
IDENTIFYING AND ANALYZING THE CUSTOMERS' NEEDS AND PROVIDING FUNCTION IMPROVING STRATEGIES BY USING QFD AND KANO APPROACHES**SEYEDEH SHABNAM SEYED AGHILI^{a1}, HASAN MEHRMANESH^b, NEDA EHTESHAMI NASAB^c, FARIBA HENDI^d**^aM.A. in Industrial Management, Islamic Azad University, Central Tehran Branch^bAssistant Professor, Department of Industrial Management, Islamic Azad University, Central Branch, Tehran,^cM.A. in Public Administration, Department of Public Administration, Islamic Azad University, Central Branch, Tehran, Iran^dM.A. in Financial Management, Islamic Azad University, Persian Gulf Branch, Boushehr

Abstract: Nowadays, competition among companies has increased very much due to fast technological changes and increase and variety in products and services. In this competition environment, considering the customers' needs is important and most of the companies have chosen customer-orientation as their signboard. In this study, we too have tried to analyze the customers' needs, carefully identify their wants and also prioritize the needs in an optimized way. To do so, in this study, a mixed framework of quality function deployment and KANO model have been provided as a useful tool for evaluating quality of the services. Pasargad Bank, one of the successful private banks, is offered as a case study. To do so, after studying the previous research and by using the experts' ideas, the customers' major needs, technical requirements, and appropriate executive parameters for them were chosen and by using questionnaires, the data of the customers and personnel were collected to feed the QFD-KANO model. At the end, the final importance of each of the needs was identified according to the KANO need classification and the priority of the technical requirements and executive parameters was determined. The results showed that our suggestion can effectively manage the provision of the customer services and make the managers able to identify and adjust the goals and competition strategies in accordance with today's wants to improve the customers' satisfaction.

KEYWORDS: Customers' Needs, QFD, KANO Model

1. INTRODUCTION

Nowadays, customer's satisfaction and quality of services play an important role for most of the service industries (Kashi et al. 2012) and this has been an increasing concern for many of the important companies all over the world (Matzler and Hinterhuber, 1998). Customer's satisfaction indicates a modern approach in the companies and organizations (Mihelis et al. 2011) and in addition, evaluating the customer's satisfaction makes a kind of a sense of success and accomplishment for all the personnel involved in each stage of customer services (Hill, 1996). If a trade company has a complete view of the customers' needs, it will be able to optimize the quality of the products and increase the level of satisfaction (Wang and Xiong, 2011).

Providing services with high quality is considered as one of the most important factors which results in customer's satisfaction and only the companies and institutions provide high quality services permanently which have a comprehensive approach appropriate for the customer and a serious commitment towards their customers (Kashi et al. 2012).

Increase of competition, changes in business environments, globalization, and development in communication and information technologies are of the important changes which have made industry of financial services and banking change too. Demand for financial services is changing fast and the behavior of customers of these services is changing fast too. By the customers passing through the traditional banking stage to electronic banking, new strategies seem necessary to attract customers and keeping current customers.

Trend to provide high quality services plays an important role in service industries such as banks, insurance, etc. (Kashi et al. 2012). Most of the banks can copy the technical improvements from each other easily and then spend their time to increase the quality of banking services so as to keep their customers and compete with other banks considering obtaining satisfaction (Hallowell, 1996).

Banks are considered as one of the economical-trading pillars of countries that the quality of their financial and trading services has a strategic position and importance in permanence and development of them. Undoubtedly, all of the organizations are trying to achieve the desired quality but this is more important in the banks because banks as one of the service centers which have close relationship with the customers are not exceptions (Rezaei et al. 2002).

Paying attention to the customers and identifying them and their needs and wants carefully and achieving a situation which can follow-up all the

needs and fulfill them, is an essential affair and is one of the very important cases which banks encounter.

The personnel of QFD should not only emphasize on the customers' needs, but they should be aware of the issue that how much attention should be paid to the characteristics of each customer so that their satisfaction reaches the desired level. This section introduces a procedure that KANO model has been used in it which is for balancing the impure importance which can be completed (Wang and Xiong, 2011).

To be certain of the responses to these expectations, different methods and techniques have been formed in the field of management during last decades. By using the quality management/engineering in the framework of forming related teams and doing group work, the possibility to utilize the actual and potential capabilities in the organization is obtained. Meanwhile, QFD is a very effective and efficient method for realization of "customer-orientation" in organization (Rezaei et al. 2002).

One of the sensitive stages during application of function deployment is the quality of defining the customers' requirements and allocating preparations for them. These preparations must reflect the "should"s (requirements) of the customers. Therefore, it is essential to have real information about what makes them satisfied and also doing enough and useful analysis to provide preparations in the customers' way, helps to understand their nature. There has been different research to develop QFD to add as many capabilities as possible to this systematic method from which the KANO model can be mentioned. Combining the quality function deployment and KANO model would be an appropriate method for better fulfillment of the customers' needs and requirements (Chen and Ko, 2008).

2. LITERATURE REVIEW

2-1. QFD

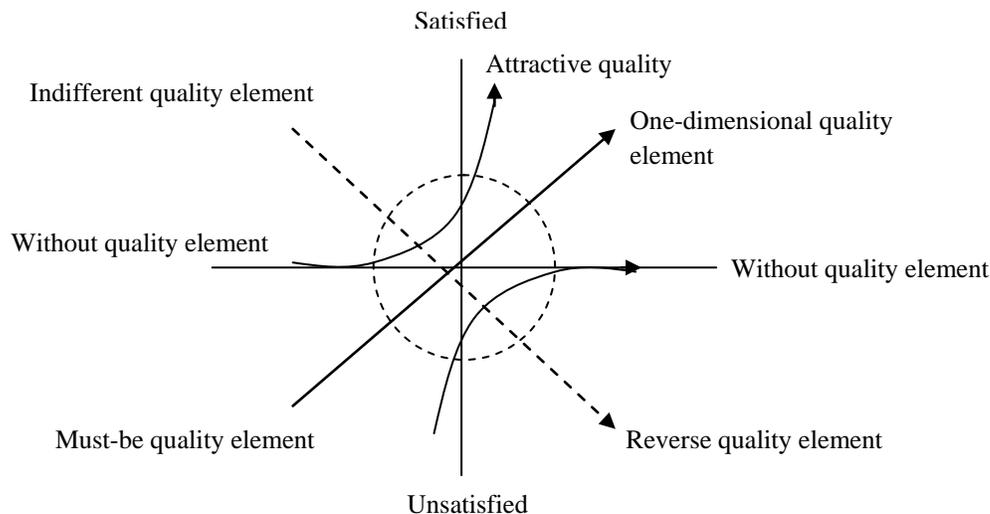
Quality function deployment is a customer-oriented approach that is used for processing the optimization of new products to maximize the satisfaction level of the customers (Chen and Ko, 2008). QFD is a method that applies the needs of the customer in all of the production stages such as design, development, planning, and producing and was first introduced in heavy industries of Mitsubishi in Japan in 1972. Despite this short history, the interest in QFD and its applications was increasing in the world (Kashi et al. 2012).

Correct ranking of the importance of all of the customer's needs is essential for QFD because to

a large extent, the value of the final goal affects the specialized features of the product.

QFD is consisted of two components which result in the deployment during the design process; one is quality and the other is function. The quality deployment section changes the voice of customer into the design process. This results in guaranteeing the design and quality of production by identifying the design goals, part's features, and product which are related to the customer's needs. The function deployment sections, in relation with other different functional sections of the organization which are related to production design, do this by forming the design team. The function experts reduce the deficiencies related to relationships between the stages of designing and functions (Cohen, 2001).

2-2. KANO MODEL



KANO offered a model which classified the features of the products and services based on the level of satisfaction they caused. The model analyzes the relationships between the satisfaction and the

Figure 1. KANO Model (Lee et al, 2008)

2-3. RESEARCH BACKGROUND

Safar Fazli and Mahdi Alizadeh (2009). "Analysis and optimized prioritizing of customers' needs (combined model approach of KANO and QFD)". In this paper, by emphasizing on the importance of carefully identifying the customers, it has been tried to introduce and provide the combined model of KANO and QFD.

Kashi, Ostanbous, and Javidnia in their research under the title of "A combined model of QFD, SERVQUAL, and KANO for increasing the bank capabilities" have tried to identify strategic services in one of the biggest banks named "Melli Bank" to obtain competition and developing activity

function of the offered product or services. This model included three different classifications (Chen and Ko, 2008).

Functional features are usually those that the customer is looking for. These requirements result in satisfaction or dissatisfaction of the customers according to existence or non-existence of the features. The high level of functionality in products will result in high level of satisfaction. Of the good examples in this field, the discounts offered by the stores can be mentioned (Chen and Ko, 2008).

Motivational features: non-existence of them will not result in dissatisfaction of the customers. That is because the existence of such features is not expected by the customer. Nonetheless, realization of these features will result in the customer's satisfaction and therefore, the level of satisfaction

will be higher. For example, the customers of the cosmetic and health products will not be satisfied with buying the desired product unless they are offered a prize or special grants (Chen and Ko, 2008).

quality and provide appropriate strategies. The proposed model in this paper uses a combination of the three methods based on quality including SERVQUAL, QFD, and KANO. The findings of this research show that the customers of Melli bank are unsatisfied with the quality of services and to solve this problem, the bank should do some restructuring at the top of its affairs to determine a number of specific features to achieve a better function.

"Evaluating digital library through quality function deployment (QFD) and KANO" is the title of research done by Garibay et al. This paper offers the application of a combination of quality function deployment (QFD)-KANO model method as a useful tool for evaluating the quality of services. The digital

library of Guadalajara University of Mexico is offered as a case study. The data were collected through online questionnaire which was available for the users on the library website. This study shows that by listening to the voice of customer (VOC), the information related to the issues which should be improved for increasing the customer’s satisfaction is obtained. The results of this approach made it possible to identify the main needs of the customers of the digital library which included coverage, and followed by it, content quality, searching, and website organization.

Xin Lai et al (2008) in their research under the title of “Ranking the customer’s needs in a competition environment” state that correct ranking of the importance of all of the customer’s needs is essential for QFD because to a large extent, the value of the final goal affects the specialized features of the product. They offer a new method for ranking in which the information of the competitors is considered. The proposed method considers the competition environment, current function, and customer’s view to form the rankings. Besides, this method uses fuzzy mathematics instead of exact numbers to provide the real needs of the customer.

This method puts the needs which have been dropped behind the competitors, have less customer satisfaction, and are more important from the customers’ point of view, at the higher priority. The values show the most important needs of the customer which the company must focus on them to compete.

2-4. PROPOSED MODEL

The combination of QFD with other methods gives us a credit to use QFD as a systematic mechanism that this will help us to achieve the highest investment return rate of the organization in quality deployment.

The proposed model in this paper includes two matrixes of QFD that according to this model, KANO is combined in the first stage and first matrix of the quality section.

The figure 2 shows the way of combining QFD and KANO.

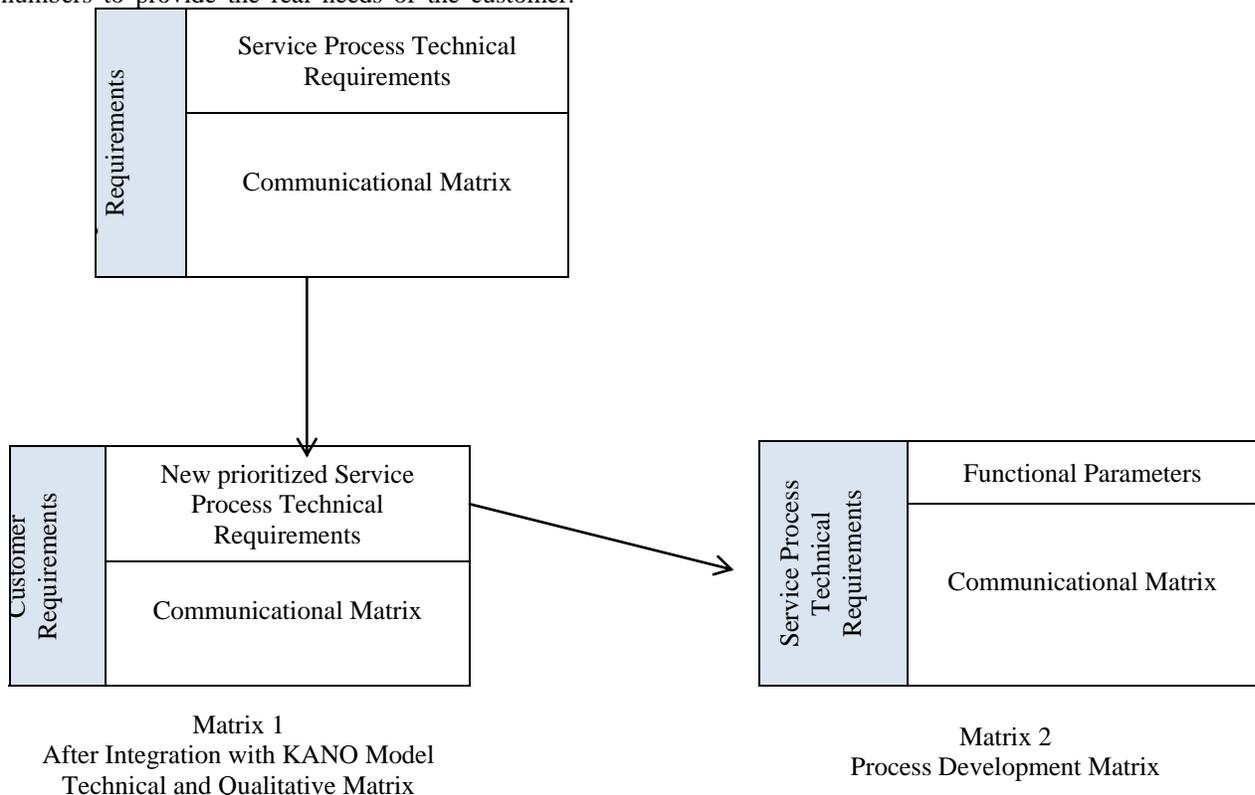


Figure 2.

Conceptual Model of Research

Considering purpose, this study is an applied-case study and considering data collection

3. RESEARCH METHODOLOGY

method and methodology, it is a descriptive-survey one.

3-1. STAGES OF DOING THE RESEARCH

1- In this research, at first the team of QFD including bank affairs experts and the managers of the branches was formed and the major needs of the customers were identified by consulting them.

2- Then the first questionnaire which included two parts was distributed among the customers of the bank and was collected. The first part of this questionnaire asked about the level of the importance of each of the needs and the second part analyzed the customers’ ideas about the status of the rival banks while encountering each of the needs.

3- After that, the importance of the needs and wants of the customers was calculated carefully by using the first matrix of the quality section.

4- The fourth stage dealt with analyzing the status of the competitors and calculating their exact status dealing with each of the needs.

5- In the next stage, the second questionnaire was distributed among the personnel of the bank. The questionnaire included two parts of desired status and current status. In this questionnaire, it was investigated that how the status of the bank is for each of the customers’ wants according to the personnel’s and experts’ ideas and how will be their plan and ideal conditions for each of the needs in the future.

6- In the next stage, ranking the desired status and in fact extracting the bank’s goals and plans were done.

7- Then, the third questionnaire which was in fact the KANO questionnaire was distributed among the customers. In this questionnaire

which includes two parts too, some questions are asked that asked for the customers’ ideas about fulfillment of their wants (functional form) and also about fulfillment and not being practical of their wants (non-functional form).

8- Then, the matrix of the first section of quality was formed again and this time, the importance of the needs was prioritized again by using the results of KANO model and the defined formula which was mentioned before.

9- In the next stage, we developed the first matrix of QFD and calculated the priority of technical requirements.

10- Then, by consulting the QFD team, the appropriate functional parameters for operationalizing each of the technical requirements were identified and determined.

11- And in the last stage, the second matrix of QFD was formed and the executive parameters were prioritized.

3-2. POPULATION AND SAMPLE

The population of this study is consisted of the experts, personnel, and customers of four branches of Pasargad bank in Tehran that were interviewed and consulted during the study. Since the intended population is large, we have used sample and there have been separate sampling for personnel and customers and based on the calculations, 50 people of the personnel and 367 people of the customers were chosen as the sample.

3-3. DATA COLLECTION METHOD

In this section, for collecting information for theoretical foundations and research literature, we have used library sources, articles, intended books and the Internet and to collect the data and information for analysis, we have used questionnaires

and interviews with experts and customers.

3-4. DATA COLLECTION INSTRUMENTS

In this study, to collect the data, we distributed and collected questionnaires for three times from which the first and third questionnaires were specific for the bank customers and the second one was specific for the bank personnel.

Questionnaire	Dimensions	Questions	Cronbach α
1	Competitors' attention to the needs	15	90%
	Importance of needs to customers	15	85%
2	Present Situation	15	81%
	Desirable Situation	15	77%
3	Functional Dimension	13	98%

Table 1. Cronbach’s α coefficient table

	Non-functional Dimension	13	72%
--	--------------------------	----	-----

4. ANALYSIS OF THE DATA AND FINDINGS

Analysis of the information is one of the main and most important sections of every study. In this study, the raw data were analyzed by using statistical texts and after being processed, they were provided for the users in the form of information. The analysis used in this study include descriptive statistics related to the different variables and also deductive statistics which was done by using SPSS software and some tests such as T-test were used.

Using descriptive statistics for field variables can be considered because accurate analysis of the population can help us in identifying the amount of the relationship between the wants and needs of group of customers with gender, age, or their level of education and we can deal with and even prevent the customers’ needs and wants with appropriate arrangements.

The major needs which were primarily determined by consulting QFD mechanism included 15 needs of: tidiness of the bank branches and elegance of the personnel, existence of welfare equipments within each branch, appropriate speed of action and provision of services in due time, knowledge and skills of the personnel and providing services without any error and mistake, appropriate behavior and reception of the personnel, appropriate rates for all of the wages and also interest of the deposits, existence of appropriate number branches and personnel, using electronic banking services and

appropriate technical support, providing variety of services and relationship with other banks, dealing with the customers’ complaints, the bank’s work hours for the customers, confidentiality of the bank personnel, appropriate understanding of the personnel for specific needs and expectations of each customer, providing up-to-date managerial services, and empathy of the bank personnel which their importance was calculated by using the data obtained from the first questionnaire. The answers to the questionnaires were in the Likert spectrum (5-choice) and from the least important score of 1 to the most important score of 5. According to these answers, the first five needs which obtained the highest importance from the customers’ point of view included: using electronic banking services and appropriate technical support existence of appropriate number branches and personnel, providing variety of services and relationship with other banks, appropriate behavior and reception of the personnel, and tidiness of the bank branches and elegance of the personnel.

It should be noted here that to facilitate the data collection and analysis of them, first the relative mean of the needs was calculated by using T-test; the needs which were lower than median scale of (3) were dropped out of the analysis and the needs were reduced to 13 questions and the omitted needs which had the least means included: up-to-date managerial services and empathy of the personnel.

Table 2. House of quality matrix

The customer’s want	The primary importance	The status of the bank	The status of the competitors	Goal or plan	Need Essentiality	Improvement coefficient	Improvement coefficient after KANO implication	Final importance
Employees’ tidiness	0.079	4.22	3.54	4.63	Essential	1.10	1.20	0.095
Facilities in bank branches	0.069	3.67	3.3	4.52	Essential	1.23	1.52	0.105
On time services	0.074	3.84	3.54	4.59	Practical	1.20	1.20	0.088
Appropriate knowledge for zero defect services	0.077	4.09	3.48	4.59	Essential	1.12	1.26	0.097

Politeness and attitude of office workers	0.082	4.31	3.41	4.6	Practical	1.07	1.07	0.088
Suitable fees for services and interest rates for deposits	0.076	4.02	3.22	4.62	Essential	1.15	1.32	0.100
Enough branches in city wide	0.082	4.34	3.54	4.62	Essential	1.06	1.13	0.093
E-banking and technical support	0.086	4.59	3.51	4.76	Essential	1.04	1.08	0.092
Diversified services and close relationships with other banks	0.079	4.26	3.33	4.3	Practical	1.01	1.01	0.080
Customer Complaints	0.075	4.09	2.79	4.05	Essential	0.99	0.98	0.074
Satisfying bank hours for customers	0.077	4.07	3.38	4.24	Motivational	1.04	1.02	0.079
Confidentiality of bank employees	0.076	4.16	2.87	4.76	Motivational	1.14	1.07	0.081
Good understanding of the needs and expectations of each customer	0.068	3.57	3.75	4.43	Motivational	1.24	1.11	0.076

The first matrix of quality section before KANO model was calculated based on the table 3.

That according to the table above, improvement coefficient is obtained by dividing goal or plan (the desired status of the bank) to the current status of the bank (status of the bank) and the final importance is also calculated by multiplying the primary importance in improvement coefficient.

Based on the results obtained from the third questionnaire, all of the needs were evaluated by

approach and were classified in three groups of main (basic), functional and motivational.

For example, according to the obtained answers, knowledge and skills of the personnel and providing services without any error and mistake were classified as main and basic needs, appropriate speed of action and providing services in due time were classified as functional needs and appropriate understanding of the personnel for specific needs and expectations of each customer was classified as motivational needs.

Table 3. First matrix of quality section

Customer Needs	Technical qualifications (9 for very high, 3 for medium and 1 for Low-importance and blank for without importance)													Banks	Rivals	
	Weight c after the m KANO	Appropri a	Faci	Enough	Good spe	On time	Knowledg	Politen	attit	Sharp	enough	New and serv	Comp	Relation	othe	Bank
Employees' tidiness	0.095	9	3		3		1	3							4.22	3.54
Facilities in bank branches	0.105		9	9		3					1	3		3	3.67	3.3
On time services	0.088	3		1	3				9						3.84	3.48
Appropriate knowledge for zero defect services	0.097	3	1		9									1	4.09	3.54
Politeness and attitude of office workers	0.088			3	3	3	3	9					1	1	4.31	3.33
Suitable fees for services and interest rates for deposits	0.100								1			3	9	3	4.02	2.87
Enough branches in city wide	0.093			9	9	3	1				1	1			4.34	3.85
E-banking and technical support	0.092				1	1	3	1	1	3	9	1		1	4.59	3.75
Diversified services and close relationships with other banks	0.080			1	1				3	3	3			9	4.26	3.13
Customer Complaints	0.074			3	1	3	1	1	3	1			9		4.09	2.93
Satisfying bank hours for customers	0.079			1	3	9			1	3				3	4.07	3.23
Confidentiality of bank employees	0.081						3	9	3				1		4.16	3.54
Good understanding of the needs and expectations of each customer	0.076		1		1		9	3	1						3.57	3.9
Row Score		1	1.4	1.4	2.5	3.0	2.1	1.7	2.3	1.7	1.0	1.7	1.8	1.8	5	1.8
Ranks		10	11	2	1	4	9	3	8	12	7	6	5			

Now, in the following table, this time the first matrix of quality section is calculated presented by combination of KANO model.

of the primary improvement coefficient in 0.5, 1, and 2. These numbers are considered for basic needs, functional needs, and motivational needs respectively.

The improvement coefficient is obtained after applying KANO model through exponentiation

	Weight calculated after the merger with KANO approach	Appropriate viewing	Facilities	Enough branches	Good speed service	On time services	Knowledge and skill	Politeness and attitude	Sharpness	enough ATMs	New and diverse services	Complaints	Relationship with other banks	Bank Status	Rival Status
Employees' tidiness	0.087	9	3		3		1	3						4.22	3.54
Facilities in bank branches	0.085		9	9		3				1	3		3	3.67	3.3
On time services	0.088	3		1	3				9					3.84	3.48
Appropriate knowledge for zero defect services	0.086	3	1		9								1	4.09	3.54
Politeness and attitude of office workers	0.088			3	3	3	3	9				1	1	4.31	3.33
Suitable fees for services and interest rates for deposits	0.087							1			3	9	3	4.02	2.87
Enough branches in city wide	0.087			9	9	3	1			1	1			4.34	3.85
E-banking and technical support	0.089				1	1	3	1	1	3	9	1	1	4.59	3.75
Diversified services and close relationships with other banks	0.080			1	1				3	3	3		9	4.26	3.13
Customer Complaints	0.074			3	1	3	1	1	3	1		9		4.09	2.93
Satisfying bank hours for customers	0.080			1	3	9			1	3			3	4.07	3.23
Confidentiality of bank employees	0.087					3	3	9	3			1		4.16	3.54
Good understanding of the needs and expectations of each customer	0.084		1		1		9	3	1					3.57	3.9
Row Score		1.30	1.20	2.28	2.92	2.07	1.80	2.33	1.77	0.99	1.65	1.72	1.74		
Ranks		10	11	3	1	4	5	2	6	12	9	8	7		

Table 4. First matrix of quality section after the combination of KANO

By consulting the QFD team then, the appropriate technical features for responding to the customers' needs were identified and defined which included 12 features as follows: appropriate façade, appropriate welfare Mott mechanism, enough branches, appropriate speed in providing services, providing services in due time, enough knowledge and skills of personnel, appropriate behavior and reception of the personnel, accuracy in providing services, enough ATMs, new and varietal services, dealing with the complaints, and relationship with other banks.

Each of these features has a strong relationship with at least one of the needs that we will define it with the number of 9 and if it has a fair relationship, we will define it with 3 and if the relationship is weak, we will show it with 1. There are the numbers which (quality and technical features matrix) were observed based on the conceptual model that how effective will be the KANO combination on the results; because not only has the amount of final importance changed, but also have the amount of the importance and followed by it, the result of the prioritizing of each of the technical features and traits changed.

Appropriate speed in providing services, enough branches, and appropriate behavior and reception. Therefore, it can be said that these three features in considering the customers' needs can be very important and effective. As the matrix was calculated, enough ATMs were in the lowest rank considering the importance.

Also, in the matrix above the status of the bank and its competitors can be compared. In a way that considering the work hours for the customers, confidentiality of the bank personnel, and appropriate understanding of the personnel for specific needs and expectations of each customer, the status of the competitors was better and in other cases, the bank had better status than the competitors.

In the next stage, by consulting with QFD team, possible executive parameters for

operationalizing the technical requirements were determined. Then the amount of each of them with the technical requirements as also determined and the second matrix of QFD (process development matrix) was formed and the following results were obtained through calculation: making the process of doing the work efficient, using the successful experiences of domestic and foreign banks and modeling of new services of successful domestic banks, allocated the first three ranks to themselves. Therefore, it can be said that these three executive solutions in considering technical requirements could be very important. As it was concluded from the second matrix, justification of appropriate behavior and reception for the old personnel had the least amount of importance.

Table 5. Comparison of final results gained from two methods

Customer Needs	Appropriate viewing	Facilities	Enough branches	Good speed service	On time services	Knowledge and skill	Politeness and attitude	Sharpness	enough ATMs	New and diverse services	Complaints	Relationship with other banks
After KANO	10	11	2	1	4	9	3	8	12	7	6	5
Before KANO	10	11	3	1	4	5	2	6	12	9	8	7

That includes the following 21 executive parameters: modeling all of the successful domestic banks, doing market research for forming new view and plan, increasing welfare requirements, optimizing the number of branches in each district of Tehran based on the population, making the process of doing the work efficient, appropriate justification and for speed of providing services, using the Internet informing systems, using the telephone informing system, justification of appropriate behavior and reception for new personnel, justification of appropriate behavior and reception for the old personnel, paying more attention to the appropriate reception in providing services in planning, using the controller systems of procedures, increasing the personnel's motivation for doing the job with higher accuracy, using the new ATM systems, using the old ATMs for increasing the number of ATMs, modeling the new services of successful foreign banks, modeling the new services of successful domestic banks, increasing awareness of the customers about CRM system, completing and making the communication system of the customers with the bank multimedia, increasing the communicative capabilities of the communication systems of the

bank, using the successful experiences of domestic and foreign banks.

5. CONCLUSION AND DISCUSSION

According to the obtained results and priorities, first it should be dealt with the more important executive parameters and then those which are in the lower priorities so as to deal with all of the needs and wants of the customers. In addition, considering the status of the competitors, position of the competitors and the customers' point of view towards the competitors are of the important issues that should be considered carefully. Also, attention should be paid to the customers' needs which were obtained by KANO model. At the end, attention should be paid to the internal and external policy of the bank because sometimes it is possible some of them are not in line with the wants and expectations of the customers or the bank has some limitation in operationalizing them. Some suggestions are given in the following section.

Suggestions and solutions

For the field variables, it is suggested that the banks classify their customers according to their

age, gender, background of relationship with the bank, and other variables of this kind in provision of the services and special and specific services are offered to them with different costs.

All of the needs, requirements, and parameters should be dealt with based on the priorities.

Paying special attention to the competitors and considering them in future planning for improving the condition according to the current status and also analyzing the customers' ideas about them.

Paying special attention to the motivational needs of the customers, effort to identify these kinds of needs, and satisfying the customers by providing special services.

Training the bank personnel for promoting new bank services even when they are out of their workplace as the ambassadors of the bank.

Providing and distributing brochures for informing the customers who have come to the branch for opening an account or... about all of the bank services and their advantages.

Analyzing the customers' needs of specialized services of the bank for example in relation with the electronic services of the bank or telephone bank and...

Designing more accurate theoretical models in relation with explaining the nature of the customers' needs.

Also, we can move towards the satisfaction models and faithfulness models and work on these models through analyzing the customers' needs.

Also, we can work on psychological models and behaviorist models for identifying the customers' needs.

Identifying solutions for encouraging different organizations to use the services of the bank and attract their resources. Analyzing the effective factors on accepting the new bank services.

Doing a same research in the governmental banks to analyze the effects of type of ownership on the customers' needs.

Considering that the customers' needs and wants are functions of time, it is suggested that regular surveys in 6-month or 12-month time periods are conducted to evaluate the customers' satisfaction.

REFERENCES

1. Arbore Alessandro, Busacca Bruno. (2009) .Customer satisfaction and dissatisfaction in retail banking: Exploring the asymmetric impact of attribute performances. *Journal of retailing and consumer services*.16.271-280.
2. Chen Liang-Hsuan, Ko Wen-Chang. (2008). A fuzzy nonlinear model for quality function

deployment considering Kano's concept. *Mathematical and computer modeling* 48. 581-593

3. Cohen. Lou. (2001) *Quality Function Deployment. How to Make QFD Work for You.* Chapter 2 www.qfdi.org.
4. Garibay Cecilia, Gutierrez Humberto and Figueroa Arturo (2010). Evaluation of a digital library by means of Quality Function Deployment (QFD) and the Kano model. *The journal of academic librarianship*, volume 36, number 2. 125-132.
5. Hollowell R. (1996), the relationships of customer satisfaction, customer loyalty and profitability, an empirical study. *International journal of service industry management*. Boston MA, USA.
6. Hill, N., (1996). *Handbook of Customer Satisfaction Measurement*. Gower Press, Aldershot, UK.
7. Kashi, Mohsen & Astanbous, Mohammad Ali & Javidnia, Mojtaba (2012). A hybrid model of QFD, SERVQUAL, and KANO to increase bank's capabilities. *Management Science Letters*.2.
8. Lee Y.C., S.Y. Huang (2009) a new fuzzy concept approach for Kano's model, *Expert Syst. Appl.* 36 4479-4484.
9. Matzler Kurt, Hans H. Hinterhuber (1998). How to make product development projects more successful by integrating Kano's model of customer satisfaction into quality function deployment. *Technovation*.18 (1).
10. Mihelis G, E. Grigoroudis, Y. Siskos, Y. Politis, Y. Malandrakis (2001). Customer satisfaction measurement in the private bank sector. *European Journal of Operational Research*.130.
11. Wang Xiao-tun, Xiong Wei. (2011) an integrated linguistic-based group decision-making approach for quality function deployment. *Expert systems with applications* 38.14428-14438.
12. Xin Lai, Min Xie, Kay-Chuan Tan, Bo Yang. (2008).
13. Ranking of customer requirements in a competitive environment. *Computers & Industrial engineering*, 54.