Critical success factors in implementing a CRM solution: a case study

Carlos Pissarra, Jorge Vareda Gomes, Mário Romão

Critical success factors in implementing a CRM solution: a case study

Carlos Pissarra

Instituto Superior de Economia e Gestão,
Universidade de Lisboa,
Portugal
Email: carlosmpissarra@hotmail.com

Jorge Vareda Gomes*

Universidade Lusófona das Humanidades e Tecnologias de Lisboa,
Universidade Lusófona,
Lisboa, Portugal
Email: jorge.gomes@ulusofona.pt
*Corresponding author

Mário Romão

Instituto Superior de Economia e Gestão,
Universidade de Lisboa,
Portugal
Email: mario.romao@iseg.ulisboa.pt

Abstract: CRM systems have played a pivotal role in driving economic development as businesses transition from transaction-based models to economies centred on customer relationships. Organisations have shifted their focus from product-centric philosophies to customer-centric strategies, recognising that understanding and anticipating both current and future customer needs is essential for long-term success. To meet customer expectations, businesses must continually innovate to deliver value and differentiate themselves in competitive markets. Customer relationship management (CRM) tools are designed to address this customer-focused paradigm, enabling organisations to enhance their strategies for engagement and satisfaction. This study examines critical success factors (CSFs) for implementing CRM systems within the technology sector, alongside criteria to assess implementation success. Employing a qualitative methodology supported by MaxQDA software, semi-structured interviews were conducted to gather insights. The findings underscore the importance of top management involvement, clearly defined objectives, effective change management, and incorporating end-user feedback as the most critical factors for achieving a successful CRM system implementation.

Biographical notes: Carlos Pissarra is a highly skilled professional with a solid background in Management and a Master's in Business Sciences. He brings diverse experience in team leadership and operations management, excelling as a Project Manager and CRM specialist. During his time at Armis Group, he served as Team Manager and Product Owner, leading strategic operations, optimising internal processes, and delivering customer-oriented solutions using agile methodologies such as Scrum and Kanban. Prior, Carlos gained extensive experience in the financial sector, holding roles like Business Analyst at BNP Paribas, where he contributed to digital transformation projects and data analysis, and Financial Analyst at NOS SGPS, focusing on detailed financial analysis and strategic decision support. His combination of technical expertise and leadership skills makes him a versatile, results-driven professional focused on innovation.

Jorge Vareda Gomes holds a PhD in Management from ISEG, a Master's in Management Sciences from ISCTE-IUL, a postgraduate qualification in Project Management from ISCTE-IUL, and a degree in Geographic Engineering from the Faculty of Sciences at the University of Lisbon. With over 30 years of experience as a geographical engineer, project manager, quality auditor, and consultant, he brings extensive expertise to his field. He lectures on Management, Project Management, Strategy, Leadership, and Management Control. His research interests encompass benefits management, project management, project success, maturity models, IS/IT investments, IS/IT in healthcare, and IS/IT management.

Mário Romão is an Associate Professor of Information Systems and Operations Management at ISEG – University of Lisbon, Portugal. He holds a PhD in Management Sciences from ISCTE (Portugal) and Cranfield University (UK), a Master's in Telecommunications and Computer Science from Instituto Superior Técnico – University of Lisbon, and a post-graduate certification in Project Management from the Best Practitioner Program at ISLA. Additionally, he has a degree in Electrotechnical Engineering from IST and a PMP (Project Management Professional) certification from PMI – Project Management Institute. Mário has also held leadership roles, including serving as a Board member and Executive Director in private sector organisations, particularly in telecommunications and software.

1 Introduction

The modern economy, defined by globalisation, intensified competition, and rapid advancements in communication and information technologies, compels organisations to move beyond traditional marketing approaches and adopt more customer-focused strategies. This shift reflects a growing awareness of the critical importance of customer retention (Agustian et al., 2023; Idzikowskiadam et al., 2019; Sharma and Goyal, 2011). Organisations are increasingly recognising that retaining existing customers often holds more long-term value than acquiring new ones, which has shifted the emphasis towards customer loyalty programs and personalised experiences (Lemon and Verhoef, 2016). The role of technology in reshaping customer interaction has also been well-documented, with a focus on digital tools that personalise and enhance engagement (Pascucci et al., 2023).

Digital transformation drives organisations across industries and scales to reassess their operations continuously and adapt to evolving market dynamics. It has become a critical factor for organisations striving for operational excellence and staying competitive in a rapidly changing environment (Kraus et al., 2022). The long-standing mantra, "the customer is king", remains central to marketing and sales philosophies, a sentiment echoed by both industry leaders and academics (Kim and Aggarwal, 2016; Huang and Rust, 2021). In today's fiercely competitive environment, the ability to build and sustain robust customer relationships is increasingly recognised as a key source of competitive advantage (Santouridis and Veraki, 2017; Gulati, 2019). As the market becomes saturated with similar offerings, successful customer engagement not only serves to increase loyalty but also helps differentiate brands, leading to superior performance (Dwivedi et al., 2021).

The decision to adopt a customer relationship management (CRM) system often stems from diverse motivations, adding complexity to the adoption process (Libai et al., 2020). In many cases, these motivations include the desire to streamline operations, enhance customer insights, and improve communication channels (Rane et al., 2023). A deeper understanding of these drivers is vital for organisations to accurately evaluate the financial investments required, both initially and in the long term (Matlombe et al., 2024; Varajão and Cruz-Cunha, 2016). As digital platforms continue to proliferate, CRM systems now require more advanced functionalities, such as artificial intelligence and machine learning algorithms, to not only analyse customer data but also predict future behaviour and preferences (Ledro et al., 2023). These technological advancements raise the bar for CRM systems' potential in delivering superior customer experiences and guiding decision-making processes across the business (Ledro et al., 2022).

CRM systems are sophisticated information tools designed to track customer interactions with the organisation. They provide employees with instant access to data such as sales history, service records, and unresolved issues, enabling them to better address customer needs (Kurniullah, 2022). With recent innovations, CRM tools now integrate a variety of functions such as personalised marketing automation, real-time customer support, and predictive analytics to further enhance interactions (Huang and Rust, 2021). Over recent years, CRM systems have emerged as a crucial area of interest for businesses across various industries. These systems offer the potential to strengthen customer relationships and drive future profitability (Nilashi et al., 2023). However, despite their significance, CRM implementations often represent substantial investments, with financial returns that may not always be immediately measurable (Hendricks et al., 2007; Varajão and Cruz-Cunha, 2016). As CRM continues to evolve, firms must carefully navigate its complexities and ensure that their systems are aligned with evolving customer expectations and technological advancements (Boppana, 2022).

2   Background

2.1   *CRM systems*

CRM systems encompass a variety of definitions and perspectives due to their inherent diversity and the different viewpoints of those who define them (Ledro et al., 2023; Payne and Frow, 2006). While these interpretations may vary, a widely accepted definition combines a customer-centric strategy, initiatives, and marketing tactics

underpinned by technological tools designed to generate value for the organisation (Foss et al., 2008; Payne and Frow, 2006). A CRM strategy typically involves the development of a structured approach to foster and maintain effective relationships with customers (Ling and Yen, 2001). Recent scholars, such as Kurniullah (2022) and Nilashi et al. (2023), reinforce the importance of strategic alignment in CRM, emphasising its role in not only maintaining customer relationships but also in driving business transformation through data-driven insights.

Reinartz et al. (2004) define CRM as a customer-oriented system aimed at managing the entire relationship lifecycle between an organisation and its customers, from initiation to maintenance and eventual termination, all with the goal of maximising the long-term value of the relationship. This comprehensive lifecycle approach has become an increasingly important framework for CRM systems in the digital age, where real-time data and AI-powered tools have added new dimensions to customer relationship management (Dwivedi et al., 2021). As AI and machine learning algorithms continuously evolve, they enhance CRM's ability to anticipate customer needs, predict behaviours, and personalise experiences, which directly boosts customer loyalty and retention (Huang and Rust, 2021).

From an operational standpoint, Ramaseshan et al. (2006) suggest CRM as a process that seeks to create a continuous, individualised dialogue with each customer, using all available resources to predict their responses to marketing activities, maximising the organisation's profitability. This view aligns with more recent work by Nilashi et al. (2023), who emphasise the significant role of CRM systems in harnessing customer data to generate actionable insights that lead to tailored experiences and improved decision-making processes.

Josiassen et al. (2014) define CRM systems as organisational frameworks that seek to create, maintain, and enhance customer relationships over a long period, which in turn provides organisations with a competitive advantage and maximises profitability. This strategic goal aligns with the broader understanding of CRM as a business strategy – an essential element of which is the establishment and maintenance of customer loyalty and preference (Nasir, 2017). In today's increasingly competitive landscape, recent literature (Kraus et al., 2022; Rane et al., 2023) highlights how CRM technologies, particularly those integrated with AI and big data analytics, have become indispensable tools for developing personalised customer journeys that enhance engagement and satisfaction.

The insights gathered through CRM systems – ranging from purchase behaviours to customer preferences – help organisations understand the needs and desires of their clients. With AI and predictive analytics at the forefront, CRM systems enable companies to deliver highly customised and proactive services, solidifying the long-term relationship between the brand and its customers (Ledro et al., 2022; Nilashi et al., 2023). These systems have emerged as critical tools in facilitating strategic decision-making, offering a sustainable path toward customer loyalty and competitive advantage (Kraus et al., 2022).

CRM is, therefore, not just a set of technological tools, but a dynamic strategy grounded in relational marketing, characterised by its reliance on robust organisational structures, well-defined processes, and effective use of technology (Santos and Castelo, 2018). In a world that increasingly prioritises customer experience, these systems enable the application of best practices in metrics management, allowing businesses to create value both for the customers and themselves.

Pedron and Saccol (2009) conducted a literature review analysing diverse CRM definitions, categorising them into three key approaches: CRM as a philosophy, CRM as a technological tool, and CRM as a strategy (Table 1). This classification continues to guide much of the scholarly conversation, but recent works such as those by Josiassen et al. (2014) and Ramaseshan et al. (2006) have further deepened the focus on CRM as a long-term strategic tool that influences not only customer retention but also organisational transformation.

Table 1   Classification of CRM definitions according to the approaches

Perspective	Description
Philosophy	Focus on creating and maintaining a long-lasting customer relationship.
	The entire organisation must have the customer as its greatest reference.
Technological tool	CRM is an essential resource as it allows to collect and analyse customer data to build and disseminate the essential knowledge throughout the organisation.
Strategy	Considers the added value of other perspectives and focuses on customer lifetime value (CLV).

Source: Pedron and Saccol (2009)

Table 2   CRM structural elements definitions according to the approaches

Perspective	Description
People	An essential aspect of implementing and operating a CRM system is the active involvement of both the organisation's employees and its customers. CRM systems are designed with a customer-centric approach, enabling organisations to leverage the insights derived from collected customer data for commercial benefit. These systems are developed not only with a technical focus but also with conceptual and strategic intent. For successful implementation, the full commitment of end users – both internal stakeholders and customers – is vital to maximise their potential and effectiveness.
Technology	Technology serves as the backbone of a CRM system, enabling organisations to scale operations and efficiently address contemporary challenges. It empowers businesses to respond dynamically to customer needs and enhances the viability of CRM systems, particularly for larger organisations, by reducing the effort required to achieve meaningful outcomes. Without technology, the resources and effort necessary to implement a CRM system effectively would often outweigh its potential benefits. The market offers a diverse range of technological solutions for CRM systems, making it crucial for each organisation to select and adapt technology tailored to its specific CRM requirements to maximise its impact.
Processes	For a CRM system to be successfully implemented, organisations must undergo a transformation in their existing processes, shifting towards a more customer-centric approach. Processes involving the customer, whether directly or indirectly, need to be carefully reviewed and restructured to align with the principles of CRM. This is particularly vital in departments such as marketing, sales, and services, where interactions with customers are most frequent and impactful. These changes ensure that the organisation not only adopts the CRM system effectively but also maximises its potential to enhance customer satisfaction, loyalty, and overall operational efficiency.

Source: Chen and Popovich (2003)

By addressing challenges and opportunities through continuous research and improvement, CRM systems remain a cornerstone in modern business practices, facilitating more informed and effective customer engagement strategies (Ajiva et al., 2024).

Recent research also suggests that the rapid evolution of digital and social media platforms has added new layers to CRM systems, driving further sophistication in tools like AI and augmented reality that shape the customer experience (Dwivedi et al., 2021). These changes necessitate ongoing innovation and adaptation in CRM approaches to meet the growing expectations of today's tech-savvy consumer (Isharyani et al., 2024).

A CRM strategy integrates three core organisational dimensions: strategy, philosophy, and technology. Its effectiveness relies on achieving a harmonious balance among three critical organisational elements: people, technology, and processes. When these elements work cohesively, organisations can leverage their CRM systems to drive customer satisfaction, retention, and loyalty (Rigo et al., 2016; Navimipour and Soltani, 2016; Khan and Kamal, 2015). Chen and Popovich (2003) emphasise that for CRM to succeed, these components must be seamlessly integrated alongside strong marketing capabilities (Table 2).

The architecture of a CRM system encompasses three interconnected components: operational, analytical, and collaborative systems. This integrated structure reflects CRM's role as a comprehensive organisational strategy designed to handle both front-office customer interactions and back-office business operations (Teo et al., 2006). These components are defined as follows:

- Operational CRM: this includes two primary applications. The front-office system facilitates direct interaction and information exchange with customers, while the back-office system focuses on analysing customer needs and identifying potential solutions (Josiassen et al., 2014; Nasir, 2017).

- Analytical CRM: this component is dedicated to storing and analysing customer data to gain insights into customer value and behaviour. By capturing, organising, analysing, and interpreting data collected from operational systems, analytical CRM transforms raw data into actionable knowledge. Techniques such as data warehousing, online analytical processing (OLAP), and data mining are pivotal in this process (Holmlund et al., 2020; Khodakarami and Chan, 2014).

- Collaborative CRM: the collaborative module focuses on managing and synchronising customer interaction points across various communication channels. Its purpose is to streamline interactions between customers, the organisation, and its employees, ensuring consistent and efficient communication (Bolton et al., 2018; Khodakarami and Chan, 2014).

2.2 The importance of adopting CRM

The adoption of CRM systems plays a critical role in modern organisations aiming to enhance their competitive edge, align processes, and improve customer engagement. As Raman et al. (2006) highlight, organisations with clear, well-defined, and customer-oriented strategies are better positioned to develop key capabilities, such as market evaluation, process reengineering, and the optimisation of information systems, all of which contribute to achieving their strategic objectives.

Plakoyiannaki and Tzokas (2002) identified a set of essential organisational capabilities facilitated by CRM adoption, including:

- leadership ability: enabling organisations to clearly articulate and disseminate their customer-focused strategy and ensure its alignment across all levels of the organisation

- market learning and orientation: collecting and transforming customer data from CRM channels into actionable insights to guide strategic decision making at the executive level

- integration: aligning all stakeholders and internal departments to work cohesively within the CRM strategy

- analysis: enhancing customer relationships by identifying opportunities to increase loyalty and drive positive outcomes

- operational capability: leveraging CRM resources to deliver value-added customer service and optimise the commercial offering.

CRM systems enable organisations to better manage interactions with customers, ultimately enhancing service quality, response times, and customer satisfaction (Anderson et al., 2004). Nevertheless, the adoption of CRM should not be perceived as a universal solution to organisational challenges. As Mendoza et al. (2007) emphasise, organisations must carefully consider the system's potential impacts and understand the advantages it may deliver when properly aligned with strategic objectives.

CRM concepts and technologies have been widely accepted by many organisations in different industries because they recognise that keeping strong customer relationships is likely to bring profitability in the future (Ranaweera, 2007).

The rich datasets stored within CRM systems are invaluable for answering critical business questions, supporting executive decisions, and deepening the organisation's understanding of its customers (Stein et al., 2013). For example, comprehensive customer profiles enable predictive analyses, segmentation, and the tailoring of products or services to individual preferences, fostering stronger relationships and enhancing customer loyalty.

Recent research underscores the strategic link between customer orientation and technological capabilities, both of which are instrumental in gaining a competitive advantage. For instance, Bhat and Darzi (2016) and Al-Hanini and Al-Oqqaily (2018) demonstrate how adopting advanced CRM technologies facilitates changes in customer relationship management practices, promoting agility, customer insight, and overall competitiveness. This perspective aligns with Ziggers and Henseler (2016), who illustrate that integrating innovative technologies into customer-centric processes enables organisations to outperform competitors.

Additionally, Aghamirian et al. (2015) and Mohamed et al. (2019) explore the positive impact of customer knowledge on achieving competitive advantages. These studies show that organisations that harness insights from CRM data can identify market opportunities, strengthen customer engagement, and enhance service personalisation.

Varajão and Cruz-Cunha (2016) extend this discussion by categorising a range of motivations for CRM adoption, demonstrating the value organisations place on integrating CRM systems to achieve operational excellence and strategic goals (Figure 1).

Figure 1 Motivations for adopting a CRM system in the business context
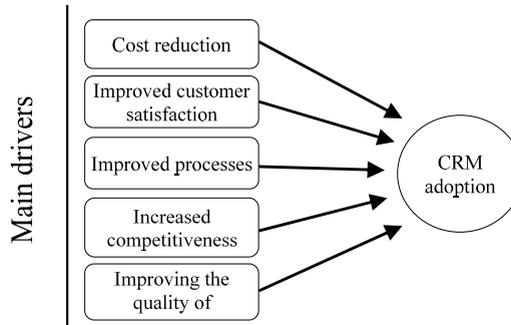
Source: Adapted from Varajão and Cruz-Cunha (2016)

The increasing adoption of digital tools like artificial intelligence (AI) and big data analytics has further revolutionised CRM capabilities. These advancements empower organisations to forecast trends, enhance customer experience management (Holmlund et al., 2020), and bridge gaps between digital, physical, and social interactions (Bolton et al., 2018). As technology continues to evolve, CRM systems will remain a cornerstone for organisations seeking to balance technological innovation with customer-centric strategies.

2.3 *CRM system implementation failures*

CRM implementation failure is often the result of the interplay between complex technical and organisational challenges (Goodhue et al., 2008; King and Burgess, 2008). A clear and shared understanding of what CRM represents for the organisation is paramount; its absence is a significant barrier to successful CRM adoption (Richard et al., 2007; Nguyen et al., 2007). Many organisations face implementation setbacks due to their persistent product-centric approach, neglecting the critical shift toward customer-centricity required for CRM success (Newell and Godin, 2010; Schwager and Meyer, 2007).

Josiassen et al. (2014) further observe that improperly implemented CRM systems can detract from organisational performance, leading to missed opportunities and inefficiencies.

Failures in CRM implementation can have far-reaching consequences, including damage to the organisation's reputation, a decline in competitive advantage, customer attrition, and revenue loss (Idzikowskiadam et al., 2019). Without a well-articulated strategy or clear objectives, CRM systems are unlikely to bridge existing gaps, often leading to substantial operational disruptions and failure (Pedron and Saccol, 2009).

A key factor for success is organisational change. This includes:

- Executive engagement and sponsorship: active involvement from top management is vital. Senior leaders must provide clear direction and act as champions for the initiative.

- Strategic redesign: a customer-focused strategy must replace outdated, product-centred approaches. Farhan et al. (2018) emphasise that aligning strategic objectives with CRM goals is essential for effective implementation.

- Data quality and integration: the quality, accuracy, and volume of data collected during implementation significantly affect the results of CRM systems. Poor data management can lead to unreliable insights and misguided decisions (Pedron and Saccol, 2009).

Recent literature expands on these barriers and their mitigation strategies:

- Big data and analytics integration: Bolton et al. (2018) emphasise the challenge of incorporating big data into CRM systems to harness actionable insights. The convergence of CRM with analytics tools is essential but can add complexity due to integration and resource allocation demands.

- Customer experience focus: Holmlund et al. (2020) underline that organisations often underutilise CRM systems due to insufficient emphasis on customer experience management (CXM), which must align technology investments with customer-focused outcomes.

- Artificial intelligence and automation challenges: Ledro et al. (2022) and Ajiva et al. (2024) point out the difficulties of embedding artificial intelligence in CRM for predictive analytics and decision-making. The automation of workflows poses technical and cultural adaptation challenges.

- Cultural and organisational barriers: Dikert et al. (2016) discuss cultural resistance to change as a leading obstacle in CRM adoption. A transformative CRM initiative often requires employees to adapt their roles and processes to align with new organisational priorities, which can be met with resistance.

- Flexible and scalable solutions: Tazkarji and Stafford (2020) highlight that traditional CRM tools may lack the flexibility needed in emerging markets or for smaller firms. Customisation and scalability issues often lead to implementation failures, particularly when vendors offer generic solutions.

- Continuous improvement: Ziggers and Henseler (2016) stress the importance of iterating CRM strategies and systems as organisations evolve. Failure to adapt to ongoing technological and customer behaviour shifts can render systems obsolete.

Farhan et al. (2018) carried out a study where they detailed, in addition to a list of CSFs, an exhaustive list of challenges that may be at the origin of the high failure rate in projects to implement a CRM system (Table 3).

2.4   Critical success factors

Bullen and Rockart (1981) introduced the concept of critical success factors (CSF), describing them as the essential areas of activity that must yield favourable outcomes for managers to achieve their goals. These key areas are crucial for the success of any project or strategy. CSFs help executives pinpoint the specific criteria that contribute to the success of an initiative by focusing on various aspects such as time, connections, and directional alignment, providing a comprehensive understanding of what drives project success (Williams and Ramasprasad, 1996).

Table 3 CRM implementation challenges

No.	Issue/problem	Reference
1	Inadequate support from top management	Chalmeta (2006), Foss et al. (2008), Kale (2004), Nguyen et al. (2007) and Zahedi et al. (2011)
2	Underestimating the importance of change management	Goodhue et al. (2008), Kale (2004) and King and Burgess (2008)
	Lack of leadership	Nguyen et al. (2007) and Freeland (2003)
3	Lack of clear vision and strategy	Goodhue et al. (2008), Curtis et al. (2009), King and Burgess (2008) and Zahedi et al. (2011)
	Lack of definition	Nguyen et al. (2007) and Freeland (2003)
	Lack of readiness process	Chalmeta (2006) and Zahedi et al. (2011)
4	Lack of customer-centric orientation	Foss et al. (2008), Goodhue et al. (2008), Curtis et al. (2009), Kale (2004) and King and Burgess (2008)
5	Training programs	Goodhue et al. (2008), Nguyen et al. (2007) and Rouholamini and Venkatesh (2011)
6	Organisational culture	Curtis et al. (2009) and Piskar and Faganel (2009)
7	Lack of human resources skills	Goodhue et al. (2008), Kale (2004), Rigby et al. (2002)
8	Failing in reengineering business processes	Chalmeta (2006), Kale (2004) and Zahedi et al. (2011)
9	Thinking of CRM as a pure technology	Chalmeta (2006), Kale (2004), Rigby et al. (2002) and Zahedi et al. (2011)
10	Initial start-up costs	Piskar and Faganel (2009)
11	The planed CRM implementation	Rouholamini and Venkatesh (2011)
12	Underestimating the difficulties involved in data mining and data integration	Chalmeta (2006), Kale (2004), King and Burgess (2008) and Zahedi et al. (2011)
13	Failure to align CRM strategy to organisation strategy	Foss et al. (2008), Kale (2004), Nguyen et al. (2007) and Rigby et al. (2002)
14	Security issues in CRM systems	Piskar and Faganel (2009) and Taleghani et al. (2012)
15	Lack of preparation/evaluation of processes	Kale (2004) and Zahedi et al. (2011)
16	Poor staff involvement	Curtis et al. (2009), Lee et al. (2006) and Zahedi et al. (2011)
17	Quality and quantity data problems	Goodhue et al. (2008) and King and Burgess (2008)
18	Communications issues	Bull (2003) and Pan et al. (2006)
19	Insufficient appreciation of customer lifetime value	Chalmeta (2006) and Kale (2004)
	Lack of involving the final user in CRM designing	Chalmeta (2006)
20	Failure to focus on CRM ROI	Foss et al. (2008) and Nguyen et al. (2007)
	Insufficient help from CRM vendors	Nguyen et al. (2007) and Freeland (2003)
21	No alternative plan	Piskar and Faganel (2009)

Source: Adapted from Farhan et al. (2018)

When implementing a CRM system, organisations must tailor it to their specific needs, considering their unique conditions and characteristics. The importance and relevance of each CSF will vary depending on factors such as the organisation's industry, size, culture, and strategic objectives. Furthermore, the organisation's preparedness, alongside the development and alignment of its processes, can significantly influence the way these CSFs are prioritised during CRM implementation. Customisation ensures that the CRM system meets the specific demands of the organisation while integrating best practices and adapting to internal needs.

Table 4   Link between CRM success factors and CRM components

Critical success factors	People	Technology	Process
Senior management support	×		
Culture	×		×
Organisational infrastructure		×	
Human resource management	×		×
Knowledge management	×	×	
CRM strategy	×		×
CRM process			×
Information quality		×	
System quality		×	
Service quality		×	×
Integration	×		×
Customer orientation	×	×	×
Qualified employees		×	
Technological readiness		×	

Mendoza et al. (2007) identified that each CSF plays a critical role in influencing one or more of the three main components of CRM – people, processes, and technology. These components must work in harmony for CRM initiatives to succeed. The interplay between CSFs and CRM components highlights the importance of focusing on the right balance between the organisation's human resources (people), workflows (processes), and technological infrastructure (technology) when designing CRM systems. The work of Almotairi (2010) and Mendoza et al. (2007) establishes a clear connection between CSFs and these CRM components, outlining how each factor impacts a different element of CRM implementation. For example, leadership and commitment may directly impact the 'people' element, while technology readiness and process efficiency affect the 'technology' and 'processes' elements, respectively (Table 4).

Recent studies also emphasise that the dynamic nature of CSFs requires continuous evaluation and adjustment throughout the lifecycle of CRM initiatives. Understanding the evolving role of CSFs helps organisations fine-tune their CRM strategies, ensuring long-term success and improved customer relationship outcomes. Thus, integrating CSFs with a deep understanding of the organisation's CRM components ensures a more comprehensive and adaptive approach to CRM implementation, increasing the chances of project success (Almotairi, 2010).

Based on the literature review, we summarised the CSF that can enhance the successful implementation of a CRM system (Table 5).

Table 5 List of critical success factors according to relevant levels

Level	Context	Critical success factor
Organisation	Culture	The client-oriented approach forces a behavioural organisational change (Mendoza et al., 2007).
		The importance of the customer for the organisation and the need for change must be fully understood by employees (Gibbert et al., 2002).
		In the customer-focused strategy, the organisation must be able to overcome the difficulties that arise from the change process (Iriana et al., 2013).
		Customer-focused culture has a great impact on customer satisfaction (Farhan et al., 2018).
	Strategy	The customer-focused strategy must be considered for the implementation of a CRM (Roberts et al., 2005).
		The relationship with the customer is a fundamental point in the implementation of a CRM system (Mendoza et al., 2007).
		The customer-focused strategy is fundamental for acquiring quality information and improving the organisation's processes (Raman et al., 2006).
Human resources	Top management	Top management support and commitment is essential to the successful implementation of CRM system (Chalmeta, 2006).
		Responsible to define measurable objectives and goals for CRM systems, and developing the knowledge of the benefits, capabilities, resources and potential challenges of CRM systems (Farhan et al., 2018).
		Top management support and commitment (Ahearne et al., 2012; King and Burgess, 2008; Mendoza et al., 2007; Rahimi and Berman, 2009; Ranjan and Bhatnagar, 2008; Sanad et al., 2012).
	Employees	Not be devalued or neglected. They must be involved to know the goals and tools before implementation. They must realise the importance of implementation for the organisation (Chalmeta, 2006).
		The greater the motivation and satisfaction, the better the performance and commitment to the organisation will be (Mendoza et al., 2007).
		Training is a key to the success of the CRM system (Maleki and Anand, 2008).
		Employees should understand their roles and responsibilities and should have the ability to understand customers' needs and gain customers' trust and respect (Farhan et al., 2018).
	Departments	Greater integration between departments is essential (Payne and Frow, 2006).
		Employees from different areas must be motivated to cooperate with each other (Cooper et al., 2008).
		Customer data must be shared without creating localised information silos (Iriana and Buttle, 2004).

Table 5   List of critical success factors according to relevant levels (continued)

Level	Context	Critical success factor
Financial resources	Budget management	Improved quality of estimates, customer loyalty and response time (Maleki and Anand, 2008).
		Lower customer acquisition costs (Maleki and Anand, 2008).
	Post-implementation	Anticipate changes in customer preferences and identify improvements (Croteau and Li, 2003). Optimise internal processes (Brendler and Loyle, 2001).
CRM solution	Implementation strategy	Align strategy with processes (Pedron and Bessi, 2007).
		Definition of expected benefits through the CRM solution (Maleki and Anand, 2008).
		Distinguish which processes and channels of communication and integration with the customer (Lindgreen et al., 2006).
		Adopting an adequate definition of CRM is crucial (Payne and Frow, 2006).
		It is very important to analyse the processes that interact with the customer (Mendoza et al., 2007).
		Technology alone does not guarantee the relationship with customers, but the ways organisations use it (Pedron and Bessi, 2007).
		Adopt the right technology to improve and automate the business processes associated with customer relationship management (Chalmeta, 2006).
	Technology	Technology is an enabler that allows organisations to establish stronger relationships with customers by analysing customer information and provide a complete view of the customer (Farhan et al., 2018).
		It is necessary to understand which technology is appropriate and how it will benefit the CRM strategy (Mendoza et al., 2007).
		It adds value to the organisation (Pedron and Bessi, 2007).
		It facilitates the execution of tasks making them faster, with greater coverage and security (Pedron and Bessi, 2007).
		Technology allows organisations to design its products based on customers' needs and expectations (Farhan et al., 2018).
		Allow to save the history of activities related to the customer to customise the service (Chalmeta, 2006).
		An automated CRM system is vital for maintaining customer movements (Chalmeta, 2006).
	Methodology	It is important to define the methodology to be used, namely the planning, monitoring and evaluation of success in customer-oriented processes (Pedron and Bessi, 2007).
		Find the best CRM model, methodology and solution that is closest to the business requirements (Chalmeta, 2006).
	End users	Involve end users in building the CRM solution as a way to bring the solution closer to the results (Bouma, 2009).
		It is vital that users participate in the various stages, namely in defining the requirements of the solution (Keramati et al., 2013).

Table 5 List of critical success factors according to relevant levels (continued)

Level	Context	Critical success factor
CRM solution	Change management	The quality of communication in an organisation is one of the most effective factors in all changes (Keramati et al., 2013).
		Employees must be informed about the CRM strategy, what is the purpose and vision of the organisation in implementing the CRM system (Payne and Frow, 2006).
		The change processes associated with the customer-focused approach need strong and effective leadership (Mendoza et al., 2007).
		The shift to a customer-focused strategy implies that employees change the way they perform tasks (Mendoza et al., 2007).
		The involvement of all employees is essential for the effective adoption of a CRM solution (Maleki and Anand, 2008).
		Definition of a communication plan (Mendoza et al., 2007).

2.5 Successful CRM implementation

Several steps are recommended to ensure a successful CRM strategy (Crockett and Reed, 2003):

- Understanding how CRM fits into the broader business strategy: it is crucial to integrate CRM within the context of the organisation's overarching business goals. CRM should align with and support the long-term vision and mission of the business, ensuring that it contributes to the company's strategic objectives (Nasir, 2017).

- Confirmation of the organisation's current CRM capabilities: before implementing CRM, an in-depth assessment of the current organisational capabilities related to customer relationship management is essential. This includes evaluating existing processes, systems, resources, and customer engagement practices (Wang and Feng, 2012).

- Understanding the reasons for CRM implementation: clearly identifying and confirming the motives behind CRM implementation ensures alignment with organisational needs. Whether the objective is enhancing customer loyalty, improving data management, or streamlining communication processes, understanding these reasons is key to driving the project forward (Rane et al., 2023).

- Creating, developing, and executing a plan to support the CRM implementation: A well-defined and actionable plan is necessary to guide the successful CRM adoption process. This plan should cover resource allocation, roles and responsibilities, timelines, and risk management to mitigate potential challenges (Rane et al., 2023).

However, assessing the impact and success of CRM implementation can be challenging because these systems typically influence multiple areas within an organisation (Ata and Toker, 2012). The increasing volume of available information, the advancement of data analytics tools, and the availability of new metrics enhance the ability to evaluate CRM

effectiveness and provide a clearer understanding of the system's outcomes (Gupta, 2024).

Chen et al. (2009) propose that key performance metrics, such as customer loyalty and business profit, should form the basis of evaluating CRM system quality. Their study suggests a system of metrics specifically designed to assess CRM processes, emphasising the need for continuous improvement to optimise the CRM system. The study concluded that enhancing CRM effectiveness requires both investment in superior information technology and fostering an organisational culture that prioritises customer engagement and interaction.

Kimiloglu and Zarali (2009) conducted a thorough literature review on CRM system evaluation, employing the balanced scorecard (BSC) framework. They suggested relevant metrics for each BSC perspective – financial, customer, internal processes, and learning and growth. This tool helps organisations evaluate CRM systems comprehensively by focusing not just on immediate returns, but also on long-term strategic success across different organisational dimensions.

In the context of digital customer relationships, current technology, along with the growing availability of customer data, enables more precise evaluations of CRM performance. As Deloitte (2019) outlines, a wide range of key performance indicators (KPIs) can be used to assess CRM systems' effectiveness. These KPIs span areas such as customer retention rates, engagement levels, sales growth, and customer satisfaction, providing a robust framework for measurement. By using these metrics, organisations can ensure that their CRM strategies are on track to deliver tangible value and make adjustments when necessary. Several steps are recommended to a successful CRM strategy (Crockett and Reed, 2003):

- the understanding of how CRM fits into the needs of the overall business strategy – organisational strategic context

- confirmation of the organisational current CRM capabilities – organisational assessment

- the reasons behind the CRM implementation – justification

- create, develop and execute a plan to support the CRM implementation – implementation plan.

Assessing the impact and success of an implementation of a CRM system is difficult, as these systems affect several areas of the organisation (Ata and Toker, 2012). An increase in the amount of information available, metrics and more advanced forms of analysis make it possible to quantify the impact of CRM initiatives and achieve greater transparency.

Chen et al., (2009) indicate that metrics such as customer loyalty and business profit should be the origin of the evaluation of the quality of CRM systems. These authors carried out a study where they proposed a metric system with the aim of measuring certain processes, resulting in an evaluation of the effectiveness of the CRM system itself. The authors concluded that to improve the effectiveness of the CRM system, the organisation must invest in the improvement of information technologies and in the development of an organisational culture that promotes greater interaction with customers.

Kimiloglu and Zarali (2009) carried out a detailed literature review focused on evaluating the implementation of CRM systems, using the BSC tool, suggesting a list of metrics for each of the perspectives.

In a study of customer relationships in a digital context, it is stated that current technology combined with the increased amount of available data can provide more insights into how the performance of the CRM systems can be measured (Perez-Vega et al., 2022). The literature provides a vast list of potential KPIs (Deloitte, 2019).

3 Methodology

3.1 Case study

A case study was conducted to emphasise direct engagement with the phenomenon (Yin, 2014). This approach incorporates multiple data sources, including interviews, direct observation, document analysis, and input from the researcher's real-time perspective, making the investigation comprehensive and adaptable (Yin, 2014).

The qualitative methodology assumes that researchers build empathy with stakeholders, striving to understand and appreciate their diverse viewpoints. The goal is not to make value judgements, but to gain a deep understanding of how stakeholders perceive the situation and the criteria they use to form their perspectives (Yin, 2014).

3.2 Data collection and analysis

The participants for this study were selected through a convenience sampling approach, as they are recognised experts in their respective fields. The respondents included:

- operations director and project sponsor for the CRM implementation

- head of planning and sales, key user of CRM

- IT project manager

Data was collected using semi-structured interviews, which allowed for gathering specific and relevant insights. All interviews were audio-recorded with the appropriate consent of the participants.

Following the interviews, the data was processed using MaxQDA software for qualitative analysis. The interview guide was developed based on a thorough literature review (Appendix 1).

To analyse the data, a coding process was implemented, which facilitated the organisation of responses into relevant categories. This process helped identify any commonalities in how participants interpreted the questions, as well as variations in the understanding and meaning of their responses.

By comparing similarities and differences across stakeholders' views, deeper insights could be drawn. The coding framework was designed based on the analytical dimensions (Figure 2), enabling a focused approach to interpreting the data (Rubin and Rubin, 2005).

Figure 2   List of categories and indicators (see online version for colours)

The categories are then related to dimensions that address the key themes of this study. The sub-categories created are related to key concepts used by the stakeholders (Appendix 2).

4   Discussion

4.1   Organisation

The organisation was created in 2008 and is present in over 70 countries, having led the implementation of more than 20 large-scale international projects and the first large-scale education technology project in Portugal.

With a solid international presence, becoming increasingly specialised in areas such as project design, industrial consultancy, professional training and development, and impact assessment and analysis. The organisation is at the forefront of digital transformation, catalysing digital governance as a development process in the projects it carries out or is involved in.

4.2   CRM implementation

As noted by Santouridis and Veraki (2017), the ability to strengthen customer relationships is a likely source of competitive advantage and it is also in this sense that the adoption of CRM systems has increased. The decision to proceed with the implementation of these systems brings uncertainties, and failure rates are quite high.

Organisations need to make a careful assessment of the reasons why they believe that the implementation of these systems will bring them benefits (Varajão and Cruz-Cunha, 2016).

Table 6 shows the answers concerning the reasons for CRM system implementation.

Table 6   Reasons for implementation

Interviewee 1
"The decision to implement a CRM system in the organization was made by management, sales and marketing."
"The gradual implementation is advised to avoid the 'growing pains' of the system. Implementing something bulletproof that meets all the needs at once would not work."

Interviewee 2
"Our approach to implementing the CRM system was phased in, as we realized that implementing everything at once would not work."
"It also refers to the importance of 'quick wins in the implementation of the system', managing and minimizing the risk of implementation and monitoring the impact as the implementation of the system progresses."
"It's essential to define in advance what our real needs are, it's no use wanting the whole, because then there's going to be difficulties in implementation, and there's going to be difficulties in use. Therefore, before implementing a CRM tool, or any other tool, we must know, concretely, what our needs are and outline and write them and have them always present as a 'beacon', so that the implementation is successful."

Farhan et al. (2018) indicate, in an exhaustive study on the possible causes for the failure of the implementation of a CRM system, the lack of evaluation and preparation of the processes. The decision on how to proceed with the implementation is essential for its success. Knowledge of the processes in place in the organisation and the preparation of the teams for the change is decisive. It should be noted that the lessons drawn from the analysis of the interviews with stakeholders are in line with the data present in the literature review.

4.3   CRM implementation objectives

The definition of realistic goals is crucial for a successful CRM system implementation (Maleki and Anand, 2008; Pedron and Bessi, 2007). It will be through the definition of these objectives that, later, it will be possible to conclude whether or not the implementation had the intended effect.

Some of the objectives presented by the interviewees are stated on the Table 7.

Table 7   Implementation objectives

Interviewees
"Facilitate the follow-up of the sales process"
"Centralize and standardize customer information"
"Have a horizontal view of the sales process"
"Improve sales forecasts"
"Not wasting energy on customers that bring little value to the business"
"Registration of all leads in a central system"
"More effective in placing the offer on the market"
"Understand the cost/sales ratio per customer"

4.4   Training

It is consensual, both in the literature review and in the results of the analysis of the interviews (Table 8) that the training of end users is one of the most important aspects for the successful implementation of a CRM system. The question posed during the interviews had two main objectives: first, to evaluate the perception of stakeholders about training users, and second to understand if training had an impact on the commitment of employees in relation to the CRM system, from a management perspective.

Table 8   Evaluate the perception of stakeholders about training users

Interviewee 2
"The training was essential. During development, some elements from the various areas were called up. For the system to work, it cannot be seen only from a high-level perspective. (…) the hands-on people give important details that make the tool successful and that it meets the users' needs."
"There is no doubt that the end user is the one who makes the tool succeed or not. In order for the end user to gain aptitude and have desire to use the tool, practical training with practical business examples, that the end users have already experienced, and thus realize that the tool, as it was made, will only take away work from them. Because here the issue of work and time is fundamental. "

Interviewee 3
"The respect of end users for key users influences their adoption and recognition that the implementation of the system is an asset. There must be several profiles of people for the key user group, there must be someone with a lot of technical knowledge and someone with more empathy to pass the knowledge on to the end users."

The data obtained through the interviews unequivocally corroborates what is described in the literature. There is a clear relationship between training and employee commitment to the CRM system. In the same sense, it is also confirmed that having an adequate, extensive and personalised training program with real business cases helps employees to accept the system, to understand its usability and the advantages of its use.

Table 9   Evaluate the perception of stakeholders about change management

Interviewee 1
"The issue of change management, as well as the management of expectations, occurred from the beginning of the implementation of the CRM project. It is important to explain what will happen at each step of the implementation, thus making the transition as smooth as possible."

Interviewee 2
"In the beginning, the most difficult thing is to be able to explain and make the end users realize the benefits of CRM. There is always the change of installed habits, which is very complicated to change. People's mindset has to change for the tool to be successful."

4.5   Change management

As mentioned in the literature review, change management plays a fundamental role in some moments of an organisation's life, such as the implementation of a CRM system. The quality of communication in an organisation is one of the most effective factors in all changes (Keramati et al., 2013). Employees must be informed about the CRM strategy, its purpose and the organisation's vision in implementing the CRM system (Payne and

Frow, 2006). The importance of the issue of managing change was also shared among stakeholders (Table 9).

A holistic change management approach is essential to adjust the users' mindset for a sustainable acceptance in the use of the CRM system.

4.6 CRM system performance evaluation

For a correct evaluation and quantification of the benefits of implementing a CRM system, it is essential to define a set of metrics that are adequate and adaptable to the characteristics and conditions of the organisation. Defining KPIs in a realistic and objective way that reflect the organisation's strategic objectives is vital (Deloitte, 2019).

Table 10 List of CRM implementation evaluation criteria

Interviewees
"Usage rate between 95% to 100% after 3 months"
"All opportunities entered in the CRM system"
"Data cleaning and migration in the first 3 months"
"Have a clear vision that sales have increased"
"Better management of opportunities and stock"
"Cost/benefit per customer"
"More effective at closing deals"
"Be aware of the cost of the customer relationship"

Regardless of how this impact is assessed, it is essential that an assessment of the evolution of metrics relevant to the organisation is considered. Defining values to be achieved is crucial to monitor evolution and performance, enabling a comparison between actual values and values to be achieved, thus enabling strengths and weaknesses to be assessed, and generating recommendations for continuous improvement actions. Reviewing and refining these KPIs ensures the relevance and validity of the metrics results.

A list of CRM implementation evaluation criteria extracted from the interviews is presented in Table 10.

Current technology combined with increased amounts of available data is able to provide more insights into how the performance of the CRM systems can be measured (Deloitte, 2019). The use of dashboards, capable of providing a quick overview of results, gives decision makers great flexibility to make decisions (Table 11).

Table 11 CRM system performance evaluation

Interviewee 2
"Top management needs to have access to information and have confidence in it."
"It is an objective for the future to build dashboards that allow us to assess metrics."

It becomes evident, when crossing the information collected through the interviews with the literature review, that the relevance in the definition of metrics and the way they are monitored and adjusted is essential for the CRM system to produce the desired effect, and for the continuous improvement of the system and to the way it is used.

4.7 Matrix between CSF and CRM system performance evaluation metrics

The result from the responses of the interviewees is presented below, which allows to verify the relationship between the CSF and the KPIs used to measure the success of the implementation of the CRM system (Table 12).

Table 12   CSF and the respective KPIs

CSF	KPIs
Definition of needs for the implementation of a CRM system	Sales
	Sales pipeline
	Sales forecast
	Stock levels
	Speed of the sales process
	Customer cost/benefit
	Cost of customer interaction
Phased implementation of the CRM system	Number of opportunities registered in the system
	Quality/integrity of the information registered in the system
	Average time of information integration between systems
	Average time taken to enter new information
	Average time taken to find information about the client/opportunity in the system
Involvement of the end user in the CRM system implementation process	Degree of usage
	User satisfaction
	Recognition of the benefits of CRM implementation
	Participation in non-mandatory training actions
Top management involvement	Budget for the CRM system
	Inclusion of the CRM system in strategic plans
	Percentage of the number of managers' goals related to CRM system performance

Resuming the key insights based on interviews with stakeholders involved in the CRM implementation process:

- Phased approach and goal definition: a gradual, phased implementation of CRM is preferred to avoid system failures or user resistance, as seen from stakeholder interviews. Key goals include improving sales processes, centralising customer data, enhancing sales forecasts, and better managing customer relationships.

- Training and end-user commitment: the importance of training, particularly hands-on, practical training, is highlighted to ensure user adoption. Successful CRM implementation requires training users with real-world business examples that they can relate to.

- Change management: the text underscores the critical role of communication and change management in the CRM adoption process. Ensuring employees understand the purpose and benefits of CRM is essential for overcoming resistance and achieving successful implementation.

- Performance evaluation and metrics: performance evaluation is highlighted, with KPIs like system usage rates, sales increases, and data accuracy being crucial for tracking CRM success. Continuous monitoring and adjusting of these metrics is important for improving CRM usage.

The points presented align with several critical concepts discussed in academic literature regarding CRM implementation, but there are also nuances to consider:

- Phased implementation:
  a   Literature support: the need for phased implementation, rather than a 'big bang' approach, is consistently emphasised in CRM research. Farhan et al. (2018) note that organisations that rush their CRM deployment often encounter resistance due to poorly understood requirements and the complexity of immediate large-scale changes.
  b   Literature contrast: while phased implementations are widely recommended, there are mixed views on their long-term success. Some studies suggest that a clear, integrated approach with full system roll-out works better if pre-planning and communication are robust (Varajão and Cruz-Cunha, 2016).

- CRM objectives and metrics:
  - Literature support: defining realistic CRM goals and metrics before implementation is a cornerstone of CRM success in academic literature. Maleki and Anand (2008) argue that clear, measurable objectives for customer relationship management lead to higher adoption rates and alignment with organisational strategy.
  - Literature contrast: there is also evidence suggesting that too rigid a focus on pre-defined metrics can stifle CRM system flexibility. A study by Payne and Frow (2006) asserts that continuously evolving business goals may demand fluid adaptation in CRM KPIs, which is not fully addressed in the text.

- Training:
  a   Literature support: the significance of training as a factor in CRM adoption is well-documented. Studies like Keramati et al. (2013) highlight that well-designed training programs improve end-user buy-in and CRM efficiency. Practical, real-world business examples, as mentioned in the text, are also identified by Deloitte (2019) as essential for engagement.
  b   Literature contrast: a distinction often made is the degree of customisation in training. While the interviews focus on user-friendly and context-specific training, the academic literature often cautions that standardised training approaches might not fully meet the diverse needs of employees at different organisational levels (Pedron and Bessi, 2007).

- Change management:
  a   Literature support: change management and communication strategies are central to CRM system success, as noted by Payne and Frow (2006). Successful CRM implementations depend heavily on organisational culture and user mindset adjustments, which the text mirrors.
  b   Literature contrast: the challenge is not just about managing resistance to change but creating a culture of continuous CRM learning. Santouridis and Veraki (2017) stress that embedding a CRM-friendly culture and aligning CRM systems with daily operations fosters sustainable adoption, a dimension underrepresented in the interview data.

- System evaluation and KPIs:
  a   Literature support: the ongoing evaluation of CRM performance is crucial for its continual improvement. KPIs such as sales performance, data integrity, and user adoption are discussed by Deloitte (2019), and the need for a structured post-implementation review process aligns with best practices.
  b   Literature contrast: there is a tendency in academic literature to caution against overemphasis on quantitative performance indicators. Maleki and Anand (2008) argue that qualitative aspects such as customer satisfaction or employee morale are sometimes more meaningful than the hard metrics often prioritised by organisations.

5   Conclusions, limitations and future research

5.1   Conclusions

The aim of this study was to explore the key reasons behind CRM system implementation, identify the CSFs that need to be considered during implementation, and examine the metrics that should be defined and measured to evaluate CRM success. The study focused on gaining a comprehensive understanding of how organisations approach CRM adoption, based on the perspectives of stakeholders, particularly regarding decision-making processes and implementation strategies.

The findings derived from this research were consistent with existing academic literature in multiple areas. One of the central insights is that successful CRM system implementation requires substantial involvement from top management throughout the entire process. As highlighted in numerous studies, including Payne and Frow (2006) and Keramati et al. (2013), executive support and strategic direction play a crucial role in securing organisational buy-in and ensuring the necessary resources are available. The commitment from top management helps align the CRM system with the broader organisational goals and facilitates smooth decision making during implementation.

Another key takeaway from the study is the importance of a phased, planned approach to CRM system adoption. Rather than attempting a full-scale implementation all at once, the organisation should opt for a gradual rollout. This was reinforced by stakeholder perspectives in the study, as the implementation process often brings about unforeseen complications and user resistance. Academic research on CRM adoption, such as Farhan et al. (2018), has repeatedly emphasised the need for phased implementations

to avoid operational disruptions. It allows the system to be tested and fine-tuned in manageable increments while ensuring that user feedback can be integrated early in the process, ultimately leading to higher acceptance and better outcomes.

In addition to phased implementation, active participation from end-users emerged as a critical factor. Ensuring that end-users are adequately trained, engaged, and involved in the CRM implementation process directly impacts the adoption and success of the system. Literature supports this finding, with Deloitte (2019) and Pedron and Bessi (2007) stating that user involvement, coupled with robust training, ensures that the CRM system meets user needs and provides tangible business value. This study's focus on hands-on training with real-world business cases parallels existing findings that practical exposure is critical for CRM tools to be embraced by users, contributing to both short-term operational improvements and long-term organisational benefits.

The study also underscores the importance of defining specific, measurable metrics to evaluate the success of CRM implementation. Performance indicators such as sales figures, customer retention rates, user satisfaction, and the efficiency of the sales process are essential for understanding how well the CRM system is fulfilling organisational objectives. Regular measurement of these metrics provides management with concrete feedback and allows them to adjust strategies where necessary. The use of KPIs is consistent with best practices identified in the literature, where the alignment of CRM objectives with measurable outcomes is essential for ensuring the system's effectiveness (Maleki and Anand, 2008; Santouridis and Veraki, 2017).

One particularly valuable finding of this study is the ongoing importance of regularly comparing actual performance metrics against expected outcomes. This process of continuous evaluation allows top management to identify discrepancies, evaluate CRM system performance, and make data-driven decisions about future improvements. As noted by Deloitte (2019), organisations that have a mechanism for measuring and refining their CRM system based on ongoing analysis are more likely to sustain long-term success and improve their competitive positioning in the market.

In summary, the study reaffirms several fundamental principles found in academic literature on CRM system implementation. However, it also suggests practical implications for organisations looking to implement a CRM system effectively. Organisations should ensure that top management is actively engaged in the process, opt for a phased implementation strategy, and prioritise user involvement and adequate training to ensure end-user satisfaction. Furthermore, defining and regularly evaluating appropriate KPIs to measure CRM success is critical to enabling a flexible, responsive approach to evolving business needs.

Overall, this research highlights the importance of a balanced, strategic approach to CRM adoption – one that integrates organisational leadership, careful planning, user participation, and continuous performance assessment. These factors collectively contribute to maximising the value derived from CRM systems, improving organisational efficiency, and fostering long-term customer relationship success..

5.2 *Contributions to management*

Numerous publications address the CSFs associated with implementing CRM systems. However, only a few studies provide a comprehensive perspective that encompasses insights from top management, area managers, project managers, key users, and end

users, while integrating empirical data about their specific views. Each of these stakeholders brings a unique perspective to the CRM implementation process, making their input particularly relevant and valuable for the overall understanding of the challenges and success factors. The variation in their views enhances the richness of the analysis and contributes to a more holistic understanding of the process (see Appendix 3).

This study offers critical insights for organisational top management, shedding light on the issues most valued by each stakeholder group involved in the CRM implementation project. It emphasises the necessity of addressing the varying needs of these stakeholders to ensure the smooth rollout and long-term success of the CRM system.

A key finding from the research is the importance of effective training and awareness-raising initiatives for end users. Without adequate support, end users may view the change and adoption of new tools as a burdensome obligation, rather than a beneficial enhancement. It was found that top management plays a crucial role in communicating the advantages of the CRM strategy, especially emphasising how sharing information through the CRM system can directly contribute to increased sales and improved organisational performance.

The study also reinforces the necessity of clearly defining the real needs of the organisation that the CRM implementation seeks to address. Establishing clear, measurable objectives during the planning stage – and communicating these objectives to the entire organisation – is vital for aligning stakeholders' efforts and ensuring that the CRM system meets the business's strategic needs.

Given the current circumstances, particularly regarding digital transformation, this study highlights the increasing importance of technology and information systems in shaping organisational strategies. The shift towards more digitalised operations, fuelled by technological advancements, is revolutionising both the way businesses operate and how they engage with customers. The COVID-19 pandemic, in particular, has accelerated this shift, as organisations have been compelled to adopt new digital solutions to sustain and even grow their business amid challenging times. The rapid adoption of CRM systems during the pandemic reflects this broader trend in digital transformation, as organisations search for innovative alternatives to continue operations.

Furthermore, participants in the study acknowledged the significance of new regulations, such as the general data protection regulation (GDPR), in shaping data usage practices. The introduction of GDPR has imposed stricter guidelines on the handling of personal data, affecting how businesses utilise customer information within their CRM systems. Compliance with these regulations has become a crucial factor in the successful implementation and ongoing management of CRM systems, and organisations must continuously adapt to these evolving legal requirements.

In summary, the study highlights that understanding the perspectives of different stakeholders is key to the success of CRM implementations. It also underscores the importance of clear communication, management support, and strategic alignment, as well as the growing impact of digital transformation and legal requirements in shaping the future of CRM systems.

5.3   *Study limitations and suggestions for future research*

This study has some limitations that should be acknowledged. One of the most significant limitations is that the research focused exclusively on a single industry, using

semi-structured interviews as the only data collection method. As a result, the findings and conclusions may not be directly applicable to other industries or sectors. The context of the organisation studied, including its unique business model, further complicates the generalisation of the results to other businesses, even within the same sector.

Additionally, CRM implementation in the organisation where this case study took place is still relatively recent. This time-bound aspect could impact the generalisability of the findings, especially from a broader, global organisational perspective. Since the organisation is still in the early stages of CRM adoption, the conclusions drawn here may not fully reflect the long-term impacts or results of CRM systems once they are fully integrated and operational within a more mature framework.

The sample size is also another limitation. Although several stakeholders from different levels within the organisation participated, the sample size remains relatively small. Including additional perspectives, particularly from a broader segment of top management and end users, would enhance the depth and robustness of the study's findings. The small sample limits the ability to fully capture the variety of opinions and experiences within the organisation.

For future research, it would be beneficial to extend this study into other business areas within the same organisation or across other organisations with different characteristics and business models. This approach could provide a more comprehensive understanding of CRM implementation and its critical success factors across various contexts. Additionally, using complementary research methods, such as surveys or questionnaires, could help to gather a larger and more diverse set of data. Expanding the data collection methods would improve the representativeness of the findings, contributing to more generalised and validated conclusions in CRM studies.

References

Aghamirian, B., Dorri, B. and Aghamirian, B. (2015) 'Customer knowledge management application in gaining organisation's competitive advantage in electronic commerce', *Journal of Theoretical and Applied Electronic Commerce Research*, Vol. 10, No. 1, pp.63–78.

Agustian, K., Mubarok, E.S., Zen, A., Wiwin, W. and Malik, A.J. (2023) 'The impact of digital transformation on business models and competitive advantage', *Technology and Society Perspectives (TACIT)*, Vol. 1, No. 2, pp.79–93, DOI: 10.61100/tacit.v1i2.55.

Ahearne, M., Rapp, A., Mariadoss, B. and Ganesan, S. (2012) 'Challenges of CRM implementation in business-to-business markets: a contingency perspective', *Journal of Personal Selling & Sales Management*, Vol. 32, No. 1, pp.117–129, DOI: 10.2753/PSS0885-3134320110.

Ajiva, E., Abhulimen, P. and Abhulimen, A. (2024) 'Addressing challenges in customer relationship management for creative industries: innovative solutions and strategies', *International Journal of Advanced Research in Social Sciences*, Vol. 6, No. 8, pp.1747–1757, https://doi.org/10.51594/ijarss.v6i8.1424.

Al-Hanini, E.A. and Al-Oqqaily, S.Z. (2018) 'Does the management information system causes competitive advantage for banks working in Jordan?', *International Journal of Economics and Financial Issues*, Vol. 8, No. 6, pp.104–109.

Almotairi, M.A.T. (2010) *Evaluation of the Implementation of CRM in Developing Countries*, PhD thesis, Brunel Business School, Brunel University, London.

Anderson, E.W., Fornell, C. and Mazvancheryl, S. K, (2004) 'Customer satisfaction and shareholder value', *Journal of Marketing*, October, Vol. 68, No. 4, pp.172–85 [online] https://doi.org/10.1509/jmkg.68.4.172.42723.

Ata, U.Z. and Toker, A. (2012) 'The effect of customer relationship management adoption in business-to-business markets', *Journal of Business & Industrial Marketing*, Vol. 27, No. 6, pp.497–507.

Bhat, S.A. and Darzi, M.A. (2016) 'Customer relationship management: an approach to competitive advantage in the banking sector by exploring the mediational role of loyalty', *International Journal of Bank Marketing*, Vol. 34, No. 2, pp.3–6.

Bolton, R.N., McColl-Kennedy, J.R., Cheung, L., Gallan, A., Orsinger, C., Witell, L. and Zaki, M. (2018) 'Customer experience challenges: bringing together digital, physical and social realms', *Journal of Service Management*, https://doi.org/10.1108/JOSM-04-2018-0113.

Boppana, V.R. (2022) *Impact of CRM Automation on Organizational Productivity*, SSRN, https://doi.org/10.2139/ssrn.5004989.

Bouma, J.T. (2009) *Why Participation Works: The Role of Employee Involvement in the Implementation of the Customer Relationship Management Type of Organizational Change*, PhD thesis, University of Groningen.

Brendler, W.F. and Loyle, D. (2001) 'Critical factors that make or break CRM', *Target Marketing*, Vol. 24.

Bull, C. (2003) 'Strategic issues in customer relationship management (CRM) implementation', *Business Process Management Journal*, Vol. 9, No. 5, pp.592–602.

Bullen, C.B. and Rockart, J.F. (1981) *A Primer on Critical Success Factors*. CISR Working Paper 69, pp.383–423, Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts.

Chalmeta, R. (2006) 'Methodology for customer relationship management', *Journal of Systems and Software*, Vol. 79, No. 7, pp.1015–1024.

Chen, I.J. and Popovich, K. (2003) 'Understanding customer relationship management (CRM): people, process and technology', *Business Process Management Journal*, Vol. 9, No. 5, pp.672–688, https://doi.org/10.1108/14637150310496758.

Chen, J.S., Yen, H.J.R., Li, E.Y. and Ching, R.K.H. (2009) 'Measuring CRM effectiveness: construct development, validation and application of a process-oriented model', *Total Quality Management*, Vol. 20, No. 3, pp.283–299.

Cooper, M.J., Gwin, C.F. and Wakefield, K.L. (2008) 'Cross-functional interface and disruption in CRM projects: is marketing from Venus and information systems from Mars?', *Journal of Business Research*, Vol. 61, No. 4, pp.292–299.

Crockett, B. and Reed, K. (2003) 'The foundation of insight: three approaches to customer-centric understanding', *The Ultimate CRM Handbook*, McGraw-Hill, New York, NY.

Croteau, A.M. and Li, P. (2003) 'Critical success factors of CRM technological initiatives', *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, Vol. 20, pp.21–34.

Curtis, T., Griffin, T. and Barrere, D. (2009) 'CRM in Russia and U.S. – case study from american financial service industry', *Journal of Technology Research*, April, Vol. 1 [online] https://commons.erau.edu/dbmanagement/13.

Deloitte Digital, Digital CRM 2.0. (2019) *Building Customer Relationships in the Digital Landscape* [online] https://www2.deloitte.com/content/dam/Deloitte/de/Documents/strategy/Deloitte_Digital_Digital_CRM_Study_2.0_2019.pdf.

Dikert, K., Paasivaara, M. and Lassenius, C. (2016) 'Challenges and success factors for large-scale agile transformations: a systematic literature review', *Journal of Systems and Software*, Vol. 119, pp.87–108, https://doi.org/10.1016/j.jss.2016.06.013.

Dwivedi, Y.K., Ismagilova, E., Hughes, D.L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A.S., Kumar, V., Rahman, M.M., Raman, R., Rauschnabel, P.A., Rowley, J., Salo, J., Tran, G.A. and Wang, Y. (2021) 'Setting the future of digital and social media marketing research: perspectives and research propositions', *International Journal of Information Management*, Vol. 59, p.102168, https://doi.org/10.1016/j.ijinfomgt.2020.102168.

Farhan, M.S., Abed, A.H. and Ellatif, M.A. (2018) 'A systematic review for the determination and classification of the CRM critical success factors supporting with their metrics', *Future Computing and Informatics Journal*, Vol. 3, pp.398–416.

Foss, B., Stone, M. and Ekinci, Y. (2008) 'What makes for CRM system success – or failure?', *Journal of Database Marketing & Customer Strategy Management*, Vol. 5, No. 2, pp.68–78.

Freeland, J. (2003) 'Introduction: strategy first, then CRM', *The Ultimate CRM Handbook*, McGraw-Hill, New York, NY.

Gibbert, M., Leinold, M. and Probst, G. (2002) 'Five styles of customer knowledge management, and how smart companies use them to create value', *European Management Journal*, Vol. 20, No. 5, pp.459–469.

Goodhue, D.L., Wixom, B.H. and Watson, H.J. (2008) 'Realizing business benefits through CRM: hitting the right target in the right way', *MIS Quarterly Executive*, Vol. 1, No. 2, Article 4 [online] https://aisel.aisnet.org/misqe/vol1/iss2/4.

Gulati, R. (2019) *Deep Purpose: The Heart and Soul of High-Performance Companies*, Harper Business, New York.

Gupta, A. (2024) 'The convergence of big data analytics and CRM practices: a review. *International Journal of Computer Trends and Technology*, Vol. 72, pp.74–82, https://doi.org/10.14445/22312803/IJCTT-V72I7P109.

Hendricks, K.B., Singhal, V.R. and Stratman, J.K. (2007) 'The impact of enterprise systems on corporate performance: a study of ERP, SCM, and CRM system implementations', *Journal of Operations Management*, Vol. 25, No. 1, pp.65–82, https://doi.org/10.1016/J.JOM.2006.02.002.

Holmlund, M., van Vaerenbergh, Y., Ciuchita, R., Ravald, A., Sarantopoulos, P., Ordenes, F.V. and Zaki, M. (2020) 'Customer experience management in the age of big data analytics: a strategic framework', *Journal of Business Research*, Vol. 116, pp.356–365, https://doi.org/10.1016/j.jbusres.2020.01.022.

Huang, M.H. and Rust, R.T. (2021) 'A strategic framework for artificial intelligence in marketing', *Journal of the Academy of Marketing Science*, Vol. 49, No. 1, pp.30–50, https://doi.org/10.1007/s11747-020-00749-9.

Idzikowskiadam, A., Kurylo, P., Cyganiuk, J. and Ryczko, M. (2019) 'Customer relationship management (CRM) – philosophy and its significance for the enterprise', *System Safety: Human, Technical Facility and Environment*, Vol. 1, No. 1, pp.1004–1011.

Iriana, R. and Buttle, F. (2004) 'The impact of people and organizational culture on CRM financial outcomes', *Academy of Marketing Conference*, Cheltenham, UK, p.9-4.

Iriana, R., Buttle, F. and Ang, L. (2013) 'Does organizational culture influence CRM's financial outcomes?', *Journal of Marketing Management*, Vol. 29, Nos. 3–4, pp.467–493, DOI: 10.1080/0267257X.2012.732598.

Isharyani, M.E., Sopha, B.M., Wibisono, M.A. and Tjahjono, B. (2024) 'Retail technology adaptation in traditional retailers: a technology-to-performance chain perspective', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 10, No. 1, p.100204, https://doi.org/10.1016/j.joitmc.2023.100204.

Josiassen, A., Assaf, A.G. and Cvelbar, L.K. (2014) 'CRM and the bottom line: do all CRM dimensions affect firm performance?', *International Journal of Hospitality Management*, Vol. 36, pp.130–136.

Kale, S.H. (2004) 'CRM failure and the seven deadly sins', *Marketing Management*, Vol. 10, No. 3, pp.42–46.

Keramati, A., Nazari-Shirkouhi, S., Moshki, H., Afshari-Mofrad, M. and Maleki-Berneti, E. (2013) 'A novel methodology for evaluating the risk of CRM projects in fuzzy environment', *Neural Computing & Applications*, Vol. 23, pp.29–53.

Khan, M. and Kamal, M. (2015) 'Customer relationship management (CRM) in academic libraries', *Journal of Humanities and Social Science*, Vol. 3, pp.25–37.

Khodakarami, F. and Chan, Y.E. (2014) 'Exploring the role of customer relationship management (CRM) systems in customer knowledge creation', *Information & Management*, Vol. 51, No. 1, pp.27–42.

Kim, C.S. and Aggarwal, P. (2016) 'The customer is king: culture-based unintended consequences of modern marketing', *Journal of Consumer Marketing*, Vol. 33, No. 3, pp.193–201.

Kimiloglu, H. and Zarali, H. (2009) 'What signifies success in e-CRM?', *Marketing Intelligence & Planning*, Vol. 27, pp.246–267.

King, S.F. and Burgess, T.F. (2008) 'Understanding success and failure in customer relationship management', *Industrial Marketing Management Journal*, Vol. 37, pp.421–431.

Kraus, S., Durst, S., Ferreira, J.J., Veiga, P., Kailer, N. and Weinmann, A. (2022) 'Digital transformation in business and management research: an overview of the current status quo', *International Journal of Information Management*, Vol. 63, p.102466, https://doi.org/10.1016/j.ijinfomgt.2021.102466.

Kurniullah, A.Z. (2022) *Customer Relationship Management*, 1st ed., Book Rivers.

Ledro, C., Nosella, A. and Dalla Pozza, I. (2023) 'Integration of AI in CRM: challenges and guidelines', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 9, No. 4, p.100151, https://doi.org/10.1016/j.joitmc.2023.100151.

Ledro, C., Nosella, A. and Vinelli, A. (2022) 'Artificial intelligence in customer relationship management: literature review and future research directions', *Journal of Business & Industrial Marketing*, Vol. 37, No. 13, pp.48–63, https://doi.org/10.1108/JBIM-07-2021-0332.

Lee, H., Chen, K. L, Shing, C.H. and Shing, M. (2006) 'Security issues in customer relationship management systems (CRM)', *Decision Support Institute*, pp.271–274 [online] http://mu.edu.sa.

Lemon, K.N. and Verhoef, P.C. (2016) 'Understanding customer experience throughout the customer journey', *Journal of Marketing*, Vol. 80, No. 6, pp.69–96, https://doi.org/10.1509/jm.15.0420.

Libai, B., Bart, Y., Gensler, S., Hofacker, C.F., Kaplan, A., Kötterheinrich, K. and Kroll, E.B. (2020) 'Brave new world? On AI and the management of customer relationships', *Journal of Interactive Marketing*, Vol. 51, pp.44–56, https://doi.org/10.1016/j.intmar.2020.04.002.

Lindgreen, A., Palmer, R., Vanhamme, J. and Wouters, J. (2006) 'A relationship-management assessment tool: questioning, identifying, and prioritizing critical aspects of customer relationships', *Industrial Marketing Management*, Vol. 35, No. 1, pp.57–71.

Ling, R. and Yen, D.C. (2001) 'Customer relationship management: an analysis framework and implementation strategies', *Journal of Computer Information Systems*, Vol. 41, No. 3, pp.82–97, https://doi.org/10.1080/08874417.2001.11647013.

Maleki, M. and Anand, D. (2008) 'The critical success factors in customer relationship management (CRM) (ERP) implementation', *Journal of Marketing & Communication*, Vol. 4, No. 2, pp.67–80.

Matlombe, L., Vuko, S., Thango, B. and Nethanani, R. (2024) *Customer Relationship Management (CRM) Systems and Their Impact on SMEs Performance: A Systematic Review*, SSRN, https://doi.org/10.2139/ssrn.4997314.

Mendoza, L.E., Marius, A., Pérez, M. and Grimán, A.C. (2007) 'Critical success factors for a customer relationship management strategy', *Information and Software Technology*, Vol. 49, No. 8, pp.913–945.

Mohamed, A.T., Ibrahim, S.B., Eltayeb, T.K. and Abker. A.Y. (2019) 'The mediating role of radical innovation in the relationship between knowledge management and competitive advantage in Sudanese manufacturing firms', *American Journal of Business, Economics, and Management*, Vol. 7, No. 1, pp.1–11.

Nasir, S. (2017) 'Customer relationship management as a customer-centric business strategy', *Handbook of Research on Managerial Strategies for Business Sustainability*, pp.457–474, IGI Global, https://doi.org/10.4018/978-1-5225-1793-1.ch029.

Navimipour, N. and Soltani, Z. (2016) 'The impact of cost, technology acceptance and employees satisfaction on the effectiveness of the electronic customer relationship management systems', *Computers in Human Behavior*, Vol. 55, p.1052–1066.

Newell, F. and Godin, S. (2010) *Why CRM Doesn't Work: How to Win by Letting Customers Manage the Relationship*, Wiley, USA.

Nguyen, T.H., Sherif, J.S. and Newby, M. (2007) 'Strategies for successful CRM implementation', *Information Management & Computer Security*, Vol. 15, No. 2, pp.102–115.

Nilashi, M., Abumalloh, R.A., Ahmadi, H., Samad, S., Alrizq, M., Abosaq, H. and Alghamdi, A. (2023) 'The nexus between quality of customer relationship management systems and customers' satisfaction: evidence from online customers' reviews', *Heliyon*, Vol. 9, No. 11, p.e21828, https://doi.org/10.1016/j.heliyon.2023.e21828.

Pan, S., Tan, C. and Lim, E. (2006) 'Customer relationship management (CRM) in e-government: a relational perspective', *Decision Support Systems*, Vol. 42, pp.237–250.

Pascucci, F., Savelli, E. and Gistri, G. (2023) 'How digital technologies reshape marketing: evidence from a qualitative investigation', *Italian Journal of Marketing*, Vol. 2023, pp.27–58, https://doi.org/10.1007/s43039-023-00063-6.

Payne, A. and Frow, P. (2006) 'Customer relationship management: from strategy to implementation', *Journal of Marketing*, Vol. 22, No. 1, pp.135–168.

Pedron, C. and Bessi, V. (2007) 'CRM e a Gestão da Componente Humana: Um Estudo de Caso', *Anais do 31º Encontro da ANPAD*, 22–26 September, Rio de Janeiro, Brazil.

Pedron, C.D. and Saccol, A.Z. (2009) 'What lies behind the concept of customer relationship management? Discussing the essence of CRM through a phenomenological approach', *Brazilian Administration Review*, Vol. 6, No. 1, pp.34–49.

Perez-Vega, R., Hopkinson, P., Singhal, A. and Mariani, M.M. (2022) 'From CRM to social CRM: a bibliometric review and research agenda for consumer research', *Journal of Business Research*, Vol. 151, pp.1–16, https://doi.org/10.1016/j.jbusres.2022.06.028.

Piskar, F. and Faganel, A. (2009) 'A successful CRM implementation project in a service company: case study', *Organizacija*, Vol. 42, No. 5, pp.199–208.

Plakoyiannaki, E. and Tzokas, N. (2002) 'Customer relationship management: a capabilities portfolio perspective', *Journal of Database Marketing*, Vol. 9, No. 3, pp.228–237.

Rahimi, I. and Berman, U. (2009) 'Building a CSF framework for CRM implementation', *Journal of Database Marketing & Customer Strategy Management*, Vol. 16, No. 4, pp.253–265.

Raman, P., Wittmann, M. and Rauseo, N. (2006) 'Leveraging CRM for sales: the role of organizational capabilities in successful CRM implementation', *Journal of Personal Selling & Sales Management*, Vol. 26, No. 1, pp.39–53.

Ramaseshan, B., Bejou, D., Jain, S.C., Mason, C. and Pancras, J. (2006) 'Issues and perspective in global customer relationship management', *Journal of Service Research*, Vol. 9, No. 2.

Ranaweera, C. (2007) 'Are satisfied long-term customers more profitable? Evidence from the telecommunication sector', *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 15, p.113–120, DOI: 10.1057/palgrave.jt.5750038.

Rane, N.L., Achari, A. and Choudhary, S.P. (2023) 'Enhancing customer loyalty through quality of service: effective strategies to improve customer satisfaction, experience, relationship, and engagement', *International Research Journal of Modernization in Engineering Technology and Science*, Vol. 5, No. 5, https://doi.org/10.56726/IRJMETS38104.

Ranjan, J. and Bhatnagar, V. (2008) 'Critical success factors for implementing CRM using data mining', *Interscience Management Review*, Vol. 1, No. 1, Article 7.

Reinartz, W., Krafft, M. and Hoyer, W.D. (2004) 'The customer relationship management process: its measurement and impact on performance', *Journal of Marketing Research*, Vol. 41, No. 3, pp.293–305.

Richard, J.E., Thirkell, P.C. and Huff, S.L. (2007) 'An examination of customer relationship management (CRM) technology adoption and its impact on business-to-business customer relationships', *Total Quality Management*, Vol. 18, No. 8, pp.927–945, https://doi.org/10.1080/14783360701350961.

Rigby, D., Reichheld, F. and Schefter, F. (2002) 'Avoid the four perils of CRM', *Harvard Business Review*.

Rigo, G., Pedron, C., Caldeira, M. and Araújo, C. (2016) 'CRM adoption in a higher education institution', *Journal of Information Systems and Technology Management*, Vol. 13, No. 1, pp.45–60.

Roberts, M.L., Liu, R.R. and Hazard, K. (2005) 'Strategy, technology and organizational alignment: key components of CRM success', *Database Marketing & Customer Strategy Management*, Vol. 12, No. 4, pp.315–326.

Rouholamini, M. and Venkatesh, S.A. (2011) 'study of customer relationship management in Iranian banking industry', *International Journal of Information Technology and Knowledge Management*, Vol. 4, No. 2, pp.723–729.

Rubin, H.J. and Rubin, I.S. (2005) *Qualitative Interviewing: The Art of Hearing Data*, Sage Publications, Thousand Oaks.

Sanad, A., Fidler, C., McBride, N. (2012) 'Identifying the relationships between key development stages and critical success factors for customer relationship management', *International Journal of Information Technology & Computer Science*, Vol. 6, pp.99–105.

Santos, J. and Castelo, J. (2018) 'The six dimensions of adoption of a CRM strategy', *Diverse Methods in Customer Relationship Marketing and Management*, pp.17–43, IGI Global, http://doi:10.4018/978-1-5225-5619-0.ch002.

Santouridis, I. and Veraki, A. (2017) 'Customer relationship management and customer satisfaction: the mediating role of relationship quality', *Total Quality Management and Business Excellence*, Vol. 28, Nos. 9–10, pp.1122–1132.

Schwager, A. and Meyer, C. (2007) 'Understanding customer experience', *Harvard Business Review*, February [online] https://hbr.org/2007/02/understanding-customer-experience.

Sharma, S. and Goyal, D.P. (2011) 'Critical success factors for CRM implementation: a study on Indian banks', in Dua, S., Sahni, S. and Goyal, D.P. (Eds.): *5th International Conference, ICISTM 2011*, Springer-Verlag Berlin Heidelberg, Vol. CCIS 141, pp.32–40.

Stein, A.D., Smith, M.F. and Lancioni, R.A. (2013) 'The development and diffusion of customer relationship management (CRM) intelligence in business-to-business environments', *Industrial Marketing Management*, Vol. 42, pp.855–861.

Taleghani, M., Nasiriziba, M. and Mozhdeni, M. (2012) 'The role of customer relationship management system in performance of new enterprises (case study: business organizations)', *Journal of Basic and Applied Scientific Research*, Vol. 2, No. 1, pp.386–391.

Tazkarji, M. and Stafford, T. (2020) 'Reasons for failures of CRM implementations', *IEEE Transactions on Computational Social Systems*, pp.1–7, DOI: 10.1109/TCSS.2020.2980856.

Teo, T.S.H., Devadoss, P. and Pan, S.L. (2006) 'Towards a holistic perspective of customer relationship management (CRM) implementation: a case study of the Housing and Development Board, Singapore', *Decision Support Systems*, Vol. 42, No. 3, pp.1613–1627.

Varajão, J. and Cruz-Cunha, M. (2016) 'Main motivations for CRM adoption by large Portuguese companies: a principal component analysis', *Procedia Computer Science*, Vol. 100, pp.1269–1279.

Wang, Y. and Feng, H. (2012) 'Customer relationship management capabilities: measurement, antecedents and consequences', *Management Decision*, Vol. 50, No. 1, pp.115–129, https://doi.org/10.1108/00251741211194903.

Williams, J.J. and Ramasprasad, A. (1996) 'A taxonomy of critical success factors', *European Journal of Information Systems*, Vol. 5, pp.250–260.

Yin, R.K. (2014) *Case Study Research: Design and Methods*, Sage Publications, Thousand Oaks.

Zahedi, M.R., Cheshmberah, M., Tofighi, S.M. and Hadizadeh, A. (2011) 'An empirical study to identify and rank CSFs in customer relationship management (CRM): a case study of oil products distribution', *Management Science Letters*, Vol. 1, No. 4, pp.595–606, https://doi.org/10.5267/j.msl.2011.04.009.

Ziggers, G.W. and Henseler, J. (2016) 'The reinforcing effect of a firm's customer orientation and supply-base orientation on performance', *Industrial Marketing Management Journal*, Vol. 52, No. 7, pp.18–26.

Appendix 1

Interview guide

Analysis dimension		Question	Source
Top management support	1	From whom did the CRM system implementation initiative come about?	Chalmeta (2006), Mendoza et al. (2007), Nasir (2017) and Stein et al. (2013)
	10	How was the team responsible for the implementation project constituted?	
	11	Has a sponsor been named? What is your position/function in the organisation?	
Change management/ internal communication	2	Have the needs for implementing this system been identified? What were those needs?	Payne and Frow (2006), Mendoza et al. (2007), Maleki and Anand (2008) and Keramati et al. (2013)
	5	Do you consider a change in organisational culture necessary to accommodate the CRM system?	
Objectives definition	3	What does the organisation hope to achieve by implementing this system?	Plakoyiannaki and Tzokas (2002), Mendoza et al. (2007) and Varajão and Cruz-Cunha (2016)
	4	Were specific objectives defined for the organisation with the implementation of this system? Which ones?	
End users/training	6	Were all departments in the organisation involved in implementing this system?	Chalmeta (2006), Mendoza et al. (2007), Bouma (2009) and Keramati et al. (2013)
	7	Was a set of key users created to be present during the implementation phase?	
	8	How was, and still is, the training for end users being addressed?	
Data integration/ systems	9	How was the interoperability of existing systems and data migration addressed to preserve its quality and integrity?	Pedron and Bessi (2007) and Chalmeta (2006)
	12	What methodology is used to implement this system? What are the reasons for choosing this methodology?	
	16	What are, in your perspective, the next big topics of digital transformation in organisations? In the context of organisations in the technology sector.	

Interview guide (continued)

Analysis dimension		Question	Source
CRM performance evaluation	13	Have evaluation criteria been defined for the system after implementation? Which? Who carries out this assessment?	Chen et al. (2009), Kimiloglu and Zarali (2009), Nasir (2017), Ata and Toker (2012) and Deloitte (2019)
	14	Is any kind of business intelligence tool used to visualise the CRM data?	
	15	How is the performance evaluation of the CRM system carried out?	

Appendix 2

Top 25 of the most used words in interviews (see online version for colours)

Word	Frequency	%	Rank	Documents	Documents %	Planning and Sales Director	Operations Director/Spon...	IT Project Manager
implementation	38	5.72	1	3	100.00	17	10	11
crm	34	5.12	2	3	100.00	21	7	6
system	33	4.97	3	3	100.00	14	8	11
information	25	3.77	4	3	100.00	19	1	5
users	23	3.46	5	3	100.00	7	1	15
sales	13	1.96	6	2	66.67	9	0	4
data	13	1.96	6	3	100.00	6	1	6
tools	12	1.81	8	1	33.33	12	0	0
needs	10	1.51	9	2	66.67	7	0	3
systems	10	1.51	9	3	100.00	3	1	6
success	9	1.36	11	3	100.00	7	1	1
evaluation	8	1.20	12	3	100.00	4	2	2
business	8	1.20	12	3	100.00	1	2	5
organization	7	1.05	14	2	66.67	4	0	3
clients	7	1.05	14	2	66.67	2	0	5
process	7	1.05	14	1	33.33	7	0	0
management	7	1.05	14	2	66.67	4	3	0
organizations	6	0.90	18	3	100.00	2	2	2
perspective	6	0.90	18	3	100.00	3	1	2
work	6	0.90	18	1	33.33	6	0	0
people	6	0.90	18	2	66.67	5	0	1
team	6	0.90	18	1	33.33	6	0	0
time	6	0.90	18	2	66.67	5	0	1
objectives	5	0.75	24	3	100.00	2	1	2
client	5	0.75	24	2	66.67	1	0	4
business	5	0.75	24	2	66.67	2	0	3
powerbi	5	0.75	24	1	33.33	5	0	0

Appendix 3

Similarity matrix between interviews (see online version for colours)

Similarity matrix

Document name	Planning and Sales Director	Operations Director/Sp...	IT Project Manager
Planning and Sales Director	1.00	0.56	0.44
Operations Director/Sponsor	0.56	1.00	0.25
IT Project Manager	0.44	0.25	1.00