“PERSONNEL” AND IT’S EFFECT ON CUSTOMER’S SATISFACTION IN INTERNATIONAL CONTRACTS OF DRILLING INDUSTRY (CASE STUDY: NORTH DRILLING COMPANY)

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**ABSTRACT**

Oil as a main material of supply of energy in the world has an special importance; the oil concluded contract that have mostly international aspect, by attention to the world political and economical changes, is very important and from different aspects should be studied. Knowing of the affective factors on different markets in oil industry, puts unique opportunities in commercial fields in front of companies and the agents of this industry. Thus paying to the topic of the contracts of oil and gas fields – in this study of drilling industry- can be useful and entrepreneur for the agents of this field especially the investors, marketers and students. For this reason, in this research, the level of the effect of personnel element that is one of the most main elements of service marketing mix, on the satisfaction of the customers in international contracts of drilling industry in North Drilling Company is under study. This research based on the practical aim and the point of view of data collection , is a description of survey type . From the point of view of data analysis, is considered as the kind of correlation and the constructive equations . For this purpose , based on the occasional sampling, a sample equals to 396 people were selected and by using of 21 questions questionnaire information was collected and the obtained results, show the dimensions of personnel has had the meaningful effect on the customer’s satisfaction in international contracts in north drilling company.

**KEYWORDS:** Customer’s Satisfaction, Drilling Company, International Contracts, Marketing Mix, Personnel

Oil industry is the most effective and largest industry in the world and especially Iran. Oil, in addition that it is a major resource of energy supply in todays world, plays an important role in determination of the national strength and international validity of different countries too. Oil section in Iran’s economics in many years supplies the majority of national income of country and indeed , this section plays a dominant role in the economics of country (seeied Mashhadi and etal ;2011)

Marketing, is a responsive process for identifying, prediction and profiting meeting of customer’s needs; that the organization will be able to fit its products or services with customers needs, and not produces a product and expects for coming of customers.(Sui pheng,1997)

It seems that the most successful manufacturers have put one principle as the capacity of all their activities, one simple and meaningful principle: supply of “customer’s satisfaction”.

They tell this statement for buyer that he is king and spends his money for product that is satisfies his demands and needs. (ahmadi, 1998)

The marketing mix is indicator for the main activities of marketing managers. After selection of a target market, the marketing managers should collect a systematic planning for selling to customers and making the long-term relationships.

The marketing planning consist of the decisions about the product, price, promotion, place, personnels, and …. These are the important parts that the marketing managers allocate the resources of companies to them for reaching to the purposes of selling and profiting (Chen, Chi, 2004).

Usually the personnels are considered as the main factors of service marketing and in the services discussion, many of customers, know a renderer as the name of organization. Having the futures like ability, politesse, compassion, proper behavior, punctuality and proper adornment are among the important factors in this field (Jazaeri, 2010)

Therefore, by attention to the importance of Personnel for companies for customer’s satisfaction, in this research we pay to the investigation of the level of the effect of personnel dimension on the customer’s satisfaction in international contracts of north drilling company,
PROBLEM STATING

In current years, for development of the underlying projects of oil and gas, the politic of using of foreign investing in development section has been welcome and we were witness of concluding of the contract from organizations and public companies with foreign companies in oil and gas section that the topic of cooperation of foreign companies in these contract have been cleared in different forms. (Sheikhbabaei, 2007)

The marketing mix are actually “the controllable factors” –in a environment full of the uncontrollable factors- and the marketer by proper and appropriate using of these factors can in different conditions, creates a proper position for himself in market and allocates more share from markets to his products or services; Knowing of different marketing mixes and selection of proper mix of the, in today’s competing world, seems necessary. (Roosta, Venous & Ebrahimi, 2001)

In view of “Zoran”, customer’s satisfaction is a mood that the customers feels that the features of the product fit with his expectations; and “Linfield” knows the customer’s satisfaction from the psychological aspect, sentimental that is achieved as a result of the comparison between the received product with needs and demands of customers and social expectations related to the product (Maleki, 2008).

By attention to the afore mentioned subjects, the main matter in this research is that how much the Personnel dimension is affective on the customer’s satisfaction in international contracts in north drilling company.

IMPORTANCE AND NECESSITY OF DOING OF RESEARCH

Because of the importance of oil that is a viable resource, the oil concluded contracts have an especial importance too; most oil contract have the international aspect and especially by attention to the political and economical changes in the world, faced with the changes and deformations that each one from the especial aspects holds the importance and study.

Knowing of the players and the effective elements on the different markets in oil industry and understanding of the market changes and operating of collected plans of marketing in oil, gas and petrochemical industries provides the unique opportunities in commercial fields for companies and the agents of the industry; in one hand , the investigation of the effective elements for customer’s satisfaction , for profit organizations – especially service ones like north drilling company that is deliverer of the drilling services in the national and international area– is very important and fundamental and is a viable matter and unavoidable necessity and on the other hand, we often neglected the attention and understanding of this viable and basic point that in principle delivering of all services , is for absorption and satisfaction of customers and each element that leads to its increase can leads to so much profiting of these organizations. So, paying to the topic of the contracts of oil and gas field – in this study, drilling industry – can be useful for the agents of this field especially the decision makers, managers, investors, marketers and the students of the courses related to the marketing, oil and gas fields– especially drilling industry.

RESEARCH GOAL

The main aim of this research is answering to this question that: “does the “Personnel Dimensions” have the meaningful effect on the customer’s Satisfaction in drilling international contracts in north drilling company?” and it is divided to the secondary questions as follows:

1- Does the perceptual dimension have a meaningful effect for customer’s satisfaction in drilling international contracts in north drilling company?
2- Does the human dimension have a meaningful effect for customer’s satisfaction in drilling international contracts in north drilling company?
3- Does the technical dimension have a meaningful effect on the customer’s satisfaction in the drilling international contracts in north drilling company?

CONCEPTUAL MODEL

In this study, the following model is used:

*Figure 1: Conceptual mode (Ekrami, 2001)*
THEORETICAL BASIS OF RESEARCH

Market

“Market composed of all potential customers that have common needs and demands and tend to proceed the exchange for meeting of their needs and demands and also have the ability of doing of this action.” (kotler ,2012) . The types of the marketing from the point of view of Philip Kotler’s point of view are as follows: 1- consuming markets, industrial markets, intermediate markets, governmental market and international market that involves the foreign buyers and consumers, providers, selling intermediates and governments. (Alvadari, 2005)

Customer

An individual or business that purchases the goods or services produced by a business. The customer is the end goal of businesses, since it is the customer who pays for supply and creates demand. Businesses will often compete through advertisements or sales in order to attract a larger customer base. (Investment dictionary, 2012)

A customer (sometimes known as a client, buyer, or purchaser) is the recipient of a good, service, product or idea, obtained from a seller, vendor, or supplier for a monetary or other valuable consideration. (Blythe, 2008)

Customer’s Satisfaction

Customer satisfaction is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals."

In a survey of nearly 200 senior marketing managers, 71 percent responded that they found a customer satisfaction metric very useful in managing and monitoring their businesses. (Farris et al, 2010)

Marketing

Marketing is the process by which an organization relates creatively, productively, and profitably to the marketplace. 2) Marketing is the art of creating and satisfying customers at a profit. 3) Marketing is getting the right goods and services to the right people at the right places at the right time at the right price with the right communications and promotion.” (Kotler, 1991)

Marketing mix

The marketing mix is composed of all things the company can by using of them affect on the demand for its products in the target market. The types of probable things can be classified in four groups that are called four basises :Product, Price, Place, Personnel, Physical assessment, Process and Promotion (kotler, 2012)

Personnel

The people of service organization or personnel that deliver the services to the customers, are counted as the main factors of services marketing. Because many of the customers, know the renderers of the services as the name of organization. By attention to the role of the personnel in the matter of services, the factors of selection, employment, education, nurturing and impulse of human power should be paid attention. ability, politesse, intuition, compassion, behavior, adornment and punctuality of personnles are the important factors in succeeding of service organizations (Roosta, 2001).

International contract

The international contract is a contract that contains a foreign element, meaning it is in contact with one or more foreign legal systems. Specifically, the foreign element may be a resident abroad, a party involved in the contract, a nationality, the location where the contract was formalized, etc. International contracts are sale transaction agreements made between parties from different countries.

RESEARCH LITERATURE

Bagli Brown , Flagnan(2011) in a research by the topic land drilling contract : avoidance from the problems of the form of drilling contract ) stated as follows : this article pays to some of available problems and matters in using of the land drilling contracts and the quality of avoidance from them , that will be started with the discussion about the general considerations surrounding the form of contract for land drilling and describes the common important principles of avoidance from risk in all the drilling contracts of international society of drilling contractors. After it, the most common and considerable of land contracts of the international society of drilling contractors will be studied.

Kim and Hune(2010) in a research with the topic “the contract of oil services; the new persuasive designs for promotion of drilling procedures” have stated as:
This paper pays the description and analysis and investigation of the formats used in the oil services contracts; and that the lack of personnels and steps, encourages the motivation of making initiative in designing of contracts -for achieving of more efficiency- in drilling section especially for oil services contracts; and it states as: since the companies -among the oil private companies- should have direct control on the efficiency of drilling, multiple types of these contracts are used; the changes are presented in the form of contracts, the questions about management of resources are delivered and with deep look, it is paid to this subject.

Safari, Baharizadeh(2010) in a research with the topic “a view for the changes of drilling contracts” have stated as: all further try to keep the quality of their products to not be reduced, want to lower their expenses. For this reason, they are seeking the new types of drilling contracts to be able to make more cooperation and integration among the drilling companies and drilling contractors and servicing companies that by making adaption and cooperation among these three main principles of drilling contracts, be more successful in operating of drilling operations.

Doaei, Hosseini (2008) in a research with the topic: “role of the solution of marketing mix in the export operation of firms” have stated as: this paper, by investigating of views and main available solution related to the management of foreign markets, has tried for view analysis and dominant solution in the manner of delivering of product in the field export of country, it’s consequences and finally some suggestion for increase of affecting of this solution through proper delivering of products. This important matter by aid of investigation of product market procedure of Iran’s export during current 25 years has been followed.

**METODOLOGY**

**Case Study, Statistical Population and Sample**

The type of research in this survey , is a descriptive research from the measuring type ; and based on the purpose , it can be put in the practical group ; because it’s aim is determination of the level of affecting of dimension of “Personnel” on the customer ‘s satisfaction in the drilling international contracts and is used by this company and similar companies.

The volume of statistical population in this research is limited and composed of 396 people of customersof north drilling company . In this research , for sample selection , the simple random sampling has been used in a systematic method. The required volume of sample by using of “Cochran” formula for research , is composed of 385 people .

Number of 570 questionnaires were distributed among the members of the statistical population and finally 396 complete and usable questionnaires were extracted that the analysis on the information of these questionnaires was done.

**Measuring tools (usable in this research)**

In this research , for designing of questionnaire , the scientific resources and associated research articles that in the research literature also , some of them have been implied - like " investigation of the effect of the elements of marketing mix in customer’s absorption (case study: Ansar financial and credit institutes of Kermanshah )", " the effect of marketing mix on the preference of customer in selection of an insurance company ", "a view for the changes of drilling contracts" , " investigation of management of international contracts in oil and gas industry from the point of view of financial supply of project" , "study of the system of management of industrial marketing and it’s effect on the export of the petrochemical products" and "contracts of oil services: new couraging designs for promotion of the drilling yield " have been used , the questions of marketing mix were extracted and then for doing of this research have been corrected and proposed ; and have been used for investigating of the validity of model and the fields of research.

Questions of questionnaire: this section of questionnaire includes of 2 parts:

A) general questions: general information and population knowing about the respondents including of 5 questions (sex, marital statue, education degree and shopping antecedent)

B) professional questionnaires: the first section is the questions related to the Personnel Dimensions (15 questions) and the second part is the questions associated with the investigation of the condition of customers satisfaction of company (6 questions) that totally involve of 21 questions.
Reliability of questionnaire

For determination of reliability of questionnaire by using of the software of SPSS 21, Cronbach’s Alpha was used; its value for total value is .918 and for each one of the elements is also more than 0.7, so it can be claimed that the used questionnaire has the acceptable reliability.

Table 1: Result of Cronbach’s Alpha test

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>All questions</td>
<td>0.918</td>
</tr>
<tr>
<td>Customer’s Satisfaction</td>
<td>0.846</td>
</tr>
<tr>
<td>Personnel Dimension</td>
<td>0.907</td>
</tr>
</tbody>
</table>

TESTS AND THEIR RESULTS

Cronbach’s Alpha test for determination of reliability of research questionnaire

As it was implied in the table number 1, by attention to the number achieved from this test that for all independent and dependent variables is higher than the meaningfulness value - equals to 0.7 - , the choices of questionnaire have the proper reliability.

Kolmogorov-Smirnov test for determination of being normal or abnormal of data

In data analysis, by using of this test, it is specified that sig achieved of the test of data has been more than the meaningfulness – equals to 0.5 – and in the statistical population has the normal distribution.

Table 2: Result of kolmogorov–smirnov test

<table>
<thead>
<tr>
<th></th>
<th>Personne 1</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>396</td>
<td>396</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>4.102</td>
<td>3.380</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.059</td>
<td>.068</td>
</tr>
</tbody>
</table>

METHOD OF DATA ANALYSIS

In this research, for analysis of data obtained from samples, the methods of inferential statistics have been used; that after data collection and investigation of the variables by using of analytical statistics and structural equations and by using of the softwares of SPSS version 21 and LISREL version 88, data analysis and associated testing have been proceeded.

Technique of admitting factorial analysis for measuring of the degree of validity of the choices of variables

After doing of this test and the outputs achieved by software LISREL in two states of standard estimation and meaningfulness coefficient of T–Value, because in the first state, the factorial load of the choices of all variables has been more than 0.3 and in the state of the meaningfulness the factorial load of choices has been out of the limit of 1.96 – 1.96: it was concluded that the validity of the choices of questionnaire is in a desirable range.

Technique of admitting factorial analysis for perceptual dimension

Figure 2: Correlation of perceptual dimension questions with variables in Standard mode
As it is seen $\chi^2/df=2.65$ and $RMSEA=0.064$ that both are in a desirable level; in one hand, in the standard estimation state (figure 2) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of T–Values (figure 3), the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

Technique of admitting factorial analysis for human dimension

As it is seen $\chi^2/df=2.17$ and $RMSEA=0.071$ that both are in a desirable level; in one hand, in the standard estimation state (figure 4) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of T–Values (figure 5), the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

Technique of admitting factorial analysis for technical dimension
As it is seen $\chi^2/df=2.24$ and $RMSEA=0.077$ that both are in a desirable level; in one hand, in the standard estimation state (figure 6) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of T–Values (figure 7), the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

**Technique of admitting factorial analysis for “Customer Satisfaction”**

**Figure 8: Correlation of Customer’s Satisfaction questions with variables in Standard mode**

As it is seen $\chi^2/df=2.054$ and $RMSEA=0.063$ that both are in a desirable level; in one hand, in the standard estimation state (figure 8) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of T–Values (figure 9), the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

**PATH ANALYSIS TEST**

Here, By using of Lisrel software, for achieving of the level of the effect of independent variable in the dependent variable, this test was used, and finally, it was specified that the variable of Personnel has the direct and meaningful effect for customer’s satisfaction in international contracts of drilling industry in north drilling company.

**Figure 9: Correlation of Customer’s Satisfaction questions with variables in T-Values mode**

As it is seen $\chi^2/df=2.24$ and $RMSEA=0.077$ that both are in a desirable level; in one hand, in the standard estimation state (figure 6) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of T–Values (figure 7), the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

**Figure 10: Model of the structural equations of the effect of independent variable on dependent in Standard mode**
As it is seen $\chi^2 / df = 1.88$ and $RMSEA = 0.07$ that both are in a desirable level; in one hand, in the standard estimation state (figure 10) the factorial loads of all choices related to the factors larger than .3 and in the state of meaningfulness coefficients of $T$–Values (figure 11) the factorial loads of the choices related to the variables are out of the limit of 1.96 – 1.96 that it is indicative of the proper correlation of the choices with the variables.

By attention to the figure 11, the meaningfulness of the relation of independent variables with the variable of “customer satisfaction” has been in this order: “conceptual” dimension has meaningfulness number of 10/89, “human” dimension has meaningfulness number of 11/98 and “technical” dimension has meaningfulness number 14/27. Admission or denial of assumptions (relationship) is specified in meaningfulness mood.

In order other word, as the meaningfulness number be higher than 1/96 or smaller than -1/96, the assumption is admitted.

So, all independent variables have meaningfulness relationship with the variable of “customer satisfaction”. In this step, with reference to figure 10, we can see the strength of effect of each one of the independent variables; that in the order of strength of effect and importance are as: “technical” dimension with the effect coefficient 0/81, “human” dimension with the effect coefficient 0/77, and “conceptual” dimension with the effect coefficient 0/63.

**Goodness of fit test for determination of goodness of fit of the extracted model in data analysis**

At the end, for determination of goodness in the value of the extracted model in data analysis, the goodness of fit was used that the obtained results show that all indexes have the acceptable amount and are in proper state.

<table>
<thead>
<tr>
<th>Index</th>
<th>Acceptable amount</th>
<th>Amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2 / df$</td>
<td>$\chi^2 / df &lt; 3$</td>
<td>$\chi^2 / df = 1.88$</td>
<td>Accept</td>
</tr>
<tr>
<td>P-value</td>
<td>$P &lt; 0.05$</td>
<td>$P = 0.0000$</td>
<td>Accept</td>
</tr>
<tr>
<td>RMSEA</td>
<td>$RMSEA &lt; 0.09$</td>
<td>$RMSEA = 0.070$</td>
<td>Accept</td>
</tr>
<tr>
<td>RMR</td>
<td>$RMR &lt; 0.09$</td>
<td>$RMR = 0.046$</td>
<td>Accept</td>
</tr>
<tr>
<td>CFI</td>
<td>$CFI &gt; 0.9$</td>
<td>$CFI = 0.93$</td>
<td>Accept</td>
</tr>
<tr>
<td>IFI</td>
<td>$IFI &gt; 0.9$</td>
<td>$IFI = 0.94$</td>
<td>Accept</td>
</tr>
<tr>
<td>NFI</td>
<td>$NFI &gt; 0.9$</td>
<td>$NFI = 0.91$</td>
<td>Accept</td>
</tr>
</tbody>
</table>

**CONCLUSION**

Satisfaction means customer’s experience about the level of satisfying of this needs by an institute and is by attention to his expectations. Customer’s satisfaction, brings many benefits for organization and the vanguards of meeting of needs and getting the satisfaction of customers, are personnels that are at the beginning of the line of servicing to the viable channel of institutes and are considered as the most necessary elements of marketing mix. Based on the importance of topic, in this research, it is paid to the investigation of the level of affecting of personnel on customer’s satisfaction in international contracts of drilling industry in north drilling company.

By attention to the collected data and after proceeded analyses in this research, it was clear that the investigating indexed i.e: “conceptual”, “human” and “technical” dimensions had a direct and meaningful effect on customer’s satisfaction in drilling international contracts in north drilling company and based on the strength of effect and importance of them are as: “technical”, “human” and “conceptual” dimensions.
PRACTICAL SUGGESTIONS

* Technical dimension has the most level of correlation with the dependent variable of customer's satisfaction in international contracts of drilling industry. So, it is suggested the elements related to this independent variable like: number of human force having the conditions for responding to the needs of customers, level of necessary available proficiencies and experiences for doing of tasks in personnels, being familiar of personnels of north drilling company with the principles and security methods and operational environment health and technical and operational methods and related standards, the level of having reliable certifications of training periods of company’s personnels and … be under the special attention.

* Human dimension

By attention to this matter that “human” dimension has had the second level of effect on the dependent variable, it is suggested that the respected managers pay their special attention to it’s components i.e: the manner of behaving and cooperation of office and technical personnel in doing of matters, lack of dispute of personnels with customer and acceptance of faults and removing of deficiencies, speed and care in doing of works by personnels and ….

Suggestion for future researches

1. proceeding of similar researches with this current research’s topic in other drilling company.
2. Study and careful investigation of drilling market and the technical services dependent to it inside of country.
3. Identifying of inner strength and weakness for more success in concluding of international contracts.
4. study and careful investigation of drilling market and technical services dependent to it outside of country.
5. Identifying of the condition of competitors, opportunities and threats for more success in concluding of international contracts.
6. Study and investigation of macro marking policies and strategic planning of north drilling company.
7. Identifying of other factors affective on the success in drilling international contracts.
8. Investigation and identifying of proper target markets and fitted with operational and technical power of north drilling company.
9. Investigation of effective factors of marketing mix on the success in inner contract of drilling company.

LIMITATION OF RESEARCH

Among the most major of research and survey is accessibility to the statistics and information. There are some problems in this field that caused that the research services like accessibility to books, magazines, statistics, information banks and … not be easily possible. Some of this problem are result of lack or shortage of each one of the above research services and in other hand the false culture, caused private considering of these matters and consequently, the individuals and institutes, in a manner avoid from transferring of their findings to others. In the other hand the unwanted variables that may be result of special designs and method that are used in design, mostly endanger in different ways, the inner and outer reliability of research.

Among the limiting matters of this research we as:

1. Security space of institutes associated with oil ministry for operating of project.
2. Multiple problems in accessibility to the customers of company and distribution and collecting of questionnaire.
3. Lack of existence of enough resources in topic domain of this research.
4. Lack of covering of some people of choices of professional questionnaire of research.

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