & Flores-Cuautle, J. J. A. (n.d.). *Full article: Toward customer hyper-personalization experience—A data-driven approach*. Retrieved 20 October 2024, from

https://www.tandfonline.com/doi/full/10.1080/23311975.2022.2041384

Mikalef, P., Conboy, K., & Krogstie, J. (2021). Artificial intelligence as an enabler of B2B marketing: A dynamic capabilities micro-foundations approach. *Industrial Marketing Management*, *98*, 80–92. https://doi.org/10.1016/j.indmarman.2021.08.003

Moradi, M., & Dass, M. (2022). Applications of artificial intelligence in B2B marketing: Challenges and future directions. *Industrial Marketing Management*, *107*, 300–314. https://doi.org/10.1016/j.indmarman.2022.10.016

Neu, W., & Brown, S. (2005). *Forming Successful Business-to-Business Services in Goods-Dominant Firms—Wayne A. Neu, Stephen W. Brown, 2005*. https://journals.sagepub.com/doi/abs/10.1177/1094670505276619?casa_token=mXiK8LwPZ8AAAAA:cIpxn80BXiLzQUwBR7cAwiVmBFHlOnlhE7ZXs74THXcT0_LyRxODcL98S01BLxaooMHNfbSo-paP

Nori, H. (2023). *Capabilities of GPT-4 on Medical Challenge Problems*. https://doi.org/10.48550/arxiv.2303.13375

Ooi, K. B. (2023). The Potential of Generative Artificial Intelligence Across Disciplines: Perspectives and Future Directions. *The Journal of Computer Information Systems*, 1–32. https://doi.org/10.1080/08874417.2023.2261010

Päivi Eriksson, A. K. (2015). *Qualitative Methods in Business Research: A Practical Guide to Social Research*.

Parikh, N. A. (2023). *Empowering Business Transformation: The Positive Impact and Ethical Considerations of Generative AI in Software Product Management -- A Systematic Literature Review*. https://doi.org/10.48550/arxiv.2306.04605

Peltier, J. W. (2024). Artificial intelligence in interactive marketing: A conceptual framework and research agenda. *Journal of Research in Interactive Marketing*, *18*(1), 54–90. https://doi.org/10.1108/JRIM-01-2023-0030

Piccoli, G. (2013). Harvesting External Data: The Potential of Digital Data Streams. *MIS Quarterly Executive*, *12*(1), 53–64.

Piekkari, R., Welch, C., & Paavilainen, E. (2009). *The Case Study as Disciplinary Conven-*

tion: Evidence From International Business Journals—Rebecca Piekkari, Catherine Welch, Eriikka Paavilainen, 2009. https://journals.sagepub.com/doi/abs/10.1177/1094428108319905?casa_token=PTHTLTOTTBkAAAAA:IX7NQIojnye01YS8XSgAwWh3ZHyISVCPX-Otm_Hh09v2cdwmFqfb5YEAgncTdiwP_jO1heELLdpe0

Plangger, K., Marder, B., Montecchi, M., Watson, R., & Pitt, L. (2023). Does (customer data) size matter? Generating valuable customer insights with less customer relationship risk. *Psychology & marketing, 40*(10), 2016-2028. https://doi.org/10.1002/mar.21866

Plangger, K., & Watson, R. T. (2015). Balancing customer privacy, secrets, and surveillance: Insights and management. *Business horizons, 58*(6), 625-633. https://doi.org/10.1016/j.bushor.2015.06.006

Puntoni, S., Reczek, R., & Botti, S. (2021). *Consumers and Artificial Intelligence: An Experiential Perspective—Stefano Puntoni, Rebecca Walker Reczek, Markus Giesler, Simona Botti, 2021*. https://journals.sagepub.com/doi/full/10.1177/0022242920953847

Reza Amini & Ali Amini. (2024). An overview of artificial intelligence and its application in marketing with focus on large language models. *International Journal of Science and Research Archive*, *12*(2), 455–465. https://doi.org/10.30574/ijsra.2024.12.2.1223

Ritala, P., Keränen, J., Fishburn, J., & Ruokonen, M. (2024). Selling and monetizing data in B2B markets: Four data-driven value propositions. *Technovation*, *130*. Scopus. https://doi.org/10.1016/j.technovation.2023.102935

Rosiello, A., Said, E., & Bezzina, F. (2021). *Customer Insight in Start-ups: A Systematic Literature Review*. 511–515. Scopus.

Said, E. (2015). How organisations generate and use customer insight. *Journal of Marketing Management*, *31*(9–10), 1158–1179. https://doi.org/10.1080/0267257X.2015.1037785

Schweidel, D. A. (2024). Moving Beyond ChatGPT: Applying Large Language Models in Marketing Contexts. *NIM Marketing Intelligence Review*, *16*(1), 24–29.

https://doi.org/10.2478/nimmir-2024-0004

Smith, B. (2006). Creating and using customer insight: 12 Rules of best practice. *Journal of Medical Marketing*, *6*(2), 135–139. https://doi.org/10.1057/palgrave.jmm.5050013

Sterne, J., & Davenport, T. H. (2024). Improving voice of the customer analysis with generative AI. *Applied Marketing Analytics*, *10*(1), 32–41. Scopus.

Stone, M. (2017). How platforms are transforming customer information management. *The Bottom Line (New York, N.Y.)*, *30*(3), 216–235. https://doi.org/10.1108/BL-08-2017-0024

Teubner, T., Dann, D., Hawlitschek, F., & Möhlmann, M. (2024). First vs. Lasting Impressions: How Cognitive and Affective Trust Cues Coordinate Match-Making in Online Sharing Platforms. *Group Decision and Negotiation*, *33*(2), 217–265. https://doi.org/10.1007/s10726-023-09860-y

Thiruneelakandan, A., & Umamageswari, A. (2024). *Generative AI: A Transformative Force in Business Intelligence*. 1234–1240. Scopus. https://doi.org/10.1109/IDCIoT59759.2024.10467477

Torpo, H. (2023). *Possibilities of Data-Driven Customer Insight in B2B Service Development*.

Urbinati, A., Bogers, M., Chiesa, V., & Frattini, F. (2019). Creating and capturing value from Big Data: A multiple-case study analysis of provider companies. *Technovation*, *84–85*, 21–36. https://doi.org/10.1016/j.technovation.2018.07.004

Verma, R. K., & Kumari, N. (2023). Generative AI as a Tool for Enhancing Customer Relationship Management Automation and Personalization Techniques. *International Journal of Responsible Artificial Intelligence*, *13*(9), Article 9.

Welch, C., Paavilainen-Mäntymäki, E., Piekkari, R., & Plakoyiannaki, E. (2022). Reconciling theory and context: How the case study can set a new agenda for international business research. *Journal of International Business Studies*, *53*(1), 4–26. https://doi.org/10.1057/s41267-021-00484-5

Xu, Z., Frankwick, G. L., & Ramirez, E. (2016). Effects of big data analytics and tradi-

tional marketing analytics on new product success: A knowledge fusion perspective. *Journal of Business Research*, *69*(5), 1562–1566. https://doi.org/10.1016/j.jbusres.2015.10.017

Yenduri, G. (2024). GPT (Generative Pre-Trained Transformer)- A Comprehensive Review on Enabling Technologies, Potential Applications, Emerging Challenges, and Future Directions. *IEEE Access*, *12*, 54608–54649. https://doi.org/10.1109/ACCESS.2024.3389497

Yoo, S.-C., & Piscarac, D. (2023). Generative AI and its Implications for Modern Marketing: Analyzing Potential Challenges and Opportunities. *International Journal of Advanced Smart Convergence*, *12*(3), 175–185. https://doi.org/10.7236/IJASC.2023.12.3.175

Appendices

Appendix 1. Key case interview questions

Experiences of using generative AI for customer insights and customer data

1. What kind of experiences do you have in utilizing generative AI solutions for acquiring customer insights?
    - Have you used generative AI for this purpose, and if so, how?

2. If you have used generative AI for acquiring customer understanding, what type of customer data have you processed with it?

3. Can you describe what kind of generative AI you have utilized?
    - For example, which tools, applications, or technologies (e.g., GPT-4) have you used?

4. Could you provide examples of situations where generative AI has been used effectively to gain valuable insights from customer data?
    - What kind of concrete results or insights did you gain from these situations?

Leveraging generative AI insights in marketing

5. **According to your experience, how the customer insights produced by generative AI can be utilized as part of marketing operations?**

6. **How can you integrate the customer understanding generated by generative AI into your existing marketing operations?**

Challenges and Limitations in Using Generative AI

7. **What are the biggest challenges you have faced when using generative AI for acquiring or generating customer insights?**
    - How have you addressed these challenges?