Investigating the Factors Affecting Electronic Customer Relationship Management Readiness: The Case of Banks

Farzad Tahmasebi Aria[1], Georgios Dafoulas[1], Bahareh Langari[1]

[1] Computer Science, Science and Technology, Middlesex University London,
The Burroughs, NW4 4BT London, United Kingdom
f.aria@mdx.ac.uk, g.dafoulas@mdx.ac.uk, b.langari@mdx.ac.uk

ABSTRACT: *This study contributes to the extant literature by empirically investigating the influence of factors on electronic Customer Relationship Management (eCRM) readiness in banks. This research leverages primary data from 377 samples to identify the eCRM readiness factors. The data in this study were collected from three private and two state banks based in Tehran, Iran's capital city. Analysing the stakeholder perspectives of both state and private banks provided rich data for understanding the factors affecting eCRM readiness in Iran as a developing country. A key finding of this study is that strategy, culture, and technology, with their associated factors, are critical dimensions for eCRM readiness. These factors can be used to assess banks' readiness for eCRM adoption before any implementation to prevent common eCRM failure in any organisation, including banks.*

KEYWORDS: eCRM; banking; readiness factors.

INTRODUCTION

To have a successful eCRM, it is necessary to understand the factors affecting readiness before any implementation; this prevents any failure. According to CIO [2017], around one-third of all CRM/eCRM projects fail, an average of a dozen analyst reports. The numbers ranged from 18% to 69%, possibly due to the different factors from budget to technology limitations [Edinger (2018)]. So, organisations must check their readiness, such as technological readiness, before any adoption [Aria and Dafoulas (2023); Samaranayake et al. (2017)].

Banks in developing countries such as Iran need to consider the development of Information and Communications Technology. Today, banks are shifting from being business-oriented to being customer-oriented [Kumar et al. (2021)] as they want to provide the best possible services where are due to the increasing globalisation, customers' requirements, and intense competition [Owusu

Kwateng *et al.* (2019)]. Therefore, building a long-term relationship with customers and satisfying them is essential, which can be achieved using eCRM.

Using different ICT strategies helps banks to improve their relationship with customers and make them loyal and satisfied. Therefore, banks must change their approach to an all-channel strategy and offer a range of digital products and services [Mathew et al. (2020)].

Some research and studies identified dimensions and factors for eCRM readiness. Still, despite all these attempts, there is a gap identified from previous works for investigating the factors affecting eCRM readiness in developing countries such as Iran. To bridge the gap in the area substantially, this research contributed significantly to the current eCRM literature by surveying bank stakeholders' perceptions in Iran to investigate eCRM readiness factors.

Theory and Hypotheses Development

The Strategy Technology Culture eCRM readiness model
Aria and Dafoulas [2023] developed and introduced the Strategy Technology Culture readiness model (STC) for eCRM. This model has been described as the dominant tool for studying eCRM readiness dimensions and factors. This model helps banks to investigate their eCRM readiness before any adoption. This model has strategy, technology, and culture dimensions; therefore, this model was adopted to analyse the relationship between these dimensions and eCRM readiness. The STC model offers a theoretical framework for investigating these dimensions' impact on eCRM readiness, leading to the formulation of the hypotheses and research model.

This paper begins with theoretical underpinnings and the theoretical model that supports the relationship among the examined variables: culture, strategy, technology, and readiness. Then, the hypotheses were created, and the data analysis and testing were performed using the Chi-square test. Finally, the result and future scope of this research have been described.

Nowadays, companies invest significantly in eCRM to strengthen their competitive advantages. So, considering the eCRM dimensions for a successful implementation is vital. Any organisation should have a harmonious integration of dimensions essential to creating customer value [Keramati et al. (2010)]. Pozza et al. [2018] believe that strategy, culture, technology, and customer management are four dimensions for improving customer relationships. So, to implement eCRM successfully, organisations, including banks, need to consider those dimensions.

Despite the attention given to it in the literature, previous research highlighted the models and frameworks for eCRM readiness in banks. It lacks knowledge of banks' stakeholder perspectives in developing countries like Iran. So, this study advances research on investigating the eCRM readiness dimensions and factors in Iranian banks.

ECRM implementation depends on firm objectives and geographical differences [Pozza et al. (2018)]. Factors such as viewing CRM as a technological investment [Pozza et al. (2018)] have been

highlighted as a failure for adoption. A clear strategy and employees' effort for adoption is critical for successful implementation [Peppers and Rogers (2016); Chen and Popovich (2003)]. In addition, The Internet has become a powerful tool for eCRM [Oumar et al. (2017)], so customers can connect to banks through different channels; therefore, investing in a long-term relationship would contribute to customer satisfaction.

Aria and Dafoulas [2023] introduced 14 factors associated with STC model dimensions. These factors include infrastructure, knowledge management, strategy, plan, number of channels, goals, IT policy, awareness, resistance, skills, channel integration, human resources, training, and top management commitment.

The proposed model is comprehensive with dimensions and factors compared to the current models and frameworks in the literature. The STC model emphasises the importance of factors in different dimensions in assessing eCRM readiness. In other words, in this model, all previous important factors are embedded in the related dimensions, so it helps to evaluate the dimension easily using those factors. So, testing those factors in reality to prove and support the literature is beneficial. Therefore, this research created an assessment tool by adopting dimensions and factors from the STC model for eCRM readiness to investigate the eCRM readiness factors in Iranian banks.

Fig 1 shows one dependent (eCRM readiness), and three independent variables (strategy, technology, and culture) exist.
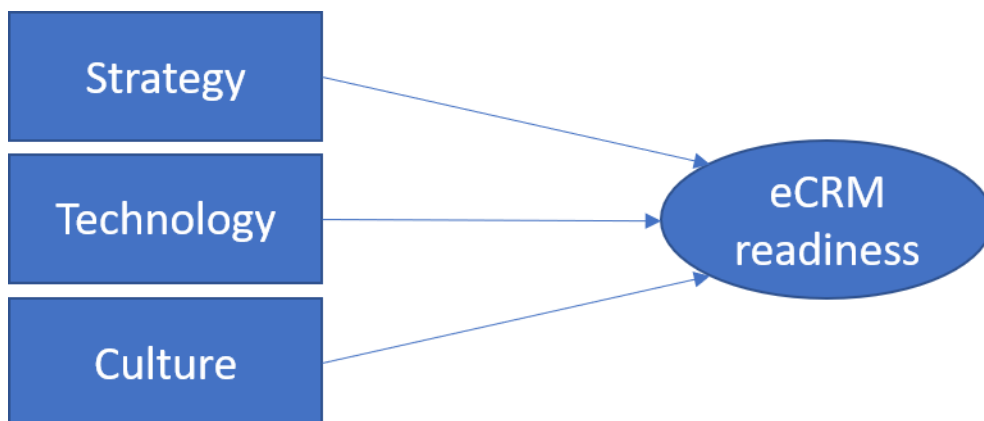

Fig. 1. STC model for eCRM readiness

1.1.*Hypotheses*

Strategy and eCRM readiness
Strategy is an essential dimension for eCRM adoption. Any bank needs a clear eCRM strategy in place to start any implementation. Customer retention is vital and is achieved by building a long-term relationship with them; in other words, after customer attraction, banks need to satisfy customers by

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meeting their expectations, which brings loyalty. This can be done through effective and efficient strategies [Rootman et al. (2011)]. So, to have competitive advantages, banks need to add value to their eCRM strategies.

According to Bezovski and Hussain [2016], adopting eCRM in banks reduces costs, increases revenue, and helps banks understand customer needs. ECRM success needs a clear vision of managers regarding customer-centric strategy in banks. The lack of a proper plan is the main reason for failure; therefore, it is necessary to set eCRM objectives beforehand based on the features banks want.

Banks are tempted to implement eCRM to profit and survive in the competitive market. According to Lloyds Bank Academy [2023], eCRM refers to the strategies, techniques, tools, and technologies that any organisation uses to build a relationship with its customers and interact with them. Therefore, developing a strategy is vital to transforming from being product-oriented to a customer-centric bank. According to Legge [2022], 68% of organisations struggle with getting a single view of customers, 29% struggle with gaining cooperation across the organisation to support CRM improvement projects, 15% struggle to change business, 39% struggle with data quality and 48% struggle with creating customer insight to drive decision-making which is directly related to a poorly defined eCRM strategy.

Effective eCRM strategy is key to success [Aria and Dafoulas. (2023); Eid (2007)]. Therefore, strategy is an essential dimension with its associated factors to assess banks' eCRM readiness; in other words, it affects eCRM readiness. Thus, from the studies reviewed, the authors identified the need to consider the 'strategy' dimension as a key aspect of their investigation; therefore, the first hypothesis is:

H1: There is an association between corporate strategy and eCRM readiness in banks.

Culture and eCRM readiness

ECRM failure can be due to the lack of managerial support [Aria (2018)]. On the other hand, employees have a significant influence on organisational e-readiness. Therefore, they are essential for eCRM adoption. Employees' resistance to change is another factor for eCRM success [Xu et al. (2002)]. Poor leadership is due to the poor focus and effort of eCRM leaders, so they need commitment and responsibility to meet customers' needs. Individual commitment is crucial to organisational change [Aria (2018)]. Employees involved in eCRM activities must adapt to a new way of thinking. Therefore, managers must encourage them to accept the changes by motivating them, listening to them, and clarifying their eCRM vision. ECRM success requires a focus on people, not just technology; therefore, it can be concluded that culture is another crucial dimension with its associated factors that affect the readiness of eCRM. Therefore, based on the author's literature review, 'Culture' should be considered an essential aspect for assessing eCRM readiness. Thus, the second hypothesis is:

H2: There is an association between organisational culture and eCRM readiness.

Technology and eCRM readiness

It is evident that eCRM involves other aspects, not just technology, but the technology dimension cannot be ignored. After developing culture, it is essential to motivate employees at all levels towards learning and facilitate them in capturing, selecting, using, and sharing knowledge by providing the technology required. Knowledge management is considered a valuable activity for any ban to survive in the competitive market by collecting and analysing customer data and helping the success of eCRM [Aria (2018)]. IT investment is vital [Eid (2007); Darvish et al. (2012)], but a lack of IT infrastructure impedes eCRM implementation. Technology helps banks build long-term relationships and develop loyalty and customer retention, representing the essence of good CRM. To achieve a competitive advantage, banks need innovative information technology, effective business processes, better data management and new workforce initiatives [Nguyen et al. (2007)]. Technological readiness consists of knowledge management, skilled team and infrastructure [Aria (2018); Ocker and Mudambi (2003)]; therefore, as seen in the literature, technology and its associated factors are important for eCRM readiness in banks. So, based on the author's review of the literature, 'technology' is an essential dimension for eCRM readiness. Thus, the third hypothesis is:

H3: There is an association between Technology and eCRM readiness.

RESEARCH METHODOLOGY

Method
This research follows the mixed methods approach, collecting both qualitative and quantitative data, which helps to take advantage of triangulation. With the help of a quantitative approach, the researcher can investigate the perceptions of bank employees to evaluate eCRM readiness and determine the crucial factors. On the other hand, the qualitative approach strengthens the quantitative data results and helps to understand the problem more deeply. Therefore, a semi-structured interview was selected for this study to collect helpful information about eCRM readiness. Quantitative data was collected by designing the structured questionnaires for employees, then the semi-structured interviews were conducted by bank managers, and finally, the results were combined. Furthermore, data from questionnaires and interviews were analysed using Statistical Package for the Social Sciences (SPSS) and NVivo software.

Sample and Data Collection
The research study involves five purposefully selected case study banks in Tehran, Iran's capital. These banks were chosen because of their reputation, location, size, and transaction amount. Two state and three private banks were selected to identify the main dimensions affecting eCRM readiness in Iranian banks. Having private and state banks provides a good understanding of how these dimensions impact different sectors. A total of 10 managers were interviewed, and the sample size for the quantitative approach was selected from Sekaran and Bougie's [2016] sample size table. Based on Sekaran and Bougie [2016], the statistical table for the population of 19,705 employees employed in five private and state case studies banks gives 377 as an appropriate sample size. Thus, 377 questionnaires were distributed to five case studies banks. In this research, stratified sampling, which provides a more accurate representation of the population based on characteristics, was used to divide the population into strata for bank employees. Based on the required 377 sample size, it is necessary to know how

many questionnaires (Table 1) are required for each of the five selected banks for this study. To do that, the formula is:

$$size\ of\ the\ strata = \frac{size\ of\ entire\ sample}{population\ size * layer\ size}$$

So, as can be seen in Table 1, the sample size is as follows:

Table 1. Sample size

Bank	Sample size
Parsian	44
Pasargad	41
Melli	138
Tejarat	117
Sarmayeh	37
Total	377

The data collection involved individuals with specific roles. First, a senior executive who knows why eCRM is important, and they are equipped with strategies. This person is the one who demonstrates their commitment to the new project by incorporating eCRM into their daily communication with the employees. The second person is an IT person who can help understand the technical side, such as software, and can help solve any installation and implementation problems. The third person is a front desk or customer service representative who assists customers. And finally, a person who works in the bank's marketing department and provides the necessary research to identify the target customers. Therefore, this study collected data from the bank's top managers and employees in marketing, IT, and customer service departments.

As this research also adopts the quantitative research method, quantitative data collection for eCRM readiness was started by distributing five-point Likert scale structured questionnaires among bank employees to confirm or reject the identified eCRM readiness dimensions from the literature.

Measurement

Instrument development
All measures of the instrument were created based on the literature review and understanding of the researcher from each factor. Some of them were adopted directly and adapted from relevant studies with valid and reliable measures of corresponding constructs in the research model to reflect the extent to which they represent the content of each construct. Seventy scale items were used to measure the constructs in this research model. As this research aims to determine the main dimensions affecting eCRM readiness in Iranian banks, the relationship between eCRM readiness as an independent variable and identified dimensions as dependent variables was tested through statistical analysis of data collected from questionnaires. As shown in Fig 2, the questions were created to measure dimensions

based on the Goal Question Metric (GQM) paradigm introduced by Basili et al. [2001]. This approach was applied to formulate the metrics of each factor. This theory is based on goal-oriented measurements; each measurement collected is stated in terms of the major goals. Then, questions are derived from the goal, which can help to determine whether the goals can be achieved. Finally, the metrics or measurements collected can be used to answer the question in a quantifiable manner. In other words, the GQM approach is a measurement mechanism for evaluation and allows us to determine the strengths and weaknesses of this study's current processes or factors. Therefore, the goal of assessing the eCRM readiness in banks is to evaluate the critical dimensions and their associated factors. For example, to assess the culture dimension (goal), this goal can be refined to a series of questions such as management commitment so that they can be answered and measured by different metrics such as top management eCRM visions and their awareness.
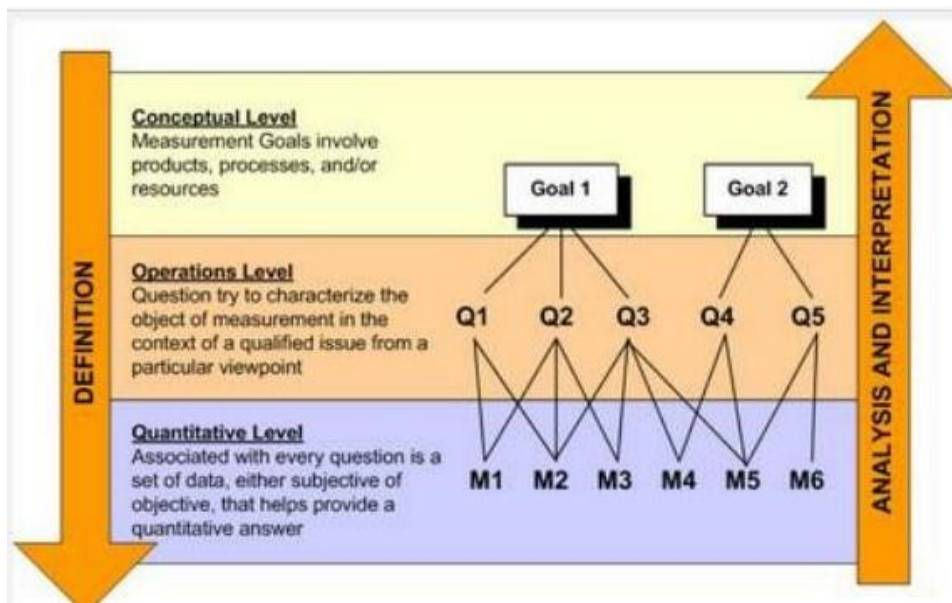

Fig. 2. Goal-Question-Metric (GQM) Paradigm

Ethics

This study is based on questionnaires, and data sources are existing data and documents and non-vulnerable human participants. The decision-makers and employees were recruited using an appointment so that they could choose not to participate in the project. The questionnaires for employees were contained in a cover letter explaining the purpose of the study. They were informed that the survey was voluntary and that there would be no adverse results should they choose not to participate. Their responses will not be shared, given the nature of the questionnaires, which are anonymous due to privacy protection. Therefore, respondents were assured of any protection issues. In addition, managers of banks also informed employees about ethical considerations, such as the freedom to withdraw at any time. Finally, this research was not intended to collect personal data, and

the researcher obtained written informed consent to participate in a study collecting information concerning eCRM readiness directly from research participants.

Quantitative Analysis

Demographic information

As this study aims to determine the dimensions affecting eCRM readiness in the Iranian banking industry, the research population is defined as the entire number of employees in the selected banks. This research followed stratified sampling. The reason is that the target population is all the employees in five private and state case study banks in Tehran, the capital city of Iran, which were selected based on their reputation. According to the stratified sampling method, the characteristics of the population must be known; hence, the characteristics of the research target population were chosen as being private and state bank employees working in different banks. Therefore, the research was interested in particular strata (groups) within the population, and due to the equal probability of choosing each unit from each group, stratified sampling was suitable for this specific study.

Descriptive statistics

After cleaning the data, all questionnaires with 75% answers were included, while those with more than 25% unanswered questions were excluded from the data analysis [Sekaran and Bougie (2016)]. Structured questionnaires will be statistically analysed using SPSS.

Frequency was used to present and analyse the demographic characteristics in this research. The appropriate number of questionnaires for this research is 377 employees, so 400 questionnaires were distributed among bank employees in the five case study banks. Three hundred eighty-two eligible questionnaires were returned with a response rate of 95.5%, more than the significant target sample size of 377. Then, 18 invalid questionnaires were eliminated due to their inaccuracy or incompleteness. The response rate can be calculated by dividing the number of responses to the survey by the number of people to whom the survey was sent and multiplying the result by 100. The number of eligible returned questionnaires in this study illustrates bank employees' high level of cooperation. As it exceeded the required sample questionnaires, it is considered satisfactory in numbers.

As seen in Table 2, analysis of the employees' questionnaires using SPSS shows that 60.4% are males and 39.6% are females. Regarding age, 11.4% are 20 to less than 30, 38.7% are 31 to less than 40, 39.2% are 41 to less than 50, and 10.7% are more than 50 years old. Regarding their bank employment, 9.4% are less than two years, 16.1% are between two and five years, 27.8% are between five and eight years, and 46.7% are more than eight years in the banks. 22% are in the IT department, 34% are in the service department, 18.7% are in cash, and 25.3% are in the operation department. 0% have less than a bachelor's degree in education, 8% have a PhD degree, 62.9% have a bachelor's degree, and 29.1% have a master's degree. However, this study has not investigated the effect of demographic characteristics of employees, such as gender, age or educational level, on eCRM readiness. Therefore, the researcher has not used this information to analyse the data; these questions only illustrate the participants' characteristics in this study.

Table 2. Employees' frequencies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	232	60.4	60.4	60.4
Female	152	39.6	39.6	100.0
Total	384	100.0	100.0	

Based on GQM theory, an appropriate question(s) is created for each factor, which will be measured using a Likert-scale questionnaire. The frequencies for the organisational culture dimension (17 questions) show that 19.09% strongly agree, 75.5% agree, 1.85% disagree, 1.06% strongly disagree, and just 2.38% neutral regarding the importance of organisational culture in the Iranian banking industry. Tables 3 and 4 show the frequencies and mean for one cultural question (cult1).

Table 3. Mean for cult1

	N	Minimum	Maximum	Std.Deviation
Cult1	377	1.00	5.00	.49028

Table 4. Frequencies output for cult1

	Frequency	Percent	Vaid percent	Cumulative percent
Strongly disagree	2	.5	.5	.5
Disagree	3	.8	.8	1.3
Agree	303	78.9	80.4	81.7
Strongly agree	68	18	18.3	100.0
Total	377	98.2	100.0	
Missing	7	1.8		
Total	384	100.0		

For the strategy dimension, the frequency shows that 79.8% agree, 1.06% strongly disagree, 1.06% disagree, 2.38% are neutral, and 15.6% strongly agree. This result shows the importance of the corporate strategy dimension. This dimension has 23 questions.

Another dimension is technology, for which the frequency of respondent percentages shows that 0.53% strongly disagree, 1.59% disagree, 2.91% are neutral, 78.2% agree, and 16.7% strongly agree, which

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shows the high percentage of importance of technology. As a part of the descriptive analysis, frequency tests can help determine the number of times a data value occurs. Therefore, as is seen in the dimensions' frequencies analysis, each identified dimension is essential based on employees' perspectives.

Reliability helps a researcher probe the underlying constructs. One of the most commonly used indicators of internal consistency is Cronbach's alpha. The scales used in this study were five-point Likert scales, which measured eCRM readiness and employees' eCRM perception in banks. The reliabilities for this research were measured based on dimensions and several questions using Cronbach's alpha test. The closer the reliability coefficient gets to 1.0, the better, but generally, reliabilities of approximately 0.7 are acceptable, while those less than 0.6 are considered poor, and over 0.8 are good. The overall reliability of the scale indicates 0.788, which is a good level of consistency since the minimum acceptable reliability is 0.5 [Sekaran (2003)].

Strategy dimension is 0.689, organisational culture is 0.683, technology is 0.611, and readiness is 0.769. According to Sekaran and Bougie [2016], the minimum acceptance reliability value is 0.5, and more than 0.5 is acceptable. Therefore, all scales, as seen in Table 5, are reliable and helped the researcher understand whether the criteria (questions) in the eCRM readiness questionnaire all reliably measure the same latent variable (eCRM readiness).

Table 5. Reliability of scales

Scale	Number of items	Cronbach alpha
Corporate strategy	23	0.689
Organisational culture	17	0.683
Technology	20	0.611
Readiness	10	0.769
Overall	70	0.788

It is necessary to use a normality test to determine if a data set is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed [Sekaran and Bougie (2016)]. Testing the normality is a prerequisite for many statistical analyses. In this research, the Kolmogorove-Smirnov test was used to test normality. This data is not normally distributed. As seen in the normal Q-Q plot below (Fig.3), the data is not normally distributed for the organisational culture dimension as the data points are not close to the diagonal line and stray from the line in an obvious non-linear fashion.
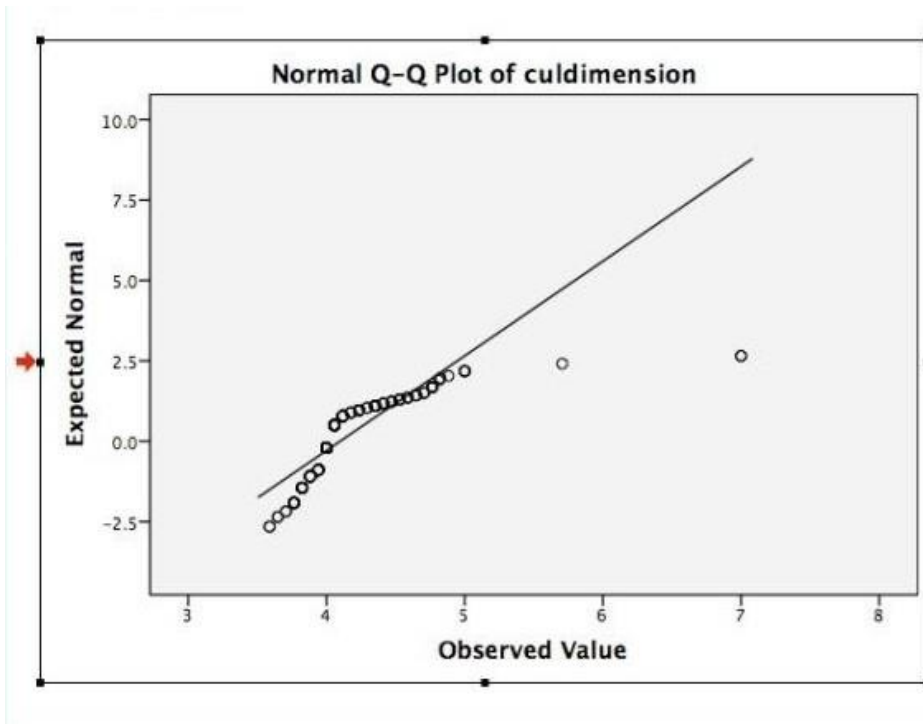
Figure 3: The normal Q-Q plot for organisational culture

The data are also not normally distributed for the technology dimension, as the significant level is less than 0.05. Finally, the normality test table showed that the significant level for eCRM readiness is less than 0.05, showing non-normal normality. The non-parametric analysis will be conducted as the data is not normally distributed.

The data obtained from quantitative approaches were analysed using SPSS. This research uses the Chi-square test to analyse whether organisational culture, technology, and strategy affect banks' readiness for eCRM adoption. The Chi-square (x^2) technique is a prominent and commonly used member of the non-parametric family that is much easier to compute. With Chi-square, a value is calculated from the data using Chi-square procedures and then compared to a critical value from a Chi-square table with a degree of freedom corresponding to that of the data. The null hypothesis is rejected if the calculated value is greater than the critical value (the table value). If the calculated value is less than the critical value, the null hypothesis (H0) is accepted.

H_0: There is no association between corporate strategy and eCRM readiness, accept if the significance of variance is greater than 0.05

H_1: There is an association between corporate strategy and eCRM readiness, accept if the significance of variance is equal to or less than 0.05

The formula for calculating a Chi-square is:

$$x^2 = \sum \frac{(O-E)^2}{E}$$

The reviewed literature shows that the strategy is crucial to eCRM readiness. Therefore, it is worth testing this hypothesis with the selected statistical tests. To determine whether there is a statistically significant association between the strategy in banks and eCRM readiness, the null and alternative hypotheses are created as follows:

H1: There is an association between corporate strategy and eCRM readiness in banks.

It appeared that the p-value was 0.001. Therefore, based on the result, there is a statistically significant result ($0.001 < 0.05$). This means that the two variables are not independent, and there is an association between corporate strategy and eCRM readiness in banks. It is crucial to determine the strength of the association. Cramer's value is 0.324. According to Cohen [1988], Cramer's V ranges (Table 6) in value from 0 to +1, with a value of 0 indicating no association and a value of 1 indicating complete association. Therefore, the association was medium.

Table 6: Value of Cramer's V

Magnitude of effect size	Value of Cramer's V
Small	0.1
Medium	0.3
Large	0.5

The Chi-square test for independence using SPSS for the first hypothesis was 0.001, less than 0.05; therefore, H0 was rejected, and H1 was accepted, indicating the significant dimension. Testing this hypothesis illustrates a positive (moderate) impact of strategy dimension on eCRM readiness. Also, the literature shows the importance of corporate strategy, and in reality, this test confirms the importance of this dimension with their associated factors in the banking industry. This result confirms the importance of the corporate strategy dimension for eCRM readiness in the literature. Therefore, investigating this dimension is essential and helps banks assess the overall eCRM readiness, which is important before any eCRM implementation to prevent any failure. In addition, finding the effect of corporate strategy on eCRM readiness contributes to answering the main research question: What are the main dimensions that affect eCRM readiness in the banking industry?

H2: There is an association between organisational culture and eCRM readiness.

It appeared that the p-value was 0.000, but this is impossible. Whenever SPSS statistics show a value of 0.000, it means that $p < 0.0005$; it does not mean zero. The p-value to more decimal places is 0.000350.

According to Sekaran and Bougie (2016) and Pallant [2011], who believe the Chi-square significant value is equal to or less than 0.05, based on the result, the null hypothesis was rejected, and H2 was accepted. Therefore, there is an association between organisational culture and eCRM readiness as $0.000 < 0.05$. In addition, Cramer's V is 0.294, which means a moderate association between the two

variables. This finding helps the researcher identify another critical dimension for banks to access the readiness level of eCRM.

H3: There is an association between Technology and eCRM readiness.

The value 0.012 is less than 0.05; in other words, it means the value is significant [Sekaran and Bougie (2016)]. Therefore, H3 is accepted, and there is a relationship between the technology dimension and its associated factors with eCRM readiness.

According to the literature, using technology is one of the essential dimensions of eCRM success. Furthermore, the findings illustrate the impact of technology on eCRM readiness. Therefore, it can be derived that technology, identified by reviewing literature as an important dimension for the readiness of eCRM, is an essential dimension to assess the readiness of eCRM in banks. Thus, this finding supports the literature.

Qualitative Analysis

Data analysis and interpretation
A qualitative computer software package, NVivo, was used to analyse the data. A total of 10 cases were interviewed in five case study banks. The findings would help to confirm or reject the previous information on literature or theories.

After creating case nodes (strategy, technology, and culture), the word frequency query was used to list the most frequently occurring words in the interviews. Fig 4. shows the word frequency for Melli bank managers. This is composed of words used in interview questions in which the size of each word indicates its frequency or importance. This helped the authors understand the words and answers that were commonly used in the interviews.

Word	Length	Count	Weighted Percentage ∨
strategy	8	21	3.57%
software	8	15	2.55%
training	8	12	2.04%
culture	7	10	1.70%
technology	10	10	1.70%
information	11	9	1.53%
knowledge	9	8	1.36%
costly	6	6	1.02%
definition	10	6	1.02%
deployment	10	6	1.02%
infrastructure	14	6	1.02%
privacy	7	6	1.02%
readiness	9	6	1.02%
relationship	12	6	1.02%
terms	5	6	1.02%
data	4	5	0.85%
benefits	8	4	0.68%
communication	13	4	0.68%
difficult	9	4	0.68%
integration	11	4	0.68%
internet	8	4	0.68%
issues	6	4	0.68%
legal	5	4	0.68%
overcome	8	4	0.68%
resistance	10	4	0.68%
track	5	4	0.68%
access	6	3	0.51%
assessing	9	3	0.51%

Fig. 4. Word frequency of interviews

One of the techniques in NVivo is a word cloud that can help visualise the results of word frequency queries and enable them to see potential themes that require further explanation, as well as, in this study, eCRM readiness dimensions. Word Cloud helps the researcher understand how managers view eCRM. This is a crucial stage for evaluating each bank's readiness in terms of eCRM. As can be seen, Fig 5 illustrates the managers of Melli bank interview analysis using a word cloud. As can be seen, strategy is the most frequent word in their interview, which shows the importance of the strategic dimension for eCRM readiness.

Fig.5. Word cloud for interviews

Another analysis is cluster analysis, which visualises patterns in this study by grouping cases that share similar words, i.e., the cases coded similarly by nodes. This analysis helps to identify similar cases based on the occurrence and frequency of words. The cases that appear close together are more similar than those far apart.

Furthermore, the summary tab in NVivo displays the similarity index values used to generate the cluster analysis diagram. Items with a high similarity index (maximum=1) indicate a substantial similarity and are displayed closer together on the cluster analysis diagram. As seen in Table 7, Parsian and Melli's banks have the highest correlation (0.842) compared to others.

Table 7: Cluster analysis

Source A	Source B	Pearson Correlation Coefficient
Parsian	Melli	0.842336
Tejarat	Parsian	0.805653
Pasargad	Parsian	0.793045
Sarmayeh	Parsian	0.784713
Pasargad	Melli	0.720917
Sarmayeh	Melli	0.670505
Tejarat	Sarmayeh	066192
Sarmayeh	Pasargad	0.652717
Tejarat	Melli	0.635867
Tejarat	Pasargad	0.522832

The following analysis is word trees, which display the results of a text search query as a tree with branches representing the various contexts in which the word or phrase appears (Fig 6). The word trees allow the researcher to compare how bank interviewees discussed eCRM readiness.
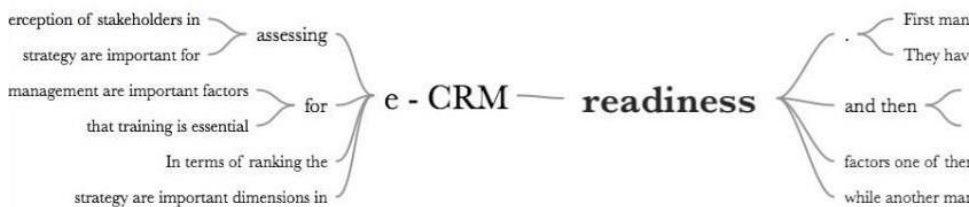

Fig. 6. The word trees for interviewees

Exploring the connections in each diagram and data analysis revealed that most of the managers understood the meaning of eCRM and the benefits of eCRM to banks and customers. Private bank managers understand eCRM more than public bank managers. This is because the state banks' recruitment process differs from that of private banks, and they are more likely to consider experience rather than skills. In general, there is a good understanding of the definition and benefits of eCRM in both private and public banks.

Based on interview data, organisational culture was proven to be the most critical factor among the three dimensions. This result from the interpretation of interviews shows that organisational culture,

strategy, and technology are the main dimensions for eCRM readiness in banks, based on decision-makers perspectives of five case study banks.

For this study, the triangulation strategy was employed to validate the findings. Triangulation is a powerful strategy that facilitates data validation through cross-verification from two or more sources. Combining qualitative and quantitative data means determining banks' eCRM readiness dimensions. The researcher can ensure internal validity as the data for this research was collected through multiple resources, interviews and questionnaires. Furthermore, findings were checked and discussed by five eCRM experts, four marketing and information systems academics, and five bank managers. This process again provided validity to the findings of this research.

In this research, three techniques were employed to ensure reliability. First, the researcher was provided with a detailed account of the focus of the study, which identified the main eCRM readiness dimensions in the banking industry, the researcher's role, and the context in which data was collected. Second, triangulation strengthens internal validity and reliability [Creswell (2014], and finally, a description of the data collection is used to provide an accurate and good picture of the methods used in the research. All phases in this study were discussed with expert scrutiny, which validated the findings. In addition, all findings for qualitative research were reported descriptively and narratively rather than as a scientific or statistical report.

DISCUSSION AND IMPLICATIONS

This study illustrates that eCRM is a vital part of banks' operations. Therefore, Iranian banks should equip themselves with 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 requires 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 it works well, it will provide better customer service and discover new customers.

To prevent any failure, banks 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 a customer-centric culture to produce higher profits. 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 without a strategic plan, they are not aligned with the

goals they hope to achieve. Therefore, these goals must be fully integrated into the eCRM and eCRM strategy and revisited regularly to ensure they fit their purpose.

Another dimension is the organisational culture for eCRM readiness in banks. Banks must ensure their cultural readiness to adopt a customer-centric approach, which is essential for eCRM success. One of the factors considered to influence eCRM adoption is user acceptance. This 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 essential 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 are customers' assets for banks but employees are also considered important assets that impact 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 depends on its IT capabilities. IT capabilities refer to strategies and resources in the bank. The ECRM innovation capability of a bank is comprised of infrastructure, the number of channels, and integration between channels. In addition, the size of the bank plays a vital role in e-CRM adoption.

To improve eCRM readiness in Iranian banks, the researcher suggests that managers and decision-makers adopt the eCRM readiness model as a guideline and the eCRM readiness assessment tool for assessing eCRM readiness in the Iranian banking industry.

Limitations and Directions for Future Research

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 to solving the eCRM deployment issues, which was not analysed until now, there are still several limitations of this research, which are listed below:

- The findings of this research focus on only the banking industry, and it would be comprehensive and beneficial if other industries were investigated.
- This research focuses only on internal dimensions. Investigating some external factors that might affect eCRM readiness would be valuable.
- The target population of this study was five case study banks in Tehran, the capital city of Iran. Investigating other cities' banks would provide useful insight and analysis.
- A cross-case analysis would help compare different countries to find similarities and differences.

- Due to the limited number of banks which deployed eCRM, participation was limited.
- The eCRM readiness model was developed for eCRM deployment mainly based on previous theoretical models and frameworks presented in the literature of the developed context and then evaluated in Iran. Therefore, the researcher suggests testing the tools and proposed model in different organisations with different fields, such as the airline industry. Also, the model could be tested in other developing countries and even developed countries to assess the feasibility of this model. This would help to evaluate the cultural differences and enhance eCRM's success and effectiveness.

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