

## **Examining and Ranking Customer Relationship Management Perspectives Using Fuzzy-TOPSIS Technique (Case Study: Melli Bank of Yazd)**

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### **ABSTRACT**

Customer Relationship Management (CRM) has for a long time captured the attention of the practitioners in the global business environment. Providing services to customers had been previously of least importance, while this doesn't hold true for the present situations. Today, the organizations concentrate on their customers in all activities and revise the marketing strategies and sales. Additionally, extending the authorities of the customers is largely regarded. Customer relationship management is very sensitive in service enterprises such as banks, transportation industry, medical care, insurance, hotels and so on.

Finally, a strong relationship with the customers is the main element in business triumph. The objective of this study is examining the current position of CRM aspects and ranking the different perspectives in one of governmental banks in Iran. The present study is a descriptive applied survey which uses a questionnaire to collect the data. The statistical population of this study is composed of all the chairmen and assistant directors of Melli banks as one of the governmental banks in Iran. Different perspectives and criteria of CRM in banking system are defined to examine the papers and literatures related to CRM. After verification of the criteria by using factor analysis, the position of the criterion and different perspectives of CRM are analyzed in Melli bank. The average scores along with FTOPSIS were applied to rank the criteria and critical values. The findings reveal that the performance of the bank in terms of three aspects of recognizing the needs, interacted perceives and loyalty has been satisfactory; while customer orientation and flexibility are not desirable perspectives.

**KEYWORDS:** Customer Relationship Management, Ranking, CRM Criterion, CRM Perspectives, Fuzzy TOPSIS

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### **INTRODUCTION**

An appropriately designed customer relationship management will lead to a comprehensive and complete recognition of the customers. CRM allows entities to easily recognize the useful customers and concentrate their efforts on those who buy from the entity. A better understanding of the customers permits managers increase the customer's maintenance rate by interaction, responsiveness and effective relationships with them (Haghi, 2008).

CRM implementation caused increasing the competitive advantage and reducing the operating expenses. Efficient and effective CRM will enhance the customer's satisfaction, loyalty and maintenance rate. CRM contributes the organizations to evaluate the loyalty and profitability of the customers in terms of purchase recurrence and its period. Additionally, CRM helps the organization to answer these questions: which goods and services are essential to our customers? How should we communicate with our customers?

CRM is a strategy for reaching more knowledge about the needs and requirements of the customers and more relationship with them. Establishing a proper relationship with the customer is the secret of business achievements. In other words, CRM is a procedure to keep customers satisfied and converting them to perpetual customers (Amiri, 2008).

CRM is a business strategy to attract, maintain and enhance the customers. Proper implementation of CRM makes organizations capable to conduct their careers. However, this is impossible without the application of information technology and communications. Information technology is an instrument to implement CRM by which the organizations could communicate individual customers in a manner which he/she is the only customer of the organization. The present study aims to examine and determine the perspectives and the criteria of CRM in banking system and finally the key criteria in the one of governmental banks of Iran. These criteria are ranked consequently.

### **Customer Relationship Management**

CRM is a widely accepted concept defined according to the recent evolutions in information technology and communications which have increased innovations and continuously declined the life cycle of the productions. It is a significant approach of business which aims to return back to the personal marketing. It is a relatively simple concept that illustrates the different requirements of different customers (Elahi, 2006).

CRM contributes organizations to identify which customer worth achieving and which one worth maintenance. It also helps find the strategic, profitable and avoidable customer. Companies often confront problems in understanding CRM. They think it is possible to gain CRM benefits only by technology implementation. However, they are not aware that utilization of the CRM advantages lies in assigning a customer oriented strategy which covers an organizational culture of customer orientation. Another reason for the difficulty of selecting CRM is that all capabilities of CRM cannot be provided by a specific vendor (Khanlari, 2006).

It must be mentioned that CRM It is customer relation management but not the same as customer relation marketing. Management contains a wider range than marketing and includes production, human resource and service, sale and R&D management. Therefore, CRM requires an organizational approach in all business fields which is not merely considered as a simple customer oriented marketing strategy. CRM involves all applications of the organization (marketing, production, customer service and so on) which needs direct or indirect communication with the customers.

There are numerous definitions made by academics and business professionals. Some people define it as a strategy or technology; while others call it a process or information system. Several definitions are provided for CRM:

- CRM is a term used for the collection of methodologies, processes, software and systems which contribute companies and institutions to manage their relationship with their customers.
- CRM is a process composed of customer monitoring (such as appropriate collection of data), management and data evaluation and finally creating advantages from interaction.
- CRM is an intra-career process which aims to enhance the customer value with integrating information technology and marketing strategies (Salehi, 2009).

### **CRM in Financial and Banking Institutions**

Banks are expected to highly concentrate on CRM application in banking systems. According to Foss (2002), most of the financial industries endeavor to apply CRM for the following reasons:

- Culture execution and customer-oriented Organize
- Safety of relationship with management
- Maximization of customer's profitability
- Resources allocation on the most valuable customers of the organization

The following perspectives must be followed to implement the strategy:

- Communicating and supporting of the customer interactions through channels
- Recognizing sales prospects and its opportunities
- Customer value management by developing the intentions of different parts of the customers
- Supporting the management of the channels and pricing the customer migration

Three steps might be defined in Foss theory:

1. Infrastructures and systems to recognize customers and their profitability are created.
2. It is perceived through allocating resources in order to create customer's value and avoid any element with a negative consequence for the purpose of keeping the effective communications with the customers.
3. Strategic planning and customer value management are consolidated.

A bank requires a complete vision about the customer and can collect it through different systems. If the bank is able to perceive the behaviors and specifications of the customer, then the implementation department might anticipate the future behavior and performance of the customer. The data and its application help the continuous customer relationship management and ensure its growth and development. (Galbreath,2000)

### **Advantages of CRM in Banks**

CRM has some advantages for the banks which are summarized below:

1. Earning revenue and profitability of the customer is time consuming.
2. Sale and marketing costs are deployed over the life of the permanent customers.
3. Rendering services to the permanent customer is less expensive.

4. Permanent customers provide opportunities of implicit sales which will finally increase the purchase of the customer.
5. It prohibits competitors.
6. It brings the relationships among the generations.
7. Satisfied customers offer the firm to others.
8. Maintaining the current customers without fearing from the threats of the competitors
9. Earning more revenue and benefits of the current key customers and increasing the bank's share of each one
10. Considerable decline in deposit costs and sustainable increase in the consumption's yield (Payne Adrian,2004)

## **METHODOLOGY**

This is an applied study because the results can be useful to enhance the CRM procedure. The statistical population of the study is composed of all the chairmen and assistants of the Melli bank branches who were 106 individuals. The selected sample is 46 and this is equal to the 46 branches located in the province.

### **Criteria and Elements of CRM**

There were 47 indicators selected from 54 primary indicators after confirming the validity of the questionnaire's indicators. These elements are classified in 5 aspects according to Varimax rotation. These five perspectives are known as need recognition (the first perspective with 13 elements), interactive perceive (the second perspective with 5 elements), flexibility (the third perspective with 7 elements), customer orientation (the fourth perspective with 12 elements) and loyalty (the fifth perspective with 10 elements) which are discussed in detail.

#### **A) Need Recognition Perspective**

1. An appropriate understanding of the key requirements of the customers through a continuous learning procedure for the branch's employees
2. Providing immediate services to the customers by the employees
3. A precise understanding of the customer's information for the close relationship with them
4. Application of computerized technologies to provide suitable services to the customers
5. Quick modification of the services when the customers require
6. Different and appropriate behavior of the bank with any of the key customers according to his/her needs
7. Clear objectives in relation to customer's satisfaction
8. Immediate response to the customer's specifications because of no over-noisiness of the bank
9. A predefined process for recognizing the key customers
10. Management flexibility and bank employees for providing new services
11. Precise programs and strategies for providing services for the key customers
12. An accurate feedback system of the customers and its implementation
13. Evaluating the employee satisfaction by the customers

#### **B) Interactive Perceive**

1. An appropriate behavior of all the employees with the bank
2. Creating a proper internal environment for the purpose of satisfying the customer requirements
3. Joint efforts of all employees to satisfy the customers
4. Participating new information about the customer's requirements between employees
5. Creating a process for the mutual communication with the customers

#### **C) Flexibility**

1. Creating a comprehensive database about the customers
2. Skillful individuals in sale and marketing departments of the bank
3. Continuous efforts of the bank to better understand the customer's requirements
4. Skillful employees in the communication department
5. Complete documentary trends of communication with customers
6. Efforts for making customers loyal through different alternatives
7. Strict information of the customers about the precise place of service provision

#### **D) Customer-orientation Perspective**

1. Consideration of CRM as an essential principle by the top managers
2. Evaluating the periodic customer's satisfaction by the bank
3. The bank commitment to provide timely services
4. Different banking services for any of the customers to develop satisfactory

5. A precise mechanism to convert customer’s requirements into applicable regulations
6. Utilizing the opinions of the key customers in designing services
7. Stable standards to monitor CRM
8. Communicating useful information to the key customers
9. Definition of CRM responsibility for each employee
10. High tendency of the employees to solve the customer’s problems
11. Sufficient application of Internet services to facilitate the customer’s careers
12. Permanent performance evaluation of the employees according the satisfaction level

**E) Loyalty Perspective**

1. Competitive advantage of the bank through keeping the customers for a long-term
2. Managing the communication department of the bank by trained staff
3. Time and resources of the customer’s services are aimed to maximize value for the customer
4. The organization believes that precise information about customers is a competitive advantage
5. Planning continuous training periods for the bank’s employees about the customer’s satisfaction
6. The first goal of the bank is satisfying the customer and making profit is a secondary objective.
7. The priority of customer services as the level of their transaction with the bank
8. Top management of the bank spends much time with the key customers
9. Investments to communicate with each customer according to the value added by him/her.
10. New information about the main customers of the bank is completely updated to provide more appropriate services to them.

**Research Hypotheses**

- H1:** Different perspectives of CRM in bank are in a satisfactory status.  
**H1.1:** Need recognition perspective of CRM in bank is in a satisfactory status.  
**H1.2:** Interactive perceives perspective of CRM in bank is in a satisfactory status.  
**H1.3:** Flexibility perspective of CRM in bank is in a satisfactory status.  
**H1.4:** Customer orientation perspective of CRM in bank is in a satisfactory status.  
**H1.5:** Loyalty perspective of CRM in bank is in a satisfactory status.  
 The results are of the sub hypotheses are provided in table 1.

Table1. The Results of the Sub Hypotheses

Sub Hypotheses	Hypotheses	Result
1-1	Need recognition perspective of CRM in bank is in a satisfactory status.	Confirmed
2-1	Interactive perceive perspective of CRM in bank is in a satisfactory status.	Confirmed
3-1	Flexibility perspective of CRM in bank is in a satisfactory status.	Rejected
4-1	Customer orientation perspective of CRM in bank is in a satisfactory status.	Rejected
5-1	Loyalty perspective of CRM in bank is in a satisfactory status.	Confirmed

The findings demonstrate that CRM position is completely satisfactory in terms of need recognition and interactive perceive; while loyalty is significant at 90 percent. This does not hold for the flexibility and customer orientation perspectives.

H2: The perspectives of CRM in bank are significantly differently ranked.

Table2. Pair-wise comparison for comparing the perspectives

Pairs	Perspectives Comparison	Mean	Std. Deviation	t	Df	Sig.(2-tailed)
1	Need recognition-interactive perceive	0.02876	0.49230	0.560	91	0.577
2	Need recognition-flexibility	0.32907	0.53401	5.911	91	0.000
3	Need recognition-customer orientation	0.32623	0.45703	6.846	91	0.000
4	Need recognition- loyalty	0.16572	0.54972	2.892	91	0.005
5	Interactive perceive-flexibility	0.30031	0.51732	5.568	91	0.000
6	Interactive perceive- customer orientation	0.29746	0.45444	6.278	91	0.000
7	Interactive perceive- loyalty	0.13696	0.62682	2.096	91	0.039
8	Flexibility-customer orientation	-0.00285	0.31608	-0.086	91	0.931
9	Flexibility-loyalty	-0.16335	0.50822	-3.083	91	0.003
10	Customer orientation-loyalty	-0.16051	0.41263	-3.731	91	0.000

The results indicate that there is a significant relationship between some perspectives.

Need recognition and interactive perceive are not significantly related.  
 Flexibility and customer orientation are not in a significant relationship.  
 However, there are significant differences between the utilities of the perspectives which are to be sorted as below:

*Need recognition- interactive perceives*

*Loyalty*

*Flexibility and customer orientation*

**Ranking the Elements and Perspectives of CRM using FTOPSIS**

The elements and perspectives of CRM are ranked by FTOPSIS and the findings are provided in this section. The results show that the highest score belongs to the second questions (providing immediate services to the customers by the employees) and the least score is in question 30 (A precise mechanism to convert customer’s requirements into applicable regulations).

Table3. Ranking the CRM elements using FTOPSIS

No.	Element Rank	cci
1	Q2	0.717412
2	Q16	0.708888
3	Q11	0.70328
4	Q7	0.696809
5	Q18	0.694337
6	Q1	0.693085
7	Q37	0.691034
8	Q24	0.680477
9	Q4	0.669918
10	Q38	0.663738
11	Q26	0.661018
12	Q5	0.66062
13	Q41	0.656497
14	Q8	0.655494
15	Q12	0.654071
16	Q15	0.650809
17	Q17	0.650707
18	Q3	0.648555
19	Q6	0.648329
20	Q45	0.645506
21	Q43	0.644258
22	Q28	0.636404
23	Q34	0.635305
24	Q14	0.634621
25	Q21	0.629631
26	Q35	0.629536
27	Q42	0.628609
28	Q10	0.624196
29	Q44	0.623875
30	Q29	0.620165
31	Q36	0.619414
32	Q25	0.616919
33	Q23	0.614777
34	Q22	0.612348
35	Q9	0.612114
36	Q39	0.595806
37	Q40	0.592364
38	Q13	0.590383
39	Q47	0.577719
40	Q32	0.576046
41	Q31	0.575813
42	Q46	0.573913
43	Q19	0.570916
44	Q33	0.570768
45	Q27	0.559784
46	Q20	0.558163
47	Q30	0.527087

Table4. Ranking CRM Perspectives Using FTOPSIS

Number	Perspectives	Average CCI
1	Need Recognition	0.653008
2	Interactive Perceive	0.667872
3	Loyalty	0.620229
4	Flexibility	0.611889
5	Customer Orientation	0.608531

a simple sorting of the questions by the average scores. In doing so, the questions are classified in five clusters.

Cluster 1 includes those questions with high utility and cluster five is about the questions with the least utility. The findings are provided in the following table, separately.

Table5. Clustering by using Cluster Analysis

Cluster No.	Cluster Center	The Number of the Cluster's Questions	Questions
1	3.55	4	Q2-Q16-Q11-Q7
2	3.37	12	Q1-Q37-Q18-Q4-Q38-Q24-Q5-Q6-Q43-Q41-Q12-Q8
3	3.16	12	Q28-Q17-Q3-Q45-Q42-Q44-Q9-Q15-Q29-Q10-Q35-Q21
4	3	12	Q26-Q25-Q23-Q14-Q36-Q34-Q40-Q39-Q47-Q52-Q46-Q13
5	2.73	7	Q33-Q31-Q32-Q19-Q27-Q20-Q30

## DISCUSSIONS AND CONCLUSIONS

This study mainly aims to examine CRM perspectives in Melli bank of Yazd. Therefore, the performance of this bank has been examined in terms of different aspects of CRM in banking system. We found that the performance of this bank is satisfactory in three perspectives and unsatisfactory in two dimensions. Different perspectives of CRM were then ranked and it was found that there is no significant relationship between need recognition and interactive perceive and also customer orientation and flexibility. But there is a relationship between the above mentioned perspectives and their ranks pair wisely. By ranking the key elements, the critical elements were calculated. Finally, all the findings were considered and CRM performance development programs and the elements and perspectives were determined.

As the results indicated, those critical elements which need more attention to enhance CRM are respectively as follows: A precise mechanism to convert customer's requirements into applicable regulations, Skillful individuals in sale and marketing departments of the bank, Evaluating the periodic customer's satisfaction by the bank, Communicating useful information to the key customers, Creating a comprehensive database about the customers, Investments to communicate with each customer according to the value added of him/her and Utilizing the opinions of the key customers in designing services.

### Research Based Suggestions

The surveyed bank ought to concentrate on flexibility and customer orientation. This is because these two perspectives are not in a good position. The elements should be improved to satisfy these two perspectives. It seems necessary for top managers to pay more attention to these elements and perspectives. They can more satisfy their customers' requirements by correct implementation of CRM. It leads the bank to use the advantages of continuous CRM.

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