

Customer Relationship Management: Proposed Framework from a Government Perspective

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Abstract

Customer Relationship Management (CRM) has grabbed the attention of both practice and research in the past decade, developing into an area of major significance. The focus of the CRM concept is to build a long-term and value-added relationship for both the organisation and customers. Governments – although considered late followers compared to the private industry – have been showing growing interest in CRM systems recently to help public and government agencies track and manage relationships with their constituents. In this article, we review existing literature to provide an understanding of the field. We also present a proposed CRM framework based on literature review and practice work. The proposed framework is envisaged to act as a practical management tool that provides a holistic overview of implementation phases, components of each phase, and associated critical success factors.

Keywords: Customer relationship management, CRM framework, CRM limitations and challenges

1. Introduction

In today's government terms, good governance is determined by citizens' satisfaction. *Satisfaction* is a term frequently used in private sectors, referring to the measurement of how a product and/or a service supplied by a firm meets or surpasses customers expectations (Soudagar et al, 2011). It is generally defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services ratings exceeds specified satisfaction goals" (Farris et al, 2010).

Most importantly, governments across the world are finding themselves obliged more than ever to get closer to citizens and create systems that meet expectations. Citizens are demanding the same convenient service in the public sector that they are, for the most part, used to enjoying in the private sector. Providing satisfactory services determines the way any given government is viewed by the citizens and the rest of the world. According to today's international perspectives, a progressive government includes its citizens on the path of progress keeping in touch with their needs and requirements and, more importantly, providing a willing ear to hear their voices. The focus of attention is on enhancing the role of civil society and for strengthening citizen demand for good governance (Tembo, 2012).

The relationship and the relationship management with the citizens and residents – the customers and participants of the government – thus rank very high in government work. Governments need to focus on delivering high-quality, customer-centric, and integrated government services with the key strategic enabler being citizen-centric service (Al-Khouri, 2012). They need to fundamentally place citizens at the heart of government's work, and promoting change in the government business to operate in a more citizen-centric way.

Throughout the public sector, **initiatives to "reinventing government"** (Note 1) **have elevated customer service and satisfaction to new priorities** (Osborne and Gaebler, 1992). Within the Arab countries, for example, and with the advent of Arab Spring, there is a shift in the governments' mindsets to rethink and reform social services with social inclusion and "user involvement" as driving forces in quality improvement. Customer relationship management (CRM) is becoming a top priority in government business to help agencies achieve their goals of developing models of service that are more responsive, more citizen-centric, and more efficient.

However, practical research states that there is a considerable state of confusion in the academic and managerial literature about what is meant by CRM; despite heavy investment by organisations in CRM, there is extensive reporting of CRM's failure to achieve anticipated results (Frow and Payne, 2009). Existing literature also points out

that despite the increasing interest in citizen relationship management in government work, the adoption of CRM systems by government agencies – and particularly by e-government programs – is slow (Pan et al, 2006). Lack of strategic focus is recognised as one of the prime reasons for CRM failures. We also note that little has been written about how the public sector might use CRM principles to improve service delivery.

Considering the strategic context of CRM systems in organisations, this article emphasises the need for a conceptual framework to guide management in the implementation of CRM systems. We present a conceptual CRM framework that is based on findings from existing research and practice fields. The proposed framework is envisaged to further support its practical applications in implementing successful CRM systems. The framework may act as an effective guiding tool to management to provide a holistic overview of implementation phases, components of each phase, and associated critical success factors.

This article is structured as follows: First we provide a short review of the literature in section 2, with a focus on defining the CRM concept. We also attempt to provide a summary of the most common critical success factors for CRM implementation as reported in the literature. Then in section 3, we examine a generic CRM framework to underpin its components. In sections 4 and 5, we explore the role of technology in CRM programs, its potential benefits, and identified limitations. In section 6, we explore the role CRM technology as a contemporary communication and service delivery enablers. In section 7, we briefly draw on cloud-based CRM solutions as an alternative implementation approach. In section 8, we review some complexities associated with CRM programs. Then, in section 9, we outline our research and development methodology; we finally present the proposed framework and explain its components in section 10.

2. Customer Relationship Management (CRM): Field Review at a Glance

Dowling (2002) suggests that CRM had its origins in two unrelated places: One is in the United States, where it was driven by technology in connection with customer-based technology solutions; the other is in Scandinavia and Northern Europe to support business-to-business marketing in connection with the Industrial Marketing and Purchasing (IMP) Group that has been instrumental in developing knowledge about the nature and effects of building long-term, trust-based relationships with customers.

The concept of CRM evolved because it places emphasis on understanding customer needs and then solving problems or delivering benefits that create demonstrable customer value (Dowling, 2002). The role of information technology is important in this style of CRM, as it is designed to support – rather than drive – the customer relationship. The types of relationship that develop here are often deep and meaningful, both for the firm and the people involved (Dowling, 2002).

All in all, CRM has developed into an area of undeniable significance in less than two decades (Frow and Payne, 2009). According to a recent IDC report, the CRM industry revenues exceeded US\$19 billion in 2011 (IDC, 2012). The huge scale and scope of the inter- and intra-organisational changes involved in CRM led Kotorov (2003) to assert that CRM was the third most significant revolution in the organisation of business after the invention of the factory in 1718 and the introduction of the assembly line into factory production in 1913.

The literature identifies two streams of research to form the theoretical foundation of a *CRM concept* (Agrebi, 2006): a strategic stream (relationship marketing) and a technological stream related to the information systems (Triki and Zouaoui, 2011). Relationship marketing (RM) is more of a strategy designed to foster customer loyalty, interaction, and long-term engagement (see, for example, Mintzberg, 1994). It is normally designed to develop strong connections with customers by providing them with information directly suited to their needs and interests and by promoting open communication. This approach often results in increased word-of-mouth activity, repeat business, and a willingness on the customer's part to provide information to the organisation. Almost all organisations practice aspects of RM (Frow and Payne, 2009). However, while CRM emphasises integration of processes across different functions, *customer management* is concerned with tactical aspects of CRM implementation that relate to the management of customer interactions, including the use of tools such as campaign management, sales force automation, Web-enabled personalisation, and call centre management (see also Figure 1).

In fact, Crosby and Johnson (2001) identify customer relationship management as a business strategy that multiplies the use of technology and includes it in all processes to create retention and loyalty over time. In general terms, the focus of the CRM concept is to build a long-term and value-added relationship for both business and customers. In this perspective, let us review some definitions to clarify the term:

- “Coherent and complete set of processes and technologies for managing relationships with current and potential customers and associates of the company, using the marketing, sales and service departments, regardless of the

channel of communication” (Chen and Popovich, 2003);

- “Customer Relationship Management (CRM) is a business strategy to select and manage customers to optimise long-term value. CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes. CRM applications can enable effective Customer Relationship Management, provided that an enterprise has the right leadership, strategy, and culture” (Thompson 2002);
- “To improve service and retain customers, CRM synthesises all of a company’s customer touch points” (Yu, 2001);
- “Good customer relationship management means presenting a single image of the company across all the many channels a customer may use to interact with the firm, and keep a single image of the customer that is shared across the enterprise” (Berry and Linoff 2000, p.14).

These and other definitions suggest three key dimensions associated with the term CRM (see also Figure 2): First, CRM is about business strategy focused around the customer. CRM is built around customers to manage beneficial relationships through acquiring information on different aspects of customers. Nevertheless, a full commitment of the organisation’s staff and management is essential for an effective CRM implementation to best serve customers and satisfy their needs.

Second, CRM is about the business processes that support and enable the interaction between a business and its customers. All business processes that involve both direct and indirect interaction with customers should be analysed and assessed (Mendoza et al, 2007). Third, there are the technology and management dimensions. The technology part refers to computing capabilities that allow organisations to improve their capabilities of understanding customer behaviour, develop predictive models, build effective communications with customers, and respond to those customers with real-time, accurate information (Chen and Popovich, 2003). The other part of the dimension involves continuous corporate change in culture and processes, as CRM requires comprehensive change in the organisation and its people.

The role of the strategy is considered a critical pillar (Newell, 2003; Fayerman, 2002; Starkey and Woodcock, 2002; Rigby et al, 2002; Crosby, 2002; Winer, 2001; Yu, 2001). The CRM strategy must define the ‘what’ and ‘how’ elements of the organisation’s intents that should aim to create a ‘single integrated view of customers’ and a ‘customer-centric approach’ to address their customers’ needs (Roberts-Witt, 2000). The strategy process should also attempt to learn more about customers’ needs and behaviours to develop stronger relationships with them and create public value (Coltman et al, 2003). Building the right type of relationship is the key to performance improvement (Coltman, 2006).

The literature emphasises that a deeper understanding of the dynamics of the CRM triangle components is important (Johnson, 2004; Teece et al, 1997). Successful CRM case studies indicate the collective role of the technical, human, and business capabilities (Coltman, 2006). The reason for this is that each capability is nested within an intricate organisational system of interrelated and interdependent resources (Coltman, 2006). This resource-based view (RBV) has been subject to criticism (see, for example, Day et al, 2002; Harris, 2001; Jaworski and Kohli, 1993). The critiquing argument is based on the fact that such a narrowed perspective lacks sound operational criteria to distinguish important capabilities from parity ones in addressing a wider view of associated elements. Nonetheless, the type of emerging thinking from existing literature points to the need to thoroughly focus on human, technical, and business capabilities as main determinants of successful CRM systems. Each element needs to be interpreted in the context of the business.

One of the problems with the CRM performance literature to date is that there is a temptation to be normative about the pursuit of market orientation based on the identification of certain CRM capabilities (Coltman, 2006). The field of practice exploited this shortcoming to ruthlessly market CRM products as a technical solution. This narrowed view has contributed to the significant percentage of failure within their CRM projects implementations.

Reports from Gartner Group and Meta Group had three very striking findings: (1) More than 50% of CRM implementations are viewed as failures by the customer, (2) 55–75% of CRM implementations fail to meet their objectives, and (3) customers usually underestimate the costs of CRM implementations by 40–75% (Coltman, 2006). A 2009 Forrester Research study found that 47% of CRM implementations fail – many due to a lack of CRM strategy and user adoption (Simon, 2010). The study elaborated on some of the problems experienced during CRM implementation. The problems most commonly cited by executives are depicted in Figure 3.

Existing research points out a number of success factors that organisations need to keep in mind when aligning their strategy with objectives and managing people performance to ensure execution and results. Tables 1 and 2 provide a

summary of previous studies on the CRM success factors. Most of these are later incorporated in our proposed framework in section 10.

Let us look now at the components of a CRM system and how it might work in practice.

3. CRM Components

A critical point to remind here is that while governments are not driven by profit or revenue generation, they are driven by the demand to create public value (Al-Raisi and Al-Khoury, 2008). Creation of public value – although not the same as generation of revenue – is analogous. The components of CRM remain the same for the private as well as the government sectors with a difference in the outlook and the drivers. Figure 4 depicts a citizen service framework that should be part of any customer relationship management system.

The citizen-centric government seeks to provide higher levels of customer satisfaction. In such models, it treats itself as a service delivery organisation with an integrated citizen (customer) transactions and benefit delivery, providing multiple interfaces of interaction. The multiple interfaces of interactions translate to multiple channels of transactions. The government is no longer confined to four walls and file cabinets. CRM capabilities are viewed as a key enabler for such transformation. CRM capabilities are examined in the framework of its components. The common key components of CRM framework are illustrated in Figure 4. These are:

- 1) **A Customer Interface/Contact System.** This enables the customers to interact with the government department delivering a set of services.
- 2) **Customer Database.** This is a crucial component that ensures personalisation of services.
- 3) **Service Catalogue.** This is a detail of the services provided by the organisation. For the government departments, the services list is complemented by the *benefits and eligibility* lists, detailing who can be accorded what service from the bouquet of service offerings.
- 4) **Customer Transactions.** This tracks all the engagements of the customer with the government entity and provides valuable information about customers' interactions with the government department.
- 5) **General Information.** This is a repository of all information about the government entity delivering the services which can aid the customer interfacing. Data include information on new services, social message campaigns, and promotion of the government department.
- 6) **Processes.** A set of workflows, procedures, and related metrics for delivering the stated services. Measurement of these provides valuable input for the analysis of the efficiency of the service delivery.
- 7) **Policies.** These guidelines provide the rules and scope of engagement with the customers.
- 8) **Backend Databases.** These are crucial information available from internal sources of the government department providing a response to the customer requirements.
- 9) **Service Delivery Organisation.** This is the human capital engaged in the delivery of the services to the customers: at the front end interacting with the customer, at the office backend processing end, and field service delivery.
- 10) **Customer Satisfaction.** This is the output from the CRM measured by different surveys, onsite service delivery KPIs and results on the final outcome of public value creation for the government.

CRM is definitely an extensively executed technique for building an organisation's relationships along with citizens, government agencies, and third-party organisations. It requires making use of modern technology to arrange, speed up and also connect business processes and those elements for promoting, customer support, along with technical support. We elaborate on this further in the following section.

4. The Allure of CRM Technologies

In practice, CRM requires efficient, integrated business systems, as it imposes an organisational-wide discipline to develop a single image of the customer shared across the enterprise. Main categories of benefits from CRM-based work systems touches multiple performance dimensions akin to operational, managerial, strategic, infrastructure, and organisational (Davenport et al, 2002; Shang and Seddon, 2002). Examples of these benefits include: improved customer-facing processes, improved management decisions, improved customer service, and increased development opportunities (Freeman and Seddon, 2005). Other benefits include: increased productivity from headcount reductions and other process efficiencies; integration of processes, data and technology; consistency and standardisation of processes and information; business measurement and reporting; personalised and responsive service to customers;

and increased sales activities (Freeman and Seddon, 2005). We elaborate on the main ones here:

- **Enhanced Customer Experience.** CRM, backed by the correct technology, serves to enhance the customer experience with the service delivery organisation. Each of the technologies previously mentioned contribute to this end. Voice over IP improves voice communications by unifying the networks over which the communication is delivered. This not only reduces the costs but also enables contact agents to be located at disperse geographic locations. Voice communication backed by instant messengers and chats provide increased participation of customers in the service delivery.
- **Customer Convenience.** By providing multiple channels of communication, a customer gets a wide choice to interact with the Government Service Delivery Organization and provides the ability to interact at his or her convenience.
- **Better Service Access.** Speech applications improve the IVR, enabling customers to interact with service databases directly and securely without having to wait for a personal contact.
- **Transparency & Comprehensive Information.** Web services and business integration platforms enable disparate databases to work together, providing comprehensive information drawn from different data sources. This allows for transparency in the service delivery transactions wherein different entities are engaged in the delivery process and work on disparate applications for their business processes.
- **Presence Technologies & Personalisation.** A great amount of personalization in service delivery can be achieved by understanding the profiles of the customers. RFID, Smart Cards, and Point of Sale Systems provide information on the presence of a customer at a particular point. Knowledge about the presence of customer at different locations helps greatly in delivering the service requested by enabling the profiling of the customer.
- **Queue Management and Cycle Time Reduction.** These help ensure that undue wait times are avoided and quicker services are provided to customers.
- **Connectivity.** The importance of good networking and telecommunication system cannot be understated in the delivery of services to the customer. This is true for an interaction of the customer with the Government Service Delivery Organization on any channel of communication. Networking technology contributes to the reliability of the service delivery.
- **Analytics (Improved Management and Decision-Making).** All through the process of a service delivery, throughout the service lifecycle, a huge amount of data is generated that leads to valuable information. Analysis of this information provides deep insights into the entire service delivery process itself and a better understanding of the customer. A good analytical system helps decision-making and makes business organisation better.

Although the potential value of CRM technologies is gargantuan, organisations have had difficulties to reap out all the possibilities. One reason is that CRM systems require significant changes to existing practices and potentially a significant amount of process development required. For example, organisations need to think through what constitutes a CRM systems and ensuring alignment with the culture and the environment they operate in. Second, supporting defined processes within a CRM system is often not as straightforward as it might appear and may require a reasonable amount of customisation. In other words, CRM technology will not provide all the benefits on its own. The right strategies and supporting processes need to be developed, and existing systems need to be tuned or re-engineered to support them. While this is not – as the saying goes – rocket science, it can be sufficiently involved to discourage the more casual user of CRM technology (Boarman, 2011). Let us look at some of the limitations of CRM technologies.

5. Limitations of CRM Technologies

As with most available technologies, there is no single technology that fits the requirements of a perfect customer relationship management system. Different components of customer relationship have different technological challenges in deployment. Integration (or non-integration) is a big challenge in effective CRM systems. Information not available in real time can lead to dissatisfaction. Tracking of applications for service requests is a prerequisite. The complexity is enhanced when we consider the multiple channels of communications available to interact with customers. A person might call on the phone to register a request, follow up with an e-mail, submit documents in person, receive an SMS to provide a status, visit the website for tracking the request, and so on. Such interactions and other complex interactions need to be well managed. There is no single tool that facilitates the complete set of these interactions. Integrated systems need to be deployed and managed to facilitate these communication channels.

Further, back-end systems need to be updated to handle the service requests and reports need to be provided for monitoring the service level agreements (SLAs). The measurement of customer satisfaction and public value creation is another major challenge. Setting up of improper metrics would lead to wrong analyses. A 2005 Bain Consulting study revealed that 81% of senior leaders in 362 surveyed firms believed their organisation delivered ‘superior customer service’, yet only 8% of their customers agreed (Allen et al, 2005). The study refers to the problem as a “customer service gap.” Others call it an example of falling into the trap of an overestimated one’s achievements and capabilities in relation to how others view them. The study also suggests that **most leaders are out of touch with their organisation’s customer experience and the engagement of their frontline employees.**

Management needs to focus on realigning its goals and measures, systems and organizational structures to design the right customer experiences and deliver them flawlessly. They **need to see their systems from the eyes of their customers, not their own.** Measurements that lead to correct portrayal of the goal’s achievement should be selected. There is no technology that provides implementers with such metrics – though once setup, the systems can intelligently monitor the metrics.

No CRM system can come up with bulletproof processes that will guarantee success. Processes are to be defined internally and managed by a qualified group of process analysts. Unless processes are in place, monitoring the effectiveness of the service delivery is not possible. Yet, despite the difficulties and associated challenges, several trends currently drive CRM programs at all levels of governments – the most important of which is related to **streamlining government service delivery for improved response.** Government agencies can transform the way they deliver services to their citizens, achieve greater operational efficiencies, and proactively improve the communities they serve. The next section explores this topic in more detail.

6. CRM Technology in the Context of Contemporary Communication and Service Delivery Channels

Existing practices of CRM associate it with electronic services (e-services) and electronic government (e-government) (Pan et al, 2006; Richter et al, 2004). E-service refers to any service provided by any electronic means (e.g. Internet/website, mobile devices or kiosk). According to Grönlund (2005), e-service is a core component in e-government domain because it bridges the gap between the government administrators and citizens. Figure 5 shows ‘e-service’ as one of the main actors in the e-government domain; arrows indicate ‘influence’, circles indicate ‘domains of control’, and intersection of circles indicates ‘transactions zones’. In a democratic government system, the triangular relations are vital where service delivery is one of the main interactions between public servants (administration) and citizens and businesses (civil society).

As such, there is a government attempt to create **service-oriented architectures (SOA)** (Note 3) and develop a **single window platform** through which public services are provided on a **24/7 basis** to allow citizens electronically interact and transact with government agencies (Al-Khoury, 2012). Electronic services reflect three main components: the service provider, the channels of service delivery (i.e., technology), and the service receiver. For instance, public agencies are the service providers, while citizens and businesses are the service receivers.

The channel of service delivery is the third dimension of e-service and is much about the enabling technologies – that is, Internet as the main channel of e-service delivery while other classic and traditional channels are also considered such as telephones, call centres, public kiosks, mobile phones, televisions, over-the-counter service, and postal mail service. The extent of Internet-enabled CRM includes electronic CRM (E-CRM), mobile CRM (M-CRM), and ubiquitous CRM (U-CRM) (Chang and Wu, 2009).

- **Electronic CRM (E-CRM):** Concept derived from E-commerce. It uses intranet, extranet, and Internet environments (Reponen, 2003). There are major differences between CRM and E-CRM. From a customer contact perspective, CRM is contact with customer made through the retail store, phone, and fax. E-CRM uses all traditional methods in addition to Internet, e-mail, wireless, and PDA technologies. E-CRM is geared more toward front end, which interacts with the back-end through use of ERP systems, data warehouses, and data marts;
- **Mobile CRM (M-CRM):** Uses wireless networks as the medium of delivery to the customers (Camponovo et al, 2005);
- **Ubiquitous CRM (U-CRM),** also referred to as **Virtual CRM (V-CRM):** Uses Virtual Worlds to create synergies between virtual and physical channels and reaching a very wide consumer base. However, given the newness of the technology, most companies are still struggling to identify effective entries in Virtual Worlds (Goel and Mousavidin, 2007).

Channels through which companies can communicate with its customers are growing by the day. Such contemporary

interactions get new dimension of ‘virtual interactions’ instead of ‘traditional front-desk interactions’. The strength of virtual interaction is dominated by the e-service existence and its quality. In fact, citizens or businesses usually choose a channel of service delivery based on suitability of using the service and their expertise levels. The mix for any service will be determined in relation to demand.

However, thinking about CRM in primarily technological terms is a confusion that many governments fail to figure out. However, we cannot deny the colossal role for technology in CRM development. As an example of technology in CRM, communication technology could be seen to play a major role in the customer interface. A customer could interact with the government service delivery organisation using multiple channels of contact and through various types of public e-services – from simple information dissemination to highly sophisticated automated e-service (see Figure 6).

Complementing the communication technology, information technology provides process automation, data integrity, and security with much-needed confidentiality for the customer. This enhances the trust and convenience levels to the customer. With the widespread usage of **mobile phones and technological advances**, citizen service channels have become multi-fold in deployment. **Internet portals as a single window of communication**, and interaction has been implemented by many governments (Bukhsh and Weigand, 2011; Lenihan, 2008; Monga, 2008). Different departments are engaged with the citizens through one standardised interface of Web portals (see Figure 7).

Interactive voice response systems evolved with telephony systems and enabled information-based services with automation. Dispersed computing has enabled deployment of **kiosk machines** that have enabled government communication and service delivery channels to be located at places frequented by the citizens: shopping centres, recreational areas, and so on. Personal communications evolved in the impersonal domains of the Internet to secure identifiable personal interactions. This has resulted in **instant messaging** as a medium of communication; with **e-mails, online chats**, and so on.

Help desks and call centres have evolved to full-fledged contact centres, enabling citizens to communicate and interact using different mediums of communication. Governments have recently adopted **social media** networks such as Facebook and Twitter to bring communication with their citizens at a much more personal level vis-à-vis the impersonal abstract advertisements and brochures of the past.

Development in all these channels – combined with the **developments in the mobility, network security and digital identity management** – have transformed the conventional government authorities into fully e-enabled governments. Figure 8 outlines these different channels in the context of citizen services in e-government scenarios.

7. Cloud-Based CRM Solutions

Today, more and more organisations are drifting away from physical locations of data and moving to Internet-based cloud-computing (Note 2) solutions. Cloud-based technology simply means that the technology does not live in an IT-based environment and can be delivered through the Internet, which means that agents, supervisors, and executives can all access the same information in real time. SaaS and cloud CRM solutions have spurred the evolution of computing – with no more software installations, no infrastructure management, and no more upgrades to test. With SaaS and cloud CRM solutions, development and implementation can now be accomplished in a fraction of the time required for on-premise solutions (Bennett, 2010) (see also Figure 9).

According to Gartner Research, CRM went up from 8% in 2005 to 20% of the market in 2008 (Bennett, 2010). Cloud-based CRM systems can cost efficiently as pay-per-use on manage, maintain, and upgrade, and so forth. Some enterprise CRM in cloud systems are real-time Web-based and need no additional interface installed. People may communicate on mobile devices to get the efficient services. Customer–case experience and interaction feedbacks are another way of CRM collaboration and integration information in corporate organisations to improve businesses’ services (Chandrasekaran and Kapoor, 2010).

Ultimately, the cloud is a growing trend amongst businesses hoping to take advantage of the ability to host technology without having to maintain the cumbersome database, and the CRM industry is steadily coming into play in the cloud-based arena.

Generally speaking, governments around the world have been showing little interest to cloud-based solutions. There is much more preference to use, design, and develop CRM systems in-house. Nonetheless, the field of practice in the government sector shows the adoption of unfocused and various tools and techniques to manage and provide online services to citizens (Yarmoff, 2001). Unfortunately, the fragmented nature of their approach prevents such systems from being truly effective (Yarmoff, 2001). However, we believe that CRM technologies – in whatever form – will be used more than others in the government realm in the coming 10 years. This is because CRM is not a technology

but rather is a business strategy. However, there are different layers of complexity associated with CRM systems in government contexts that need to be looked at and carefully managed, as we discuss next.

8. Complexity in Customer Relationships in Government

A citizen-centric approach needs to be viewed as the base for the government work. Managing the ever-changing *roles* of the citizens with the government is paramount to conscientiously managing the *relationship* of citizens with the government. In a private sector customer relationship, the management is relatively simpler. The customer of the private firm, to a reasonable extent, is clearly defined, and so are the services and products delivered to the customer. The private sector, furthermore, is focused on an objective of higher revenue generation driven by higher customer satisfaction.

In comparison, the customer relationship in which a government is engaged is far more complex in nature. The citizen is as much part of the government as he or she is a customer. The citizen entity itself is dynamic, as one may play multiple roles: as a citizen, an employee, a service provider, and so on. These relations, in themselves, are a complex web of formal and informal interactions that are difficult to disentangle and explain (Tembo, 2012). This complexity increases even further when the multiple external relations, interests, and influences in the specific citizen relations are taken into account (Tembo, 2012). The expectations from the government in rendering services across the various roles and relationships with the customer are highly demanding. Meeting these expectations and ensuring the satisfaction of the citizens is challenging and problematic.

A 2002 study conducted by Accenture found that although governments were taking decided steps to improve their CRM capabilities and invest significantly in initiatives to improve services, governments were struggling to realise the benefits expected from developing modern CRM capabilities (Crook et al, 2002). Researches indicate that many governments still have not been able to bridge the gap between the envisioned impact of CRM and their current experience (Gilbert et al, 2004; Kavanagh, 2007; Silva and Batista, 2007). Figure 10 illustrates the extent to which government agencies are considered to be lagging behind the private sector in developing intelligent customer interactions that are driven by customer intentions. Some have progressed to deliver multichannel interaction. Many have implemented little or no service automation.

Undoubtedly, this is a real challenge. How does a government entity manage all its customers? How does it track all the transactions and understand the nature of relationship? How does it ensure that required services are delivered – and delivered to the correct customer? How does the government track the satisfaction and, more importantly, measure this satisfaction and ensure a satisfied nation? The answers to all these questions lie in good customer relationship management. Good CRM is not just a technology but a set of best practices, good processes, and meaningful metrics to address citizens' needs. It is for this reason that we started writing this article and put forward a proposed framework to guide CRM implementation. The next section will explore the methodology used to construct our proposed framework, and we will present our framework in the subsequent section.

9. Research & Development Methodology

The approach followed in this study was based on meta-analysis methodology. Meta-analysis refers to methods focused on contrasting and combining results from different studies in the hope of identifying patterns among study results, sources of disagreement among those results, or other interesting relationships that may come to light in the context of multiple studies (Glass 1976; Greenland and Rourke, 2008). Meta-analysis is argued to be the most important methodological innovation in the social and behavioural sciences in the last 25 years, developed to offer researchers an informative account of which methods are most useful in integrating research findings across studies (Hunter and Schmidt, 2004).

So far, the most often used meta-analysis has been in the literature review of quantitative (statistical) researches that help the general strength of the effect under different circumstances. More recently, meta-analysis has become more common in diverse research fields (DeCoster, 2009).

Meta-analysis can be a very useful method to summarise data across many studies, but it requires careful thought, planning, and implementation (Denyer and Tranfield, 2006). Not surprisingly, as with any research technique, meta-analysis has its advantages and disadvantages: An advantage is its objectivity, yet as with any research, its value ultimately depends on making some qualitative-type contextualisations and understandings of the objective data.

Our study focuses on the results of existing research and practice to construct our proposed conceptual CRM framework. It uses variables from different research studies and incorporates it in the framework design to enhance its practicality. We also used our experience in the field of government to further refine the concept and to reflect

management needs. We aim to promote this framework to be used as a simplified management tool to support comprehension and, thereafter, successful CRM implementation in the government sector.

Our preference for this research methodology follows the recommendation of Denyer and Tranfield (2006), who argue that meta-ethnographers infer that it is possible to translate the findings of some studies into the terms of another to build higher-level constructs. Besides, if converged with qualitative research, approaches like meta-analysis can provide management field with a means of creating actionable knowledge in the future (Davies et al, 2000; Noblit and Hare, 1988).

10. Proposed CRM Framework

The implementation of CRM systems involves a great deal of complication and challenges. CRM is not a single technology that can be implemented with a magic trick to upshot increased customer satisfaction. A CRM system is a comprehensive set of processes and tools backed by technology. Proper planning and a phased approach are recommended for the adoption of a CRM system. We propose a 5-stage approach to deploy CRM systems (see Figure 11).

We incorporate these stages into a more comprehensive framework illustrated in Figure 11. The framework includes a number of additional factors and focuses on the representation of identified critical success factors in the literature to improve usability and application in practice. The framework is designed in three phases: pre-implementation, implementation, and post-implementation. Each phase has a number of critical success factors associated with it that need management attention. Figure 12 illustrates the framework.

In the first phase, organisations need to **visualise** and define the goals and objectives of a CRM system. This should set the desired expectations from the CRM system that should be translated later into an input to build CRM capabilities by balancing near-term impact with long-term strategy. This phase also include creating a proposed **design** for the new system in the form of requirements, critical priorities, and overall system architecture. It should also list the CRM components and related technology components. The output of this phase will be used an input to the next phase.

The next phase is about **implementation** of the system. The selected components are deployed, implemented, and the output and outcomes monitored. Incremental deployment of CRM system provides a time-phased, measured roll out.

The third phase, post-implementation, is basically about **measuring** the impact of the new system and evaluating its success in achieving set objectives and outcomes, and the stage is set for the next iteration. This iteration approach seeks to introduce **innovation** through feedback and learning process to redesign and reassess its implementation. Innovation in technology adoption would need to be considered to optimise the business process and the related customer experience enhancement. This phase ultimately represents the stage where governments attempt to create and deliver public value.

This framework design was also based on three dimensional streams: (1) management focus areas, (2) project steps and key success factors, in relation to each of the (3) implementation phases. Management focus areas include a set of necessary elements that need to be followed to promote the culture of results-based management. Results-based management is a management strategy that ensures that the processes, outputs, and services contribute to the achievement of clearly stated and measurable results that are altogether aimed at improving the overall organisation performance. Such strategies encompass the following: empowering managers and holding them accountable; focusing on participation and partnership; developing supportive mechanisms; and creating a culture of information use within the organisation. Results-based management has linked budget planning with strategic policy planning, thus moving from having an internal management focus to having an outward-looking citizen-centric orientation and on managing for the development of public value results.

The second dimension of project steps and key success factors include guiding processes and milestones that can be used as key milestones in a CRM implementation program. These can be used to examine and determine project plan thoroughness. It is a reality that project planning is often ignored in favour of getting on with the work. Most of the time, project plans are looked at from narrowed and/or technical perspectives. The proposed elements are considered as fundamental building blocks for any sound project planning approach for a CRM program implementation. Although the specifics of various programs may differ, many of the critical elements are envisaged to be similar.

The framework pays high attention to the critical success factors identified part of our literature review. Thus, it has been developed around the identified factors. Critical success factors attracted considerable attention of both practice and research fields as a means of supporting both planning and requirements analysis. When implementing CRM

systems, they can be particularly effective in supporting planning processes, in communicating the role of information technologies to senior management, and in promoting structured analysis processes.

Customer segmentation is a recommended activity in the proposed framework. Customer segmentation is the practice of dividing a customer base into groups of individuals who are similar in specific needs and preferences – such as age, gender, and other demographical and profiling attributes (Tsipsis and Chorianopoulos, 2010). The concept of looking at groups of customers, using the segmentation approach, would allow government organisations to develop better understandings of and responses to public needs (Barnett and Mahony, 2011). This should also allow them to better serve and maintain more effective relationships with their customers. The CRM solution must be designed to incorporate segmentation needs, with a focus on developing strategies that improve the delivery of vital citizen services – with a particular focus on how people move up the value tree (Wood, 2008).

However, a note to management: Critical success factors outlined in the framework should not be confused with success criteria; those are outcomes of a project or achievements of an organisation that are needed to consider the project a success or to esteem the organisation as successful (Boynlon and Zmud, 1984). Success criteria are defined with the objectives and may be quantified by key performance indicators (KPIs) (Friesen and Johnson, 1995). Critical success factors, on the other hand, are elements that are vital for a strategy to be successful.

A critical success factor should drive the strategy forward. It should make or break the success of the strategy. KPIs should be viewed as measures that quantify management objectives, along with a target or threshold, enabling the measurement of strategic performance. A successful critical success factor led requirements analysis effort is likely to be supported by other, more concrete, techniques; or it is likely to involve management with a proactive, rather than reactive, organisational perspective (Boynlon and Zmud, 1984).

11. Conclusion

Customer relationship management is an undebated requirement to reach out to the customers proactively and provide personalised services. This will not only result in higher customer satisfaction but also, from a government perspective, dramatically improve its relationships with its customers through reorganising service delivery capabilities around customer intentions, thus creating real public value. When implemented well, CRM systems can meet the strategic objectives of the government in providing better services and better quality of life for its citizens. A good CRM system should always be determined by its final outcome and should result in high public value creation.

Lack of understanding CRM systems has the potential to contribute to the failure of the whole initiative – especially when organisations view such systems from a purely narrowed technological perspective or when they address CRM in a fragmented manner. Besides, there are different layers of complexity associated with CRM systems in government context that need to be looked at and carefully managed. Governments need to concentrate on the needs of their citizens to achieve their goals of developing service architectures that are more responsive, more citizen-centric, and more efficient. To focus more on core competencies, governments may consider cloud-based CRM systems as a viable alternative compared to an in-house implementation model. However, concerns remain around privacy, security, and sovereignty of data on such operating platforms (Chandrasekaran and Kapoor, 2010). Policymakers need to strike the right regulatory balance to ensure flexibility, regulatory compliance, and jurisdiction issues to allow cloud computing to perform in an efficient manner, one driven by trust and confidence, and to inspire innovation (Chandrasekaran and Kapoor, 2010). More successful adoption cases of cloud-based CRM in the private sector is likely to encourage the public sector to follow suit.

In this article, we attempted to explore the field of CRM and relate the existing literature to the context of government. The framework provides management with a conceptual tool to guide management in the implementation of CRM systems. The contribution of our work resides in the design of the framework that integrates: (1) the 5-staged CRM implementation steps, and (2) the inclusion of relevant key success factors identified in the literature map to each phase. While the individual components of the framework can be viewed as more of an abstract, the overall framework can be tailored to specific needs and settings.

Future work to test and refine the proposed framework is inevitable to evaluating and validating its practicality. For any framework to be successful, organisations need to understand and refine their own vision of how knowledge should be structured, communicated, and socialised within the organisation to influence results (Kellen, 2002). Then again, for governments to build successful CRM systems with new customer-oriented capabilities, they need to start constructing new ways of knowing their citizens.

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Notes

Note 1. The term “reinventing government” emerged as an outcome of Clinton–Gore administration’s interagency task force to reform and streamline the way the United States federal government functions. The concept, however, has been in practice in the private sector since the mid-1980s, where it is more commonly referred to as “business process reengineering” or simply “reengineering”. Today, these terms are, for the most part, used interchangeably, although some in government still prefer to use the term “reinvent” as opposed to “reengineer”.

Note 2. Cloud computing is the use of computing resources (hardware and software) delivered as a service over a network (typically the Internet). There are three types of cloud computing: Infrastructure as a service (IaaS), Platform as a service (PaaS), and **Software as a service (SaaS)**. Using SaaS, users can rent application software and databases. Cloud providers manage the infrastructure and platforms on which the applications run. Cloud computing relies on sharing of resources to achieve coherence and economies of scale similar to a utility (like the electricity grid) over a network. At the foundation of cloud computing is the broader concept of converged infrastructure and shared services.

Note 3. In software engineering, a Service-Oriented Architecture (SOA) is a set of principles and methodologies for designing and developing software in the form of interoperable services. SOA design principles are used during the phases of systems development and integration to define how to integrate disparate applications for a Web-based

environment and uses multiple implementation platforms. SOA is not just an architecture of services seen from a technology perspective but the policies, practices, and frameworks by which we ensure the right services are provided and consumed.

Table 1. CRM success factors

King and Burgees (2007)	Chalmeta (2005)	Da Silva and Rahimi (2007)	Pan et al (2007)	Alt and Puschmann (2007)	Saloman et al (2005)	Mendoza et al (2006)
Top management support	Awareness among management	CRM philosophy	Evolution path	Evolution path	Top management commitment	Senior management commitment
Communicate CRM strategy	Defining vision and objectives	Project mission	Timeframe	Timeframe	Change in corporate culture	Creating of multi-disciplinary team
KM capabilities	Creation of committee	Top management commitment	Organizational redesign	Organizational redesign	Significant customer data	Objective definition
Willingness to share data	Official appointment of coordinates	Project schedule and plan	Reorganization	System architecture	Clearly defined CRM processes	Interdepartmental Integration
Willingness to change process	Development and approval of the project plan	Client consultation	Minimize customization	Change management	Sufficient resources	Communicate the CRM strategy to staff
Technological readiness	Monitoring to control time slippage	Connectivity	Time and budget management	Top management support	Understanding of customer behaviour	Staff commitment
Cultural change / customer orientation	Prevent resistance to change	Skilful personnel	Customer involvement		Extensive IT support	Customer information management
Process change capabilities	Motivate staff	Technical tasks	No culture conflict			Customer service
System integration capabilities	Measure the degree of participation & assess results	Client acceptance	Use of the CRM system managers			Sales automation
		Monitoring and feedback Communication	Management involvement			Marketing automation Support for operational management
		Troubleshooting				Customer contact management
		BPS and software configuration				Information systems integration

Source: Adapted from Almotairi (2009).

Table 2. CRM success factors

Mankoff (2001)	Eid (2007)	Wilson et al (2002)	Goodhue et al (2002)	Croteau and Li (2003)	Siebel (2004)	Chen and Chen (2004)	Roh et al (2005)
Establish measurable business goals	Top management support	Gain champ	Top management support	Top management support	Clear communication of strategy	Champion process fit leadership and internal marketing	Process fit
Align business and IT operations	Organizational culture	Ensure market orientation	Vision	Technological readiness	Back-office integration	Business-IT alignment	Customer information quality
Get executive support up front	Developing a clear CRM strategy	Define approval procedures which allow for uncertainty	Willingness to change process	KM capabilities	Software customization	System integration	System support
Let business goals drive functionality	Clear project vision/scope	Gain board awareness of strategic potential of IT	Willingness to share data			KM	Efficiency
Minimize customization by leveraging out-of-the-box functionality	Benchmarking	Identify need for business system convergence				Culture / structure change	Customer satisfaction
Use trained, experienced consultants	Employees acceptance	Organise around customer					Profitability
Actively involve end users in solution design	CRM software selection	Address culture change					
Invest in training to empower end users	Integration with other systems	Involve users in system design					
Use a phased rollout schedule	Training	Manage IT infrastructure					
Measure, monitor, and track	Realistic CRM implementation schedule	Leverage models of best practice					
	Enterprise performance metrics for CRM	Rapid strategy / action loop to experiment					
	Personalization	Prototype new processes					
	Customer Orientation	Manage for delivery of benefits					
	Data mining	Design for flexibility					

Source: Adapted from Almotairi (2009).

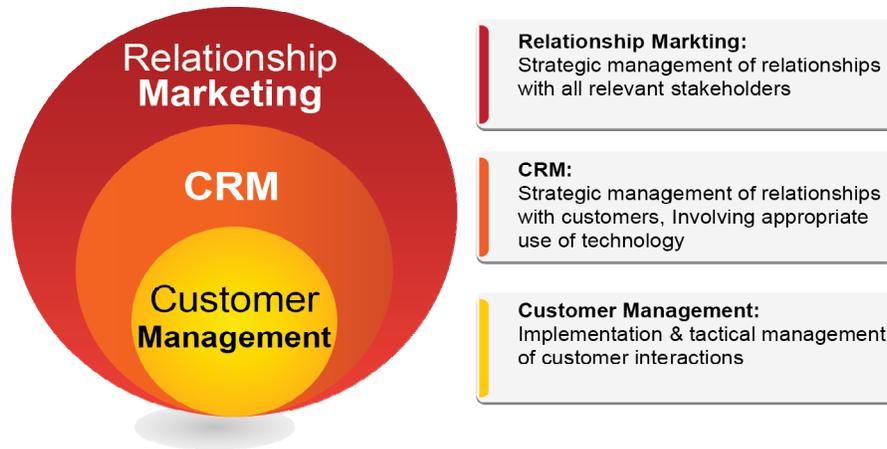


Figure 1. Relationship marketing, CRM and customer management

Source: Frow and Payne (2009).



Figure 2. Components of CRM

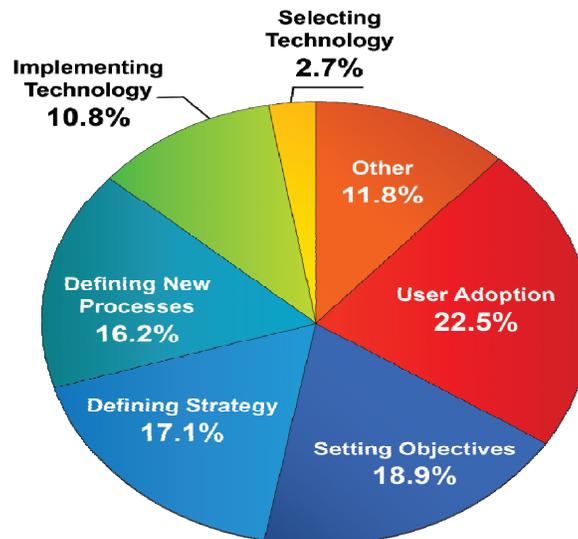


Figure 3. CRM platform implementation problems

Source: Simon (2010).

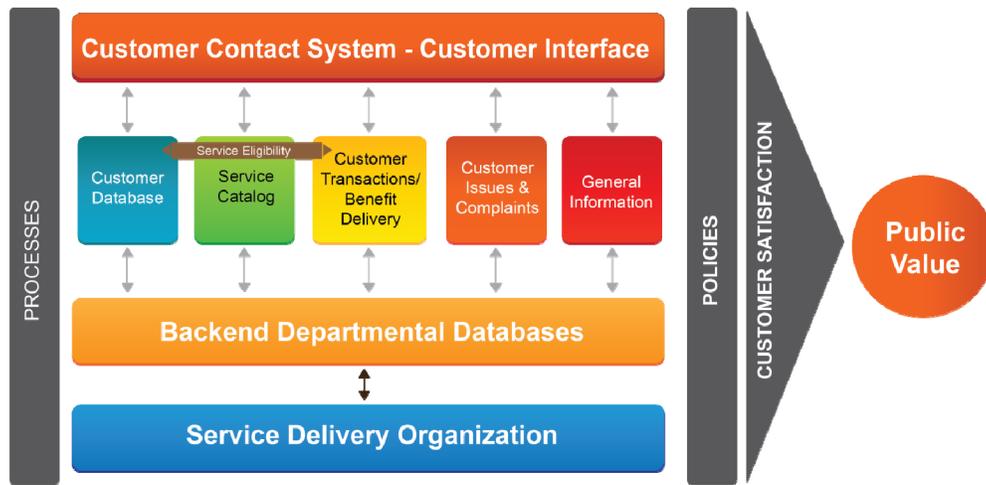


Figure 4. Citizen service framework

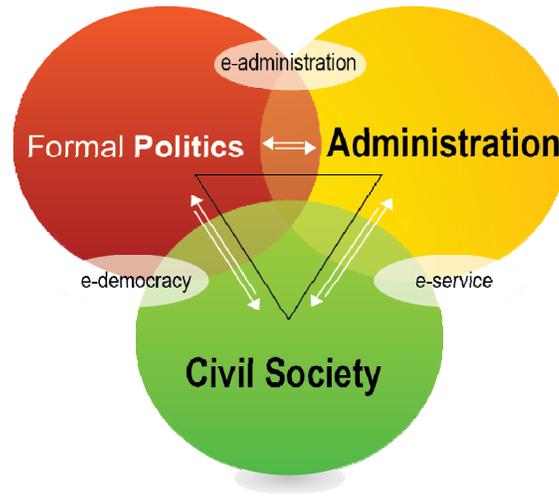


Figure 5. E-service as a component in e-government domain

Source: Grönlund (2005).



Figure 6. Transitioning in contact channels

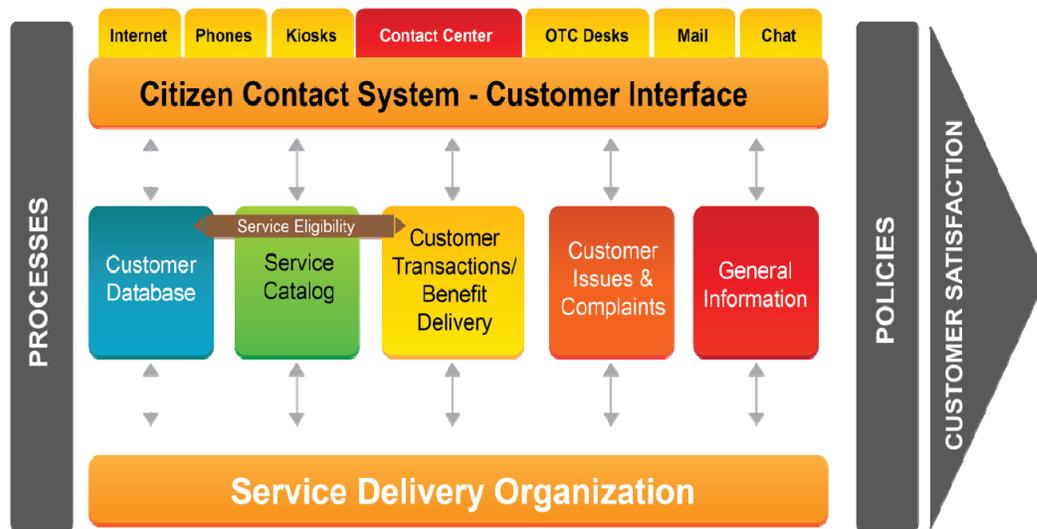


Figure 7. Customer citizen framework and CRM communication channels

CRM	Technology		
	Voice Communications	Data Communications	Networking & Connectivity
Customer Contact	- Voice Over IP - IVR	- SMS - e-mail - Web Portal - Kiosks	Unified Networks & Communications
Service Catalog Customer Transactions Issues & Complaints General Information	Speech Applications	- CRM Application - Web Services - Service Oriented Architecture, & Business Process Integration - Relational Databases	Social Networking
Backend Data	Network Connectivity & Applications for Business Process Automation		
Service Delivery	- Queue Management - Presence Technologies (RFID, PoS)	- CRM Application for Transaction Management	Networks & Logistics
Analytic	CRM Application Tool with embedded analytic & Business Intelligence (Data warehousing & Data Mining)		

Figure 8. CRM and communication technologies

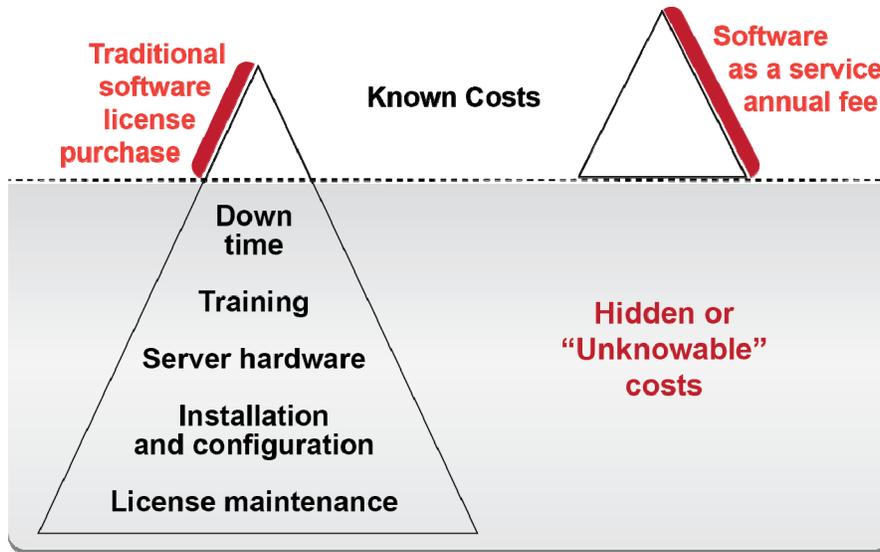


Figure 9. SaaS vs. on-premise total cost of ownership

Source: Özcanli (2012).

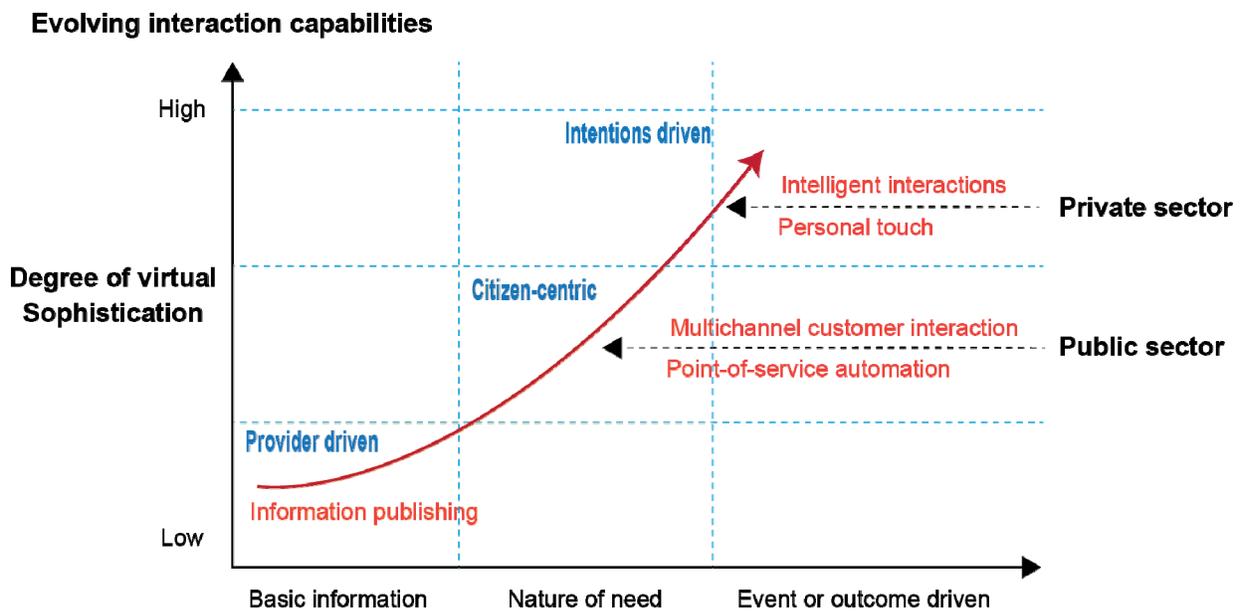


Figure 10. Interaction capabilities of the public sector and the private sector

Source: Crook et al (2002).

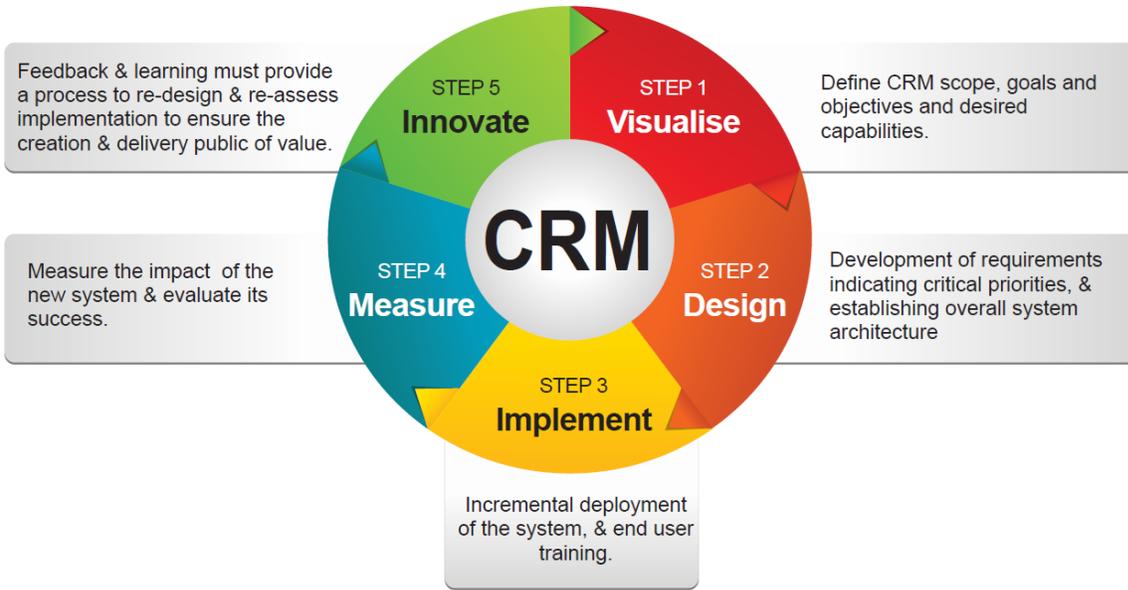


Figure 11. A 5-step approach to deploy a CRM system

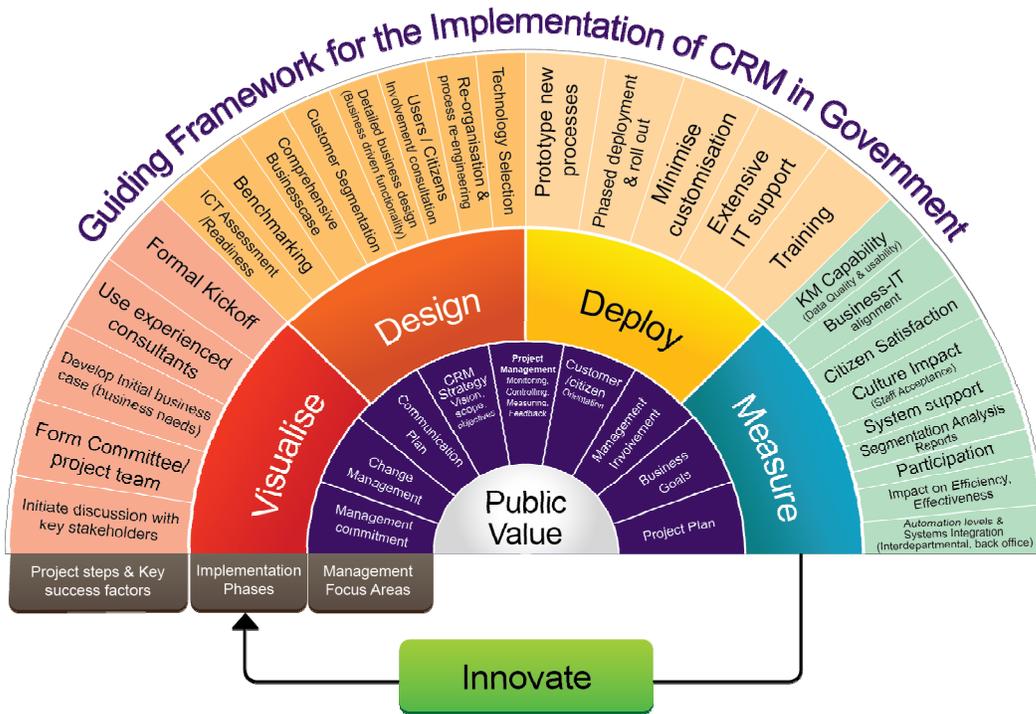


Figure 12. CRM framework