

Unlocking Customer Insights Through Service Analytics to Improve Customer Experience and Drive Business Success

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ABSTRACT,

In today's rapidly changing world, data analytics plays a crucial role in providing organizations with invaluable insights, facilitating informed decision-making and securing a competitive advantage. This study emphasizes the importance of data analytics in the retail and service provider sectors. It demonstrates that a combination of traditional and advanced data analytics techniques, including customer surveys, along with sophisticated tools such as Big Data Analytics and Artificial Intelligence analytics are used to enhance the customer experience throughout their journey, fostering customer loyalty. Targeted marketing, personalized consumer experiences, rely on data analytics insights with several KPIs utilized to measure performance ensuring alignment with strategic goals. The findings also highlight the significance of data privacy, a customer-centric culture, and the incorporation of innovative technologies to enhance the customer journey, despite the existence of challenges such as managing large data volumes obtaining senior management support and securing customers' trust. Overall, data analytics enables retailers and service providers adapt to evolving customer requirements and preferences, make well-informed decisions, and thrive in a world that is increasingly data-driven.

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1. INTRODUCTION

The new era of digital technology has brought with it an explosion of data. Businesses now have access to vast amounts of customer data that, if they use them correctly, can provide useful insights into customer behaviour and preferences in order to enhance the experience of their customers. The growing use of customer data analytics, both traditional and advanced, in order to understand and enhance customer experience, has therefore become a focal point for both researchers and practitioners ("Global CEE 2022: Orchestrating the Connected Customer Experience", n.d.; Using AI to Track How Customers Feel & Mdash; in Real Time, 2021).

Companies in retail and service industry must confront these challenges so as to constantly adapt and evolve in response to changing customer expectations and market dynamics over time to able to maintain their customers and attract even more. First of all, understanding the customer journey, which is a complex yet crucial task for businesses in order to improve customer experience by for example seeking to foster customer engagement and loyalty. Quality of the customer journey plays a big role for business in gaining a sustainable competitive advantage, as loyal customers who have had a positive experience are more likely to recommend the company to others (Bueno et al., 2019). Additionally, incorporating social and cultural influences, aligning customer journey with brand strategy, and utilizing technology to improve interactions are essential steps in developing a consistent brand image, encouraging customer loyalty, and ultimately enhancing organizational value (Clatworthy, 2012; Rodriguez et al., 2016).

Customer satisfaction, perceived value, and the quality of goods and services have a significant impact on customer loyalty, which is a crucial indicator of a customer's intention to continue doing business with a company (Bagram & Khan, 2012; Noyan & Imşek, 2014). Customers who are satisfied are more likely to remain loyal and recommend the business to others. Additionally, in e-commerce environments, consumer trust and satisfaction are crucial for creating loyalty because they support strong word-of-mouth recommendations and the desire to keep doing business with the vendor (Kassim & Abdullah, 2008).

Big data analytics can enable this process by providing real-time insights into customer needs, pain points, goals, and interests (Davis, 2021). According to Verhoef et al. (2016), big data analytics is essential in today's digital environment because it enables businesses to derive value from enormous amounts of data, offers insights into customer behaviour and preferences, facilitates informed decision-making, and leads to improvements in goods, services, and operational effectiveness. However, the use of such advanced analytics techniques raises questions about their impact on customer privacy and the potential trade-offs between personalization and privacy which is one of the challenges that businesses face.

Overall, this research aims to explore how and if businesses leverage a combination of traditional and advanced customer analytics techniques to enhance customer experience and loyalty. The study will focus on the retail and service industry, given its heavy

reliance on customer data for strategy formulation and execution. The research question is: "How do retailers and service providers leverage a combination of traditional and advanced customer analytics techniques to better understand customer behaviour and preferences, and ultimately improve customer experience and loyalty?"

To answer this question, the following sub-questions have been formulated:

1. What specific customer service data do businesses track?
2. How can the abstraction of customer personal data affect their privacy and customer experience in general?

The above-mentioned areas that the research is going to be focused on, will be addressed in the theoretical framework in Chapter Two using existing literature on customer data analytics, customer experience management and customer loyalty in order to answer the main research question and sub-questions. The research methodology will be outlined in Chapter Three.

Following this, the study will provide an in-depth analysis of how retail and service industries use customer data analytics to enhance customer experience, drawing on both traditional and advanced techniques. It will also explore the implications of data abstraction for customer privacy and overall experience (Chapter Four). These findings will be used to answer the research question and make recommendations for businesses seeking to leverage customer data analytics to enhance customer experience and loyalty (Chapter Five). Then limitations and further research will be highlighted at the end of this paper (Chapter Six). This research adapts a mixed design, utilizing both qualitative methods such as interviews and quantitative methods such as questionnaire surveys.

Considering the above-mentioned topics, a significant distinction is discovered between traditional and advanced customer analytic approaches. The gap has been thoroughly investigated, particularly considering discussions with companies that employ customer data analytics for other organizations seeking to comprehend customer behaviour in order to enhance customer experience. Ever since technology started to develop, more and more opportunities are growing enabling businesses to get deeper understanding of what their customers preferences and eventually offer them more specialized solutions. Advanced analytics, such as Big Data Analytics (BDA) and AI analytics, provide a broader range of capabilities than traditional analytics by providing real-time insights, automatic pattern recognition, and continuous learning, thereby promising more sophisticated insights for strategic decision-making (Artificial Intelligence, Big Data Analytics, and Insight, 2023). AI analytics in particular uses machine learning algorithms to identify patterns and insights without the need for human intervention (Contributor, 2019), overcoming the limitations of traditional analytics dependent on human expertise. (Song et al., 2018; Hallikainen et al., 2020) It has been demonstrated that the implementation of advanced analytics has a positive impact on business

performance, enhancing customer relationship outcomes when integrated within operations and supported by an analytics culture. The benefits of big data analytics, such as accurate information provision in uncertain environments, make it a valuable business enabler (Ebner et al., 2014), despite the difficulties associated with managing a large variety, volume, and velocity of data. For effective use of big data analytics, a hybrid approach combining traditional database structures with advanced analytic techniques may be suggested, depending on the circumstances. (Ebner et al., 2014). This gap was also confirmed after conducting interviews with businesses that use customer data analytics and concluding that by using advanced customer data analytics, they gain a better understanding of their customers' needs and provide them with more personalized products and services based on their preferences, even though traditional techniques may also contribute partially to the comprehension of customer behaviour, but not in a substantive manner.

2. THEORETICAL BACKGROUND

2.1 Customer Experience

Lemon & Verhoef, (2016) stated that customer experience, which they also defined it as the impression formed by consumers through their interactions with a company's products, services, and various touchpoints, significantly influences customer loyalty, satisfaction, and consequently, business performance. It was also noted that considering the vast amount of channels, touchpoints, and media through which consumers interact with businesses today, accompanied by a distinct social element, it is crucial to comprehend how customer experience is evolving. This complexity necessitates an integrated approach, requiring businesses to synchronize various functions and even involve external partners in order to consistently deliver positive customer experiences (Lemon & Verhoef, 2016).

This experience is comprised of both tangible and intangible elements, such as the product or service's value and price, as well as the company's culture, store environment, and service quality (Lemon & Verhoef, 2016; Zeithaml, 2000). Intriguingly, customers' expectations are heavily influenced by their social and physical environments, frequently even before their initial contact with a business (Rosenbaum & Massiah, 2011; Turley & Milliman, 2000). The internal environment of the business, demonstrated by its culture and workforce, also plays a significant role, with motivated and engaged employees frequently contributing to improved customer experiences (Homburg et al., 2015).

Enhancing customer experience can increase client retention, which is often more cost-effective than customer acquisition (Gupta & Zeithaml, 2006) as a factor directly affecting the company's bottom line. Consequently, numerous studies emphasize the significance of consumer experience in various contexts. Creating distinctive brand experiences through innovation can distinguish businesses from

their rivals, leading to increased consumer loyalty, satisfaction, and revenue (Clatworthy, 2012). Therefore, it is essential to align consumer experience with the brand strategy of the company in order to maintain a consistent brand image.

By incorporating customer experiences into the design process, the deployment of technology-based resources such as smartphone applications can enhance interactions between the store and customers, thereby delivering substantial value to businesses (Rodriguez et al., 2016). Similarly, by comprehending and managing the customer experience at individual touchpoints, retailers can improve the overall customer experience, thereby increasing customer satisfaction and loyalty (Stein & Ramaseshan, 2016).

In addition, service providers must recognize the impact of the experience during and after consumption in order to enhance service delivery and growth, as this helps retain both new and returning customers (Roy, 2018). Despite the complexities of controlling customer experience, such as managing shifting perceptions, businesses that successfully navigate this complexity can cultivate customer loyalty and satisfaction, thereby increasing organizational success (Parandker & Lokku, 2012).

Based on the article "Understanding Customer Experience" (2007), to develop and manage consumer experiences effectively, businesses must rely on data-driven strategies, innovative practices, and technological integration. Customer experiences encompass the subjective responses customers have towards a company, influenced by direct or indirect interactions, and spanning all aspects of an offering, from customer care to product reliability, make it imperative for businesses to continuously measure, analyze, and improve them. These responses are predominantly influenced by customers' expectations based on previous interactions. As customer experience can result in either customer satisfaction, fostering loyalty, positive word-of-mouth, and revenue growth, or dissatisfaction, resulting in negative reviews, customer churn, and potential revenue loss, understanding and managing customer experience becomes a complex yet essential business process (Understanding Customer Experience, 2007).

2.2 Customer Journey

Lemon & Verhoef (2016), claim that businesses must have a thorough understanding of customer journeys, which comprise the series of interactions and touchpoints a customer has with a company from initial awareness to post-purchase evaluation. The insights gained from this process enable businesses to align their actions with customer priorities by shedding light on customers' requirements, expectations, and desires as they move through various touchpoints (Lemon & Verhoef, 2016; Maechler, Neher, & Park). By mapping these journeys, businesses can identify critical pain points and gaps between expected and actual experiences (Bitner et al., 2008; Zomerdijk & Voss, 2009). It is important to acknowledge that the focus should be to the customers's end to end experience and not to each touch point in isolation. The whole experience should be thoroughly examined be the

customers point of view for so as to identify areas of improvement. (From Touchpoints to Journeys: Seeing the World as Customers Do, 2016)

Notably, customer journeys are dynamic, enabled by technological advances and changing consumer behaviour, necessitating organizations' continuous strategic adaptation (Competing on Customer Journeys, 2015; The Truth About Customer Experience, 2013). Customer journeys have a direct impact on a company's financial performance, as they contribute to enhanced customer experiences, satisfaction, and loyalty (Lemon & Verhoef, 2016; Gupta & Zeithaml, 2006; Rosenbaum et al., 2017). With mobile channels reshaping these journeys and an understanding of multichannel touchpoints enhancing customer experience design, businesses must prioritize mastery of customer journeys to foster a positive customer experience and cultivate long-term loyalty (Lemon & Verhoef, 2016).

2.3 Customer Loyalty

Henderson et al (2011), stated that, one of the most important factors in determining a company's success is customer loyalty, which is related to understanding customer journeys. As essential marketing tools, loyalty programs are utilized to encourage repeat business and strong client relationships (Henderson et al., 2011). In the context of e-commerce, in particular, client trust and happiness are crucial in promoting customer loyalty (Kassim & Abdullah, 2008). Personal data release, membership fee, frequency of purchases, and program advantages are some of the variables that affect participation in loyalty programs (Wulf et al., 2003). According to Noyan and Imşek (2014) and Bagram & Khan (2012), customer satisfaction, product quality, service quality, and perceived value all have an impact on a company's ability to retain customers. While loyalty programs can increase customer loyalty, they must also be valued by customers in order to be effective (So et al., 2015). According to Leenheer and Bijmolt (2008), Elements such as products similarity and purchase frequency on average have an impact on whether or not businesses would implement loyalty programs. It is necessary to have a better, more comprehensive understanding of customer loyalty because the notion incorporates several meanings that customers attribute to their loyalty-related thoughts and behaviours (Närvänen et al., 2020). Customer loyalty, for instance, is essential for the success of service organizations and may be attained through offering unique experiences (Bueno et al., 2019)

2.4 Connection between customer experience and customer loyalty

The significance of the relationship between customer loyalty and customer experience in competitive markets is highlighted by Sharma et al (2020). Customer satisfaction not only encourages loyalty, which boosts sales and profitability, but it also helps spread positive word-of-mouth, which draws in new clients while keeping hold of current ones (Sharma et al., 2020). According to research (McMullan &

Gilmore, 2008; Lemon, White, & Winer, 2002), the role of customer experience goes beyond mere satisfaction to emotional impact. Trust is found to be a prerequisite for loyalty, and the emotional connection created between the customer and the brand significantly influences profits.

Additionally, customer experience serves as a mediator in the relationship between customer loyalty and service quality, highlighting the necessity for businesses to superior products that satisfy customers and encourage loyalty (Sharma et al., 2020). The significance of client loyalty and satisfaction is increased in the setting of interactive e-services, where it is simple for customers to switch to competitors, necessitating a greater emphasis on cultivating positive customer connections. High-quality services, building trust, and producing perceived value can all help with this (Chen, 2012).

Chen (2015) supports that customer value as seen by the customer is equally important in promoting loyalty. Competition has actually been discovered to be a moderator of the relationship between customer value and customer loyalty from a dyadic perspective, as well as a predictor of loyalty from the standpoint of service employees. This underlines how crucial it is to develop strategies to offer customer value and win the needed loyalty while also recognising the competitive landscape (Chen, 2015).

In conclusion, a company's success is mostly dependent on customer satisfaction, loyalty, and the sense of value. They have a direct impact on revenues and growth, mostly by influencing consumer buying habits and promoting brand loyalty. In order to maximize the customer experience and ultimately promote customer loyalty and business growth, a holistic approach that incorporates the provision of high-quality goods and services, developing trust, fostering emotional connections, and creating perceived value within the competitive context is essential (Zeithaml et al., 1996; The One Number You Need to Grow, 2003; Mascarenhas et al., 2006; Brakus et al., 2009).

2.5 Customer Data Analytics

Duan et al. (2020) emphasizes the importance of Business Data Analytics (BDA) in promoting innovation within organizations, noting that Big Data Analytics (BDA) not only improves environmental scanning directly but also fosters a data-driven culture that further improves environmental scanning. A resultant increase in innovation may impart a competitive advantage, although this is not explicitly addressed in the study.

2.5.1. Traditional Customer Data Analytics

Traditional analytics and advanced analytic techniques, including Big Data Analytics (BDA) and Artificial Intelligence (AI) analytics, have distinct methodologies, capabilities, and scopes. Typically, traditional analytics are static and primarily address "what" questions. They rely significantly on the analyst's knowledge and require significant human intervention, so they are limited by time, energy, and

the individual's expertise. These analyses are typically driven by predefined dashboards and business inquiries, and their effectiveness depends on the uniqueness and volume of data, as well as the speed with which an organization can integrate the insights into its operations (When Data Creates Competitive Advantage, 2020; Aberdeen Strategy & Research, 2023).

On the other hand, advanced analytics techniques, such as BDA and AI analytics, provide more dynamic and real-time opportunities for comprehending customer needs, interests, and pain points. BDA is capable of analyzing both structured and unstructured data, which is not possible with traditional analytics. This affords businesses the opportunity to obtain real-time insights into customer behaviour and preferences from various data sources, such as social media posts and blogs (Artificial Intelligence, Big Data Analytics, and Insight, 2023).

AI analytics is a subset of advanced analytics that employs machine learning algorithms to detect patterns, derive insights, and make predictions automatically. Its ability to learn and improve over time substantially reduces the need for human intervention, making it a more potent and advanced data analysis tool than conventional approaches (contributor, 2019).

In conclusion, while traditional analytics can still be useful in certain circumstances, advanced analytics methods, particularly BDA and AI analytics, offer a broader range of capabilities. They offer real-time insights, automatic pattern recognition, and the potential for continuous learning, making them more sophisticated and comprehensive instruments for informing organizational decision-making and strategy development. These innovative techniques are gradually closing the divide between conventional customer analytics and the future of analytics (Artificial Intelligence, Big Data Analytics, and Insight, 2023).

2.5.2. Advanced Customer Data Analytics

Advanced customer analytics, which includes predictive, prescriptive, and adaptive capabilities, has revolutionized the understanding of customer behavior and preferences. Unlike traditional analytics, advanced analytics provides a dynamic view that answers not only the "what", but also "why", "what if", "what next", and "how" queries related to customer behavior (Germann et al., 2020). Furthermore, advanced analytics are significantly influenced by the firm's top management teams, as their advocacy directly affects the extent to which these tools are adopted. When properly implemented, advanced analytics and their synergistic capabilities can enable value creation, sustenance, and renewal, leading to an overall enhancement in organizational performance (Someh et al., 2019).

Emerging technologies like data warehousing, data mining, and campaign management software have further cemented the role of advanced analytics in modern business operations. These technologies have transformed relationship marketing and made Customer Relationship Management (CRM) a new

arena for gaining a competitive edge (Rygielski et al., 2002). In the retail industry, for example, advanced analytics have facilitated the integration of in-store technologies to improve the retail experience and supported a seamless omnichannel strategy (Alexander & Kent, 2022; Generosi et al., 2018). Furthermore, the quality of customer data, which is greatly influenced by the organizational culture, plays a crucial role in determining the effectiveness of advanced analytics. The use of advanced analytics can strengthen customer loyalty and accelerate cross-selling (Min & Han, 2005; Peltier et al., 2013).

In continuation of the exploration of advanced analytics, its role in decision making is examined. By providing key insights into business patterns, predictive modelling, data visualization, real-time monitoring of KPIs, and business process optimization, it supports data-driven decision-making in organizations (Cao et al., 2015). Moreover, big data analytics, a core component of advanced analytics, allows organizations to gain insights into customer behaviour, preferences, and needs, which can be utilized to optimize operations, reduce costs, and increase revenue (Verhoef et al., 2016).

The impact of advanced analytics on business performance is influenced by various market conditions, but it generally has a positive effect on the performance of retailers (Song et al., 2018). For instance, businesses that integrate big data analytics into their operations and have a culture of analytics that supports marketing analytics tend to have stronger customer relationship performance. (Hallikainen et al., 2020). Despite the challenges of managing high variety, volume, and velocity of data, the benefits of big data analytics, such as providing accurate information in uncertain environments, make it a valuable tool for businesses.

Artificial Intelligence (AI) has transformative potential in improving customer engagement and loyalty, optimizing precision marketing strategies, and enhancing data-driven marketing insights. By incorporating emotional intelligence, AI can augment the customer engagement traditionally provided by employees (Prentice & Nguyen, 2020). In targeted marketing, AI enables businesses to identify customer needs, foster customer relationships, and enhance brand image by effectively targeting the right customer, through the right channel, with the right message at the right time (Yang et al., 2021). Additionally, AI-driven data consolidation and analysis can unlock invaluable customer behavior predictions and facilitate personalized service delivery, while acknowledging the need for robust data privacy protocols (ZULAIKHA et al., 2020).

2.6 Customer Personal Data Privacy (GDPR)

The General Data Protection Regulation (GDPR) is a crucial regulation that became effective in the European Union (EU) and European Economic Area (EEA) on May 25, 2018. It seeks to protect user data and enhance personal privacy by granting individuals control over their personal data and streamlining the regulatory environment for international business, thus

unifying the regulation throughout the EU. Individuals have the right to access, modify, and erase their personal information (Degeling et al., 2019; Wachter, 2018). The GDPR requires companies to obtain explicit consent from users, to maintain transparency regarding their data collection and processing practices, and to provide individuals with the right to access, modify, and delete their personal information. These GDPR standards are essential for IoT providers to establish a balance between their interests and those of their users, and additional specifications and implementations are urgently required in the design and deployment of IoT technologies to minimize privacy impacts. This is consistent with the findings of a study by Martin et al. (2017), which indicates that the vulnerability of consumer data can have a negative impact on the performance of businesses, but that transparency and control in data management practices can mitigate these effects. In essence, the GDPR provides a crucial framework to protect against such vulnerabilities, enforcing transparency and control, and thereby enhancing consumer trust (Martin et al., 2017; Degeling et al., 2019; Wachter, 2018; Degeling et al., 2019).

3. METHODOLOGY

The primary objective of this study is to explore how and if retailers and service providers utilize a blend of traditional and advanced customer analytics techniques to improve customer experience and drive business performance. It specifically examines their implemented strategies, the types of data they collect and analyze, and the resulting effects on their companies, including both the tangible benefits and challenges faced, particularly regarding customer reluctance to share personal data. Furthermore, the study explores how the customers perceive these actions, if they recognize any changes in their interaction with a company that they had past experiences with and how they feel about the use of data analytics to enhance their engagement.

3.1 Research Design

In order to address such a complex problem a mixed method design was chosen. This approach enables researchers to acquire both in-depth insights and statistical evidence so as to gain a more comprehensive understanding of the respective research problem and endorse the validity of conclusions. Venkatesh et al (2016) and Johnson et al (2007), emphasize the benefits and the suitability of the chosen design method in addressing complex issues, also highlighting its advantages. More specifically the research design is structured as follows; First comes the companies' perspective part which includes both a qualitative and a quantitative phase. The qualitative phase involves conducting in-depth interviews with companies in the retail and service industry, while the quantitative phase includes a survey based on the same questionnaire as the one used during the qualitative phase (interviews), aiming to investigate how companies utilize customer analytics in practice. Then, on the second part of the research design the perspective of the customer data

analytics providers companies (one that employs advanced customer data analytics techniques and the other one traditional customer data analytics techniques) was analyzed using data collected from the respective interviews. The aim of these interviews was to gain more knowledge about techniques and tools used, their advantages and practical limitations using actual day to day examples and combine these findings to include retailer's perspective and customer data analytics provider perspective on how and if advanced analytics can enhance customer engagement better than traditional customer analytics techniques. Then follows the third part of the research which is focused on customers' perspective and the analysis was performed by only using quantitative analysis (questionnaires). Throughout this process a triangulation method is used for the analysis of the data. This is a technique that combines quantitative and qualitative methods, relying on several data sources, theories, or researchers in order to provide a more thorough understanding of the phenomena being studied (Duffy, 1987). Triangulation, which is particularly important in research as it increases the variety and depth of the data gathered as well as the trust in study findings through processes like surveys and focus group discussions (Walsh, 2013). Results from both qualitative and quantitative phase will be analyzed and compared to acquire insights about the use of advanced analytics methods and customer engagement.

3.2 Data Collection

As previously stated in the research design section, data will be gathered through a combination of two distinct methods: in-depth interviews and survey questionnaires. Interviews are an important method in qualitative research and sociology for collecting rich, detailed data about individual experiences, opinions, and preferences, leveraging the ability to ask open-ended questions in a setting that encourages genuine responses and clarity (Montoya, 2016; Hyde, 2016). The structured or unstructured format of interviews ensures the accuracy and depth of data, making them a powerful tool for sociological investigations (Hyde, 2016). Interviews can be conducted in person, over the phone, or at the participant's location. So, starting with the in-depth interviews, only one large retail company specializing in clothing sales accepted participation in this interview. Two teams' meetings were scheduled with the Brand and CRM manager of the respective Company. One to explain the purpose of the research and obtain approval to proceed with an interview and one meeting to actually carry out the interview. A structured interview questionnaire was used as a guide for the discussion to ensure all related topics were covered but a lot of space was given to the interviewee to elaborate and provide examples. The interview was divided into smaller parts where at first more broad questions were asked about the company whereas throughout the interview more explorative questions were asked to deep dive into what the company is actually doing in that specific area. This questionnaire was subsequently answered by the interviewee in writing. (Questionnaire protocol: Appendix A). Two more interviews were conducted with Companies

providing data analytics services with the purpose of gaining practical knowledge about traditional and advanced analytics techniques. The first of these Companies was directly approached with the purpose of gaining more knowledge about how a traditional survey is carried out, key measures, advantages, and limitations. The second Company was approached through the retail company that was interviewed. The aim of this interview was to gain more knowledge about advanced analytic techniques and respective data gathering methods. Also, information extracted from the interviews aimed to obtain more information regarding the identified gap too. Then follows the second part of the data collection which is through two surveys. Surveys are a crucial research tool because they facilitate the collection of data from large samples and provide valuable insights into participant attitudes and behaviors across a variety of topics, which can be used to inform policy, marketing strategies, and other decisions (Todd & Burmeister, 2003). Despite their effectiveness in areas such as supply chain management, surveys conducted via diverse methods such as online questionnaires or interviews must be used with caution due to their associated benefits and risks (Schoenherr et al., 2015). Based on my research, the first survey is focused on retail and service industry of which the final version of the questionnaire was created following the in-depth interview conducted with the retail company (The questionnaire protocol can be found in Appendix A). The questionnaire was sent to 60 Companies via their corporate e-mails accompanied by a covering e-mail giving details about the survey scope. Only two companies responded to the survey request. The second questionnaire was focused on the customer perspective and the questionnaire was divided into smaller parts where at first more broad questions were asked about the participant profile. In the second part simple closed contingency questions were asked (yes or no questions). For positive answers the respondent had to reply to an open-ended question providing a related example. The topics covered in the second part of the questionnaire explore other customers online or in store shopping experience and overall experience when receiving products and services (The questionnaire protocol can be found in Appendix B).

3.3 Data Analysis

The data collected during the research's data collection phase were analyzed using the thematic analysis approach to identify patterns or themes. The analysis process involved several steps based on Braun & Clarke (2016), including becoming familiar with the data, generating initial codes to capture significant features, searching for themes, reviewing, and refining the themes, and finally defining and naming the identified themes. In the concluding phase, it is crucial to organize and present all the information in a systematic manner, allowing for the presentation of findings and the provision of evidence to support conclusions. It is important to acknowledge that these steps are not necessarily sequential and may involve revisiting and revisions throughout the analysis process (Braun & Clarke, 2006).

4. FINDINGS

In this chapter, the researcher presents and analyzes the study's findings in an effort to discover the underlying meanings, patterns, and experiences that have developed during the research process. This evaluative procedure begins by analyzing the collected different points of view, providing a broad overview that represents the varied aspects of the topic at hand. So, this analytical strategy will be applied to the survey and interview data collected from various companies. This investigation will dive into the complexities of their experiences and perspectives, providing an in-depth understanding of their points of view. Following this, the researcher will analyze the findings from the interviews with two companies that provide data analytics services, creating an understanding of their unique industry insights and experiences. Lastly, this in-depth analysis will extend to customer surveys, allowing the researcher to gain insight into the customer's perspective by analyzing their experiences.

4.1 Companies' Perspective

The main objective of this thematic analysis was to gather evidence that fully addresses the primary research question and its sub-questions. The data collected from the interviewee and business surveys, representing both qualitative and quantitative analyses, were integrated, and analyzed based on a set of selected themes, and supported by significant participant quotes. Both methods were chosen in order to gather as much data as possible, considering the rate of non-respondents and non-able to meet online for an interview. The selection of these themes was driven by the flow of customer data within the organization, taking into consideration aspects such as data collection methods, the type of the collected data, chosen data analysis techniques, and the practical utilization of these data. The themes specifically explore the benefits and challenges, as well as the company's policies, regarding data privacy and data ethical usage. Furthermore, the themes were examined and distinguished into smaller groups so as to link similar information together. More specifically, four themes were created for the analysis: Data Gathering and Selection of Data Analytics Techniques, Performance Measurements and Alignment to Strategy Goals, Benefits and Challenges of Data Analytics Techniques and Trustworthiness of Data. Based on the above, a table with an overview of the companies is presented (Table 1), considering, the company profile sections of the survey completed by two service providers were left unfilled and are therefore excluded from the analysis. Then follows the presentation of the results in Table 2 and the data were collected by using a combination of qualitative and quantitative analysis. In quantitative analysis, approximately sixty retailers and service providers were sent the questionnaire. The received data was carefully analyzed based on the previously mentioned themes, despite the low response rate. Then at the end of the table, a space for examples was added in order for the participants to share real life experiences. In all the above parts quotes of the participants were included as well in order to support the analysis.

Company Profile	
Number of employees	200-500
Industry	Clothing, food, and household industry
Countries of operation	2
Existence of e-commerce Store	Yes
Number of brands	6

Table 1: Interviewee (Company) profile.

Theme	Qualitative Results	Quantitative Results
Data Gathering and Selection of Data Analytics Techniques	<p>Company 1 (Retail Industry) The company's comprehensive marketing strategy to increase consumer loyalty and sales integrates traditional and advanced data analytics techniques in a seamless manner. Utilizing the RFM (Recency, Frequency, and Monetary Value) framework, the data-driven approach heavily relies on insights obtained from the customers loyalty program. In addition, the business utilizes the Qivos platform to perform cluster analysis in order to categorize consumers based on shared characteristics. The loyalty program's core, which offers points redeemable for discounts, encourages frequent customer engagement, effectively complementing the company's website, which directs visitors to tailored offers and rewards email sign-ups with a discount. Traditional data analysis is utilized to analyze consumer perceptions and current trends in order to gain a comprehensive understanding of the clientele.</p> <p>Simultaneously, advanced data analytics are used to execute targeted strategies, such as offering personalized products, enhancing customer-centricity, and consequently driving sales growth, as evidenced by the interviewee's statement, "We use advanced analytics to sell." Traditional analytics are reflected in the interactive tools on the company's support page, such as the pop-up notes that collect customer feedback on user experience and satisfaction. In collaboration with a third party to collect data from in-store and online platforms, the company implements advanced marketing technology solutions, such as machine learning, to provide personalized consumer experiences. This strategy is illustrated by the provision of bonus points to loyalty cardholders who make purchases across multiple company brands. The interviewee's statement, "Through our platform, we strive to connect with and delight our customers," demonstrates the company's commitment to enhancing customer experiences and developing long-lasting relationships via these carefully designed, data-centric strategies.</p>	<p>Company 2 (Service Provider) In their industry, where advanced data analysis techniques aren't considered essential, consumers are required to fill out a registration form with their personal information prior to entering their facilities. According to one interviewee, this strategy enables a straightforward and efficient customer experience that adheres to industry standards. For data analysis, the company relies mainly on a front-desk program known as a Management Information System (MIS). The corporation utilizes this traditional data analysis method through the MIS as a unified framework for managing and interpreting the vast amounts of data generated by daily operations. This crucial analytic strategy relies heavily on the MIS because it ensures that the company's activities are aligned with its objectives through careful monitoring, analysis, and strategic use of the obtained data.</p> <p>Company 3 (Service Provider) The company uses consent-based methods to collect customer information, such as inviting customers to participate in surveys and providing them with loyalty cards, both of which serve as essential data collection mechanisms. In addition to boosting customer confidence, emphasizing consent ensures compliance with privacy regulations, thereby facilitating the gathering of valuable, accurate, and useful consumer data for business analysis and decision-making. Implementing a dual strategy for its data analytics, the company utilizes traditional methods such as surveys and questionnaires to acquire direct and systematic customer feedback. In addition, it utilizes software tools such as Excel and Power BI to analyse and interpret these results using more advanced analytic techniques. This dual approach enables the organization to analyse the collected data, revealing patterns, insights, and trends, thereby guiding strategic decision-making, and enhancing the</p>

		company's understanding of its customer base.
<p>Performance Measurements and Alignment to Strategy Goals</p>	<p>The company implements key performance indicators (KPIs) to monitor performance and evaluate the impact on consumer engagement. Using past experiences and a process of trial and error, the success of campaigns is determined by identifying what engages with customers. These unique KPIs are calculated and then reviewed on a weekly, monthly, or quarterly basis, depending on the business's specific needs. It is essential to align these metrics with the company's strategic objectives, as every aspect of the business, from products and services to gathering data, is interdependent and must align with the overall business strategy. To ensure this alignment, stakeholders are kept informed of all new decisions and developments, ensuring that they are always aware of the strategic direction and performance of the organization.</p>	<p>Company 2 (Service Provider) Utilizing Key Performance Indicators (KPIs) such as conversion rates, the company measures the efficacy of its marketing initiatives. A particular emphasis is placed on sales generated from emails sent to consumers, with the ratio of conversions is analysed to determine the strategy's effectiveness. Financial KPIs, such as Return on Investment (ROI) and profit margins, are also crucial, and annual development targets are established to mitigate potential risks such as inflation and economic downturns. In accordance with its strategic objectives, the company seeks to cultivate consumer loyalty by concentrating on repeat customers. By targeting individuals who have interacted with the facilities in the past, the company capitalizes on the data it has already collected to personalize services and encourages these consumers to return. However, stakeholders are not directly engaged in the process of data analytics, with the company taking the lead in terms of data interpretation and decision-making.</p> <p>Company 3 (Service Provider) The company utilizes a variety of Key Performance Indicators (KPIs) to monitor its performance, including conducting surveys, analyzing customer journeys, and calculating the customer retention rate. To ensure quality service delivery, a significant emphasis is placed on monitoring customer retention and satisfaction rates, as well as maintaining Service Level Agreements (SLAs). The company establishes controls to ensure that all departments are aware of and aligned with its strategic objectives. It develops business-relevant analytics with the assistance of information technology, ensuring that the initiatives conducted provide answers to business questions that support the company's strategic objectives. Consistently involving and informing stakeholders promotes transparency and alignment. This strategy ensures that all data analytics initiatives not only produce actionable insights, but also align with and support the business's primary goals.</p>
<p>Benefits and Challenges of Data Analytics Techniques</p>	<p>The company acknowledges that the use of both traditional and advanced analytics methods presents challenges, particularly in terms of time and cost. As the interviewee clearly stated, "It takes time, is more expensive, and delays actions, which can lead to outdated data." Nonetheless, integrating these methods has significant benefits. Traditional analytics provide an overall view that enables the business to monitor market performance and customer responses. On the other hand, advanced analytics methods respond to consumer satisfaction by providing customized loyalty programs and personalized products. The interviewee states, "Advanced analytics are essential for the survival of any large organization." These methods, when combined,</p>	<p>Company 2 (Service Provider) In the context of the particular industry and data acquisition methodology, traditional and advanced data analytics present no significant obstacles. Utilizing conventional analytics offers significant advantages, especially in terms of targeted marketing and market segmentation. For instance, Company's principal target groups are couples and families. By focusing on data collected from these specific demographics, it is able to tailor a customer experience that minimizes potential issues such as noise complaints or disturbances that are typically associated with</p>

	<p>provide a comprehensive perspective of the brand's position, consumer experiences, values, and behaviour. In addition, they allow the business to fine-tune its policies regarding common consumer complaints, such as express delivery, returns and refunds, and secure online payments. These insights inform strategies that can be displayed on every website page as pop-ups. As the interviewee stated, "By utilizing analytics, you can have more loyal customers, handle complaints more effectively, and improve your offerings. Despite this, you continue to have complaints," highlighting the enormous advantages of a comprehensive analytics approach.</p>	<p>younger visitors to Cyprus who come with the intention of celebrating. This strategic use of traditional analytics enables the company to maintain a family-friendly environment consistent with its brand identity and customer expectations.</p> <p>Company 3 (Service Provider) The implementation of both traditional and advanced data analytics presents obstacles. The vast amount of data and the task of accumulating meaningful information can be difficult, and financial constraints can limit the ability to implement changes based on the results of analysis. In addition, it can be difficult to convince senior management of the necessity and utility of data-driven insights. However, the numerous benefits balance these disadvantages. Traditional analytics contributes to the improvement of business strategies, marketing techniques, and customer service. Advanced analytics, on the other hand, provides a deep understanding of customer preferences, behaviors, and requirements, allowing for the delivery of personalized experiences that result in increased customer satisfaction and fewer complaints. Utilizing both traditional and advanced analytics provides even more benefits, including more effective marketing, the identification of new revenue opportunities, personalized customer experiences, and enhanced operational efficiency. Consequently, despite the difficulties, the combination of these analytic approaches is a valuable instrument for fostering business success.</p>
<p>Trustworthiness of Data</p>	<p>To foster customer trust and guarantee data security, the company hires an external expert to supervise GDPR compliance and manage related legal matters. The company representative emphasized the significance of transparency and specificity in data privacy by stating, "Our Data Protection Policy is all about the details." It was then elaborated on why the company requires customer data, using phrases that customers can easily relate to, such as "Special little treats, Things you'll love, shop your way, a smooth service, here to help, and looking after you." By this the company then builds its website in such a way to satisfy the above-mentioned points. This approach not only conveys the company's commitment to data protection, but also illustrates the tangible benefits that customers stand to gain from sharing their data, thereby developing a relationship based on mutual trust and benefit.</p>	<p>Company 2 (Service Provider) Customers are required to fill out a registration form containing their email address and phone number upon arrival. It's placed a high value on data privacy, and as a result, the company obtains Customer's permission before using this information for marketing purposes. This is essential to its data collection procedure. The responsibility of data storage has been assigned to a dedicated individual in order to maintain the data's integrity and security. This targeted approach ensures that data management is not only compliant with privacy standards, but also serves business requirements effectively.</p> <p>Company 3 (Service Provider) Regular follow-up procedures are implemented by the company to ensure the accuracy of the collected data. All collected data is stored and backed up securely, with access restricted to authorized personnel as a measure for data security and integrity. This protocol requires cleansing of data to preserve the quality and relevance of the stored data. The gathered information is stored in a designated application, reinforcing commitment to data privacy and restricted access. It was quoted, "we conduct annual internal audits to evaluate our data</p>

		management procedures, ensuring our continued compliance with the General Data Protection Regulation (GDPR) requirements". This comprehensive data management strategy guarantees the integrity and security of all consumer data.
Examples	"We employ a proactive approach to consumer engagement by quarterly analyzing the frequency of customer store visits. If a customer hasn't visited the store in more than a year, a strategic engagement initiative is activated, including the distribution of free coupons to encourage their return. Concurrently, the company uses individual purchasing patterns to develop customer-centric marketing strategies. "By analyzing variables such as a customer's preferred store, spending per visit, and frequency of visits, we can provide personalized experiences. Customers are strategically sent promotional offers, product suggestions, and gifts. This strategy not only improves the customer's purchasing experience but also fosters our brand loyalty"	<p>Company 2 (Service Provider) "Our interaction with repeat visitors to our facilities provides a concrete example of our data-driven approach. Using information from our customer database, we send automated emails to guests who have stayed with us previously. This proactive communication has resulted in an important number of consumers re-engaging with us and reserving through our proprietary system. This proves the effectiveness of our direct marketing strategy and data utilization as it eliminates the need for intermediary hospitality platforms such as Booking.com. This example illustrates the effectiveness of data analytics in enhancing customer engagement and loyalty while optimizing operational efficiency".</p> <p>Company 3 (Service Provider) "The company's improved response to client complaints provides a tangible example of the value of data analytics. Prior to the implementation of data analytics, there were instances of delayed responses or complaints being ignored. Nonetheless, our data analytics provided insights that highlighted this specific pain point. As a result, the company established Service Level Agreements (SLAs) to assure a timely response to customer complaints, with response times varying based on the case's complexity. This strategic change resulted in an enhanced consumer experience, as evidenced by post-implementation follow-up surveys. This example illustrates the importance of data analytics in identifying and resolving operational deficiencies, thereby enhancing consumer satisfaction".</p>

Table 2: Companies' Perspective Analysis.

4.2 Customer Data Analytics Providers

Two providers of data analytics were interviewed, one offering traditional analytics services and the other offering advanced analytics services. These interviews were conducted for a better understanding of how data analytics are utilized. It was further research regarding the identified gap of this research as well as this will contribute to the overall conclusion and findings (Chapter Five). The first provider (the traditional analytic provider) quotes, "Advanced analytics can enhance our business practices." Using a combination of quantitative (telephone surveys, online panels, panel surveys) and qualitative (in-depth interviews, focus group discussions) methods, they measure customer metrics such as the customer net promoter score, customer effort, and customer satisfaction. The

business proprietor (the interviewee) recognizes the limitations of conventional data analytics techniques. As a result, the company is experimenting with novel methods of conducting business by introducing an online platform where customers can construct their own profiles and preferences. These profile preferences are matched with relevant company-assigned surveys using advanced analytics. Those who meet the criteria are invited to participate if they so choose. Utilizing sophisticated analytics improves the precision of generated key performance indicators (KPIs). During the course of the interview, their databases were introduced, and it was demonstrated how a particular retail company stores customer data, draws conclusions about customer behaviour, and handles customer complaints. In the past few years, they have begun to use a combination of advanced analytics to enhance their database, where they will securely store data that needs to be analyzed. The majority of the data

extraction is still performed using traditional methods. For DGPR policies, they have an external provider that administers GDPR compliance to ensure organizations' trustworthiness, which was one of their challenges, along with the costs and time-consuming process of extracting their data. He finally quoted "Our objective is to reduce these obstacles with the aid of technology, which is why we began incorporating sophisticated analytic techniques into our research procedure."

The second provider (the advanced analytic one) believes that "Advance analytics is the only way forward." First, based on the industry, they develop industry-specific loyalty programs (such as cashback) that customers can subscribe to so that the company can analyze the consumers. It is determined with the business, based on what they can afford, what the customer's rewards (discounts, gifts, etc.) will be for accomplishing certain goals, such as spending a certain amount on products within the store. So, once you become a member, the company can track and observe your behaviour, such as how frequently you visit the

store, the types of products you typically purchase, etc., in order to identify your preferences and send you emails with more personalized recommendations based on your tastes. The Recency, Frequency, Monetary Value (RFM) analysis is typically performed within one year for each consumer, and the respective KPIS are how frequently he visits the store, what his most recent transaction was, and how much he spent. In the event that the analysis identifies a deficiency in their customers' experiences, the business then establishes objectives regarding its customers' behaviour in order to attract more customers and retain existing ones. Also, the analysis can be conducted by grouping customers based on their similarities in order to analyze a reduced number of customers at a time, which will save a great deal of time. Moreover, in terms of the challenges they face, when the company first began employing advanced analytics, it was difficult to manage GDPR policies, but this is no longer considered a challenge because they successfully protect their customers' personal information through external providers. The costs associated with implementing all of these sophisticated analytics can be prohibitively expensive for businesses. The benefits, however, are even greater because it allows them to gain a deeper understanding of their customers. Also, the processes can be conducted on an ad hoc basis via chatbots and other AI applications that can extract even more information from the customers because there is direct communication with them. Chatbots and AI applications via the Viber application are a relatively new option for this company. After interacting with a customer, a rate of satisfied and dissatisfied consumers is calculated, and if the rate exceeds the minimum threshold set by the company, the customer is contacted in order to resolve the issue and improve their experience. As a result, the meeting as a whole was focused on the significance of technology and the necessity for businesses to utilize it to their greatest extent in order to be positively impacted by its use.

4.3 Customers' Perspective

This part includes the customer analysis which is done by using quantitative analysis method. It aims to explore customer experiences and perceptions of data analytics usage by retailers. It involves the questionnaire answers by fifteen participants. Table 3 presents general data about the participant's profile. Thematic analysis is used to analyze answers and identify key themes. These themes were examined and grouped together aiming to identify themes that can be correlated with the other parts of the study. In more detail of the findings, the first theme (Customer's Perspective about Data Sharing and Usage) explores customer's sentiments regarding sharing data as well as their personal experiences in relation to their actual usage. The majority of interviewees (67%) do not feel comfortable when it comes to sharing personal data. However, only 40% of them are able to provide a relevant personal negative experience, while the remaining 60% express a general distrust towards sharing their data. It is interesting to point out that, despite their reservations, 73% of the examples given by the interviewees contain more positive than negative comments that describe alternative ways of an enhanced service experience. Another interesting point to note is that there are some inconsistencies in the interviewees' comments for the two sub themes. For instance, despite their discomfort in sharing data interviewees 2 and 6 appeared pleased by the way online shops utilize their data to serve them more efficiently. It is also worth noticing the preference of interviewee 9 of human interaction and "face to face shopping experience".

The second theme (Voice of the Customer Valued by Companies) explores customer's opinion regarding the importance of the voice of the customers for retail companies. There are no sub themes in this section. It is interesting to note that there are many opinions on the subject under investigation here. Roughly half of the interviewees (47%) believe that Companies value the voice of the Customer whereas 33% disagree with this statement. An interesting 20% of the interviewees believe that there are other dependencies. Other dependencies are also mentioned by the interviewees who believe that Companies consider the customer perspective. First of all, according to comments of this subgroup, customers rarely give feedback. Furthermore, matters like company size and the nature of the complaint have an important role in the respective company's actions. Finally, it was mentioned that there is also a need to focus on companies' employees in order to embed a customer-centric culture.

The last theme (Actual Experiences) explores the actual experiences of the interviewees while experiencing "data enabled" service experiences. Experiences examined are personalization, complaints handling, product return process loyalty schemes offered and in general noticeable innovative technologies used. Personalization is a service experience that all interviewees appreciate giving positive feedback also highlighting its advantages for a more efficient, pleasant and quicker shopping process. On the other hand, only 33% of interviewees went through a complaints process and noticed a subsequent service

improvement. It is interesting to highlight here the comments of interviewee 8 who even though believes that Companies value the voice of the customer (theme 2) prefers not to give feedback for a negative shopping experience. Continuing with the analysis of the results, it was observed that 66% of interviewees went through a product exchange process and noticed an improvement. Loyalty schemes are a customer reward that 87% of the interviewees value and can provide a related example. It is worth mentioning here that none of the interviewees in this group mentioned that in order to have a loyalty card sharing data is a prerequisite. This finding contradicts with the findings of theme 1 where 67% of interviewees express their unwillingness to share their data. Innovative technologies employed by retailers in their effort to enhance customer experience are noticed and appreciated by 67% of the interviewees who can provide related examples. There were two instances though where the importance of human interaction with people working in the shop was emphasized.

In Table 4 some quotes of the participants are presented under each theme and sub theme which support the corresponding finding per theme.

Age	Up to 26	27-42	43-58
Gender			
Female	4		8
Male		1	2
Data Analytics			
Knowledge			
Yes	4	1	8
No			2
Educational level			
Undergraduate	3		
Graduate		1	6
Master	1		3
PHD			1

Table 3: Participants (Customer)profile.

Themes and sub themes	Quotes
Customer’s Perspective about Data Sharing and Usage	
Sharing data	<p>Inter 2- “In all cases where I sign up for a loyalty card, I feel I cannot trust the company with my phone number and email address”.</p> <p>Inter 3- “I just don’t like the idea of companies having my data”.</p> <p>Inter 6- “Well in general, nowadays with all of the scandals that surround various social media platforms and the ways they mishandle user data, trusting them with your personal data is now becoming more and more difficult to do”.</p> <p>Inter 8- “A friend of mine gave her personal details to a specific store which afterwards was sending her emails and messages 2 or 3 times a day (which was very annoying) Also emails and messages were coming from another company which belonged in the same group with the first store, without her ever visiting that store.”</p> <p>Inter 9- “I don’t like providing data anymore, I prefer a face-to-face shopping experience.”</p> <p>Inter 10- “In general, I am not willing to share my personal details with companies when their surveys, customer feedback and related analysis request personal details which are sensitive and not related with the purpose of the survey/questionnaire”.</p> <p>Inter 13- “This happened when I started receiving all sorts of advertisements originating from other firms with which they said company did share my details without previously asking for my consent”.</p>
Data Usage	<p>Inter 1- “I received e-mails from an online shop to motivate me to buy so as to unlock “golden status”, showing my spending status and how much more I need to spend to achieve that”.</p> <p>Inter 2- “Products listed on online store web page were sorted based on data analysis and modelling so that products which I am more interested in appeared at the top of the page.”</p> <p>Inter 5- “Sending gift vouchers on birthdays”.</p> <p>Inter 6- “One example I can think of for instance is when I first downloaded an application called Pinterest, an image sharing application. When you first create an account on Pinterest, the application asks you to select a few categories and topics that you find interesting. This helps the application tailor to your interests and thus show you images and information that you might actually be interested in, rather than showing you images and information of a random nature that you might not care for. The advantages of this work both ways, as you as a user will have a more pleasant experience using the application, and the application will retain you as a user of its platform”.</p>

Inter 14- “So, I think in apps online when you make a profile, they will track what I like and look at and try to put this more on top of pages and the longer I have this profile the more accurate it becomes, which makes my experience easier, since it is quicker to find things”.

Voice of the Customer Valued by Companies

Inter 1- “I believe that gathering data about what a customer feels or thinks is one thing. Implementing what will delight the customer is much more difficult. That is more depending on people, so companies need to promote the right culture and train their employees to act accordingly.”

Inter 3- “I think nowadays, companies value the customer experience, so yes. Although, I think people rarely give feedback to retail stores”.

Inter 4- “Yes, as most of the companies rely on people’s feedbacks about their services, in ordered for them to try to improve their overall behavior or find solutions that will make their existing and new customers wanted to continue visiting their store.”

Inter 6- “Yes, I believe the most successful companies value the customer’s voice and their customers as a whole. This is evident through their constant requests for customer feedback, as well as the fact that nowadays there are many alternatives out there for almost any medium, as such these companies are constantly looking for ways of retaining their customer base and by tailoring their products or services to their customers through the feedback provided, they are able to do this more successfully”.

Inter 8- “Yes”

Inter 10- “I would say that depends on the type of complaint. For instance, if a complaint(s) is repetitive from many customers then retail companies, I would say that, take them more seriously compared to complaint(s) which are submitted by limited number of customers”.

Inter 13- “It depends on their size. The larger ones can afford to not listen and miss a customer or two. The smaller ones do listen more often”.

Inter 14- “Yes, I do think so, however I feel like this is more a thing from the last years, where at first stores were more focused on what they wanted to present to customers, and they still have that, but customer experience became more important than this. I feel like that if trends become clear to stores, they instantly play into it and try to gain new customers with that and retain old customers”.

Inter 15- “Unfortunately, few companies value it.”

Actual Experiences

Personalization

Inter 2- “On Amazon, I was shown products which I had not explicitly searched for. Some of them were products I wanted, and I ended up buying them. This was useful because I did not know these products existed on Amazon, and I would not have found them if they were not recommended to me.”

Inter 4- “I had a great online shopping experience with a UK based store, which made my shopping process a lot easier and convenient. The particular store designed a website which categorized my preferences into subcategories such as “recently viewed,” “top picks for you” and etc. These subcategories made my experience as a customer way easier, as I was able to find products that I have already seen and wanted to buy later or products that I haven’t seen yet but were close to what I was looking for at that moment.”

Inter 6- “I have a subscription to Spotify (a music application), and one of the main reasons that I have been subscribed to Spotify for many years is the fact that I get various recommendations through its algorithm on music that is tailored based on the playlists I create and the music I listen to. This helps me discover new music which is relevant to myself and my music preferences.”

Inter 9- “I was shopping for a perfume and the sales assistant in the shop had such a vast knowledge of the perfumes in stock as well as being very efficient in quizzing me on my personal preferences that his recommendations were very suited to my style”.

Inter 10- “My experience was related to online booking of a hotel. Once, as long as I selected a country-destination which I normally visit, the site provided me with a list of hotels with characteristics of hotel which I enjoy as a customer. I felt that the selection process was personalized and easy for me as I had a pre-defined list of hotels which I could choose from instead of me scrolling and screening random and endless list of hotels.”

Inter 12- “Yes getting recommendations and items I might like as well as personalized ads on my social media”.

Inter 15- “Very valuable experience - Help in deciding the best fit for the occasion and for my personality!”

Complaints handling

Inter 6- “A few years ago while travelling abroad, I had arrived at my destination’s airport and as I was retrieving my luggage, I noticed that it had been damaged during transit. I went through the process of reporting it to the relevant desk at the airport and then to the airline that I had booked my flight through. After returning from the trip, I got in touch with the airline’s Customer Service and after a few days they provided payment for the damages incurred.”

Inter 8- “No, I have never complained because I never visited that store again.”

Inter 9- “I once complained to management about being followed around the store by staff asking if I needed help, when I had already answered previously that I was just browsing. It made my shopping experience very stressful. The next time I visited the store I noticed that I was just asked once if I needed help and when I answered that I didn’t, I wasn’t approached again after that, until I asked for help”.

Inter 14: - “I have never filed a complaint about a store, but I do notice that for instance in a store as Zara, where many complaints were done online about rude employees, the service in store now is sometimes a bit more friendly. Also, I feel like online over time the personalized features have become better and more accurate”.

Product return process (improvement)	<p>Inter 4: “I confidently can say that nowadays the exchange or return process is way quicker and easier. I think that stores and online shopping in general, in order to increase their sales, must have a great exchange/return system for costumers as they need to feel safe to return a product which do not meet their expectations.”</p> <p>Inter 5- “Not really”</p> <p>Inter 7- “Surely the recent years.”</p> <p>Inter 10- “Yes, over time I find that the return process overall is faster and more customer-friendly. For instance, in the past, especially at retail stores, even though they had a return process in place, they were not welcoming returns and hence the return process did not encourage the customers to proceed with returns. Over the years, retail stores not only welcome returns but they also ask feedback about the reasons for return which as customers, I would say, make us feel that our feedback counts”.</p> <p>Inter 14- The process definitely became easier and mostly online, I feel like in store it hasn’t really changed, but online there are more options to return it quick and get your money back, usually stores provide a free return which makes it more attractive to buy and try things at home.</p> <p>Inter 15- “Easier process – return envelope ready and prepaid.”</p>
Loyalty schemes	<p>Inter 1: “I am a member of a Cosmetic Company loyalty program. Based on my spending I get free products and samples that I am really interested in trying”.</p> <p>Inter 5: “Yes Exchanging points with money used for purchases.”</p> <p>Inter 9: “At my supermarket. The loyalty program is quite extensive and offers discounts on actual products within the list of products I shop for. Loyalty points can also be exchanged for home appliances”.</p> <p>Inter 11:” Getting a discount or free samples, coupons using a loyalty program/ card.”</p> <p>Inter 15: “Yes, based on what type of products I bought they recommended similar products at lower prices or using rewards”.</p>
Innovative technologies	<p>Inter 2- “1. Self-checkout 2. barcode scanners close to the shelves to check prices of products 3. Map of shop (in large shops)”</p> <p>Inter 3- “At Decathlon, they have self-checkout, which made the payment process easier. Although, I do like the connection I get when talking to the cashier. A little bit of social interaction, possibly meeting a new friend. I do not want it to be replaced by technology.”</p> <p>Inter 9- “I don’t personally like self-checkouts. I don’t find them particularly faster and frustrating, and I prefer the human interaction with the people working at the checkout”.</p> <p>Inter 10- “At a retail store at its entrance there was a machine in the form of a sales-officer. When entering out of the store, the machine was asking about rating the customer experience. As a customer I found it engaging and interesting to have such technology in a retail store and I was more willing to provide my response compared to traditional ways of providing feedback to stores (e.g., lengthy online questionnaires or surveys via phone)”</p>

Table 4: Customers’ Perspective Analysis.

5. DISCUSSION AND CONCLUSION

The focus of this study was to examine the perspectives of retailers, service providers and consumers regarding the utilization of data analytics (traditional and advanced) in enhancing the customer journey, improve customer experience and ultimately fostering loyalty. A comprehensive analysis of qualitative and quantitative data was conducted in order to obtain valuable insights into the data collection and analysis techniques used by businesses, along with their associated benefits and challenges and the experiences and perceptions of customers regarding data-driven services resulting from data driven strategies. The findings highlight the effects of data analytics on the retail and service industry, answering primary research question: How do retailers and service providers leverage a combination of traditional and advanced customer analytics techniques to better understand customer behaviour and preferences, and ultimately improve customer experience and loyalty? and associated sub questions, “What specific customer service data do businesses track?” and “How can the abstraction of customer personal data affect their privacy and customer experience in general?”.

The theoretical background for this analysis includes a thorough examination of the complex relationships between customer experience, customer journey, customer loyalty, and customer data analytics.

Henderson et al. (2011) highlights the importance of customer loyalty to business success, stating loyalty programs as a crucial tool for promoting repeat business and strong client relationships. Sharing personal data, the membership fee, and the frequency of purchases are significant factors influencing participation in such programs (Wulf et al., 2003). Customer retention is correlated with elements such as product quality, customer satisfaction, service quality, and perceived value (Noyan and Imşek, 2014; Bagram & Khan, 2012).

In the literature, the link between customer experience and customer loyalty has been emphasized. Sharma et al. (2020) emphasizes the significance of customer satisfaction in fostering customer loyalty, which not only increases sales and profitability but also encourages positive word-of-mouth, thereby attracting new and retaining existing customers. Moreover, customer experience plays a vital role in establishing emotional connections and trust between consumers and brands, which increases customer loyalty and profitability (McMullan & Gilmore, 2008; Lemon, White, & Winer, 2002).

In addition, customer data analytics have been discussed in depth, contrasting standard and innovative approaches. Advanced analytics, such as Big Data Analytics (BDA) and Artificial Intelligence (AI) analytics, provide dynamic, real-time insights into customer behaviour and preferences (When Data Creates Competitive Advantage, 2020; Artificial Intelligence, Big Data Analytics, and Insight, 2023). Traditional analytics, which are static and limited by the analyst’s knowledge, are gradually being exceeded by advanced analytics, such as Big Data

Analytics (BDA) and Artificial Intelligence (AI) analytics. AI analytics present a unique opportunity for automation, pattern recognition, and continuous learning (2019, contributor).

Emerging technologies such as data warehousing, data mining, and campaign management software facilitate the growth of predictive, prescriptive, and adaptive understanding of customer behaviour enabled by advanced analytics. Min & Han (2005) and Peltier et al. (2013) highlight the significance of organizational culture and high-quality data in the effective implementation of advanced analytics, linking to increased customer loyalty and cross-selling.

The significance of data privacy and the function of the General Data Protection Regulation (GDPR) are then discussed. It emphasizes the need to strike a balance between business interests and user data privacy, enforcing transparency and control in order to increase consumer trust (Martin et al., 2017; Degeling et al., 2019; Wachter, 2018).

In conclusion, this framework reveals the importance of customer experience and loyalty to business success, highlighting the need for an innovative, data-driven approach to comprehend and meet consumer requirements. To maintain trust and assure regulatory compliance, this approach must be balanced with responsible data management and privacy practices (Zeithaml et al., 1996; The One Number You Need to Grow, 2003; Mascarenhas et al., 2006; Brakus et al., 2009).

Building upon this theoretical framework with the data collected from the surveys and interviews, the analysis of three perspectives - the perspective of companies, the perspective of customer data analytics providers, and the perspective of customers - provided valuable insights into the application of data analytics in the retail and service provider industry. Companies acknowledged the importance of data analytics in understanding consumer behaviour and enhancing business practices, while providers of customer data analytics offered distinct approaches employing both conventional and advanced analytics techniques. Also, after the interviews with both customer data analytics providers, it was confirmed that the need of advanced analytics is crucial in order to understand the behaviour of the consumers in more depth and therefore the gap identified is linked and confirmed with the findings of this research. Furthermore, customers expressed a mixture of apprehension and recognition regarding the prospective benefits of data analytics for improving their service experiences. These findings are consistent with the existing literature, which highlights the significance of customer loyalty, customer experience, and advanced analytics in generating revenues and driving business growth. The findings from surveys and interviews throughout all the companies, underline the significance of advanced analytics for improving business operations. Strategically aligning data analytics with key performance indicators (KPIs) and other performance measurements enables businesses to achieve targeted marketing, personalized consumer experiences, efficient complaint management, and operational efficiency, thereby enhancing their financial position. However, businesses encounter difficulties with data accumulation, data quality, financial constraints, and the need to persuade senior management of the value of data-driven

insights. Comparing company and consumer insights highlights the significance of customer feedback. Customers emphasize the significance of building a customer-centric culture and training employees accordingly, whereas companies place varying amounts of emphasis on customer feedback. The experiences shared by customers illustrate the influence of data analytics on various aspects of their purchasing journeys, such as personalization, complaint management, product return procedures, loyalty programs, and innovative technologies. Retail companies must establish a balance between implementing data-driven services and advanced technologies and maintaining a customer-centric culture that preserves the personal and human element of customer interactions but also need to formulate strategies in order to ensure customer trust.

In conclusion, this research uncovered valuable insights into the retail and service industries' utilization of data analytics. These results highlight the significance of customer loyalty, customer experience, and responsible customer data management. From the perspectives of retailers and service providers, providers of customer data analytics, and customers themselves, it is clear that data analytics plays a crucial role in gaining a comprehension of customer behavior, enhancing business practices, and enhancing the overall customer journey. The research emphasizes the need for a balanced strategy that combines sophisticated analytics techniques with a customer-centric culture. In an increasingly data-driven world, retail companies can meet customer expectations, promote business growth, and foster long-term success by leveraging data analytics effectively and responsibly.

6. LIMITATIONS & FURTHER RESEARCH

Several limitations were identified in this study, which we hope to be resolved in future research. Low response rates from businesses to the retailer-focused survey necessitated expanding the scope to include the service provider industries. This circumstance resulted in a smaller sample size than anticipated, limiting the ability to comprehend how various companies manage customer data analytics to improve the customer experience.

To compensate and make up for this, efforts were made to collect as many responses as possible from customers and experts in order to acquire a variety of perspectives and address the limitation caused by non-respondents. However, the smaller sample size indicates that future research should involve a larger rate of respondents and expand the investigation to include more companies, preferably through in-person interviews for more accurate and comprehensive data collection.

In addition, the literature review did not disclose a single article that comprehensively addressed the research topic. Therefore, a combination of articles was required for a more comprehensive understanding. This emphasizes the need for more concentrated research on this subject. Future research should strive to dive deeper into this topic in order to provide greater depth and particular insights.

The ultimate objective in directing future research is to overcome these identified limitations. Therefore, a larger sample size should be sought, and efforts should be made to physically collect data from a greater number of

businesses. This would provide a deeper and more comprehensive understanding of how various businesses handle customer data analytics.

In the interest of a more comprehensive perspective, it is also advisable to expand research into a variety of industries that utilize customer data analytics. A cross-industry analysis would reveal similarities and differences in customer data management practices, providing a broader awareness of the issue.

Given the diversity in technological management across regions, it is also recommended to investigate how businesses in various countries manage technology. This would enable a comparative study that could disclose unique insights into customer data analytics and the enhancement of the customer experience in diverse cultural and geographical contexts. So, future research should strive to expand the investigation to include a variety of industries and countries that utilize customer data analytics for a broader perspective. This would allow for a cross-industry and cross-cultural analysis, revealing similarities and differences in the manner in which businesses manage technology and customer data. It has the potential to gain a more comprehensive understanding of how customer data analytics is used to improve the customer experience by focusing on the variety and different approaches adopted by companies in various countries. This area of study would provide unique insights into the cultural and managerial factors that influence the implementation and success of customer data analytics strategies, hence contributing to a deeper awareness of this field.

In conclusion, future research guided by these recommendations would seek to address the limitations of this study, therefore considerably advancing the understanding of customer data analytics and its role in enhancing customer experiences.

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9. APPENDICES

Appendix A – Survey Protocol 1

First Part

1. Number of Employees (0-50, 50-100, 100-200, 200-500, 500<):
2. In which countries do you have operations?
3. What is your domain industry (retail: clothing, skincare, shoe, makeup, groceries, other)
4. Do you also operate as an e-commerce store or are you operating only via online platforms?

Second Part

1. Data Gathering:

- Do you gather data to improve and understand customer experience? (Yes or No)
- If yes, how do you collect and gather customer data?

2. Data Analytics Methods:

- Do you use **traditional** (i.e., surveys, phone calls, observations, emails, questionnaires, focus groups) or **advanced** data customer analytics methods (data mining, visualisation, prediction algorithms, Big Data, machine/sensor data) **or both** and **why** did you make that choice?
- If both, how do you combine traditional and advanced data analytics approaches?

3. Tools and Techniques:

- Which tools and techniques do you use for traditional data customer analytics?
- Which tools and techniques do you use for advanced data customer analytics?

4. Data Accuracy and Safety:

- How do you ensure the **accuracy, integrity, and quality** of customer data in order maintain customer and gain their trust?
- What steps do you take to maintain data quality and safety?

5. Ethical Data Usage:

- How do you ensure that customer data is collected and used ethically and responsibly?

6. Challenges and Solutions:

- What **challenges** have you faced when using traditional, advanced or both data customer analytics approaches to **improve customer experience**, and how have you **addressed them**?

7. Benefits and Impact:

- What are the benefits of using customer advanced data analytics to enhance the customer experience?
- What are the benefits of using customer traditional data analytics to enhance the customer experience?
- What are the benefits of combining traditional and advanced data analytics approaches?
- How do you measure and track the impact of customer data analytics on customer experience metrics?

8. Alignment with Strategic Goals:

- How do you ensure that your data analytics approach is aligned with your company's strategic goals and objectives?

9. Stakeholder Involvement:

- How do you involve business stakeholders in the data analytics process, and how do you ensure their requirements are being met?

10. Evaluation and Success Metrics:

- How do you measure the success of your data analytics efforts, and what KPIs or metrics do you use to evaluate performance in order to make customers more satisfied?

11. Interplay of Customer Experience with customer data analytics:

- Overall, does the collection of data analytics lead you to more satisfied customers with less complaints or even help to attract more customers to the business?

12. Case Example:

- Can you provide an example of how your company has used customer data analytics to identify and address pain points in the customer journey?

Appendix B- Survey Protocol 2:

Section 1:

1. Gender: Female or Male
2. Age: (up to 26, 27-42, 43-58, 59 and above)
3. Education: (Undergraduate, Graduate, Master, other)
4. Profession:
5. Do you know what customer analytics is about and how it's being used within the businesses? Yes or No?
*(If no you can leave it blank)

Section 2:

1. Online Shopping Experience or In Store Experience:

- Have you ever had an online or in-store shopping experience where personalized recommendations made your shopping journey more enjoyable and more valuable as a customer?
- If yes, can you describe that experience?

2. Customer Service:

- Have you ever noticed any improvements in the customer service of a specific store, especially after filling a complaint to the company?
- If yes, can you share your experience where you had a bad experience in a store that you needed to make a complain and then the company took some action to resolve this complain?
- Do you think that most of the companies in the retail industry value the voice of the customer based on your experience?
- Did you ever had to go through a return or exchange process?
- If so, did you notice any improvement in this area over time (i.e., Faster, easier process etc)?

3. Overall Customer Experience:

- Can you share a specific instance where you believe data analysis played a role in enhancing your experience as a customer in a retail store?
- b) Have you ever experienced a sense of mistrust while providing your personal details to a company that uses this information for customer behaviour analysis, like through online surveys?
- If yes, can you share your experience where you felt that you could not trust a company with your personal details?

4. Loyalty and Rewards Programs:

- Have you experienced a more personalized and rewarding loyalty program (discounts etc.) in a retail store?
- If yes, can you describe your experience?

5. Technology and Innovation:

- Have you encountered any innovative technologies or features in retail stores that have enhanced your overall experience as a customer (i.e., self-checkout etc)?
- If yes, can you provide an example?

