

**Research Article**

## **MEASURING SERVICE QUALITY WITH AN INTEGRATED APPROACH: SERVQUALANDKANO MODEL (CASESTUDY: TEJARAT BANK, DEYLAM PORT, IRAN)**

**\*Jamali Gh.<sup>1</sup> and Ebrahimi M.K.<sup>2</sup>**

<sup>1</sup>*Department of Industrial Management, Persian Gulf University, Bushehr, Iran*

<sup>2</sup>*Department of Industrial Engineering, Persian Gulf international branch, Islamic Azad University, Abadan, Iran*

*\*Author for Correspondence*

### **ABSTRACT**

The purpose of this study is to assess the quality of services provided by bank through Serv Qualand Kano model. Research study is descriptive-survey in terms of method and applied in terms of purpose. A questionnaire is used to collect data. The study population consists of customers of Tejarat bank at Deylam Port. Using Cochran unlimited sampling formula, a 172sample size was determined. In addition, in order to assess the quality of the service in intended branch, 29 components are considered in 7 dimensions. On the other hand, to determine the level of service quality and identify gaps between consumers' expectations and perceptions, Serv Qualmodel is used. The results of data analysis imply the existence of a gap in all components of quality service. Later, in order to classify the components of service quality and identify the attractive needs, using the Kano model, 9 attractive needs are identified. Therefore, to improve the services quality provided by the branch under study, appropriate strategies are provided to improve the quality of this type of needs.

**Keywords:** *Service Quality, Servqual, Kano Model, Attractive Needs*

### **INTRODUCTION**

Today, the most important factor in the survival and competitiveness of any manufacturing or service organization in the market is its customers. In this regard, one of the strategies to attract and maintain customers is enhancing services quality provided by organizations, including banks. The service is now considered as the heart of value creation. In other words, in today's dynamic economy, service is not limited to banking, health, education, etc.; in other words, most of the products that we purchase also include some components of service. In fact, most goods rely on service-based activities to create competitiveness and advantages. When a customer purchases a product, not only goods, but also a comprehensive package of services is also purchased (Nurlyda, 2013). For example, when a customer buys a television set, a collection of services, such as delivery, financing, insurance and maintenance is also indirectly purchased. Thus, considering the importance of service sector, measuring the quality level of service is highly important. According to this view, customer service includes all the things that a company does to satisfy customers and help them to get the maximum value of the services they have purchased (Venus, 2005).

#### ***Theoretical Framework and Literature Review***

Several researches are conducted on service quality using ServqualandKano model. Astanbous et al. (2012) used ServqualandKano model in a research on increased capacity of banks. Li *et al.*, (2011) conducted a study on integrating Kano Servqual model to enhance customer satisfaction in Taiwan. Sahney *et al.*, (2011) studied a quality measurement in Delhicity of India using a combined ServqualandKano model.

There are similar dimensions and components in different models of service quality. In other words, there are a number of dimensions and indicators of service quality repeated in different models. However, their application in the banking industry may vary in the context of different cultures and countries.

The results of using ServQual model in different countries indicate that different dimensions used in the ServQual have different importance in different countries and identified gaps. In this section, the most common dimensions of service quality models used in the banking industry will be presented.

**Research Article**

**Table 1: Comparison of bank service quality models**

Karatepe <i>et al.</i> , (2005)	Aldlaigan and Buttle (2002)	Bahia and Nuntel (2000)	Jassenton (1997)	Avciran <i>et al.</i> , (1994)	Ennew <i>et al.</i> , (1993)	Gronroos (1984)	Parasuraman <i>et al.</i> , (1988)
reliability	Functional quality	Lack of bureaucracy	Staff behavior	Reliability, commitment	reliability	Exchange service quality	reliability
Exchange quality	Behavioral service quality		Responsiveness, attention, friendship, usefulness	reliability	Decision-making speed, useful recommendations		responsiveness
		Effectiveness, assurance	Security, competence, communication, goodwill, honesty	communication	Knowledge of market, knowledge of industry, knowledge of business		Service assurance
empathy		access	Flexibility, convenience, access	Access to services through phone	Easy access to staff, financial capabilities		empathy
Service environment	Device quality	tangibles	Aesthetics, cleanliness				tangibles
	System quality	Price, service package	function		Extensive range of services, competitive interest rate, competitive wage	Technical quality	
						Organizational perception	

Chaturvedi *et al.*, (2014) conducted a study on the quality of banking services in Bilaspur, India. This study examines the performance of banks in 5 dimensions including assurance, empathy, tangibles, reliability and responsiveness. Kumar (2014) conducted an evaluation of perceived customer service quality in private banks in India. He selected reliability (11 components), assurance (2 component), security (4 components) and empathy (3 components) as aspects affecting the quality of banking services and examined 28 components in these four dimensions using Servqual method. Sakhaei *et al.*, (2014) conducted a study of Internet banking in Iran in terms of reliability, efficiency, responsiveness, performance, and security/privacy and web design. In a study of the Eghtesad-e-Novin Bank in Iran, Kazemi (2013) used Servqual method and examined the quality of provided services in 24 components and tangibles (3 components), staff (6 components), technology (4 components), banking and system regulation, and (4 components) and executive innovation (4 components) dimensions.

**Dimensions Intended for This Research**

Having reviewed various references such as library studies, models, theories, frameworks and related studies in the field of research, and asking for feedback from employees and customers, we selected a number of 29 components in 7 dimensions including tangibles (9 components), service provision (4

**Research Article**

components), assurance (4 components), empathy (3 components), accountability (4 components), Islamic banking (2 component) and ATM (3 components) as dimensions affecting the quality of banking services.

**Table 2: Dimensions considered in this study**

Dimension	Number of components
Tangibles	9
Service Provision	4
Assurance	4
Empathy	3
Accountability	4
Islamic Banking	2
ATM	3

**MATERIALS AND METHODS**

**Research Methodology**

This research is applied in terms of purpose and descriptive-survey in terms of data collection method and the field method is used for collecting research data by distributing questionnaires. The study population consists of customers of Tejarat bank in Deylam port. Using Cochran formula, the sample size was calculated to be 172. In addition, gaps analysis and Kano models are used in this study to evaluate the service quality of the branch under study.

**ServQual Model**

Gap Analysis or ServQual model is one of the most popular models to measure service quality (Pawitra and Tan, 2003). This model was introduced Parasuraman *et al.*, (1980) to define the service quality based on the gap between the perceptions and expectations of customers in relation to the quality of services provided by organizations.

Perceived quality is the judgment of customers on service provision by the organization. Also, the quality expected by customers in relation to the services provided by the organization is considered as customers' expectations. In this way, the gap between customer expectations and perceptions of service quality is calculated using the following formula:

$$GAP = \bar{P} - \bar{E}$$

Parasuraman *et al.*, (1980) examined services quality in 5 dimensions including:

- Tangibles: Appearance of physical facilities, equipment and tools, staff appearance, means of communication with the organization;
- Reliability: The ability of service providers to fulfill their promises accurately and consistently;
- Responsiveness: The desire of service provider to help the clients and provide timely and fast services;
- Assurance: Knowledge and courtesy of staff and their ability to create confidence and assure services;
- Empathy: Being close to clients and understanding and paying attention to him/her.

The model also introduces 5 quality gaps:

- Gap 1: The difference between customer expectations and manager perceptions of these expectations, i.e. manager's ignorance of what customers expect;
- Gap 2: The difference between manager perceptions of customer expectations and service quality specifications, i.e. poor quality of services;
- Gap 3: The difference between service quality specifications and delivered services (service provision gap);
- Gap 4: Difference between delivered services and communication with consumers in relation to the provided services;
- Gap 5: The difference between customers' expectations and perceptions.

## Research Article

### Kano Model

In 1984, Professor Noriaki Kano and his colleagues introduced a model called Kano customer satisfaction model that identifies three types of requirements about a product that have an impact on customer satisfaction in different ways. These three requirements are:

**Must-be requirements (M):** These requirements are the characteristics that must be present in a product, and failure to meet these requirements will lead to customer dissatisfaction. On the other hand, satisfying these requirements will result in increased customer satisfaction.

**One-dimensional requirements (O):** In this category of requirements, customer satisfaction will be met to the level of their satisfaction. In other words, the more a functional need is met, the higher customer satisfaction will be, and vice versa.

**Attractive requirements (A):** This category of requirements introduced by Kano includes those requirements which have more significant effect on customer satisfaction. What is important about these requirements is that their full satisfaction will further increase customer satisfaction. But failure to meet these requirements will not lead to a feeling of dissatisfaction. Satisfying these requirements will introduce the organization as a market leader. Figure 1 represents three categories of requirements introduced by Kano.

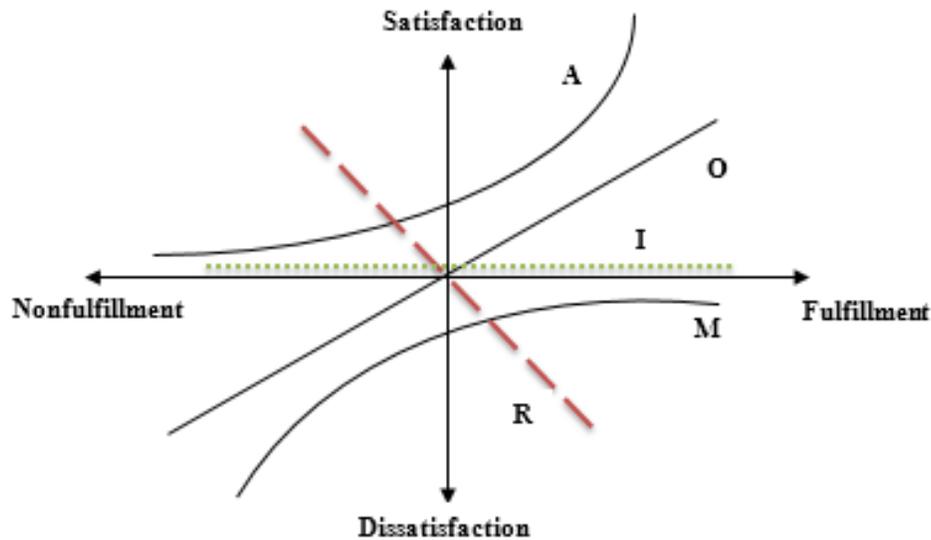


Figure 1: Classifications of requirements based on Kano model

As shown in the figure above, in addition to the three main requirements, there are other two categories indicated with letters R (Reverse) and I (indifferent). Features of Reverse (R) group is that providing this group will dissatisfy customers, and if not being provided, the customers will be happy. In the In different group (I), customer satisfaction is not affected by features in this group, and clients do not care whether there is such a feature. Another group of requirements is questionable ones(Q). This requirement indicates when a customer does not understand the question, there is a misunderstanding of the question, the question is not appropriate, or information about the question is incomplete.

## RESULTS AND DISCUSSION

### Findings Analysis

First question: What are the factors that influence the service quality of Tejarat bank in deylam port?

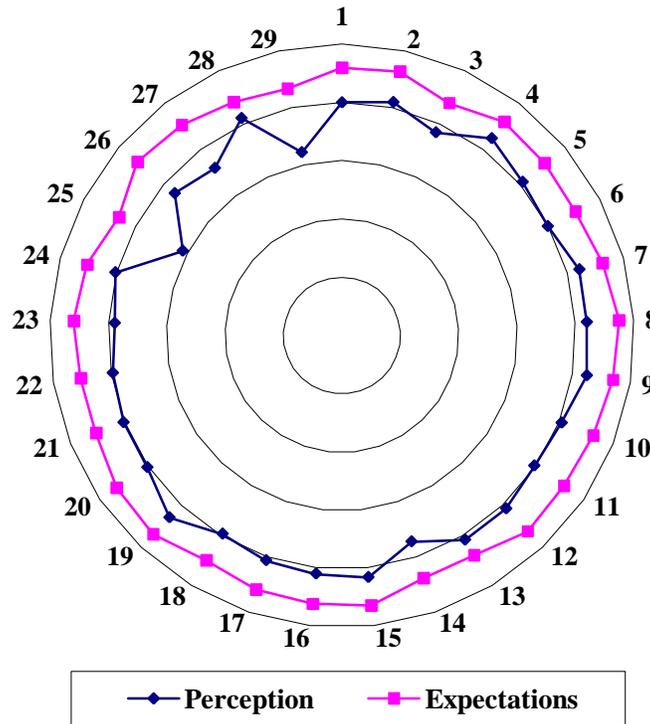
Performing a comprehensive review of the literature and expert opinions, we identified 7 dimensions to be effective in quality of services provided by Tejarat bank in Deylam port that in turn consists of 29 items as factors affecting the quality of service in the branch under study.

Second question: which identified components in the branch under study do have a negative gap between customer expectations and perceptions?

**Research Article**

ServQual results show that bank customers' expectations in all components are higher than their perception that indicates a negative gap in all research dimensions and components. In fact, the results show that the bank has not worked satisfactorily in provision of any of the services, and customers are not happy with the performance and quality of services provided by the bank.

The radar diagram of the gap between consumers' expectations and perceptions in the branch under study is shown in the following figure. The gap is well depicted in the diagram.



**Figure 2: Radar diagram of gap between expectations and perceptions**

Third question: Which of the identified components are placed in the group of attractive requirements in customer's perspective?

**Table 3: Classification of components according to the requirements**

Requirements	Components
Must-be	7
One-dimensional	12
Attractive	9
Indifferent	1
Reverse	0
Questionable	0

Kano model classifies the identified components that affect the services quality into three categories: must-be needs, functional needs, and attractive needs. The components are shown in the table below separated by requirements classifications. As shown in the table, there are 7 must-be requirement, 12 one-dimensional requirements, and 9 attractive requirements. Customers were also indifferent to 1 component. There was no reverse and questionable category in the questionnaire.

**Conclusion**

The results analysis indicated that the branch under study suffers from a negative gap in all dimensions of service quality. This can be seen in Figure 2.

### **Research Article**

In fact, the customers were not happy with the quality of service provided by the branch and the bank has not been able to meet customer expectations. Although the quality of service perceived by the bank customers with a mean score (4.22) is at a good level, there is a negative gap between their expected and perceived quality of the provided services, suggesting that customers' expectations is beyond their perception.

After identifying the components with a gap, the Kano model was used in order to classify the customer requirements and identify attractive requirements according to table 3.

According to the results in table 3, it can be said that the attractive requirements from the perspective of bank customers include 9 components, i.e. existence of clients direction signs, existence of queuing management devices, availability of inspection phone number, organizational code of ethics, availability and accessibility of information leaflets, appropriate speed of bank employees, personal security of clients and their assets, convenient location of ATM and proper function of ATM.

This study identified factors placed in the category of attractive requirements. The reason why only attractive requirements were considered is that in today's changing world, and must-be and functional requirements are not enough for customer satisfaction.

Therefore, companies should focus on attractive requirements instead of must-be and functional ones to meet customers' needs and achieve competitive advantage, since attractive requirements have a greater impact on customer satisfaction.

Therefore, this research focuses on improving the attractiveness indicators and proposes applied recommendations in order to enhance the quality of this type of requirements.

On "existence of client's direction signs" component, installation of direction signs in the branch is suggested. For "existence of queuing management device", the launch of such a device is recommended. In terms of "availability of inspection phone number", it is recommended that the branch establish a specific location for displaying such a number in public view. For "organizational code of ethics", it is recommended to place the Code of Ethics in public view to introduce organizational and moral values of the bank to the customers. On "availability and accessibility of information leaflets", providing customers with leaflets and instructions about banking services is recommended. On "appropriate speed of bank employees" it is suggested to first, provide employees with proper trainings, and second, increase the number of staff to help the overall speed up. In order to meet the "personal security of clients and their assets", it is proposed to recruit a guard to ensure clients physical and financial security. For meeting the required component of "convenient location of ATM", the appropriate locating to install ATM is recommended, and finally, on "proper function of ATM", it is suggested to use failure warning device for the ATM to improve the quality of this components.

### **REFERENCES**

- Ahmad Jamal and Kamal Naser (2002).** Customer satisfaction and retail banking: an assessment of some of the key antecedents of customer satisfaction in retail banking. *International Journal of Bank Marketing* **20**(4) 146–160.
- Aldlaigan AH and Buttle FA (2002).** SYSTRA-SQ: A New Measure of Bank Service Quality. *International Journal of Service Industry Management* **13**(4) 362-381.
- Blanchard RF and Galloway RL (1994).** Quality in Retail Banking. *International Journal of Service Industry Management* **5**(4) 5-23.
- Chaturvedi RK (2014).** Service quality and customer satisfaction at Indian Banks. *An International Peer Reviewed* **II/X**(2278-8808) 967-971.
- Ennew C, Reed G and Binks M (1993).** Importance-Performance Analysis and the Measurement of Service Quality. *European Journal of Marketing* **27**(2) 59-70.
- Gronroos C (1982).** Strategic Management and Marketing in the Service Sector. *Swedish School of Economics and Business Administration* **18**(4) 36-44.
- Gronroos C (1984).** A service quality model and its marketing implications. *European Journal of Marketing* **18**(4) 36-44.

**Research Article**

- Kamilia Bahia and Jacques Nantel (2000).** A reliable and valid measurement scale for the perceived service quality of banks. *International Journal of Bank Marketing* **18**(2) 84-91.
- Karatepe OM, Avci T and Tekinkus M (2005).** Measuring service quality of banks: scale development and validation. *Journal of Retailing and Consumer Services* **12**(5) 373-383.
- Kashi Mohsen, Astanbous Mohammad, Javidnia Mojtaba and Rajabi Hasan (2012).** A hybrid model of QFD, SERVQUAL and KANO to increase bank's capabilities. *Management Science Letters* **2** 1931–1938.
- Kazemi Mostafa, Kariznoee Amir, Hosseini Moghadam M Reza and Sargazi Mohammad Taghi (2013).** Prioritizing Factors Affecting Bank Customers Using Kano Model and Analytical Hierarchy Process. *International Journal of Accounting and Financial Management* **6**(2322-2107) 105-114.
- Kumar R, Koteswara Rao and Kondasani R (2014).** Assessing customers' perceived service quality in private sector banks in India. *Serbian Journal of Management* **9**(1) 91-103.
- Li-Hsing Ho, Tien-Fu Peng, Shu-Yun Feng and Tieh-Min Yen (2011).** *Integration of Kano's Model and Servqual for Enhancing Standard Hotel* **7**(23) 2257-2265.
- Nurlyda Ida (2013).** The Behavioral Consequences of Service Quality. *American Journal of Scientific Research* **60**(2) 31-46.
- Parasuraman A, Zeithaml VA and Berry LL (1985).** A conceptual model of service quality and its implications for future research. *Journal of Marketing* **49**(4) 41-50.
- Parasuraman A, Zeithaml VA and Berry LL (1988).** SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing* **64**(1) 5-40.
- Parasuraman A, Zeithaml VA and Berry LL (1990).** *Delivering Quality Service: Balancing Customer Perception and Expectations* (The Free Press) New York 226.
- Parasuraman A, Zeithaml VA and Berry LL (1991).** Refinement and Reassessment of the SERVQUAL Scale. *Journal of Retailing* **67**(4) 420-450.
- Saeidipour Bahman, Vatandost Toraj and Akbari Peyman (2012).** Study the Effects of Development of Electronic Banking on Customer Satisfaction Levels by Using Kano Model. *International Research Journal of Applied and Basic Sciences* **3**(5) 950-960.
- Sahney S, Jain R and Sinha G (2011).** Conceptualizing service quality in higher education. *Asian Journal on Quality* **12** 296 – 314.
- Sakhaei F, Afshari A and Esmaili E (2014).** The Impact of Service Quality on Customer Satisfaction in Internet Banking. *Journal of Mathematics and Computer Science* **9**(1) 33-40.
- Theresia A and Pawitra KCT (2003).** Tourist satisfaction in Singapore- a perspective from Indonesian tourists. *Managing Service Quality* 399 – 411.
- Venus D and Safaeian M (2005).** *Applied Methods of Banking Services Marketing for Iranian Banks*, 4<sup>th</sup> edition (Tehran, Negah-e-Danesh Publications) 51.
- Zeithaml V, Berry L and Parasuraman A (1993).** The nature and determinants of customer expectations of service. *Journal of the Academy of Marketing Science* **21**(1) 1-12.