

# Introducing a Conceptual Model for Electronic Customer Relationship Management Readiness in the Banking Sector

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Received: 15 March 2023 | Accepted: 1 May 2023 | Published: 1 June 2023

DOI: <https://doi.org/10.55057/ijbtm.2023.5.2.12>

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**Abstract:** *Customer Relationship Management (CRM) is one of the main priorities for almost all organisations, particularly in banking. Information Technology (IT) has changed ways of interacting with customers, resulting in the concept of Electronic Customer Relationship Management (eCRM), which has caused a shift from offline CRM to eCRM. ECRM aims to attract and retain customers, improve customer service by creating a solid relationship with them, and provide valued financial products as required. Thus, it is vital to identify readiness factors in any organisation to ensure that they are capable of deploying eCRM and reduce the likelihood of failure. Due to the current gap in having a comprehensive eCRM readiness model in banks, this research attempts to fill this gap by developing an updated conceptual model for eCRM readiness for banks. These factors will provide banks with guidelines for evaluating their eCRM readiness status.*

**Keywords:** eCRM, banking, readiness model

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## 1. Introduction

Customers are essential assets for any organisation, including those in the banking sector. In recent decades, banking services have grown substantially and, like other organisations, have shifted from being product-oriented to customer-oriented. With this rapid growth in world banking, developing countries must prepare to keep up with these changes. Organisations, including banks, need to devise strategies to increase profits and revenues to have efficient communication with customers. They must also keep customers satisfied, as this will increase their loyalty, which can be achieved by eCRM. Despite its increased use, there is a very high rate of eCRM failure over the years (Figure 1). Rates of 56% (Economist Intelligence Unit, 2007), 47% (Forrester, 2009) and, 63% (Merkle, 2013), 30% (Compton, 2022) attributed to weaknesses in its processes, technology, strategy, and human error, all of which need to be investigated. Therefore, businesses must seek to overcome these barriers by identifying and assessing the crucial factors for eCRM readiness before its deployment.



**Figure 1: CRM failure rate**

This study attempts to propose a conceptual model based on a range of dimensions and factors for eCRM readiness by reviewing extant literature which would help banks, especially in developing countries, to assess their eCRM readiness before any implementation to prevent failure. This paper also supports both researchers and practitioners by sharing the findings from the research study that can be adopted to assess the eCRM readiness of different banks.

## 2. Literature Review

### 2.1 ECRM definition

ECRM has been defined by many researchers as an integral part of online distribution and marketing that expands the traditional CRM techniques by integrating technologies of new electronic channels, such as Web and voice technologies, and combining them with e-business applications into the overall CRM strategy of an enterprise (Sivaraks et al., 2012). Therefore, eCRM components, such as people, processes and technology, must be investigated before any eCRM implementation can be made into an enterprise to prevent failure and achieve eCRM implementation's benefits. ECRM implementation benefits businesses and their customers and brings trust, convenience, and satisfaction to customers, as well as long-term relationships and customer retention for any organisation, including banks. Therefore, as identifying and understanding customer preferences is necessary in this fast-changing world, it is essential to consider customer behaviour and introduce innovative products and services to satisfy them (Dubey et al., 2020)

It is important to understand the user characteristics, perception, and electronic readiness to adopt eCRM in an organisation (Rostami et al., 2016 & El Essawi & El Aziz, 2012). Electronic readiness, or e-readiness, is generically determined by whether an organisation or a country is ready to adopt Information Technology (IT) and its relevant applications to create competitive advantages in the market and has been an essential critical assessment of the potential for IT adoption (Park et al., 2013). Organisations must adapt to technological changes, or they will not survive in the long run; therefore, they need to consider fourth-industrial revolution technologies and technology readiness (Rahman et al., 2023). ECRM readiness assessment helps organisations to achieve success. Organisations can recognise that they are ready for eCRM implementation, which leads them to better and more productive relationships with customers, who are the main asset for any organisation and represent the core of a business.

## 2.2 Technological dimension

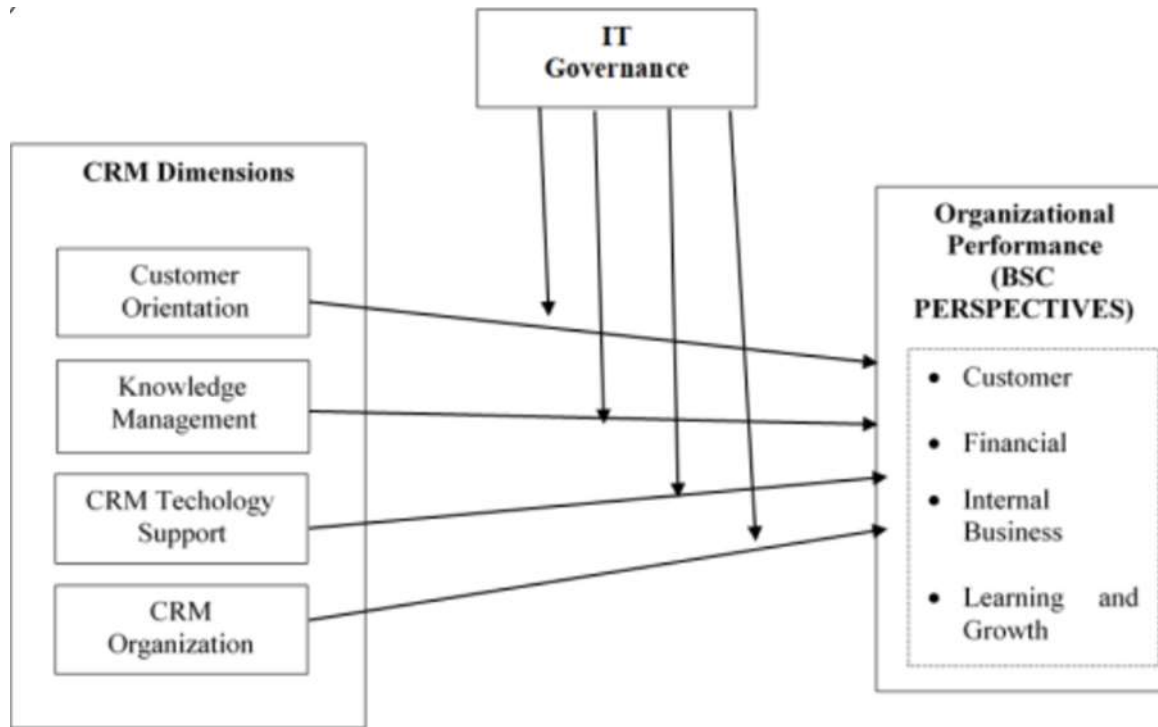
ECRM adoption can improve customer service, sustain competitive advantage, reduce cost, attract new customers, increase profits, and maintain existing bank customers. Still, unfortunately, many factors prevent successful eCRM implementation and cause failure. Therefore, it is crucial to investigate critical dimensions for eCRM readiness in banks.

IT is identified as an essential dimension for eCRM success based on the literature review in several studies such as (Rahman et al., 2023; Darvish et al. (2012), and Eid (2007)). Information and Communication Technologies (ICT) help banks to store, study, retrieve, transmit and manipulate customers' data. The use of ICT solutions is positively related to bank performance. Better investment leads to better IT capabilities, which involve the ability to mobilise and deploy IT-based resources in combination with other capabilities and resources, leading to competitive advantage.

Technological readiness includes factors such as skilled teams, knowledge management, and infrastructure (Ocker & Mudambi, 2003). It is argued that technology readiness is vital for any firm (Rahman et al., 2023). Furthermore, as determined in the relevant literature, assessing this dimension to investigate eCRM readiness in banks is crucial. The literature review of this research study has proven the impact of the 'Technology' dimension on eCRM success and readiness (Rahman et al., 2023; Chatterjee et al., 2019; Sundar et al., (2012); Padmavathy et al., (2012); Nguyen & Mutum (2012); Yazdanpanah & Gazor (2012); El Essawi & El Aziz (2012); Chen & Popovich (2003)). Hence, the 'Technology' dimension is one of the key dimensions that are part of the proposed eCRM readiness assessment model.

The study has also identified that AI-CRM capabilities are critical; therefore, AI-CRM tools can enhance relationship performance. In other words, investing in advanced ICT technologies is crucial to strengthen eCRM capabilities (Dixit, 2022; Vesal et al., 2021). AI-CRM also can enhance social sustainability performance (Roghani & Mosakhani, 2022). In addition, regular training and continuing education on digital technologies provide the desired results regarding productivity improvement (Rahman et al., 2023).

A framework (Figure 2) proposed by Othman and Kamarohim (2021) illustrated that CRM dimensions consisting of knowledge management, CRM technology support, CRM organisation, and customer orientation impact organisational performance by mediating the role of IT governance.



**Figure 2: Theoretical framework**

According to Rahman et al. (2023), IT facilities are essential for smooth operations and services, but it is also necessary to establish an IT planning process. Therefore, AI and data are two critical requirements for enabling digital CRM actions in organisations, and infrastructure-related challenges while adopting AI-CRM tools must be considered (Chatterjee et al., 2019). Therefore, the theoretical model of eCRM readiness is developed based on the previous discussion. The first dimension of this model is the 'Technology' dimension, which comprises infrastructure, number of channels, integration between channels, knowledge management technologies, and human resources factors. This is evidence of the importance the 'Technology' dimension has in assessing an organisation's readiness with regard to the deployment of eCRM.

### 2.3 Strategic dimension

An eCRM strategy outlines where the destination is, summarises the current situation, and shows how the bank will get from where it is now to where it wants to be, gaining what benefits and at what costs. The literature review illustrates that eCRM strategy could be considered an essential dimension for eCRM readiness (Rahman et al., 2023; Chatterjee et al., 2019; Chen and Popovich (2003); El Essawi & El Aziz (2012); Eid (2007); Ocker & Mudambi (2002); Eid (2007); Padmavathy et al., (2012). ECRM is a business strategy in which the outcomes optimise profitability, revenue and customer satisfaction, and therefore goals should be built around it. To create an eCRM vision developing a specific eCRM definition for banks is essential. Banks can define who is and is not a customer, so these definitions help banks to accelerate the process of defining eCRM vision and provide a collective understanding between multiple departments for the first time (Gartner, 2016). After setting a unique definition, the eCRM vision can set out who the customers are and why eCRM needs to take place, and the strategy can then determine how it will happen.

Therefore, a bank's eCRM 'Strategy' dimension must be considered necessary for the proposed eCRM readiness model for this study. This dimension comprises strategy, IT plan, goals, and IT policy factors in the proposed eCRM readiness model.

## 2.4 Cultural dimension

Employment IT skills positively impact the readiness of eCRM (Rahman et al., 2023; Sedigh & Alikhani, 2013) and, in general, IT and knowledge influence improving skills of employees, which leads to better performance of organisations. According to Bag et al. (2021a), big data analytics-powered artificial intelligence systems aid organisations in creating customer knowledge, user knowledge, and external market knowledge. Training is crucial for the better performance of eCRM in organisations, and proper training helps the integration of eCRM daily. An organisation's culture refers to the behaviour and interactions of skilled employees, who are key to eCRM success. Therefore, if a bank nurtures a learning culture, recognises the strength of the corporate culture, and embraces new activities, it can gain an advantage over its competitors.

CRM quality and satisfaction have an impact on employees' views. On the other hand, the support of the immediate manager and adequate training is necessary to design the development of the AI-CRM-KM tool (Chatterjee et al., 2021c; Chatterjee et al., 2019). However, the willingness and positivity of humans are essential. According to Chatterjee et al. (2021d), AI-CRM creates a positive perception among employees and users, triggers innovativeness, gives comfort when using this type of system for better information management, and offers better security.

Based on the review of literature, it can be concluded that organisational culture is another important dimension for eCRM success (Chatterjee et al., 2021; Rahman et al., 2023; Payne & Frow (2005); Darvish et al., (2012); Ocker & Mudambi (2002). Banks need to have trained staff and decision-makers support to achieve success. Digital technologies must be incorporated into daily operations and marketing tasks by managers. Managers must stay updated with the latest technological innovations in the ICT field and further develop ICT infrastructure in line with the latest technological trends (Rahman et al., 2023).

Decision-makers need to align business strategies with eCRM goals. They need access to data, so it is vital to develop a data-driven culture and learn to use eCRM to categorise valuable customers and fulfil their needs and requirements (Rahman et al., 2023). Also, managers must maintain a good relationship with stakeholders, never show abusive behaviour towards employees, and ensure the process continues to win over competitors (Rahman et al., 2023). Lack of employee awareness and resistance can lead eCRM adoption to failure. Employees should be aware of bank strategies and policies in the bank and attend training courses regularly. They need to be committed to their bank and believe they are effective in its performance. In addition, bank managers should support their team and consider their perceptions. Motivation and assessing user behaviour are also crucial to success. As can be seen from the literature, organisational culture is essential for eCRM readiness. It consists of resistance, skills, training, and top management support factors in the proposed eCRM readiness model.

## 3. A conceptual eCRM readiness model

Cruz-Jesus et al. (2019) proposed a framework based on the Technological, Organisational and Environmental framework (TOE) developed by Tornatzky and Fleisher in 1990 for organisational adoption and implementation of technological innovations.

They proposed data quality and integration as essential antecedents of CRM adoption stages within the technological context of an organisation. To test their framework, they also



considered three CRM adoption stages in their framework (evaluation, adoption, and routinisation). They proved that data quality, integration, competitive pressure, and top management support positively influence CRM evaluation.

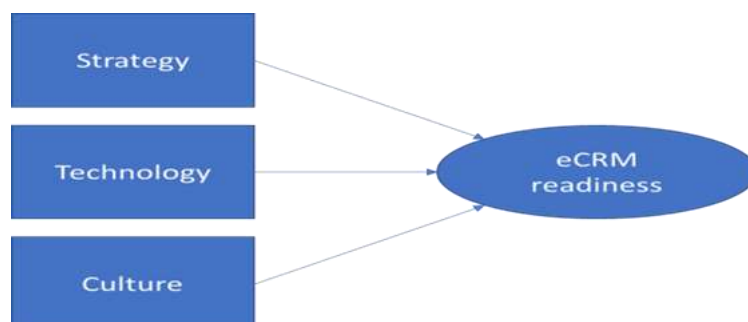
A conceptual model to assess eCRM readiness and its impact on banking quality of service was introduced by Rostami et al. (2016). They identified employees' technology perceptions, organisational culture, organisational strategy, and different eCRM perceptions as factors for eCRM readiness.

Kamanghand et al. (2019) used the VERDICT model developed by Ruikaret et al. (2006) to assess E-Readiness for implementing a Mobile-CRM system. Their finding indicates that decision-makers should prepare a comprehensive plan for their employees to develop their knowledge of IT and provide continuing training, education, and cultural developments in using electronic tools. Also, a business reengineering approach is recommended for organisational improvement projects. In addition, they emphasised revising IT infrastructure and information systems to analyse gaps within our organisation.

Another conceptual model Ledro et al. (2022) developed integrated the identified subfields and proposes a three-step strategy for AI implementation in CRM: (i) information management of big data, the (ii) technology investigation of AI and ML techniques applied to CRM activities, and (iii) AI-driven business transformation.

These frameworks are fully aligned with the scope of this research study, as they emphasise the importance of strategy, which is critical for eCRM success. Certain frameworks emphasise the importance of technology in eCRM success, including IT infrastructure or integration between communication channels. Furthermore, the importance of organisational culture is emphasised in different models. Such models were reviewed to assess which of the factors identified by them would be applicable to the eCRM readiness model.

Conversely, there needs to be research to show a conceptual model for eCRM readiness in banking using dimensions and critical factors for readiness. The identified factors from existing models can be added to the proposed readiness model to help evaluate eCRM readiness in banks. In addition, this study focuses on collecting information about the incorporation of technical aspects (i.e. the 'Technology' dimension) but also introduces social aspects and other factors as different dimensions of the proposed model for assessing eCRM readiness in banks. As mentioned, this research studies the deployment of eCRM readiness models in the banking industry. The current research has three dimensions: (i) corporate strategy, (ii) organisational culture, and (iii) technology. Each dimension in this research was identified by reviewing the extant literature, consisting of related factors. With the help of these dimensions and associated factors, the initial model (Figure 3) is suggested for eCRM readiness.



**Figure 3: eCRM STC model**

Therefore, according to the literature review findings, fourteen (14) factors were proposed (Table 1). The combination of the identified dimensions and associated factors can help banks assess the level of their eCRM readiness.

The following table summarises the support provided for each identified dimension in the relevant literature. More specifically, each dimension is associated with several references that have successfully proved the role of the dimension in eCRM readiness.

#### **4. Conclusion**

This study illustrates that eCRM has a vital role in banks' operations. Therefore, banks in developing countries should deploy eCRM to acquire new customers, retain existing ones, and maximise their lifetime value. Banks need to identify the goals or benefits they expect to get out of the eCRM, which needs a clear strategy. Therefore, banks need to create customer-centric cultures to secure their relationships and maximise customer profitability, which needs training, commitment and support. Thus, eCRM is much more a human function than a technology implementation and, if working well, will provide better customer service and discover new customers.

For banks to prevent any failure, they should assess eCRM readiness before any implementation. Most banks only invest significant resources and effort into their initiatives, but only a few take the time to determine whether they are getting the optimal return on their investment. ECRM readiness assessment is a cost-effective way to identify and resolve issues that may hamper user adoption and payback from resources allocated to the eCRM initiatives. This assessment helps banks identify opportunities to optimise customer relationships and improve acquisition and retention performance.

Bank employees need to be aware of strategies and policies. These should be developed based on customer-centric culture to produce higher profits. In order to have a winning eCRM strategy crucial for eCRM readiness, banks should set a destination, prioritise their customers, communicate with employees, stagger the changes, track customers before the first contact, synchronise everything in eCRM, and evaluate and improve. In other words, banks with an eCRM strategy place customers at the forefront of their business focus banks yet they need a strategic plan to align with the goals that they hope. Therefore, these goals needed to be fully integrated into the CRM and eCRM strategy and revisited regularly to ensure they were still fit for their purpose.

Another dimension is the organisational culture for eCRM readiness in banks. Banks need to ensure the cultural readiness of the bank to adopt a customer-centric approach, which is essential for eCRM success. One of the factors considered to influence eCRM adoption is user acceptance. It shows that people in the bank, who are willing to accept new change, are essential for the adoption. The bank can gain an advantage over its competitors and advance innovation by recognising the strength of its culture, embracing learning cultures and accepting new activities.

Successful eCRM adoption depends on top management support and needs an understanding of eCRM. Managers' and decision makers' positive attitudes toward eCRM are more likely to help the bank achieve eCRM adoption. Another critical factor is employee knowledge. Banks can achieve this by enhancing their employees' skills through training courses. Nevertheless, successful eCRM deployment depends on employees who understand the purpose of eCRM

adoption and its role and contribution to banks. In other words, not only care, customers, and assets for banks but employees are also considered an important asset that impacts the bank's performance.

Employees need to be informed of every step of eCRM implementation. This helps managers to overcome resistance to change in banks and communicate with staff properly. Technology is another important dimension for eCRM readiness in banks. The ability of the bank to absorb, process, and present customer information depend on the IT capabilities in the bank. IT capabilities refer to strategies and resources in the bank. ECRM innovation capability of a bank comprises infrastructure, number of channels, and integration between channels. In addition, the size of the bank plays a vital role in e-CRM adoption.

In order to improve eCRM readiness in banks, the researcher suggests that managers and decision-makers adopt the eCRM readiness model as a guideline and the eCRM readiness assessment tool as a tool for assessing eCRM readiness in the Iranian banking industry. The benefits of this research are generated from the usefulness of this study to the academic and business fields. This research provides a review of the literature on eCRM readiness.

Although this research provides an approach and model for addressing eCRM deployment issues, there are still several limitations of this research which are listed below:

1. The findings of this research focus only on the banking industry, and it would be comprehensive and beneficial if other industries were investigated.
2. This research focuses only on dimensions internal to organisations (i.e. banks), disregarding external factors such as government policies. It would be valuable to investigate some external factors that affect eCRM readiness.
3. Testing the model in developing countries is essential to confirm the dimension and factors.

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