The Role Of Service Marketing Mix And Its Impact On Marketing Audit In Engineering And Technical Service Corporations

By Mehrdad Alipour, Elham Darabi
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The Role Of Service Marketing Mix And Its Impact On Marketing Audit In Engineering And Technical Service Corporations

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1. Introduction

Whenever we talk over the marketing product, four fundamental factors of marketing is mentioned: product, price, distribution and enhancement which are known as 4p. But the rate of customer participation and also the time are important in service delivery. So, for considering these two factors, other factors in marketing decision of management in the service organization are important that are called “service marketing mix” or 7p. In fact correlation and adhesion of these seven factors are mentioned as a significant and effective element to succeed in each competitive service occupation and the disproportion between these seven factors causes in success in marketing activities. As a result, this disproportion makes some problems like losing customers, dissatisfaction and wasting efforts to consume money, time and energy. Service department is an issue which plays an important role to improve productivity, create occupational opportunity and earn income in different economical dimension and international and national arenas. Meanwhile, because this part does not offer any physical product, it has some problems in marketing. Also, the technical and engineering service part cannot be an exception. The more complex, specialized and competitive trade and activities, the more improved servicing. Additionally, the managers should be familiar with the service marketing elements for managing their organization better in the active and competitive world and applying service technology for making the customers satisfied is significant for them. However, the services are insensible, the service privilege unclear are caused by functional nature.

II. About Society of Iranian Consulting Engineers

The society of Iranian consulting engineers has been founded under the name of “Iranian consulting society” in 1352. Thus, the arrangements of this society was provided after approving the qualification diagnosis regulation and classifying the consulting engineers by the council of ministers in June of 1352. Establishment of this society had been predicted based on the twelfth article of this regulation to cooperate with the budget and plan organization. This society was registered in 07.12.1352 under the number of 1471 and began its activity. The consulting society have been reviewed by itself, approved a new statute and begun to work after Iran Revolution in 1357. This society still works. It’s members were at first 54 and had been 158 in 1357. This number has increased to 760 so far. The society executive tasks are being done by its management council has been established and contains the active professional groups agents. It has 17 groups. The board of administrators is composed of five people who are selected among the council members. (www.irsce.org)

III. Literature Review

a) Marketing steps for consultants

The technical and engineering service consulting firms should not waste time because they have lost their main customers, their supportive managers have left their organization or their business has faced with inflation.

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Recognizing situation

Recognizing situation means considering a firm internally and externally. We consider internal situation of firms and external situation of them in regard to their completion and the customers issues. A capable marketing plan should be based upon this roots where they are and where they are going to.

Marketing a data base from potential customers

Making a data base from potential customers needs doing three key activities. First, analyzing the information that has gathered in recognition stage. Second, preparing a marketing plan and third, recognition and looking for customers or a group of customers. Marketing a data base needs a lot of executive activities.

Calling the potential customers

This part is a sale executive stage in marketing process. The firm calls their potential customers and persuade them to utilize their services. Getting known and utilizing the marketing intentions like inauguration and end of the sale conversations. In this phase of marketing conception you should know about how to the more customers in the market and sell your services to them several times. (Biech,1388)

Service definition:

Service is an activity that is given from one party to another one. Although, this procedure may have a close relationship with a physical product but this activity must be intangible and don’t lead to the production factors ownership. Also, the service is a kind of economical activity that makes value for customers to change in the service receiver at particular times and places and provide some benefits.(Lovlock,Wright,1382)

Classifying services:

Classifying services in Iran

Classifying services in our country is more limited than its definition and global general extended classification. Thus, the shortage and obvious differences in service trade statistics can be seen. Recently, the attempts have been done by the central bank L. Iran in the field of classification and presentation of service trade statistics based on the global standards but this classification is different from the international known classification in the field of service trade especially in classifying the trade global organization. The service account in regard to central bank classification is one of the current account. The current account in classifying the national accounts is one of the most chapters and its subsectors includes the goods exchange accounts(exports and imports), service account(receive or export and payment or import), income account and current transmission.

Classifying the related services based on the trade global organization division

The service trade general agreement contains all the services which are transferred commercially except some services in government authorities’ district. This agreement includes all the services based on the commercial status either with internal competitors or without them. The trade global organization has divided the services to do the negotiation and insert in a chart in 12 main district:

- Business (including professional and computer services);
- Communication;
- Construction and engineering;
- Distribution;
- Education;
- Environment;
- Finance (including banking and insurance);
- Health;
- Tourism and travel;
- Leisure services, cultural, sporting;
- Transport services;
- Other services that are not mentioned elsewhere.

Technical services – The engineering in relation to producing in global trade classification has been divided to five parts

1 - General Construction task on housing;
2 - General Construction task in Civil Engineering;
3 - Installing and mounting tasks;
4 – Building accomplishment and complement;
5 - etc.
(Alipour, Ghassemlou, 1387)

Engineering service companies – Consulting Engineers

The planning and managing organization in regards to engineering and technical consulting services has ranked the consulting engineers companies: (Alipour, Ghassemlou, 1387)

1 – Urban Planning and Architecture
2 – Transportation
3 - Water Engineering
4 - Agriculture Studies
5 – Energy
6 – Telecommunications
7 – Technology
8 – Mining
9 - Oil and Gas
10 - Cultural Heritage
11 – Statistics
12 - Management Service
13 - Planning Service
14 - shared expertise

e) Service marketing development:

The companies that produce the material and goods have gained more profit than the service providers from marketing ways and professional activities. Most of the service marketing developments are almost new. Many factors are mentioned in this development:

- Organization structure and size – many service providers are usually small and are active in the professional fields.
- Rules and regulations – most of the service providers are banned legally.
- Service industry growth – the new marketing developments have provided the total service industry growth like banking services, hotel service, food production and tourism.
- Service features – being non-tangible, inseparable and unequal features and using and producing simultaneously are the characteristics of services that are paid attention by the service marketers.
- Buyer/broker engagement – this factor plays a more significant role in service marketing rather than the material goods marketing. Additionally, the service marketing focused more on the education and communication.
- Service quality – the service quality and service quality plans should be considered. The knowledge growth in related to the received service quality and buyer perception about this issue based on the general experience make the quality topics in the service marketing important.
- The particular service parts – the particular service marketing for nonprofit corporations and professional service firm are substantial. The marketers in these fields face with the moral restrictions and other limitations. (Kotler, 1388, Woodruffe, 1385)

f) The main functions of service agencies in marketing

1. The competitive differentiation – in today’s world, if the customers suppose that the service being given by the different agencies are equal and pay attention to the service price more than the service providers. So, we should differentiate in the cases of equality, the providing way and the customer's believes from the service for removing the price problem.
2. The service is quality – one of the essential ways that competitors is considered as providing the best service quality rather than the competitors for a long time.

3. Productivity – the service agencies are under extreme pressure because of the increasing their expenses for enhancing productivity. (Kotler, 1388)

IV. THE MARKETING MIX

The marketing mix for the first time was introduced in an article at Business Review Harward magazine as a title of marketing mix conceptions. Professor Neil Borden who was this article author applied the term of marketing mix for describing the various elements in marketing district. He meant marketing mix or mixed marketing in this way : we should determine how these factors are mixed together. We divide these factor in to four main parts: product, distribution, price and promotion. The marketing strategy means the regulating and applying the marketing mix. Tools and tactics in marketing are the marketing mix. The marketing mix, mixed marketing, marketing tools and marketing tactics are all the words which are used for translating the marketing mix. The intention of this mix is a mix or mixed who should be considered by a systemic and harmonic point of view to be effective in influencing and proving customers. In other words, the good distribution and applying the adequate communicative ways . If each part of these elements is not in harmony with other parts, it will cause decreasing the effects and the collection efficiency and stop the firm from achieving its goal. Tools and tactics of the firms to compete in market and improve are the important factors.

- Jerome Mc Carthy classified the marketing mix to four known variants as four p in the early decade of 1960 they were mentioned in this way : product, price, distribution of place and promotion. All of these marketing tools have some subsets.
- Bomz and Bitner differentiated the service marketing or 7p that is related to different decisions rather than the goods. In their mix, 3p includes personnel, physical assets and processes in 4p. (Lovelock, 1382, Dargy, 1384)

V. ADDING THE QUALITY ELEMENT TO THE SERVICE MARKETING MIX

Marketing people should research about their service quality level in relation to needs and demands of customers and how much they can pay. Marketing people should make the consumers familiar with the (service) product level by the service marketing informative media or tools. But what is the need and demand of customers are should be considered as the (service) product with good quality in a suitable and proper situation and in a reasonable price the contemporary marketing people are trying to discover the new ways to improve the (service) product, situation, price and its enhancement and also for gaining the
customers satisfaction from their product quality. (Alipour, 1389)

VI. SERVICE QUALITY

Parasuraman, Amol Zit Vabry offered a service quality model that makes clear the main conditions of service product. He stated that Five distances are mentioned in unsuccessful service:

1. Distance between the management attitude and consumers’ expectations: the management doesn’t understand the customers’ demands.
2. Distance between the management attitude and technical features of service quality: the management may not understand the customers’ demands correctly, but a clear functional criterion is not mentioned.
3. Distance between the technical features of service quality and the service delivery ways: the related staffs of service delivery may have not the necessary education or essential skills and abilities. As a matter of fact, maybe they don’t desire to the determined standards.
4. Distance between the service delivery and foreign relationships: the corporation brokers and advertisement have in fluencies on the consumer expectation.
5. Distance between attitude toward the service and the expected service: when the consumer doesn’t understand the service quality value, this distance is appeared. (Fitz Simmons, mona j., 1382)

VII. MARKETING AUDIT DEFINITION

The first marketing audit definition is still considered as the fundamental from for the most of today’s definitions. Shuchman in 1959 and Katler, GreGuro and Rajerz in 1977 and at last Mokoa in 1976 addressed this definition . The marketing audit is comprehensive review and evaluation, systemic, critical, independent and neutral from environment, long time aims, strategies and activities of organizational for determining problems and opportunities, procedures, methods, organizational structure, policies while Shuchman focused his definition on marketing operations in 1959, Mokwa showed in 1986 that the marketing audit in each organization has an extended or wide range. Generally speaking most of the researchers didn’t agree with Shuchman. He believed that marketing audit includes: 1-Evaluation plan, 2-Critical evaluation of assumptions, aims and politics, 3-predicting in regard to discrimination, 4-Identifying opportunities and weaknesses, 5-Either factor of prevention or treatment the marketing audit of all the marketing districts involves an occupation and doesn’t limit to many points that have made problems. Environment, strategies, organizing , marketing mix, making and utilizing profits of marketing are evaluated in marketing audit.

Some auditors compare doing marketing audit to taking an organization pulse. The evaluation audit process output is a report containing a business plan in which some suggestions are mentioned to improve each corporation marketing function. Actually, the result of this function maybe surprising or even shocking for each organization manager. Finally, the manager decides what, when and how to do revisory actions. Marketing audit is a kind of strategic control for marketing. As a result, it can be said although the auditing is an activity being mentioned in marketing activities, it plays a supervisory role in all marketing procedure. Marketing audit is the most principal descriptive tool for the organization marketing situation because there are the opportunities and threats in the organization competitive area and also this area shows the weakness strength points. An organization can mention its long time aims imprecisely and clearly based on this analysis to show the organization efforts or attempts and also the certain strength points for registering the obtaining procedures to get successful. Determining these kinds of aims shows what strategies can be selected by a corporation. Marketing audit for recognizing and choosing the technical strategic alternatives is suggested. (Berry, S. conant, A. parasuraman ,1991)

VIII. THE NECESSITY OF MARKETING AUDIT

Generally, because of the marketing audit placement in marketing strategic control level, we can mention to its particular situation in assessment and control process of marketing firms and marketing audit is considering marketing system completely. Philip Katler, the father of world marketing defines the marketing audit in this way: “marketing audit is a general, systemic and independent test, the period of environment, goals, policies and marketing activities of a company. The goal of this test is determining the problematic districts, obtaining the opportunities and presenting an executive plan to improve marketing of firms”. According to Kutler, the optimal and final goal of marketing audit process is recognizing the marketing opportunity to improve the marketing activities of firms. (Berry, S. conant, A. parasuraman, 1991, Hosseini, 1381, Online Adib, 1379)

IX. MARKETING AUDIT PROCESS CHARACTERISTICS

The marketing audit has four main characteristics which should be paid attention in all stages:
1) Generality: the marketing audit covers all the marketing fundamental activities of each occupation and is not limited to some especial point. If the auditing activities just contain sale, pricing or other marketing activities, the auditing should not be considered as an operational auditing. Although the operational auditing are beneficial, they may make the managers devious. For instance, when the sale is not high enough by the sale agencies, its because of the products weakness or the sale promotion policies not for the low education or salary of the staffs. The general auditing can devote the sources to the basic marketing issues better.

2) Being systematic: the marketing audit is the ordered revision of an micro and macro marketing environment, long term goal, marketing strategies, marketing systems and the particular activities of this area. The revisory activities are determined by auditing and this procedure effects on the marketing of organizations.

3) Independ : the marketing audit can be done in five ways:
   • Self assessment – each manager gives the privilege to his/her own operational area in this way.
   • Audit in width – an organizational until evaluates other units.
   • Top down audit – an organization unit evaluates its subsections and other organization in lower levels.
   • Auditing by auditing organization unit: this organization audits other organizations if they request.
   • External auditing: it’s done by a person or an external independent group.
   The fifth way will be offered more than other ways if the auditor is experienced and impartial and pays attention a lot to auditing.

4) Being periodic: marketing each organization is considered after decreasing the sale content, lowering the sale forces motivation or problems in marketing.
   
   But if the firms don’t review their marketing operation when they are successful, keeping them safe will be difficult. So, it’s better to audit during 3 or 5 years orderly. (Hamilton Consultants, Cambridge, MA, 2005)

   X. MARKETING AUDIT ELEMENTS

   The main element at marketing audit starts with the market, place, the changes in progress, opportunities and threats the next step of auditing is making question about the marketing goals, guidelines and organization system and auditor may consider one or two key functions eventually to do marketing by details.

   Katler and his coworkers have suggested six marketing audit elements:

   1. The environment marketing audit concludes analysis in occupational and massive areas.
   2. The marketing strategy audit for evaluating marketing strategy stability with the environmental opportunities and threats.
   3. The organization marketing audit for evaluating the interaction between marketing and sale organization has been designed.
   4. Marketing systems audit evaluates a way to gain information, planning and marketing operations control.
   5. Usage audit is evaluating information to determine efficient profit from the sources and parsimony potential in cost.
   6. Marketing operation audit is considering the first rank functions key... (Neil A. Morgan, Bruce H. Clark, Rich Gooner, 2002)

   XI. MARKETING AUDIT FUNCTION

   Marketing audit is been shown in three steps as following:

   The first Step: agreement for the goals and approaches regulating confine.

   The second step: Data Collecting

   The Third Step: providing and presenting report

   The first step – it includes visiting corporations to discover the marketing functions nature and potential value of marketing audit. In this step, the agreement for goals, data sources, report opportunities and audit period of time should be determined. We consultants should know the general function and marketing policies and pay attention to four main goals for the collection auditing:

   1. Determining the market points of view and its competitors.
   2. Offering pricing policies
   3. Developing the product evaluation system
   4. Determining the immediate sale system situation to improve the sale activity based on the loss kind and function measurement.

   The second step – the most part of auditing period is devoted to collecting data. Although, we just talk about one audit, an auditing team or group is considered in the projects. A meticulous planner is a person who interviews by the especial questions in one time and situation and minimizes the auditing time and cost. A daily report is written from interviews to help an auditing team or a person for discovering some demands.

   The Third Step – the marketing audit extends its findings from the developed data that is obtained by interviewing the firms, members once or twice in office before collecting data to observe the reactions and suggestions for production. When the marketing auditor collects his data is being prepared to give the data in a pictoral and conversational file to the firm members or a small selected group. This file contains the main...
findings and fundamental advice. Then, the auditors are ready to write the final report. (Hamilton Consultants, Cambridge, MA, 2005)

XII. METHOD

The method of this research is applicable based on its goals and nature. This research is considered descriptive-survey in regard of collecting data in hypothetical test.

Statistical population-because this research’s aim is considering the role of service marketing mix functions and its impact on marketing. It includes all the technical and engineering service consulting firms of car production in Iran Province that are the statistical population of this research.

XIII. RESEARCH QUESTIONS

1. Do the functions of service marketing mix (7p) have any effects on the marketing audit in the technical and engineering service consulting firms?

2. Does the service marketing mix have the same effect on the technical and engineering service consulting firm of car production?

XIV. DATA ANALYSIS

At first, the correlation has been tested by an especial test in deductive analysis part between the independent and reply variants. Then the regression analysis has a close relationship with correlation coefficient and is generally used in different studies in a simultaneous way and helps the researchers to predict the variable. The more powerful variants we have, the more careful prediction is done. They are different because the regression is considered after prediction while the correlation coefficient is mentioned through the dependence measurement but is being used in data analysis in a supplementary manner.

Table 1: The sample redundancy distribution study is based on the gender

<table>
<thead>
<tr>
<th>Cumulative frequency</th>
<th>Frequency</th>
<th>Abundance</th>
<th>Gender type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>86.2</td>
<td>56</td>
<td>Male</td>
</tr>
<tr>
<td>13.8</td>
<td>13.8</td>
<td>9</td>
<td>Female</td>
</tr>
</tbody>
</table>

The gender redundancy distribution of respondents to questionnaire (study sample) according to table. 56 or 86.2% men were among 65 participants in this study and others were women.

The dependent and independent variants descriptive indicator are mentioned in the following table:

Table 2: dependent of independent variants descriptive indicators

<table>
<thead>
<tr>
<th>Variables</th>
<th>Descriptive indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample size</td>
</tr>
<tr>
<td>Dependent variables</td>
<td>65</td>
</tr>
<tr>
<td>Product</td>
<td>65</td>
</tr>
<tr>
<td>Price</td>
<td>65</td>
</tr>
<tr>
<td>Place</td>
<td>65</td>
</tr>
<tr>
<td>promotion</td>
<td>65</td>
</tr>
<tr>
<td>People</td>
<td>65</td>
</tr>
<tr>
<td>Physical Asset</td>
<td>65</td>
</tr>
<tr>
<td>Process Management</td>
<td>65</td>
</tr>
</tbody>
</table>

The correlation between independent and different variants comes in the following table:

Table 3: Correlation coefficients between independent and different variants
As you can see, all the independent variants have a direct linear relationship with a reply variant and all the relationships are in the error level of 5% except the price variants and meaningful distribution. Also, we can say based on these values that the product variant and the distribution variant have the least and most correlation with the dependent variant. We use the STEPWISE method for finding the best regression model and is entered in dependent variants by applying these variants method in relation to the dependent variant.

This procedure continues until the time that the independent variant gets meaningful. Entering the variant to model is stopped as soon as the variant without a meaningful effect on the dependent variant enters.

The product, physical assets and employee variants have entered to the regression model.

ANOVA table of a model concluding the effective meaningful independent variants for dependent variant comes following:

<table>
<thead>
<tr>
<th>Source Changes</th>
<th>Sum of squares</th>
<th>Degrees freedom</th>
<th>Mean squares</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.923</td>
<td>3</td>
<td>0.974</td>
<td>9.130</td>
<td>0</td>
</tr>
<tr>
<td>Is needed</td>
<td>6.511</td>
<td>61</td>
<td>0.107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.434</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As you can see, obtaining F is totally meaningful based on P-Value. In fact, at least one of the dependent variants is effective to predict the dependent variant. So, all the independent variants should be tested by T test.

The next table is related to the independent variants coefficients this table shows the standard and unstandard X coefficient:

<table>
<thead>
<tr>
<th>(Product) $x_1$</th>
<th>(Physical Asset) $x_6$</th>
<th>(People) $x_5$</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1.501</td>
<td>0.420</td>
<td>--</td>
</tr>
<tr>
<td>0.280</td>
<td>0.107</td>
<td>0.293</td>
</tr>
<tr>
<td>0.176</td>
<td>0.087</td>
<td>0.240</td>
</tr>
<tr>
<td>0.128</td>
<td>0.068</td>
<td>0.221</td>
</tr>
</tbody>
</table>

The existence of all the coefficients in model on 10% meaning level can be considered based on the meaningful column P-Value.

It’s important to mention that the B coefficients are used for predicting the changes, although the Beta coefficients are considered to determine the change effect value of independent variants on the dependent so, the selected regression model follows:

$$y = 1.501 + 0.280x_1 + 0.176x_6 + 0.128x_5$$

In other words, the following equation...
\[ y = 1.501 + 0.280 \times (\text{Product}) + 0.176 \times (\text{Physical Asset}) + 0.128 \times (\text{People}) \]

Is a suitable linear multi variants regression to show the relationships between the independent and dependent variants.

**XV. Friedman Test to Rank the Research Hypotheses**

The Friedman test has been used to prioritize and determine the importance value of the hypotheses. It happens when the statistics data is ordinal or we can rank data bilaterally.

Friedman test talks about whether there is the most important factor among others or all the factors have equal significance. This test has been done individually for two under studied groups.

Following hypothesis are mentioned in relation to ranking research hypothesis:

- H0: service marketing mix have the equal status.
- H1: service marketing mix don’t have the equal status.

Friedman test result summary has been recorded to determine the hypothesis priority in following table:

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Value test statistics</th>
<th>Degrees of freedom</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>192.095</td>
<td>6</td>
<td>0.000</td>
</tr>
</tbody>
</table>

As you can see, being in the same rank for the accepted hypothesis in 5% meaning level is refused. So, these seven variables don’t have the same importance.

The variables ranks have been recorded in following table:

<table>
<thead>
<tr>
<th>Average Votes</th>
<th>As the independent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.75</td>
<td>Physical Asset</td>
</tr>
<tr>
<td>4.03</td>
<td>Price</td>
</tr>
<tr>
<td>6.09</td>
<td>Product</td>
</tr>
<tr>
<td>2.93</td>
<td>promotion</td>
</tr>
<tr>
<td>1.82</td>
<td>Place</td>
</tr>
<tr>
<td>5.02</td>
<td>Peoples</td>
</tr>
<tr>
<td>3.18</td>
<td>Process Management</td>
</tr>
</tbody>
</table>

Prioritizing independent variables is mentioned as following based on Friedman test:

1 - Product
2 - people
3 - physical assets
4 - Price
5 - Process Management
6 - promotion
7 – Place

Because there are some independent variables and one dependent variables in this research, a questionnaire has designed for each variant. Also, some variables have been used from the regression test for Standard deviation and correlation coefficient to show the correlation value of two variants. We conclude to this fact that the product has the most correlation value with the dependent variables after different processes of activity. So, it has more influence on these variables and less effect on marketing audit. Generally, service marketing mix doesn’t have the same effect on marketing audit in engineering service firms and each factor based on the different conditions has the different effect on each other. Additionally, Prioritizing Friedman test has been determined according to marketing mix elements and product, people and physical assets are in higher ranks. Price, process management, promotion and place are rank in the next stages.

**XVI. Conclusion**

As a matter of fact that the more powerful correlation shows the more powerful prediction and the less scattered answers through the Standard deviation point to the agreement and common ideas in related to this subject.

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References Références Referencias


6) Alipour, M., and Mohammad Mehdi, Gavaruei. Marketing and Market Management, (1389), Tehran, Publisher Mahkameh.

7) Alipour, M. and Ghassemlou, Khalil, Engineering Services exports from the province of Zanjan, (1387), Business Organization research project in Zanjan province.

8) Dargy, Parviz, article marketing mix design, (1384), Tadbir Magazine, 161.


10) Hosseini, Sirus, article marketing audits, (1381), Tadbir Magazine, No. 129.

11) www.irsce.org

12) www.marketingteacher.com

13) www.businessdictionary.com


