

## Customer Data Platform Implementation: Easy task or an impossible attempt?

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## ABSTRACT

*This study explores the adoption of a customer data platform (CDP) in German companies. Lately, customer data has become a crucial asset for companies. However, the increasing amount of data makes it challenging to cluster and evaluate the high amount of customer data from different platforms. Combined in one platform, a CDP centralizes technology solutions that collect customer data from various sources, thus facilitating personalized and automated marketing processes. The study uses a critical realism and deductive approach to explore the subjective meanings of CDP implementation within the selected German organizations. A mixed-method approach has been applied to gathering data through 19 semi-structured interviews and a qualitative content analysis according to Mayring (2020) was conducted. The study investigated how companies perceive the benefits and challenges of implementing a CDP in their organizations. While interviewees recognize the value of CDPs in creating comprehensive customer profiles, challenges such as data quality issues hinder adoption. The findings highlight the need for prioritizing data quality and building expertise and resources to implement CDPs effectively. Recommendations include fostering communities for knowledge sharing and gradually preparing for CDP integration to ensure competitiveness.*

**KEYWORDS: customerdataplatform, CDP, customerinsights.**

### 1. The relevance of Customer Data Platforms (CDP)

Customer information has become a critical asset that shapes the way companies understand, engage, and serve their clients. Customer data encompasses a rich spectrum of information, from demographics and purchasing behavior to online interactions and preferences (Plangger et al., 2023, p. 2018). Customer data are no longer just a simple collection of information, but “have become currency” (Plangger et al., 2023, p. 2016). The ability to gain precise insights into the behavior, preferences, and needs of customers forms the basis for successful marketing strategies, sales activities, and sustainable customer relationships (Rashedi & Mauer, 2023, p. 148). To collect, analyze, and use this data effectively, customer data platforms (CDPs) have emerged as a major topic in the business application environment (Rashedi &

Mauer, 2023, p. 5). As CDP solutions are relatively new, the research in scientific literature is limited, especially regarding practical relevance in German organizations. This gap emphasizes the urgency and importance of further investigation to understand the challenges and benefits of CDP to make effective use of gathered customer data within the given context of medium and large German organizations.

### 2. Problem statement: Customer data as an indispensable marketing component

To enable a seamless customer experience, companies gather extensive customer information. Various methods for collecting relevant data, such as demographic details and transactional history, provide the groundwork for personalized



sales strategies in B2B and B2C sectors (Rashedi & Mauer, 2023, p. 144).

Demographic data, such as age, gender, or address, enables companies to better segment their target groups. The collection of transactional data, such as past purchases, order history, and product returns, provides valuable insights into the individual purchasing behavior of customers (Plangger et al., 2023, p. 2018). Behavioral data collected through the analysis of website or app usage enables companies to better understand customer preferences and optimize their digital platforms (Zavali et al., 2023, p. 1953). By taking customer interests and preferences into account, tailored offers can be created. The evaluation of customer service interactions, such as complaints or inquiries, enables companies to identify weak points and improve customer satisfaction (Rashedi & Mauer, 2023, p. 142). Analyzing customer interactions on social networks provides insights into opinions, comments, and trends, which helps companies manage their brand reputation and promote customer loyalty (Deges, 2018, p. 123 sq.). By integrating location data, companies can create personalized offers based on the customer's current location and develop targeted local marketing strategies. Capturing marketing preferences, such as consent to newsletters or communication channels, enables companies to target their customers and build effective communication (Plangger et al., 2023, p. 2018). For the effective collection, analysis, and usage of customer data, CDPs have appeared as a major trend in the corporate landscape (Rashedi & Mauer, 2023, p. 5).

According to the Customer Data Platform Institute (CDPI), a CPD is “a packaged software that creates a persistent, unified customer database that is accessible to other systems” (Customer Data Platform Institute, 2021a, p. 48). Rashedi and Mauer provide some more detail on the term: A CDP is a software solution used by specialist users of different departments of a company, not necessarily IT. Through many channels, structured, semi-structured, and unstructured customer data is merged into a central database, whereby the merging process is mostly automated. Through the collection of online and offline data, a CDP represents a central database application, however, is not an end in itself. Instead, it combines and activates data of various systems via interfaces, considering data governance requirements, consent, and earmarked data processes. Therewith, a holistic view of a company's customers can be generated while avoiding data silos. After the data collection, holistic customer profiles are created that are used as bases for understanding and decisions. (Rashedi & Mauer, 2023, 26 sqq.). Through automated measures, the CDP itself or linked systems can then engage with

personalized messages as a “Customer-Driven Marketing Machine” (Kihn & O'Hara, 2021, p. 107).

### 3. Research goal: Explore the benefits and challenges of a CDP implementation

Overall, these diverse customer data types form the basis for data-driven marketing and sales strategies. Efficient collection, analysis, and utilization of this data optimize sales processes, foster personalized customer relationships, and ultimately drive long-term sales growth (Rashedi & Mauer, 2023, p. 148).

By conducting an examination of CDPs benefits and challenges this study supports organizations to overcome ‘the customer data issue’ described within this chapter. Thereby the research question can be defined as follows:

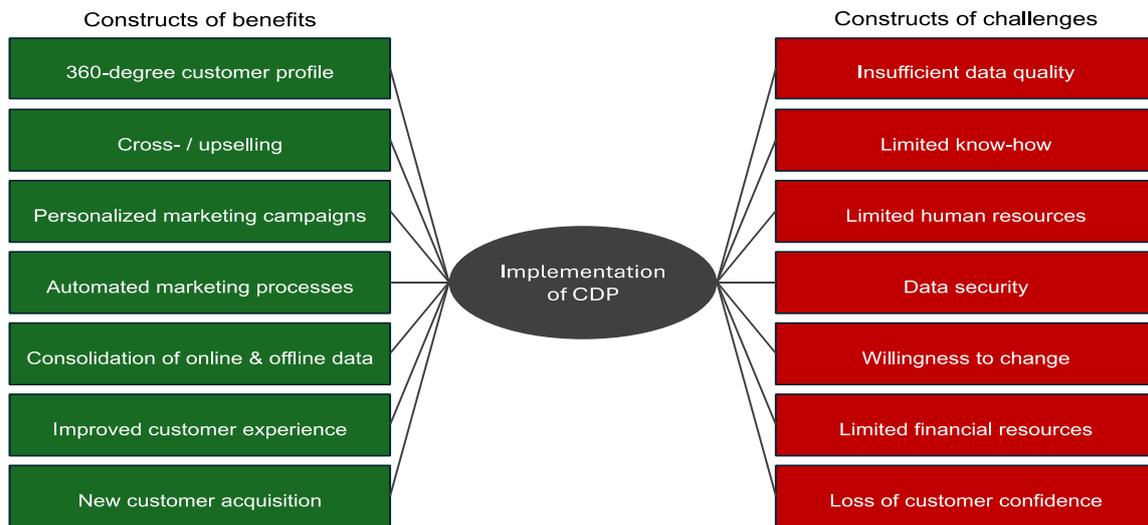
*What were the major benefits and challenges for medium and large-sized German organizations when implementing a customer data platform?*

Hence, the results of this study contribute to the existing theoretical knowledge and provide practical recommendations for the mentioned organizations. To do so, two sub-research-objectives are formulated as follows:

1. Exploration of the **benefits** that German medium and large size companies see in introducing a CDP to their organization.
2. Exploration of the **challenges** that German medium and large size companies see in introducing a CDP to their organization.

### 4. Research design and applied methods

The study uses a critical realism and deductive approach to explore the subjective meanings of CDP implementation within selected German organizations. Thereby a mixed-method approach has been applied. First, and as the foundation for the interviews, a literature review has been conducted following the structured literature process according to Hart (2018) utilizing the terms “customer data platform”; “CDP” and “customer insights”. As a result, eight key articles have been identified to be relevant to the context of this study. However, after a second iteration five of these have been excluded due to the limited insights into potential benefits and challenges of CDPs or due to a lack of actuality. Based on the final three papers (Earley, 2018; Plangger et al., 2023; Zavali et al., 2023) relevant insights have been synthesized and concepts have been derived for the qualitative data gathering using semi-structured interviews. As a result, seven concepts for both - the benefits and the challenges in the implementation of a CDP have been derived.

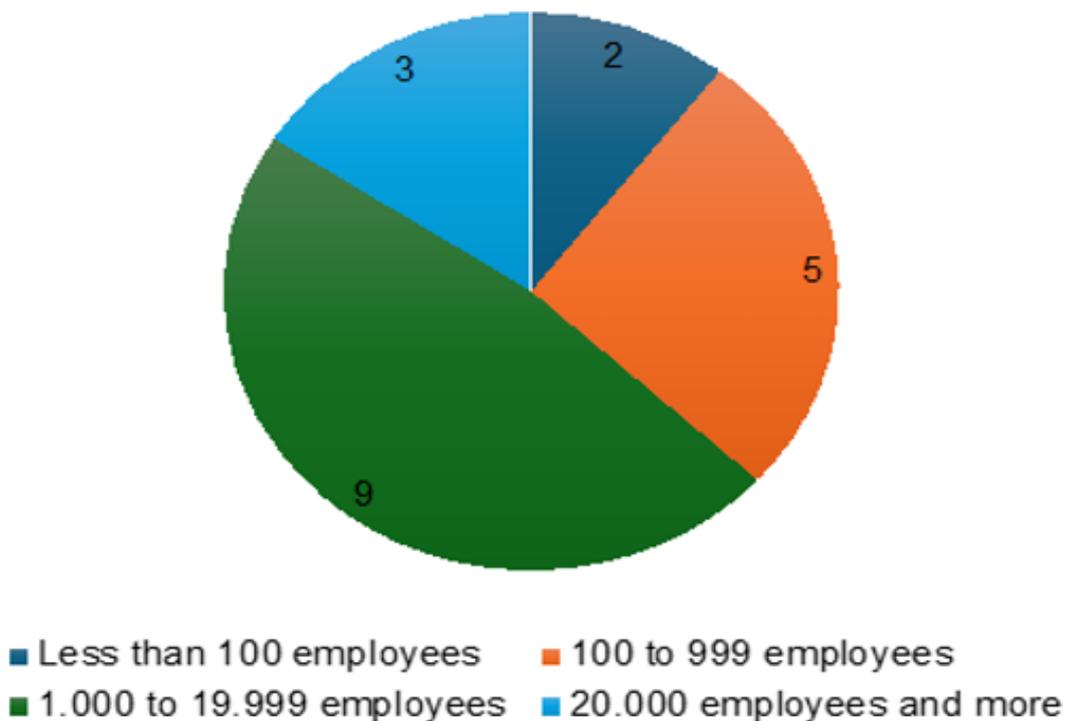


**Figure 1:** Identified concepts of benefits & challenges

Building on these concepts, a semi-standardized interview questionnaire has been created investigating the benefits and challenges by gathering quantitative and qualitative data. The search for participants was based on the networks of the authors and recruitment activities on LinkedIn. To ensure a

cross-industrial perspective across different organizational sizes, experts have been selected from various organizations. All participants have been asked (before the interview) whether they are familiar with CDP and if they can examine the topic for their organizations.

**Size of companies interviewed**



**Figure 2:** Size of companies interviewed

The chosen sample enabled the topic to be viewed from different perspectives and a deeper understanding of the subject matter to be gained, allowing new dimensions and explanatory approaches to be recognized. All interview partners and their companies have been anonymized.

All participants have been asked to assess the benefits and challenges according to the developed concepts using a 5-point Likert Scale, first. Afterward, the qualitative part of the questionnaire explored the characteristics of the organization and its operations. As a result, the study reveals a prioritization of benefits and challenges when implementing a CDP and offers

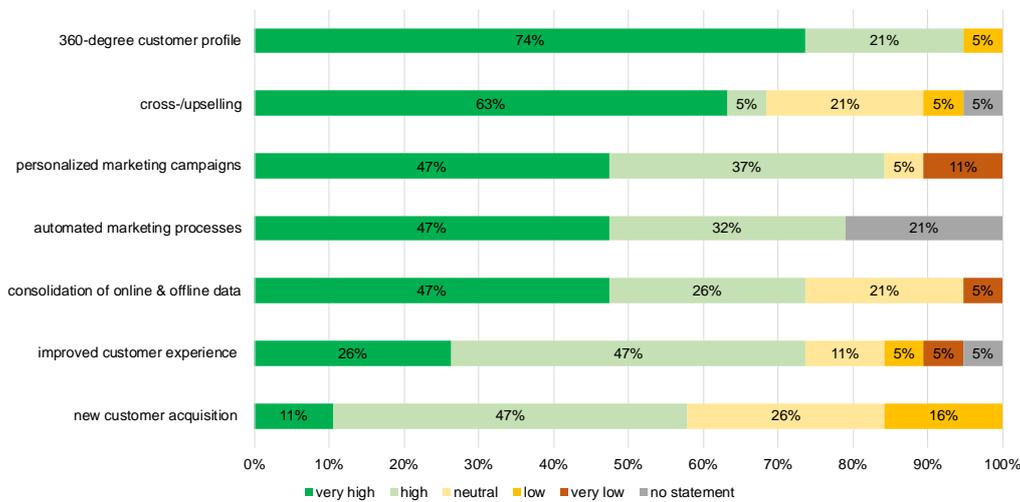


qualitative explanations for those. Thereby, the standardized sequence of questions and wording of the questions guaranteed an important level of comparability when evaluating the data. Providing an insight into the applied methodology one exemplary statement per benefit (B) and challenge (C) are presented:

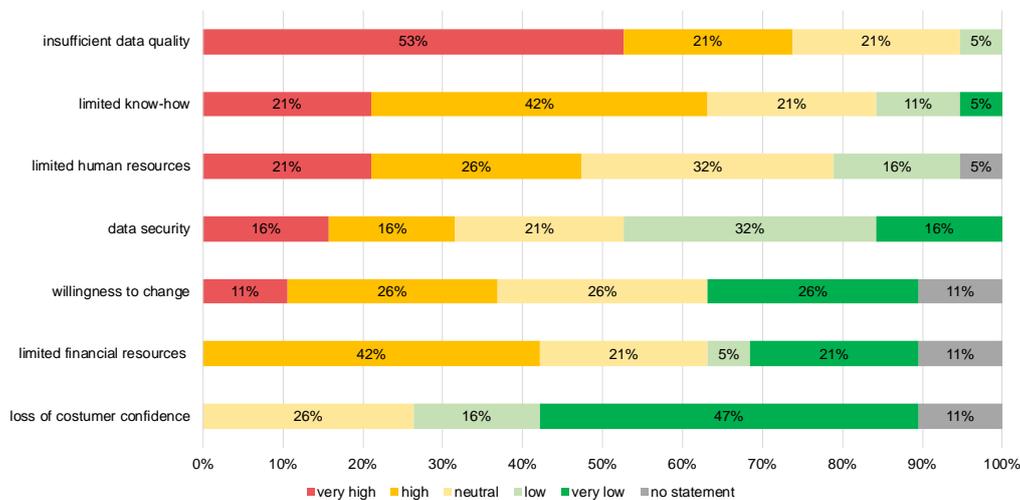
- **B1:** The company considers the design of a 360-degree customer profile to be a benefit in introducing a CDP to their organization.
- **C3:** The company considers insufficient data quality to be a challenge in introducing a CDP to their organization.

**5. Results: Major benefits and challenges for CDP implementation**

This chapter presents interview results regarding the benefits and challenges of implementing a Customer Data Platform within an organization. Respondents highlighted benefits such as a 360-degree customer profile, data consolidation, improved customer experience, personalized marketing, automated processes, and enhanced acquisition and upselling. Disadvantages included limited expertise, resources, data quality, finances, security concerns, and potential loss of customer trust and resistance to change. For an impactful discussion of benefits and challenges, the following sections will focus on the three most important benefits and challenges, as indicated in Figures 3 & 4.



**Figure 3:** Benefits of a customer data platform



**Figure 4:** Challenges of a customer data platform

**5.1 Benefit #1: 360-degree Customer profile**

Creating a 360-degree customer profile is deemed the most significant benefit of a CDP. 74% of respondents rated the benefit as *very high*, and a further 21% as *high*. This is also confirmed by the evaluation of the qualitative analysis according to Mayring. In the category *expression is very strong*, 14 anchor examples were named, and a further 4 in the category *expression*

*is strong*. One respondent explained his choice as follows: "The 360-degree customer profile is a great benefit because you can get comprehensive information about the customer [...]. The more information we have about the customer, the better the marketing activities can be carried out in a targeted manner" (EI 1, l. 33-43). Another interviewee rates the 360-degree



customer profile as *"the basis for customer centricity"* (EI 9, l. 68-71).

Although a higher proportion of B2B companies (34%) plan to implement a CDP compared to B2C companies (19%) according to the CDPI (Customer Data Platform Institute, 2021b), the perceived benefit varies depending on business models. Some B2B interviewees view the benefits of a 360° customer profile as weaker compared to B2C, with one noting that the 360-degree customer profile is less impactful due to their customers comprising buying centers with diverse demographic data, behaviors, and interests (EI 12, l.31-35): *"At our company, we deal with a very, very large number of people at one customer, which makes this 360-degree view difficult for us. We could then see a 360-degree view of only a single person of the customer, so to speak."* However, this statement suffers from a narrow perspective of a 360-degree view which incorporates only a B2C perspective of customer data.

### 5.2 Benefit #2: Improved cross-selling and upselling

The respondents see the second biggest advantage of a CDP in improved cross-selling and upselling. 63% rated the advantage as *very high*, and a further 5% as *high*. 21% rated the benefit as neutral and therefore saw no impact for their company. Qualitative analysis further supported this, with 12 identified anchor examples in the category *expression is very strong*. One interviewee explains his decision as follows: *"That's one of the main goals at the end of the day. To recommend, based on preferences, products that my customers might not even know yet, but that they might like"* (EI 11, l. 156-158).

These findings vary also depending on the business model. Here it could be found that the benefits are perceived as bigger in the B2C sector: *"[...] one of the main goals [...] is to recommend products based on your preferences that you might not even know yet, but that you might like. But with 25 showers, you might not scroll through them all. But because you know that the person is now into citrus fragrances, you can primarily show them ads [...] like that."* (EI 11, l.156-160). However, some interviewees from the B2B sector perceived the benefits as weaker, as there is oftentimes customization required based on the customer demands, which influences the potential of cross- and upselling: *"Rather difficult. It is not classic cross-selling as we know it in B2C. As I said, we sell 400-500 products, so the topics are slightly different"* (EI 18, l.106-108). With that said, customizations can also be improved based on the combination of a 360-degree view of the customer. For instance, a B2B organization might be able to promote customized products or solutions based on clear personas that have been derived from multiple customer profiles. Moreover, the interviews neglect that cross- and upselling can be much more data-driven than the interviewees might be able to foresee from today's perspective. The reason for that might be, that interviewees consider cross- and upselling a lot from the product perspective. However, cross- and upselling can also be maximized when combining the cross- and upselling offer with the third major benefit of personalized marketing campaigns (or at least messages).

### 5.3 Benefit #3: Personalized marketing campaigns

Last, the findings indicated personalized marketing campaigns as the third biggest advantage of a CDP, closely followed by the automated marketing processes category. This shows the enormous potential that respondents see in a personalized customer approach. 47% rated the advantage of a personalized marketing campaign as *very high*, and a further 37% as *high*. According to Mayring, most of the anchor examples could therefore be assigned to the category *expression is very strong*, which confirms the quantitative analysis. One interviewee explains: *"I see this as a huge advantage for us because it allows us to address our customers much better"* (EI 19, l. 88-89).

Our data suggests that the interviews see the personalization primarily from a marketing campaign perspective. This viewpoint is valid but can be extended further when combined with other benefits. Thus, a CDP can create persona-based customer journeys, but it can also react precisely to customer service. For instance, it may detect an increase in incoming service inquiries based on a persona profile of that organization and thereby suggest informing all other customers (within that segment) to check and predict additional service inquiries. This requires high data quality and well-defined segments based on personas, wherefore an organization needs to overcome the implementation challenges, which will be discussed in the next sections, first.

### 5.4 Challenge #1: Insufficient data quality

As shown in Figure 4, insufficient data quality is cited by respondents as the greatest challenge to the implementation of a CDP. 54% of the respondents rated the challenge as *very high*, and a further 21% as *high*. This is also confirmed by the evaluation of the qualitative analysis. In the category *expression is very strong*, 11 anchor examples were named, and a further 4 in the category *expression is strong*. One expert explains his assessment as follows: The data quality is *"A much bigger challenge. [...] and if you work according to the old motto 'garbage in, garbage out', everything will blow up in your face afterward. Of course, you need clean data beforehand and you have to bring it together cleanly"* (EI 9, l. 211-214). Another expert explains the consequences that insufficient data quality can have: *"If the data quality is not right, the person may still be approached in an area that doesn't interest them. We need to improve our data quality in this respect."* (EI 14, l.276-278).

The primary challenge is perceived differently depending on company size. Our data suggests that the challenge is perceived higher by smaller companies, as stated in EI 16 with 656 employees: *"Exactly, so we simply do not have the data yet. [...] It is extremely rudimentary."* In contrast, the challenge is perceived as *neutral or low* by bigger companies as stated by company 12 with 9,500 employees: *"[...] I don't think we have a massive data quality problem."* One might argue that data quality is not an issue that hinders a CDP implementation only but seems to occur as a major challenge within digitalization



projects. With that said, the major challenge is still relevant and must be tackled from a data (governance) perspective.

**5.6 Challenge #2: Limited knowledge**

In addition, the respondents see limited knowledge as the second biggest challenge of a CDP. 21% of respondents rated the challenge as very high, another 42% as high. Only 11% rated the challenge as low and 5% as very low. About the qualitative analysis, four anchor examples in the category expression are very strong and another 8 in the category expression is strong were determined. An expert explains his assessment as follows: "Yes if you're not familiar with it, it's problematic. Accordingly, I would say that it is a challenge. [...] In general, I see the lack of know-how as major, as the data in the platform has to be properly maintained, which involves a certain complexity." (EI 7, l. 102-123).

With newer topics such as CDP, organizations struggle to build up the necessary knowledge. Having limited (IT) knowledge is a well-researched phenomenon, especially in German organizations, and stands out as a major obstacle. One might argue that organizations need to upskill their existing staff on newer technologies while at the same time, others are proposing to get external expertise. No matter how organizations are trying to close this knowledge gap they must be aware that profiles are more dynamic than ever and that roles such as a 'Customer Data Analyst' will not be permanent over time. Luckily, knowledge is easy to access, and technology providers are offering dedicated education programs. Hence, companies need to make resources available and allow their staff to innovate with solutions such as a CDP.

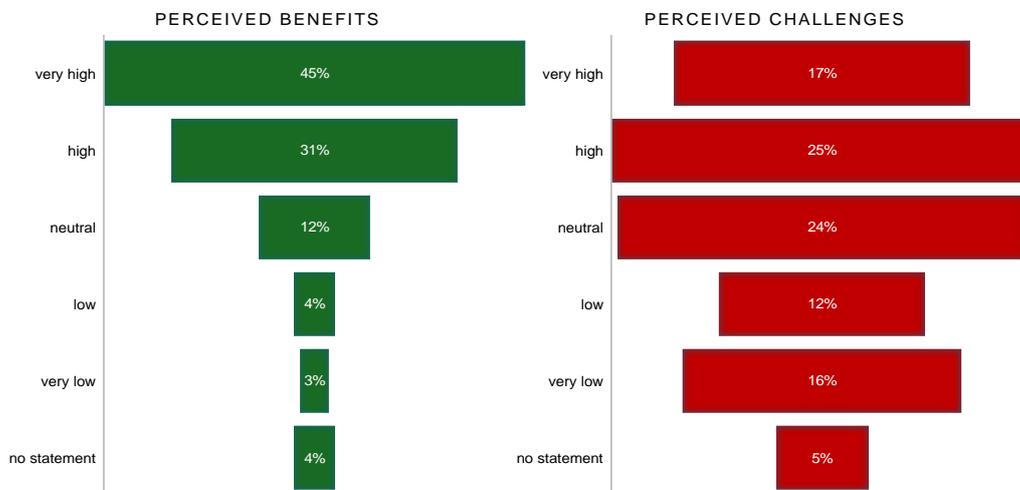
**5.7 Challenge #3: Limited human resources**

Closely related to the previous challenge, the challenge of limited human resources is assessed as the third biggest challenge of a CDP. 21% of respondents rated the challenge as very high, another 26% as high. A further 32% rated the challenge as neutral and 16% as very low. This is also supported by qualitative analysis, where most of the anchor examples could be assigned to the category expression is very strong and strong. One interviewee explains: "We often receive feedback that this is difficult in the subsidiaries, particularly due to a lack of staff or a shortage of resources." (EI 15, l. 119-124).

Especially in an international context, the limited availability of human resources becomes a major challenge. As discussed in the previous section, this is not isolated to CDP implementations but relevant to many digitalization projects. One might even argue that the limitation factors are primarily within IT departments. With that in mind and thanks to a strong development towards low-code IT solutions, organizations can overcome this challenge by reallocating projects such as the implementation of a CDP more towards a business or process excellence team. In contrast, the integration of such a low-code solution within the existing landscape requires a profound knowledge of IT. This needs to be balanced and well-organized.

**6. Recommendation**

Overall, data suggests that the perceived benefits of a CDP outperform the perceived challenges, as indicated in Figure 5.



**Figure 5:** Overall distribution of challenges & benefits of a customer data platform

The interviewees recognize the significance of implementing a CDP, acknowledging its potential to enhance customer engagement, product development, and revenue generation. However, challenges persist, particularly regarding data quality, which is crucial for CDP implementation. The decision to adopt a CDP should be carefully considered, considering factors like company size, industry, and customer segment. To maximize benefits during and after a CDP implementation three recommendations can be made.

First, companies need to gradually prepare themselves for the implementation of a CDP by making themselves aware of the actual challenges they might face. Therefore, organizations should promote awareness and knowledge sharing. To do so, participating in relevant communities of German companies utilizing CDPs is recommended. This community can offer guidance and inspiration for both newcomers and those already employing CDPs, fostering competitiveness in an increasingly data-driven landscape. Second, before implementing a CDP,



organizations should be clear about their objectives, such as improving their customer data quality and increasing their know-how. Therefore, preparing for CDP implementation also involves prioritizing customer data cleansing to enhance data quality. Third, during and after a successful implementation, organizations need to ensure adequate personnel resources in the field to stay competitive in the future.

### 7. Conclusion and limitations

The findings of this study have explored key benefits and challenges for German organizations that are considering a CDP implementation and thereby contributed to practical knowledge. Hence, the results bridge a gap between limited research for the context of medium and large German organizations by gathering primary data.

However, the study has its limitations. First, the literature review resulted in seven concepts for benefits and

challenges which are based on eight, and finally just three key articles. Second, the sample size of 19 interviews provides a first insight into a diverse landscape of medium and large German organizations. Future studies can explore this more in-depth, for instance per industry. Lastly, using the mixed-method approach allowed the researcher of this study to explore the phenomena thoroughly and based on qualitative and quantitative data, however, it does not provide statistically significant data to deduce a set of universal hypotheses. Hence, external validity is at least limited. Consequently, we suggest that future research should involve larger (and maybe industry-specific) samples and contribute to statistically significant findings.

Finally, it can be concluded that this explorative study enables practitioners of medium and large German organizations to better assess and finally evaluate their attempts for a CDP implementation.

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