Identification & Prioritization of the Affecting Factors on CRM Implementation in Edible Oil Industry

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ABSTRACT

Customer relationship management is an effective method, which more organizations apply it, but the success of all organizations through implementation it, deserves hesitation, Because any change in any section will brings about many challenges, and implementing CRM systems in organizations requires significant organizational changes; identifying the effective factors of successful implementation of these projects is among the first steps of evaluating the company's conditions and organizational readiness and maturity for accomplishing these. The objective of this project is Identification and prioritization of the affecting factors on CRM implementation in edible oil industry. Two kinds of distributed questionnaires(based on Analytic Hierarchy Process and Likert's Five points scale), in this research, were used for collecting data; in order to inferential analyze the first questionnaire, the Analytic Hierarchy Process (AHP) method was used, and to analyze the second questionnaire the normality test, Pearson correlation test, t- student test and Freedman ranking test were employed.
Since current research's hypothesis were affected by many variables, the researcher aimed to investigate the effect of identified variables on implementation of CRM in edible oil industry and to determine the preference of each variable in the hypothesis; and based on the results, derived of analysis of statistical data, the hypothesise of this research are emphasized.
Keywords: Customer Relationship Management (CRM) - culture - organizational structure - readiness for the implementation - key success factors - customer services.

INTRODUCTION

Nowadays, behavior and relationship with the customer in any commercial enterprise, is an effective step to join the scientific and new human progresses. In new trade environments struggle trade companies in order to succeed in work and activity, complying the customer satisfaction, increasing the efficiency of staff and eventually more profit and benefit earned of a financial or commercial firm

In new markets, companies which enter the competition arena, weaken because of changing different ways to gain and understand the business. One of the factors, led to these changes, is continuous and revolutionary changes in technology. Based on this evidence, the concept of CRM is developed as a strategy to maintain a long-lasting relationship with customers.(Chalmeta, 2006, p102).

Developing relationship with customers and effective managing it, is one of the challenges facing new organizations. CRM (the abbreviation of Customer Relationship Management) is based on the exchange of values between the organization and the customer and emphasizes the created values in this relationship. One of the fundamental problems in the implementation of Customer Relationship Management is the lack of a guidance model, which can help organizations in implementing this type of strategy.

Each organization has a unique culture and unique business processes. Accordingly, it is not important to focus on Customer Relationship Management as a magic solution, which can solve all problems, but to try to find out its advantages and effects on every organization to achieve the success.

In this regard, the importance of identification and prioritization of the affecting factors on CRM implementation in the organization, which is the subject of this research too, is shown more clearly than before. When an organization's management introduces itself as a customer oriented organization, it is necessary to develop capacities and equipments to access required resources, information and tools to meet customer's needs and to provide appropriate suitable products and services (Roh et al,2005, p643).

Unfortunately, many organizations, especially financials have the product oriented culture, which leads to a contradiction with the customer's expectations. These organizations were based on the stability of the production line process instead of the customer's line. In addition, these companies inherit customers, who often haven't any profit and ability to strategic development.

In this research, respect to the necessity and importance of the subject, the authors are to Identify and prioritize the affecting factors on Customer Relationship Management in edible oil industry. In the following, a summary of the prior studies, is clarified and then the research method is refered and at the end the results of research according to research purpose and hypothesises are explained.

Prior studies
Table 1 collects and summarizes effective factors of the CRM implementation from researchers' point of views(Collected by the researcher).

Table1. Prior Studies

Factors	Components and indicators	Research
Processes	Marketing (Internal, External, Microeconomics and Macroeconomics)	Mendoza, Marius, Perez and Griman 2007
	Sales	Thompson, 2001
	Services (development of the service - the proper implementation)	Stanton et al 1995
	Review and reengineering or processes (marketing, sales, services and logistic)	Berkowitz et al 2007 Barnes et al 2001 Yim et al 2006 Sohraby et al 2010 Alok Mishra, Deepti Mishra2009 Lindgreen et al 2006
Human Factor (Staff)	Culture Change	Mendoza, Marius, Perez and Griman 2007
	Effective leadership	Thompson, 2001
	Change Management	Barnes et al, 2001
	Participation of staff	Peppard et al, 2000
	Commitment of Management	Galbreath, 1999
	Reward system	Payne, 2006
	Enabling staff	Kim et al, 2009
	Education	Fotouhieh Pour, 2011
	Employee Satisfaction	Sohraby et al, 2010 Lindgreen, 2006
Thecnology	Information Management	Mendoza, Marius, Perez and Griman 2007
	Information Systems	Keramati et al, 2010
	Customer Relationship Management software	Fotouhieh Pour, 2011
	Customer Relationship Management hardware	Sohraby et al, 2010
	Sale Factor automation	Lindgreen, 2006
	Supporting system with the technical experts	Mack et al, 2005 Raberst et al, 2005
	Site data destruction for customer's	Cooper, 2008
	Internet	King, 2007
	Preservation and maintenance of customer's data	Popovich, Chen, 2003
Structure of the organization	Planning	
	Organization's culture (Customer-oriented culture - Responsibility - change - compatibility)	Alok Mishra, Deepti Mishra, 2009
	Mortgaged Organization (managers – staff)	Sohraby et al, 2010
	The organization's strategy (plan - Implementation - Marketing)	Lindgreen, 2006 Mack et al, 2005
	Performance evaluation	Raberst et al, 2005
	Readiness and reach Organization for the implementation of customer relationship management	King, 2007
Knowledge management	Create knowledge of the customer (collection, organization)	Sohraby et al, 2010
	Socialism to know the customer	Knox and Ryals, 2001
	Use knowledge of the customer	Lindgreen, 2006
	Maintenance of customer knowledge	Zabela, Bellenger,Johnston, 2004
	Analysis knowledge of the customer	Balding et al, 2005
	Development of knowledge of the customer	Roh et al, 2005
	Review knowledge of the customer	Cooper, 2008
	Updates	
Customer	Strategic customer orbital (customer 's choice - Analysis of rotation age - expanding relationships - handling expansion of channels - the reactions)	Becker et al, 2009 Alok Mishra, Deepti Mishra, 2009 Fotouhieh Pour, 2011
	Customer Satisfaction	Knox and ryals, 2001
	Value of the customer (Quality Improvement - knowledge necessities of the customer - continuous improvement activities)	Milard, 2003
	Preservation, maintenance and customer loyalty	Lindgreen, 2006
	Insurance Customer	Steve Mankov 2001
	Activists focused on the customers (the central marketing of the customer - Evaluation of the lifecycle of the customer - and re-diagnosis)	Sin, 2005 Balding et al, 2005 Mack et al, 2005
Infrastructure factors	Characteristics of the market	Keramati et al, 2010
	explicit objectives	Knox and ryals, 2001
	Capacity of the organization	Steve Mankov 2001
	Interaction with stakeholders	Zablah, Bellengar,Johnston, 2004
	The success and reputation of the Organization	Roh et al, 2005
	Infrastructure of technical information	Lipka, 2006 King, 2007
Other factors	The use of consultants with experience and familiar with CRM	Sohraby et al, 2010 Milard, 2003
	Measurement - monitoring and control system of permanent CRM	Steve Mankov, 2001 Zablah, Bellenger, Johnston, 2004
	Departments and agencies integration components	Roh et al, 2005
	Appropriate organization	Sin, 2005 Cooper, 2008

Given the previous empirical studies, research on the theoretical principle and models, the most important factors affecting the implementation of Customer relationship management are:

Processes

Human factor (Staff)

Technology

Organizational structure
Knowledge management
Customer
Infrastructure factors
Other factors

RESEARCH METHOD

This study has an applied method and descriptive method, because describes and explains the conditions of the study to identity the existing conditions more, or to help in the process of decision-making.

Scope of the research

        a)   Subject scope of research

The subject of the current research is in the field of marketing science, customer oriented culture and Customer Relationship Management

        b)   Period of investigation the research

The search period is in the first half of 2011

        c)   Place of research

A company "x" in edible oil industry in Iran

Methods of collecting information

In this research, the following methods were used to collect data:

        a) The documents method (library)

Using the books and references (local and international),

using magazines and the internal and external papers related with the subject,

and using scientific, electronic documents in internet.

        b) The field method

Includes comprehensive questionnaire (primary sources)

Society (N) and sample (n):

The statistical population and Sample:

The statistical population in this study includes all experts, researchers and managers of the edilble oil company X, and according to the limited number of the statistical community and the ability to contact them, it has used method of census and all members of society.

The main research questions:

Which are the factors affecting on the implementation of Customer Relationship Management in Edible Oil Industry?

Are the factors affecting on the implementation of Customer Relationship Management in Edible Oil Industry   of the equal priority?

Research Hypothesis

1. The impact of   customer strategy on the implementation of Customer Relationship Management.
2. The impact of organization's strategy in value creation on the implementation of Customer Relationship Management
3. The impact of organizational culture on the implementation of Customer Relationship Management.
4. The impact of human   resources and staff on the implementation of Customer Relationship Management.
5. The impact of organizational structure on the implementation of customer relationship management.
6. The impact of information technology on the implementation of Customer Relationship Management.
7. The impact of organizational processes on the implementation of Customer Relationship Management.
8. The impact of Knowledge management on the implementation of customer relationship management.
9. The impact of the Supporter leadership (senior management) on the implementation of Customer Relationship Management.
10. The customer strategy has higher priority than other factors in the implementation of customer relationship management.

Research objectives:

The main aim of the research is:

-Identifying   the factors affecting   on the implementation of customer relationship management.
- Prioritization the important success factors on the implementation of customer relationship management.

Information Analysis Method

The analytic hierarchy process is a flexible decision-making process and has ability to help decision makers to set priorities and implement the best options. Also it can be used at a time that requires observation with quantitative and qualitative aspects of the design together. Technique of the analytic hierarchy process uses comparisons (even one-to-one) and the consolidation of results leads to a reduction of the complexities of decision-making and helps decision-makers in choosing the best decisions and it provides logical guidance and clearly set out for the best decisions.

The analytic hierarchy process was developed by L. Saaty in the beginning of 1980. This technique is a composite of the views and evaluation researchers. Complex decision-making system was switched to simple by hierarchical analysis simple. Then evaluation method is based on a measure to investigate the relative importance of the dual comparisons of each of these criteria.

Accordingly, this method fragments complex issues from high to lower analytic hierarchy and provides a systematic point of view, using the structure of the system (sub-systems existing in one system). (chang, et al 2003,p215)

The practical use of analytic hierarchy process analysis includes four steps, which are classified in two phases: The analytic hierarchy process planning and evaluation. The first phase designs the hierarchical plan and the other evaluates it by setting matrixes, calculating the weight and consistency test.

In the analytic hierarchy process, the decision-making is done in a hierarchical analysis of different levels that includes a limited number in each level of decision-making parts. The highest level of the hierarchical analysis shows all the possible options, also intermediate levels in the framework of norms and standards infrastructure.

Each of dual comparisons are signed by the decision maker, but it is possible that several decision makers involve in making a decision, instead of one decision maker. In such situations, all the views should be met and since there is a group, the geometric mean is used.

$$a'_{ij} = (\prod_{l=1}^{k} a_{ijl})^{\frac{1}{k}} \qquad l = 1,2,\cdots,k \qquad i,j = 1,2,\cdots,n \qquad i \neq j \qquad (4\text{-}3)$$

Although the one decision-maker, who has the most influence on the opinions given by specialization and responsibility, the weight (W1) is allocated to his view, which is used in the result from the following relationship:

$$a'_{ij} = (\prod_{l=1}^{k} a_{ijl}{}^{wl})^{\frac{1}{\Sigma wl}} \qquad (5\text{-}3)$$

The views of multiple decision makers are preferred, when the consistency rate of each decision maker is less than 1%. On the other hand, the attempts by the collective negotiations must make the views of each decision-makers' view close to the other's. This means that any irregularities between the different points of views should be prevented.

Otherwise, it is better to argue more deeply on the ranking structure of the subject. In order to understand the other aspects of the matter more accurately, it needs several clarifications. Otherwise, the union of the views of decision makers with many conflicts would be problematic.

Ranking hypothesis with Friedman test

One of the non-parametric known tests is Friedman test. Being a kind of coherency between different groups, this test can be used to rank the various groups. Using this test, the presence or absence of the significant difference between the sensible frequencies can be studied.

In this test if the hypothesis zero is true, we expect that the distribution of sensible ranks in each column, is as a result of random factors. Accordingly, we expect that rankings in each column occur with equal frequency.

In the other hand, if the hypothesis zero is incorrect, namely the models haven't the equal advantage. We expect to see capacity compared to the highest and the least grades in a column. In other words, Friedman test is testing this significant when the hypothesis of zero is true. When the correct mattress is seen to that point of difference that cannot have any share. The statistical Friedman index shows Xr2 and can be calculated as the following:

$$X_r{}^2 = \frac{K}{n \times k(K+1)} \times \sum (R_J)^2 - 3n \times (K+1) \qquad (12\text{-}3)$$

In this equation:
n The number of lines
k The number of columns (behavior)
R_j The sum each column

RESULTS

According to the goal of this research (Identification and prioritization of affecting factors on Customer Relationship Management in edible oil industry) affecting factors were identified and prioritized as the following. At first, the analytic hierarchy analysis method was used to test hypotheses concerning the AHP analysis. In this way factors affecting on implementation of customer relationship management are specified and used in the second questionnaire. In this investigation the researcher used the Pearson correlation coefficient test, T-student and Friedman test for more accurate analysis. At the Initially analysis of the study, an investigation normality statistical distribution was tested with use Kolmogrov- Smiernov test and we accepted the normal distribution when significant of test was more than 5% and confidence level 95%.

To determine the reliability of the questionnaire, Cronbach's alpha coefficient was used. Cronbach's alpha for each of variables was more than 83% , and the average of this indicator is equivalent to 0.89 & and the results confirmed the reliability of the questionnaire.

Results of analytic hierarchy process analysis

According to this test, each of the factors affecting on the implementation of customer relationship management mean with prioritization as follows: The first prioritize is Leadership support with standard weight .21 and the other prioritize by respectively customer and customer strategy .158 , organization's strategy and value creation .133 , structure of the organization .088 , technology .085 , knowledge management .085 human and staff factor .085 , culture of the organization .082 and the stages of the organization .074 . Based on this criterion, the indicators related with each original factor and results of each of the factors and indicators effect are mentioned briefly.

Test hypotheses with the Pearson correlation coefficient

To determine the relationship among the variables of the implementation of Customer Relationship Management and measurement this relationship has been used Pearson correlation coefficient and the results of tests mentioned as follows.

The results of test hypotheses

1. The hypothesis of the impact of customer strategy on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.000 \qquad \rho = 0.613$$

2. The hypothesis of the impact of the organization's strategy and value creation on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.000 \qquad \rho = 0.522$$

3. The hypothesis of the impact of organizational culture on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.001 \qquad \rho = 0.475$$

4. The hypothesis of the impact of human factor(staff) on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.007 \qquad \rho = 0.252$$

5. The hypothesis of the impact of organizational structure on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.024 \qquad \rho = 0.181$$

6. The hypothesis of the impact of technology on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.066 \qquad \rho = 0.206$$

7. The hypothesis of the impact of the organizational processes on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.014 \qquad \rho = 0.357$$

8. The hypothesis of the impact of knowledge management on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.000 \qquad \rho = 0.812$$

9. The hypothesis of the impact of the supporting leadership (senior management) on the implementation of Customer Relationship Management is confirmed.

$$\text{p-value}=.157 \qquad \rho = 0.210$$

Results of the ranking affecting factors using the Friedman test

In the presentation of the analysis and after proving the impact of each of the factors identified. To determine which of the factors has important role and an absolute priority of the implementation of Customer Relationship Management (hypothesis 10). It has been used arrangement Friedman test.

According to this test, the average of each of the factors affecting of the implementation of Customer Relationship Management with prioritization as follows: The first prioritize is customer and customer strategic with mean 6.45, and in the following priorities are: Organization stage (6.16), culture of the organization (5.85), human and staff factor (5.71) , protection of the leadership (5.49) , technical information (5.27) Organization structure (5.27), Organization strategic and value creation (4.59) and in the last prioritize is knowledge management with mean (4.41).

An investigation the organization actual conditions of the implementation of Customer Relationship Management with using T-student test

To study the organization actual conditions and is organization ready for implementation of customer relationship management (access CRM) or not? We used T-student test to investigation average each and every one of these factors.

Using the results of this test we see the averages of each of these factors are less than the amount 3. Accordingly, when the confidence level is 99%, the hypothesis rejected of the readiness of the organization to implementation of customer relationship management and it can be said in the current conditions it doesn't prone to implementation of customer relationship management.

Also, each of factors has a privilege in the organization (in this situation to implementation of customer relationship management), the results shown in the following: The first prioritize is customer and customer strategy with rank mean 6.85, human and staff factor (6.47), the protection of leadership (6.06) , organization stages (5.79), culture of the organization (5.27), technology (5.17), organization's strategy and value creation (5.08) , structure of the organization (4.45) and in the last prioritize is knowledge management with rank mean (3.26) The factors in the lower grades need to be able to care more for the organization to reach the level to implement priority of the implementation of Customer Relationship Management.

Conclusion

Customer Relationship Management is a unified system for program development and the timing and control in the previous activities and after the sale of the organization, and it aim is to attract and maintain long-term relationship and evaluation with customers. Also the ability to make customer s to deal with Firms and companies through the numerous tools such as: Web, phone, fax, email, and receive services.

Customer relationship management software used in all stages of the customer 's organization in the amount and level of cover marketing, sales and services for customer protection. For keeping the ability of competition in the market today, all organizations seek behind the ways of development and conservation, maintenance and revival, accuracy and range in view of the customer and the product, information and services through long-term marketing, sales and services, protection and development sectors that help to stabilize the CRM.

The CRM is part of the organization's strategy to known the customers, seek to replace, and save them to an encouraging. Also, the CRM helps to strengthening the relations of the company's management and for the customer to reach the maximum value for each customer of the company.

The main job of CRM is facilitating the communication point in the company (in the case if there was a desire by the customer) without any restrictions of time, spatial and international. The company should be feeling customer's contact with a single organization known to lead to the solution requirements as soon as with easiest ways relations.

The CRM is a kind of marketing strategy that aimed not only to raise the transactions or raise the profit level is gradually, but is trying to through the point of view of individual and unity to the customer by way of resolving the customer's pivotal that lead to increased satisfaction of the customer and the high level of company profits in the long term.

If the improved form of customer relationship management, the result is to increase the optimum utilization and satisfaction of the customer and the best performance compared to competitors. With this case, companies must take into account that avoids customer relationship management solution as one of the ways to face the pressures of competition. Because the customer is a relationship management plan must be in the form of the organization's strategy that can be observed through it.

In the relationship with the principles of CRM the political suggestions that can make a success of the strategy for the implementation of CRM:

1 - Given to the customer s, employees, leadership, organizational culture, strategy and structure of the fundamental factors necessary to implement the CRM and the goal of the implementation of management strategy, moving to the relationship the customer in competitive markets, the company must submit a team skilled, ready technical skills and business, process according to the model presented in the research, which can help in the formation of standards for advertising services at a higher level to the customer .

2 - Develop a program of holistic and strategic management of the start and finish the project on time is necessary for the implementation of CRM strategy. This prevents of work from the project team to go and lead to cooperation in accordance with the regulations and limits of affordability multiplier in the future.

3 - to reduce strategic and tactical errors (individual and in progress) it is necessary at all stages of the work force necessary to control and surveillance regarding the performance of team members and the progress of the implementation.

4 - The study of model components for the implementation of the CRM strategic (intellectual, social, information technology) can create the field of strengthening of the components, especially when determining the weaknesses of the Organization when any component of the components.

5 - The origin and basis of all strategic information and technology. Therefore, organizations should be to make sure trust be when you get important information and appropriate for the purpose of planning, decision making influential and profitable in a timely manner to the appropriate individuals. To make such a business, it can be for organizations to create standards to attract the desire of the customer.

6 - The organization sectors need to dealing with each other of the implementation of CRM.

7 - The structure of the organization and human factors (staff) can be located under the impact factors of the implementation CRM strategy. It must create the type of individuals and motivate them and develop the skills necessary for the protection of the advantages of high competition. Must be the overall culture of the organization of shared values and behavioral norms, symbols and activities is consistent with the organizational structure and human factors.

8 - The implementation of CRM strategic in organizations includes several advantages, including reducing administrative costs and increase the efficiency of marketing competition in traditional markets, electronic, and increases the responsibility of the answer to the customer and increase the extended presentation of the product to the customer.

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