# Defining Dimensions of Knowledge and Its Relation with Customer Satisfaction for Financial Institutions (Case Study: Tehran)

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*Abstract*

*Today, financial institutions as financial intermediaries use methods and appropriate mechanisms to facilitate and accelerate international trade, reduce risks in transaction, and reduce abuses. In this regard, the quality of services provided by these institutions and their customers' satisfaction is very important. The aim of this study was to determine the factors affecting the quality of services and its relationship to customer satisfaction in financial institutions in Tehran. The study sample included all clients of financial institutions in Tehran. Sample size was determined based on Morgan table to be 73. For data collection, a questionnaire was used, therefore, a questionnaire with 30 items on 5-point Likert scale was administered. This research was fundamental in terms of objective of and used regression analysis model and was descriptive and used Spss software. For data analysis in situ path analysis technique was used. Furthermore, to ensure greater knowledge of relationships with customer satisfaction Pearson's test was also used. The results showed that there was a significant relationship between knowledge and skill and customer satisfaction, also innovation and trust had no significant relationship with the customer satisfaction.*

*Keywords: dimensions of knowledge, customer satisfaction, financial institution*

## 1. Introduction

Today, in order to facilitate and smoothen international transactions, essential role of financial services must be considered (1). Financial institutions as financial intermediaries use methods and appropriate mechanisms to facilitate and accelerate international trade, reduce risks in transaction, and reduce abuses (2). Knowledge of modern methods and required knowledge seems necessary for financial firms. When customer doesn't know how to choose between financial institutions, task of managers of financial institutions would be to increase trust and confidence of customers to convince them to use their services (3). Thus, the banking industry today more than ever the need to provide appropriate opportunities to gain the trust of customers. Therefore, certainly quality of services will play an important role in this regard (4).

Due to the fact that the services provided by Iranian financial institutions to customers is almost identical among all financial institutions, to be able to compete rivals, managers of financial institutions must differentiate from competitors in terms of customer service and gain trust and confidence among corporate customers (5).

According to research and theory provided, satisfaction and loyalty are the most important factors for evaluating the performance of a company or organization to and these two factors have a direct and positive influence on trust and reliability among customers of organization (6). One of the ways in which a company can differentiate its services from those of competitors is stable and high quality services. Reviews indicate service quality has an effect on customer satisfaction and thus have an effect on their purchases (4). Tendency to provide quality services play an important role in the service industries such as insurance services, banking, financial institutions, etc. because the quality of service is vital for survival and profitability of organization. In fact, today the customer satisfaction and the quality of services are vital in most industries that can be obtained through value dimesnions of knowledge for financial firms (6).

Philip et al. in their research came to the conclusion that the quality of products and services of strategic business units is the most important factor that affects the performance of the unit. They argue that higher quality brings more profits through higher prices (7).

Philip Kotler's book Marketing Management has noted theat researchers have discovered five factors determining the quality of services that in order of priority include courage, reliability, sensitivity, confidence, empathy and tangible items (8).

The above-mentioned confidence and reliability results from humility and knowledge of staff, their ability to transfer and make sure.Therefore the present study was to determine the dimensions of the value of knowledge and their relationship with the customer satisfaction.

## 2. Literature

### 2.1 Knowledge

The literature review showed that knowledge management was first proposed by Nonaka in the 80s and flourished in 90s and mainly large industries paid attention to it. According to Petrash, knowledge management and knowledge acquisition in the right time and by the right people to enable them to make smarter decisions. Knowledge management enables people on innovation, collaboration and efficient decision making (9). According to Peter Drucker (1993), twenty-first century is the century of knowledge economy. In this economy, intellectual property, especially human capital component are the most important organizational assets and potential successes of organizations are rooted in their intellectual ability (2). It is also known organizations needs knowledge and should make good use of the new information. These factors together established a new paradigm in the management of referred to as knowledge management (3).

In today's world decisions are made under enormous pressure and within a short time period. Thus, many organizations use knowledge management to ensure proper knowledge of decision-makers and making high quality benefitical decisions. So taking such decisions and providing quality service in banks requires knowledge and skills. According to literature, result of quality service is more customers. According to Merwick, knowledge management is a set of orderly and systematic activities of organization to achieve higher value through available knowledge, all the experience and knowledge of an organization and all documents and learning of an organization (4).

Nunka mentioned and distinguished two types of knowledge:

A. Tacit knowledge that can be a set of experiences, skills, values and working views and value system within the individual that is not told and is not stored in any database, but its place is in the mind of human and forms his activities.

B. Explicit knowledge THAT is objective and can be expressed in the form of systematic language. This type of knowledge is independent of the staff and in computer information systems, documentation and corporate records and so on. More importantly, what causes the growth of organization is knowledge flow (11).

#### 2.1.1 Application of knowledge

Generally knowledge should be used in line with products, services and organizational processes to. If an organization can easily identify right form of knowledge in the right place it will face difficulty in the competitive arena. When innovation and creativity are ways to win in today's world organization should be able to apply the right knowledge at the right place (12.)

#### 2.1.2 Valuation of knowledge

To determine value of output, Drucker proposed two dimensions of the quantity and quality. He gives priority to quality, but also notes ambiguities in measuring quality. In a research, which discussed methods of measuring productivity in knowledge work, quantity, quality, effectiveness, time, number of simultaneous tasks, efficiency and customer satisfaction were considered as the desired outcomes of product knowledge. However, the method to combine these dimensions to measure the output value is not mentioned (13).

#### 2.1.3 Valuation model of knowledge

Three factors that affect the value of knowledge have been identified. These factors are placed in a 3D space where each of these factors may change and affect the value of knowledge. These factors include: recoverability, value, approval (5). Knowledge formation process is defined as follows: in the beginning, data is converted into information and then into knowledge. The information may not be approved after interpretation and be converted to data. Besides, organization and modelling usually results in increased recoverability. The nature of knowledge is set of information received and confirmed to which feature of capability of recovery has been added (14). Therefore collected information is not knowledge, but must be approved to be transformed into knowledge. Quantity of knowledge can add value to it. More

knowledge is of more value. By definition the amount of information approved can enhance the value of knowledge (15).

### 2.1.4 Types of knowledge from the perspective of knowledge management

Knowledge about the customer: This type of knowledge will help organizations to more effectively identify customers and their goals.

Knowledge for the customer: This type of knowledge is unilateral and directed from company to customer in which company send knowledge required by customer so that the latter can better perceive provided services.

Knowledge of the customer: This perspective can be about the current and future requirements of customer service and ideas for innovative and successful products and services (16).

### 2.2 Customer satisfaction

Customer satisfaction is a factor by which performance of customer-oriented firms can be measured because customer satisfaction is the main goal of marketing and has a long term financial impact. Today, it is considered as a requirement of successful marketing and managers know that customer satisfaction has such results as positive attitude, positive verbal advertisements, repeated purchases and customer loyalty (17). As a rule of thumb, it is said that the cost of acquiring a new customer is about 5 to 10 times the cost of maintaining existing customers. Then, high customer satisfaction is very important (18).

Cutler Welvy point out that customer satisfaction may depend on the value and price of the product while the overall quality of service does not depend on the price. Quality must be in accordance with the needs and expectations of customers, customer expectations is a proper standard to judge the quality of services (19). Parasovramon pointed out that customer expect service from organizations that are needed and they are required to implement the principles and basis rather than bearing on appearance and giving empty promises. For this reason it is said that quality of service is an important element in determining the success of a service enterprise. Factor of "satisfaction" depends on the ability of service providers to meet the norms and expectations of customers (7).

Bitz believes if customer's perception of the quality of service is beyond the level of expectation, it will lead to customer satisfaction and his perception is lower than level of expection, the outcome is customer (8). The researchers believe that managers should pay more attention to customer satisfaction because this structure has more direct impact on customer loyalty. The results of the research conducted indicate that factors related to individuals' skills and special service systems have an impact on people's judgment of service quality. Although careful timing, improved services and physical environment have higher impact on customer's satisfaction (8).

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The new concept of customer service comprises all the things that the organization does to obtain customers satisfaction by providing help to them in receiving the most value from products or services purchased. So anything that is supplied in addition to the physical product and distinguishes the product from competitors' products is customer service (6).

In a research in 1991 it became clear that the consumer, combining his perception of a service, eventually comes to some sort of overall assessment of that service. The findings of this investigation showed that initial expectations of the customers and their perception of current performance as compared to their previous experience leads to customer satisfaction or dissatisfaction (8).

## 3. Empirical Background

Research in this area suggests that knowledge is not a controllable system while organization learning process becomes very slow, and results in delays in product development or the loss of opportunities. KM is a valuable strategy and an important source of organizational that is used to develop capacity and to make substantial improvement in organizational performance. The importance of knowledge is so much that it has become a key factor in promoting organizational performance (2).

**Table 1.** Emprical background

| Authors | Year | Title | Conclusion |
|---|---|---|---|
| Arsali et al. | 2005 | The relationship between customer perceptions of service quality (tangibles, assurance, reliability and empathy) | The results indicated that the first hypothesis was rejected and other hypotheses were confirmed. The results also showed that reliability is more effective than other dimensions on customer satisfaction |
| Yungui Wang et al. | 2003 | A model of the relationship between service quality and reputation of banks | According to the researchers, the 5-fold service quality has a direct impact on the reputation of the bank and the bank's reputation plays an important role in determining the buying behavior and customer loyalty and repurchase. |
| Ranjbaran & Gholizadeh | 2008 | Impact of service quality on customer satisfaction in National Bank of city of Tuyserkan | It was concluded that the factor of reliability was of an impact on customer satisfaction. |
| Haji Karim & Farajian | 2011 | The effect on human and social capital in terms of the perception of career success managers support | Knowledge management is a valuable strategy and an important organizational resource for capacity development and organizational performance improvement. |
| Jafari, Alkami, Riazi, Alikhani Gorgani | 2005 | Empowering the role of knowledge management in human resources | Human resources are an important factor in the development and survival of the organization, particularly in competitive markets with an emphasis on knowledge, skills and can improve their organization's performance. |
| Musakhani, Haghighi, Torkzadeh | 1389 | A model for customer loyalty in banking industry country using knowledge management | The banks that improve their knowledge can provide the services expected by customers, so ensuring customer loyalty. |
| Samadi,Eskandari | 2013 | The effect of service quality on customer satisfaction in National Bank of city Tuyserkan based on Servqual | Hypothesis "there is no significant difference between expectations and perceptions of customers in terms of quality of service" was rejected. And confirmied was the hypothesis of "a direct relationship between service quality and customer satisfaction" |
| | | | "There is a direct relationship between satisfaction and word of mouth." |
| N. Sadat Najafizadeh, amine, fairies Ghasemi | 2010 | A Model for indentifying dimensions of service quality from the perspective of students in technology-driven Banking | It was rejected that that 3 variables of customization, comprehensive, and kowledge had a relation with customer loyalty. |

## 4. Hypotheses

- H1. There is positive significant relationship between component of quantity of knowledge and customer satisfaction in financial institutions.
- H2 There is positive significant relationship between component of innovation in knowledge and customer satisfaction in financial institutions.
- H3 There is positive significant relationship between component of efficiency of knowledge and customer satisfaction in financial institutions.
- H4. There is positive significant relationship between component of effectiveness of knowledge and customer satisfaction in financial institutions.
- H5 There is positive significant relationship between component of trust in knowledge and customer satisfaction in financial institutions.
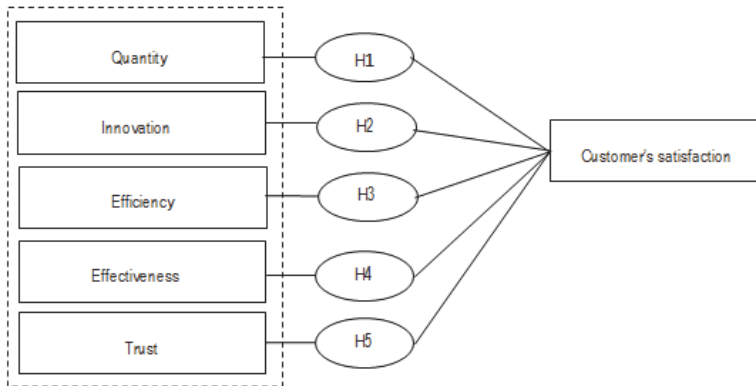
## 5. Conceptual Model



**Figure 1.** The conceptual model (derived from the conceptual model of Yungui Wang, 2003)

## 6. Methodology

This study is classified as fundamental based on objective, and descriptive research in terms of data collection. To investigate the relationship between each of the variables with customer satisfaction, regression analysis using Spss software and technique of path analysis and to further ensure of the relationships between dimensions of knowledge and customer satisfaction, Pearson's correlation coefficient was used.

### 6.1 Statistical population

Statistical research comprised all clients of financial institutions in the city of Tehran, and for this reason, those financial firms were used as statistical population that had the largest and most active community of customers and have always enjoyed a good performance statistics. Sample size was determined based on Morgan table to be 73. To reduce potential errors associated with completing the questionnaire, 90 questionnaires were distributed.

For data collection, a questionnaire was used, therefore, a questionnaire with 30 items on 5-point Likert scale based on the value dimensions of knowledge and administered to the sample who were randomly selected.

### 6.2 Validity and reliability

After preparing a questionnaire, to ensure that the Scale was suitable for measuring customer satisfaction, experts and officials were consulted and it was ensured that content of questionnaires was valid. In order to ensure the reliability of questionnaire, the questionnaire was distributed among 30 people and after collecting the same, Cronbach's alpha values were calculated by the software Spss at 0.869, showing the validity of the questionnaire.

**Table 2.** Determining the reliability based on Cronbach's alpha coefficient

| Variable | Number of items | Cronbach's alpha |
|---|---|---|
| Quantity | 4 | ./714 |
| Innovation | 5 | ./770 |
| Performance | 6 | ./843 |
| Effectiveness | 5 | ./709 |
| Trust | 4 | ./750 |
| customer satisfaction | 6 | ./722 |
| Total | 30 | ./869 |

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## 7. Statistical Analysis

In order to investigate the relationship between customer satisfaction and knowledge components simultaneously based on the model of research, regression analysis (path analysis technique) was used. Summary of the results of the analysis of are as follows:
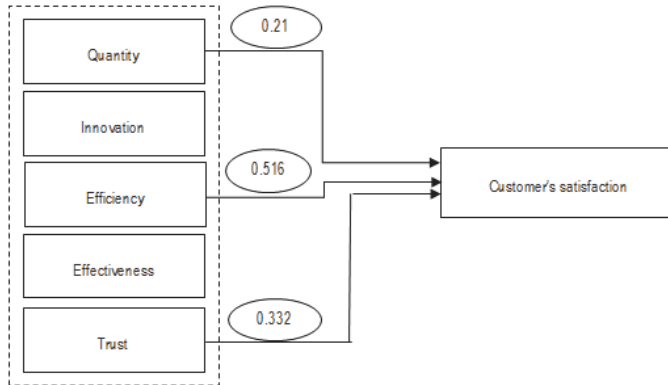


Coefficients of the regression analysis of each variable (standardized coefficients) for each variable (quantity, innovation, efficiency, effectiveness, reliability and quality of service) were calculated and given that significance level of trust and confidence were more than 5%, they were excluded from the models. Therefore, calculations of path analysis were conducted after exclusion again.

### 7.1 Value dimensions of knowledge
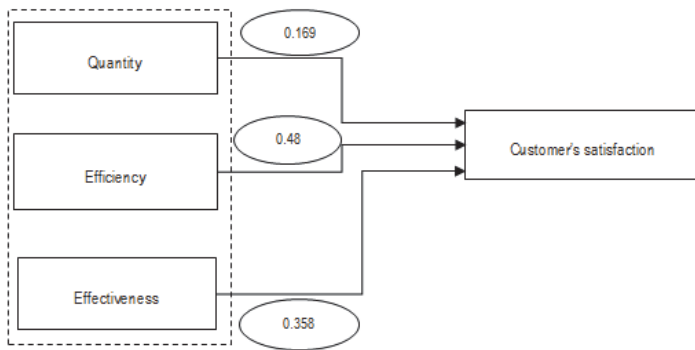


The brief statistical analysis using path analysis is shown in the table below:

**Table 3.** Results of tatistical analysis

| Hypothesis | Estimated path coefficient | Indirect effect | t | Highest significance level of path | Result |
|---|---|---|---|---|---|
| H1 | 0/484 | ./424 | 2/510 | ./.15 | Confirmed |
| H2 | -./201 | - | 1/315- | ./193 | Rejected |
| H3 | ./169 | ./148 | 2-891 | ./005 | Confirmed |
| H4 | ./358 | ./313 | 3/775 | 0/001 | Confirmed |
| H5 | ./162 | - | 1/206 | ./232 | Rejected |

In assessing the fit of model, value of the coefficient of determination (R2) that explain the variance and variations of the

dependent variable by the independent variable and its value varies between zero and one indicated the fit of model and relation between knowledge dimensions with customer satisfaction for financial institutions. This coefficient was again reviewed and approved for the dimensions of knowledge and customer satisfaction. Results indicate that there was a positive and significant relationship between quantity and effectiveness and customer satisfaction. Performance also has a significant and positive relationship with customer satisfaction. Also according to the results from path analysis, customer satisfaction had no positive relationship with dimensions of knowledge and innovation and trust. So they was excluded from the model.

### 7.2 Results from Pearson correlation test

Relation between dimensions of knowledge and customer satisfaction was tested using Pearson correlation test and based on the data from questionnaire, following results were concluded.

**Table 4** . Results of Pearson correlation test

|  |  | Quality | Innovation | Efficiency | Effectiveness | Trust |
|---|---|---|---|---|---|---|
| Customer satisfaction | Pearson correlation coefficient | ./816 | ./684 | ./661 | ./852 | ./741 |
|  | Significance level | ./001 | ./001 | ./001 | ./001 | ./001 |
|  | Sample size | 73 | 73 | 73 | 73 | 73 |

## 8. Conclusion

The results produced by the research suggest that as financial institutions increase their knowledge about the customer, their tastes, habits, behavior, behavior revenues, income level, etc. they can improve customer service provided to the demands in a way closer to their expectations. As a result of such consistency between perceived value of banking services and customer expectations, customers become more loyal to institute and less or never thinks of changing their service provider and in long-term relationships and profitability with the institution will increase (20).

The results indicate that the relationship between the quantity and effectiveness and customer satisfaction is a positive and significant one. Performance also has significant and positive relationship with customer satisfaction. Results from path analysis showed that no positive relation existed between dimensions of innovation and knowledge trust and customer's satisfaction.

The study concluded that there was a positive relationship between personnel's knowledge and customer satisfaction l. Knowledge can have a greater impact on satisfaction through quantity, efficiency and effectiveness.

## 9. Suggestions

Learning knowledge within knowledge management framework requires proper expenditure and a sense of learning among the staff of an institution. Obviously encouraging employees to participate in training courses and practical in-service training to identify and meet the needs of customers are what make knowledge injected into the organization and result in promotion of the organization.

It also concluded that the knowledge, skills and their dimensions as considered by experts such as Philip Kotler are effective on customer satisfaction. Therefore, it is an imperative issue for financial institutions.

Holding periodic in-service training to increase employees' knowledge of financial institutions can be very useful.

And finally transfer non-codified knowledge of skilled and experienced staff to young staff of financial institutions is recommended.

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