

Identifying and ranking the needs of customers using the Kano approach

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Abstract

In this study, the main factors affecting the research library and benefiting from the experience of experts in this field were identified and confirmed by the experts. Given the lack of standard questionnaire in this regard, the design criteria of a researcher working on a literature review of research and hours of interviews, discussions with experts in the enterprise that two companies are leaders in this field was achieved as a result of using expert opinion was obtained 26 index. In a renewed review of the removal, adjustment and increase some indicators, 30 indicators that were better suited and most considered the industry's population, were selected and the sample was analyzed. By examining the carried out by the researcher, for assessment distributors were identified 30 indicators, according to data obtained from the Kano model number of 24 indicators in three categories: basic needs, performance and incentive groups. As a result, the amount of calculation of basic needs was 0.475, which shows the importance of meeting these demands for the people and shows that the company's overall policies must be primarily to meet these needs, as well as amount of performance needs and motivational were 0.351 and 0.174, respectively, with the result are in secondary degrees.

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Introduction

Nowadays advances in science and technology and the development of new technologies has created new conditions for manufacturing and service organizations, as quality is the most important factor for them in global competition. Intensifying global competition and increased consumer demand for top quality, made companies realize that to compete successfully in the market, have to increase in order to serve customer needs (Fazli, 2008). The first and most important marketing principle is according to customer demands and organizations, regardless of the issue cannot survive (Ranjbaran, 2002). Peter Drucker claimed that "customer satisfaction is the end of all activities." Therefore any successful organization is trying to take advantage of their capacity, offer services that bring customer satisfaction. Hence, companies must meet customer needs and should have great skill and this requires the use of systematic methods to coordinate decisions about service, tailored to the demands of our customers. (Griffin, 1992) Due to this, Quality Function Deployment (QFD) as one of the tools of total quality management (TQM) provides the realization of these demands.

Customer satisfaction

Definition of consent acceptable to many experts is as follows:

Customer satisfaction is a result of comparison before the pickup of the expected performance with actual performance and perceived (Berli et al., 2004) and includes quality of service, product quality, situational factors and the individual. (Zivyar et al., 2011). According to Johnson et al (2001) following satisfaction of pleasure that after a judgment or assessment focusing on the product after use by the customer felt. Degree of satisfaction can be felt in customer satisfaction as a result of the ability to meet service demands, expectations and needs of its service and positive and effective working relationship that is sure to evaluate all aspects of the company to others.

Customer satisfaction and company profitability

Although every manufacturer wants to offer products that provide customer satisfaction. But this is not his only target. Companies and institutions cannot achieve the basic goals of his career as a competitive advantage or benefit granted. Participants will create huge benefits for customer satisfaction and higher levels of customer satisfaction leads to loyalty. (Flint et al., 2011) So for loyal customers should be given to factors affecting satisfaction, satisfaction is increased to the highest level. (Zanjirchi et al., 2013). According to research conducted by the Rojan Institute on 90 percent of senior executives of more than 200 corporate America, on this consensus is that the improvement of customer satisfaction, improve profitability and increase market share competition. Almost 90% of these companies are organized by allocating capital and measures to track and improve customer satisfaction, have provided evidence of this claim. (Nourbakhsh et al., 2013)

Quality of service and attention to it

According to Rosset et al (2004) Quality of Service is a judgment based on their perception of a process that customers get the service they are doing and they judge their expectations compared with the services they have received or perceived it as Nematian (2003), citing quality services Parasuraman states: Service quality is stable compatibility with customer expectations and understanding of specific customer expectations of service.

But there are several discussions about the need for attention to the quality of service. Javadein et al. (2005) Arguments presented superior quality services by organizations which are summarized below:

Increase the level of customer expectations: the fact that customers' expectations than in the past because of increased awareness and knowledge of clients, advertising agencies, competitors' performance and more.

2. Activity competitors: competitors by constantly changing their services and how to deliver it to customers, continuously changing the market and from this way seek to increase their market share would increase in the expectations of the clients. It makes others to take steps to improve the quality of its services.

3. Environmental factors: including political and legal factors, economic, social and cultural organizations to provide more quality services. For example, honoring people and customer satisfaction is the administrative system of political factors. In addition, today the spread of Internet access, customers can easily obtain information from around the world when it also increases people's expectations.

E-commerce and network marketing

Electronic commerce phenomenon facilitates the distribution of product network. Because beside herself has created a concept called online shopping so people can choose to buy according to their description in cyberspace. Industrial development and growth of the industry in quality and quantity is so that makes less our industry from the developed world. So every owner of the industry tries to fulfill this wish. One of the ways in which the economy and industry experts agree is strengthening and developing the distribution of goods. With the use of communication technologies and low-cost Internet companies can easily operate beyond national borders and their customers have access to low-cost and e-commerce companies can overcome the traditional barriers of business to come. (Monavarian et al., 2014) One of the trends of e-commerce business through great success in marketing and international economic activity grew is called network marketing. (Global direct selling industry, 2006) In fact, IT is a good platform for the emergence of the Internet network marketing company has opened, but still too new at the beginning of the industry and have not met the expectations of their customers.

What is QFD?

The mission of manufacturing and service organizations is production and delivery of products and services that further the expectations and demands of customers. (Juran et al., 1999) In meeting these demands and expectations, customer needs must first be identified correctly. These needs may be expressed explicitly or implicitly. Customer needs and requirements stipulated by interview or similar methods and implicit needs with quality engineering methods and tools of quality are extracted. One way of understanding the needs and expectations of customers is using quality function deployment. This method investigate current state of the organization compared to other competitors and identifies important elements and has high priority in order to improve the quality of services offered to customers. (Gonzalez et al., 2011)

Dimensions of Kano Model

The needs of customers in this model are divided into three categories:

A. basic requirement: the requirement that if the product does not exist, has not been accepted by the customer and the customer protests and lack of purchase. The basic requirement should exist in the product and the product will not cause customer satisfaction, the customer is required to be demanding.

B. Performance requirements: these requirements are not met if the customer is dissatisfied. But if customer needs are met leads to satisfaction. It should be noted that failure to meet functional requirements makes the customer unhappy and desired product properly. If customer satisfaction is due to meet this requirement.

C. Charming requirements: the requirement that he meet customer satisfaction. In connection with this there is no need to say is that if the product is not due to his dissatisfaction. (Auchola et al. 2003).Relationship these needs together and also with the time specified in the chart Kano. It should be noted meet the basic needs of the border will not be passed indifference and the need for more performance leads to customer satisfaction is met. (Zari BAF et al., 2008)

Evaluation table Kano

Kano, in 1984 used the positive and negative questionnaires for the classification of quality features. So that the positive customer satisfaction questionnaire if the desired characteristics of the product were measured and mutually negative, customer performance in the absence of the desired characteristics of the product were evaluated. By each customer, to every question in a language measures are five: I am interested, I'm satisfied, I am indifferent, I put in and I'm not satisfied answer. (Zhou et al., 2009).Table 2.1 shows the different states of the classification criteria based on customer responses, where the purpose of the letter A is motivational requirements, performance demands letter P, the letter B basic demands, the R reverse mode, the letter I state indifference, and Q mode shows questionable. The last three cases don't have impact on customer satisfaction. So for the conclusion of the first three criteria are satisfactions. In fact 'I' is related to the time, when the customer is despondent and listless to the presence or absence of a feature of the product. Q represents when the customer does not understand the question or the information in question is incomplete. R shows the characteristics of the desired shape, dissatisfaction and lack of it is satisfaction. (Wang et al., 2010)

Customer Requirement		I love this feature	This feature is necessary	No difference	I could put in	I don't prefer it
Desirable	I love this feature	Q	A	A	A	0
	This feature is	R	I	I	I	M
	No difference	R	I	I	I	M
	I could put in	R	I	I	I	M
	I don't prefer it	R	R	R	R	Q

Kano Analysis Chart (Berger et al., 1993)

Using the above table when the person I answer to question J. His intersection of favorable and unfavorable responses from Kano assessment table (Table 2-1) are found and transferred to the matrix results. After the call is transferred to the matrix results from table evaluation found Kano, the matrix and the results are going to question the answers obtained similar class J and below we add a number. So after transmission response matrix of all respondents to the results for each of our product features that are six different classes N call spread. (Wang et al., 2010) Kano advantage is that, unlike what was customary in the past do not need a product or service to customers and respondents already has experience.

Kano questionnaire analysis

There are several ways to check the Kano questionnaire that will be mentioned in this section:

The questionnaire analysis, based on the highest frequency

In this method at the far right of the results table, we add a new column, where the columns of the answers to any questions that have the highest frequency we choose it as a class, as feature I.

Kano analysis obtained by frequency modulation

It is believed if the questions in the questionnaire are about the general characteristics of each product, specific and informed opinion, but if questions about the technical characteristics of the product that most people are not aware and he majority response is I or when of 85 respondents to one question, there are 25 I, 19 person respond O, 18 person respond M, 19 person respond A, 2 person respond R and 3 person respond Q, so, the highest frequency is I. when the questions are expertise and people answer I due to lack of awareness, so frequencies are modified using below equation and appropriate respond is selected.

$$\frac{A+O}{A+O+M+I}$$

$$\frac{M+O}{A+O+M+I}$$

In the above formula, instead of each letter of the table Kano to put their frequency and increase satisfaction and reduce the compliance characteristics of the property obtained consent otherwise.

Research Methodology

Type of research is applied based on purpose and to obtain the required data is descriptive and survey (analytical). In order to collect information, a mix of methods and field research library will be used. Thus first indices to learn more about network marketing and service, with study literature library, complete knowledge of the subject will be created. Then, questionnaire design was approved the experts .After confirming experts in the community of distributing and collecting questionnaires, data are analyzed. Finally, conclusions and recommendations will be offered. The statistical society consisted of distributors or marketers and collectors is Nioushanik Company. Also Cochran's formula for determining the number of samples used to measure the reliability of questionnaires, Cronbach's alpha coefficient was used. As well as the validity of the research of scholars, experts, and industry experts will be used.

Determining the sample volume

At the top of each study program or study sample volume should be is the question. Sample selection bigger than needed would be a waste of resources and the samples are too small lead to unreliable results. (Azar, 2004) If the population volume is known, the easiest method is to determine the sample volume see Table Cochran. When neither of the variance in population and the likelihood of success or failure variable and cannot inform you of the statistical formula used to estimate the sample volume of the sample (1-3) are used. In this regard, the number of distributors Newsha in Ahwaz, about 550 people was estimated using a sample of 226 people are samples and, therefore, 230 questionnaires were distributed between distributors and marketers firm that eventually 212 questionnaires were returned

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left(\frac{z^2 pq}{d^2} - 1 \right)}$$

Sampling method

Sampling means the removal of all or a portion of society, as represented or represented. In the present study a simple random sampling method is used. In simple random sampling method, selection is done in such a way that all people have an equal chance of being selected research methods and choice of each individual is independent of the others. (Mirzaee, 2009)

Data collection tools

1) gathering information on this research done by two methods of library and field study in the library of books, magazines and publications and dissertations in the universities, circulars, guidelines and rules for participation and regulations related to activities related to research, to develop theoretical foundations in areas such as literature, history of research and development questionnaires were used. In experimental method of a researcher made

questionnaire to gather information as the main tool used to measure and collect data based on Likert scale and the company was active distributors.

2) questionnaire used in this study, with questions drawn from the results of studies in the field of network marketing industry and is a reflection of expert opinion, meanwhile this type of activity with the perfect look to both domestic and foreign companies, finally, appropriate indicators in this questionnaire must be considered carefully tried to research in the future if the industry was to study the technique, the instrument is ready.

3) Number of questions that were raised in the initial questionnaire, the index was 26, but the review team experts Newsha and Abartejarat and using experts and professors, some of the needs that were overlaps and were removed and other needs that eventually indicators index rose to 30. Also, due to the distribution needs as possible after the questionnaire was not appropriate.

Validity and Reliability

In this study of measures to ensure a decent standard of reliability and validity of the questionnaire was used:

Reliability: A measure of reliability, stability and harmony in measuring logical response to the show and to evaluate properly and well-being is a measure of help, (Danaeefard et al., 2009) and the idea is that if the questionnaire in a short time, several times to the same group of people is given, the results are close together. To measure the reliability, the reliability coefficient is an indicator of the size usually varies between zero and one. Reliability of zero represents no validity and reliability of a representative of the complete reliability of the questionnaire. In this study, Cronbach's alpha coefficient was used to calculate reliability. Cronbach's alpha value in this study, after collecting the questionnaires obtained 0.87.

Reliability Statistics	
Cronbach's alpha	N
0.87	212

Validity: The concept of validation (validity) to answer this question that measuring the extent, character of the measures. (Davos, 2005) Without the knowledge of the credit cannot be precisely measured tool data is ensured. Measuring tools may be valid for measuring a particular feature, while for measuring the characteristics of the society does not have any credit. Validity of questionnaires based on theoretical principles and ideas of some of the professors, specialists and experts Newshanik and AbarTejarat has been in several times, it is the validity of the content.

Demographic characteristics of society

From descriptive statistics were used to examine the demographic characteristics of respondents. The frequency of respondents has been studied by education level, gender, age, and income the number of subsidiaries and the corresponding figures in the appendix.

Gender: this study consists of 91 female and 121 male respondents.

Age: In this section, the age of 212 respondents to the questionnaire provided. A total of 156 people were under 25 years old and 73% were the samples with most frequency. 38 people were between 25 and 35 years old and 18 people were over 35 years old.

Academic degree: 54 people are high school graduates and less. 61 associate academic degree and bachelor's academic degree 79 respondents. People who have a master's degree were above 18 persons.

Amount of income of the respondent company: 92 respondents earn less than 300 dollars. 63 people have incomes between 300 and 600 dollars. 35 respondents earn between 600 thousand to 1 million. Only 16 have more than a million dollars in revenue.

Duration of Date: 58% of respondents have less than 3 month's membership. 65 people present 3 to 6 months. 53 of the respondents are members of 6 months to a year. 36 people are members of more than one year.

The number of subsidiaries: 82 of the respondents have less than ten subsidiaries. 63 people had ten to thirty subsidiaries. 45 respondents had thirty to one hundred subsidiaries 22 respondents had also more than a hundred subsidiaries.

Classification of the main needs of customers using the Kano model

In this study, 30 variables were chosen as the main needs of customers. First, using the Kano model analysis to classify each of these variables in the model were three requirements.

Basic requirements (B): product features that if not fully met, only prevents customer dissatisfaction and does not provide satisfaction of the customer. If not cause discontent, they are negligible.

Performance requirements (P): If not cause customer dissatisfaction. In contrast, the perfect fulfillment of customer satisfaction is provided.

Motivational requirements (A): feature is that the user does not know if it is not wrong, but if it is an advantage very high.

Discussion and conclusions

Identify the needs of customers in every industry in the first place need to find the main factors affecting this relationship. Naturally, network marketing is no exception to this rule, but the industry is multi-dimensional structure. Distribution system and its own procedures, internal and external training, procurement, product variety and volume of its contracts, in partnership with the e-commerce customers and revenue system have been distinguished it from other industries. Hence in this study, the main factors affecting the research library and benefiting from the experience of experts in this field were identified and confirmed by the experts. Given the lack of

standard questionnaire in this regard, the design criteria of a researcher working on a literature review of research and hours of interviews, discussions with experts in the enterprise that two companies are leaders in this field was achieved as a result of using expert opinion was obtained 26 index. In a renewed review of the removal, adjustment and increase some indicators, 30 indicators that were better suited and most considered the industry's population, were selected and the sample was analyzed. By examining the carried out by the researcher, for assessment distributors were identified 30 indicators, according to data obtained from the Kano model number of 24 indicators in three categories: basic needs, performance and incentive groups. Of these 24 indicators, 11 indicators were the basic indicators, 9 were performance indicators and 4 indicators were motivational category. Of these 30 indicators, 6 indicators are neutral, which indicates the index is not important now for the customer. These indicators consist of having flexible working hours at the branch, the presence of high-level experts in each branch hours, having a graphical user interface for the Web site, up to date news and information Web site, ease of ordering process in the website and make the appropriate field for enjoying the experiences of successful and experienced in branch offices, indifferent to the needs of these demands is not trivial means, But rather may not understand their importance in the current situation and categories in space and time, the results will be different. These 6 indicators were excluded from the calculations and research sequence with the remaining 24 indicators was sought. As a result, the amount of calculation of basic needs was 0.475, which shows the importance of meeting these demands for the people and shows that the company's overall policies must be primarily to meet these needs, as well as amount of performance needs and motivational were 0.351 and 0.174, respectively, with the result are in secondary degrees.

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