A Research on the Customer Relationship Management (CRM) Based on the Communication Approach

Baharak Nateghipour1 [1] , Dr. Ali Akbar Farhangi [2]

[1] Ph. D Student of Media Management Department, Science and Research Branch, Islamic Azad University (IAU), Tehran, Iran

[2] Professor, Department of Media Management, Science and Research Branch, Islamic Azad University (IAU), Tehran, Iran

Abstract: Customer relationship management (CRM) affects gaining desired outcomes from relationship between customer and service provider. The aim of this paper is to present a model to evaluate customer communication management on the basis of communicational approach. This study is highly valuable because it provides experimental evidence on value of CRM to organizational managers and experts, and provides a collection of customer-oriented criteria and measures, which enable managers to identify roots of failed measures. The statistical population of this study includes all experts in non-state specialized publications of city in Tehran, as well as their subscribers. The method of this study is descriptive survey and the model of test will be studied with modeling structural equations and confirmatory factor analysis using LISREL Software.

1. Introduction

Nowadays, management of customer communication is not something to be used by leading businesses and organizations to obtain competitive advantage; however this type of management has become a vital factor for maintaining fiscal and non-fiscal organizations. In recent years, many evolutions have occurred in communication and information technologies, in which we can see the manifestation of concept of customer communication management as an important approach in business which aims to return to personal marketing era. It poses the issue that we should evaluate the requirements of customers individually, instead of marketing a large number of individuals and organizations. In this person to person approach, the information related to every customer is used to frame goods and services, which enhances its acceptance possibility in customers. This approach is the result of development in information technology, and it means management of customer communication, not marketing of communicating with them. Management having much broader implication than marketing, involving production, human resources, service management, sale, research, and development. Therefore, to make organizations more customer-oriented and obtain great economic achievements, we require an organizational approach in any level of business in relation to management of customer communication. Such management involves all functions of organizations which require direct and indirect contact with customers. With an attempt to maintain and survive, an organization is required to meet the expectations of customers adaptively. Currently, despite great competitions in internal and external situations this issue has a special credibility. According to Galbirth and Rogers, customization, generating personalized and effective communications, and presenting after-sale supporting services are 3 major objectives for the management of customer communication. Along with access to effective communication with customers and attempts for keeping them loyal, instead of spending staggering costs for the advertisements, in recent years it is suggested for organizations to establish effective communications with customers by emphasizing on the communications in the marketing process and, thereby minimizing their costs related to mass advertisement for absorbing new customers using the customer communication sector and attempt for maintaining the current customers. Thus, it is vital to try to use management of customer communication approach. Considering above issues, the importance of communication in marketing and management of customer communication can be explained in this way: by coordinating and integrating communicational activities, we can avoid duplication and costs related to it. Also, we can benefit from the synergy between different communication tools. Finally, marketing plans with management of customer communication will lead organizations to high profits and maintenance in markets effectively and efficiently.

By presenting as well as testing a conceptual model about the success of customer communication management, which stems in the marketing

communication theory, this study will achieve its objectives. The model suggested here will attempt to establish a link between attempts of customer communication management with [service] providers, perceptions, attitudes, and behaviors of customers about that relation.

2. Theoretical Bases of Research and Review of Related Literature

Customers and service providers in market are interrelated through a type of business relationship which facilitates value interactions. While various approaches have been suggested for classification of relationships related to exchanges between customers and service providers in the related literatures, most researchers apparently have agreed that basic nature of these relations is dependent on the relative position of them in a transactional- relational chain.

In past forty years, considerable attempts have been dedicated to studying interpersonal relational marketing. There are a variety of attempts which pay special attention to current communicational elements in the interpersonal interactions, and they mostly rely on classification designs of interpersonal behaviors, represented by Bales in 1950 and Cronbakh in 1966. For instance, the primary works represented by Webster in 1968 and Hulbert & Capon in 1972 show that results of interpersonal interactions are affected by many explicit and implicit messages which are interacted during any supposed encountering (in comparison with Doncan and Mouryarti in 1998). The new works have studied how implied (implicit) verbal messages are used to transmit relative power in exchange relationships.

Some studies about the somehow simple conceptual model by Sheth, which was represented in 1976 and later on were strengthened and tested by several researchers, also associated with this study. Their studies indicated that we can describe interpersonal relationships which occur in the interactions between customers and service providers on the basis of 4 elements: 1) Content, 2) code, 3) rules, and 4) style or technique.

Due to lack of operational measures, the experimental research studying the value of relationship by the viewpoint of customers is limited. Furthermore, so far several studies related to marketing have been investigated experimentally from the perspective of interactional communications. As a result, there is little experimental evidence to confirm the relationship between the quality of interactional message and perceived value of relationship by the customers on the basis of what has been said previously. However, a study investigated the marketing communication from the viewpoint of communication has found that "the result of a successful relationship depends on the value perceived by the customer, resulting from the increased connection between customers and service providers in this relationship".

3. Objectives, Questions, and Hypotheses of the Study

The main purpose is to study and represent results and also a model for customer communication management on the basis of communicational approach in all non-state specialized publications of Tehran, in which the following objectives (purposes) are also considered:

- Investigating the effects of quality of planned messages published by the no state specialized publications on the perceived value of relationship from the viewpoint of subscribers;
- Investigating the effects of quality of service messages published by the publications on the perceived value of relationship from the viewpoint of subscribers;
- Investigating the value perceived of messages from the viewpoint of subscribers about the quality of relationship;
- Investigating the effects of value perceived of relationships from the viewpoint of subscribers on the tendency toward publication markets (marketization of publications);
- Investigating the value perceived of relationships from the viewpoint of subscribers on the importance given by publications to the investment on the customer communications.
- Investigating the value perceived of relationships from the viewpoint of subscribers on the tendency of marketization of publications on the quality of relationships with customers;
- Investigating the value perceived of relationships from the viewpoint of subscribers on the investment by publications on the customer communications and the level of its effect on the quality of relationship;
- Investigating the effects of relationship quality on the length of relationship between subscribers and publications;
- Investigating the effects of relationship quality on the width of relationship between subscribers and publications;
- Investigating the effects of relationship quality on the width and extent of relationship between subscribers and publications.

3.1 Research Questions

With respect to topic and objectives of the research, most important research questions are as follows:

1. Does the quality of service messages by non-state specialized publications is effective on the value perceived of relationships from the viewpoint of subscribers?

2. Does the quality of published planned messages (printed advertisements, banner …) by the publications is effective on the value perceived of relationships from the viewpoint of subscribers?

3. Does the value perceive of messages from the viewpoint of subscribers is effective on the value perceived of relationships from the viewpoint of subscribers?

4. Does the value perceived of relationship from the viewpoint of subscribers is effective on the customer's perception of tendency toward the market of publications (marketization of publications)?

5. Does the perceived value of communication from the viewpoint of subscribers is effective on the perception of importance has been given to the investment on the customer communication by the publications?

6. Does the perceived value from the viewpoint of subscribers in tendency toward marketization of publications is effective on the quality of relationship with subscribers?

3.2 Research Hypotheses

According to research statements (objectives and research questions), research hypotheses are as follows:

1. The quality of service messages published by the publications is effective on the value perceived of relationship from the viewpoint of subscribers.

2. The quality of planned messages published (printed advertisement, banner …) by the publications is effective on the value perceived of relationship from the viewpoint of subscribers.

3. The value perceived of messages from the viewpoint of subscribers is effective on the evaluation of subscribers from the quality of relationship.

4. The value perceived of relationship from the viewpoint of subscribers is effective on the perception of subscribers from the tendency toward the market of publications (marketization of publications).

5. The value perceived of relationship from the viewpoint of subscribers is effective on the perception of importance has been given to the investment in communication with subscribers by the publications.

6. The perceived value from tendency toward marketization of publications from the viewpoint of subscribers is effective on the perception of importance has been given to the investment on the quality of relationship.

7. The value perceived of investment on the relationship from the viewpoint of subscribers is effective on the quality of relationship.

8. The quality of relationship is effective on the length of relationship between subscribers and publications.

9. The quality of relationship is effective on the depth of relationship between subscribers and publications.

10. The quality of relationship is effective on the width of relationship between subscribers and publications.

3.3 Data Collection Methods

On the basis of research statements (objectives, questions, and hypotheses), the present study is practical in terms of purpose. To perform this study, certified articles and books, as well as acceptable internet sources were used to gather information in order to identify and explain dimensions and factors related to the components of the model. Then, questionnaires related to the management of customer communication, structures, and variables involved in the statements of research were built and they were provided to the experts and intellectuals in this area by the researcher. They were asked to tell their opinions about the dimensions and designing of questionnaire. Then, necessary corrections were performed and questionnaires were tested on one primary sample involving the experts of non-state specialized publications to investigate its reliability and credibility.

To do this, LISERL and SPSS 16 Software were employed and when the questionnaires were affirmed, the researcher distributed the final questionnaire and investigated the model, which is based on the research statements (objectives, questions, and hypotheses). LISERL Software and Structural Equations Model were used for this purpose. Therefore, generally, on the basis of above mentioned steps, it can be said that the present research method is practical in terms of purpose; and descriptive correlation (Structural Equation Modeling (SEM) and analysis), in terms of way of data collection.

3.4 Statistical Sample of Research

The Statistical sample of the present research consists of all public specialty publications experts of Tehran as well as subscribers of them. With regard to statistical sample, the sampling is classifying because statistical sample of subscribers is unbounded

in Tehran is numberless thus the research has been used classifying sampling method.

3.5 Methods of Data Analysis

In order to analyze data in the present research, the inferential – descriptive statistics methods would be utilized. For this reason, at first researcher delineates diagrams and abundance tables and then analyzes its research model based on structural equations and possible analysis. Also, the researcher uses approval – factorial analysis to review the validity of questionnaire or measurement tools.

3.6 Measurement Method

In general, the research could be divided based on two criteria. A) Research result; B) Data gathering method. The present research is a descriptive research of correlation type operationally and gathering data which has been conducted by measurement.

The aim of correlation research understands of the behavioral complicated patterns through correlation study among these patterns and variables that supposed there is a relation between them. In particular, this method is suitable in discovery of variables relation that no research divides in to 3 categories based on aims:

1) bi-variable correlation study
2) Regression analysis
3) Correlation matrix analysis or covariance.

The current research, which its aim is to determine relations between effective factors on relation with client management based on contact approach, is of correlation type and gathering descriptive data.

In addition, regard to the structural equations modeling method would be utilized to test hypothesizes. The present research is of correlation matrix or covariance type. The general form and scoring of positive questions is as follows:

Scoring from 1 to 7 respectively completely disagree and completely agree Validity of questionnaire.

3.6.1 Determination of Questionnaire Validity

The validity is one of technical feature of measurement tools. The given concept deals with to what extent measurement tools in same conditions give same results.

In the present research, a- Cronbakh method has been used to determine validity of test. It is used to calculate internal coordination of measurement tools which measure different features. In order to calculate a- Cronbakh coefficient, at first, the variance of scores in any questions subset of questionnaires and total variance should be calculated.

Then by using of following formula, the a-coefficient extent is calculated.

$$r_\alpha = \frac{J}{J-1}\left(1 - \frac{\sum_{j=1}^{n} s_j^2}{S^2}\right)$$

Where: J equals to number of questionnaire questions subset or test, equals of Jth subset variance, S_j^2 refers to total variance of questionnaire or test. Thus, in order to measure validity, a- Cronbakh method by using SPSS 16 software has been applied. For this reason, the primary sample consists of 30 questionnaires pretested and then the reliability coefficient was calculated by a- Cronbakh method with using obtained data from these questionnaires and SPSS statistical software that total a- Cronbakh coefficient of questionnaires related to subscribers and related to managers and experts were 93, 97 percent respectively. These figures show that using questionnaires, benefits from needed reliability. The following tables show net result of reliability test of research questionnaires in two statistical samples of subscribes and managers & experts,

$$r_\alpha = \frac{40}{40-1}\left(1 - \frac{\sum_{j=1}^{n} s_j^2}{S^2}\right) = 0.975$$

$$r_\alpha = \frac{40}{40-1}\left(1 - \frac{\sum_{j=1}^{n} s_j^2}{S^2}\right) = 0.930$$

3.6.2 Sampling Method and Sample Size in Measurement Method

The sampling method of current research in measurement section in both statistical samples has been conducted by classifying sampling and experts as well as accomplished questionnaire in subscribers' sample, which based on Morrgan & Corjesi table. While statistical sample size is 30 persons (approximate number of managers and experts of public specialty publications of Tehran), number of 31 samples would be adequate and while the statistical sample is more than 1000 persons, number of 34 samples would be adequate. It is necessary to say that, based on bounded and unbounded population formula, these numbers of samples are approved. In these 7 publication groups, total number of managers and expert's statistical society as well as subscribers assumed around 3000 persons and 1000 persons respectively. In order to approach to obtained sample size through kucaran formula and Moorgan table, the author (researcher) obtained total number of managers, experts as well as subscribers in order to determine number of questionnaire which should be filled in 7 publication groups fit to number of that group in total statistical population by following method inclusive of this, the number of 341 samples in experts population

with regard to total statistical society about 3000 persons were filled questionnaires in 7 publication groups of publication 1 based on obtained rates in any groups.

Sample size can obtain from this formula:

$$n = \frac{z_{\alpha/2}^2 \, pq}{\varepsilon^2}$$

4. Data Analysis
4.1 Type of Respondents

As observed in table (1), 3 percent of respondents were engaged in basic sciences group, 30 percent in liberal arts, 16 percent in medical and paramedical group, 30 percent in technical and engineering group, 12 percent in art group, and 10 percent in agriculture group. Table 1: Distribution related to type publication.

Table 1: Distribution related to type publication

Type Publication	Number	Percent
Basic Sciences	10	3
Humanities 132 39	132	29
Medical and paramedical	55	16
Veterinary	0	0
Engineering	69	20
Art	41	12
Agriculture	34	10
Total 341 100	341	100

4.2 Approximate Number of Publications Subscribers

With regard to obtained results, as observed in table (2), 6.5 percent of approximate numbers of publications subscribers in Tehran were lower than 1000 persons, 53.7 percent between 1000-2000 persons, 19.9 percent between 2000-3000 persons and 19.9 percent more than 3000 persons.

Table (2) distribution to approximate the number of subscribers to the magazine

Approximate number of subscribers to the magazine	number	percentage
Less than 1000	22	6.5
1000 to 2000	183	53.7
2000 to 3000	68	19.9
More than 3000	68	19.9
total	341	100

4.3 Work Time with Publication

Table (3) shows that 16.6 percents of respondents have background below 1 year, 56 percent between 1-3 years, 6.5 percent between 3-6 years, 12.9 percent between 6-9 years, and 5 percent more than 9 years. The abundance diagrams related to cooperation time span with publication of respondents have been

given in fog (3-4). Diagram (3-4) shows abundance diagram related to cooperation time span with publication.

Table 3: Distribution of in collaboration with magazine

percentage	number	Collaboration time
19.6	67	Less than 1 year
56	191	1-3
6.5	22	3-6
12.9	44	6-9
5	17	More than 19
100	341	total

4.4 The Number of Experts

As observed in table (4) 58.4 percent of respondents were engaged in publications which the number of their experts was lower than 10 persons, 28.2 percent between 10-20 persons, 8.2 percent between 20-30 persons, 5.2 percent more than 30 experts. The abundance related of experts, respondents have been given in diagram (4-4). Descriptive statistics related to research indexes subscribers of public specialty publication of Tehran.

Table 4: distribution number of managers and professionals

Number of experts	number	percentage
Less than 10	199	58.4
10-20	96	28.2
20-30	28	8.2
More than 30	18	5.2
total	341	100

5. Descriptive Statistics Related to the Study Variables
5.1 Review of Quality Measurement of Service Messages

At first, the results of quality measurement of service message are given and in following the review of its positive locations based on findings of table (5), as observed, 18.5 percent of respondents, valued low the quality of service message, 12.5 percent, moderate and 69 percents high.

5.2 Research Hypothesis Test

As given in this stage, at first, the Speerman correlation is tested by SPSS 16 software between both variables, and only if this relation would be available and meaningful, then by structural equations modeling method, the causal relation between research variables is tested using LISREL 8.54 software.

Table 5: Distribution respondents in terms of quality of service message

Quality of service messages	number	percentage
Low	71	18.5
medium	48	12,5
Top	265	69
total	384	100

In order to test hypothesis, firstly, the speerman ordinal (rank) correlation test has been used by SPSS 16 software to measure correlation between variables. Then, the causal relation between dependence and independence variables of research was tested by structural equations modeling method using liserel 8.54.

In order to review relation and its value between two variables, the correlation test is used. In the present research, variable are qualitative, the Speerman correlation has been used, which its results were reflected in table (59-4). The correlation coefficient between all variables of research was obtained on validity of 99 percent. Because, the value of ki-2, RMSEA and the rate of k2 to degree of freedom was lower than 3 percent and value of GFL and AGFI was also higher than 90 percent, then it could be said that, conceptual model of research in the present statistical population benefited from suitable fit.

Hypothesis 1: the quality of issued service messages by public specialty publications of Tehran has positive effect on understood value of relations in view of the subscribers.

A) Speerman correlation value equals to 0.218 and it is meaningful on reliability level of 99 percents.

Hypothesis 2: The quality of issued planned messages (issue promotions, banner, soon) by public specialty publications in Tehran, has effect on understood value of relation in view of subscribers.

A) Speerman correlation value equals to 0.128 and it is meaningful on reliability level of 99 percents.

Hypothesis 3: The understood value of message in view of subscribers has positive effect on evaluation on subscribers about quality of relation.

A) Speerman correlation value equals to 1 and it is meaningful on reliability level of 99 percents.

Hypothesis 4: The value of relation in view of subscribers has positive effect on subscribers knowledge on tendency to (publication marketing) public specialty publications market of Tehran.

A) Speerman correlation value equals to 0.385 and it is meaningful on reliability level of 99 percents.

Hypothesis 5: The understood value of relation in view of subscribers has positive effect on knowledge of subscribers about importance of public specialty publications of Tehran give to investment on connection with client.

A) Speerman correlation value equals to 0.317 and it is meaningful on reliability level of 99 percents.

Hypothesis 6: The knowledge of subscribers about tendency to marketing on public specialty publications market of Tehran has positive effect on quality of relation with subscribers.

A) Speerman correlation value equals to 0.382 and it is meaningful on reliability level of 99 percents.

Hypothesis 7: The knowledge of clients in investment on relation with subscribers has positive effect on quality of relation.

A) Peerson correlation value equals to 0.187 and it is meaningful on reliability level of 99 percents.

Hypothesis 8: The quality of relation has positive effect on relation duration between subscribers and public specialty publications.

A) Speerman correlation value equals to 0.810 and it is meaningful on reliability level of 99 percents.

Hypothesis 9: The quality of relation has positive effect on depth of relation between subscribers and public specialty publications.

A) Speerman correlation value equals to 0.809 and it is meaningful on reliability level of 99 percents.

Hypothesis 10: The quality of relation has positive effect on relation between subscribers and public specialty publications.

A) Speerman correlation value equals to 0.491 and it is meaningful on reliability level of 99 percents.

Conclusion

With respect to the approval of all the research theories as well regarding that, a good relationship with clients is one of the most valuable assets of any organization and also it is evaluated as one of the potential competing values in the marketplace. Organizations are supposed to find strategies in order to increase their investments level in relation to their long terms connections with their present and future potential clients. It is necessary that they perform measures that upgrade their merchandising relationships with their clients as well. These strategies will assist the managements of organizations to gain a better understanding of their clients' expectations as well as help them to comprehend to eliminate those strategies that have not culminated in successful results already.

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