



## Identificación y selección de indicadores de factores socio-educacionales que afectan la calidad de los servicios

### Identification and selection of indicators of socio-educational factors that affect the quality of services

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#### Resumen

Los municipios de la provincia de Mazandaran (Irán), como otras organizaciones de servicios, están trabajando dentro de los marcos legales. A la luz de la creciente importancia de la satisfacción del cliente y su respeto en los municipios, el objetivo de este artículo es identificar y evaluar los indicadores de los factores sociales que afectan la calidad de los servicios. La población estadística del presente estudio incluyó expertos y profesores universitarios en la provincia de Mazandaran. 15 personas fueron seleccionadas por un método de muestreo no aleatorio. Con base en estudios previos, la literatura de investigación y las entrevistas realizadas, el cuestionario fue diseñado y aprobado. De 36 preguntas sobre los factores sociales que afectan la calidad de los servicios, 7 estaban relacionadas con la calidad de los servicios. El examen de los ítems del cuestionario se realizó con el enfoque de la técnica Delphi y la idoneidad de los componentes y dimensiones se midió utilizando el software SPSS. De acuerdo con los resultados de la segunda ronda de la técnica Delphi, 33 indicadores de factores sociales que afectan la calidad de los servicios y 5 indicadores de calidad de servicio obtuvieron una puntuación superior a 3. Los servicios basados en los criterios propuestos por los expertos incluyeron el comportamiento de los empleados, además de su competencia y habilidades, la innovación en la prestación de servicios, la coordinación y la responsabilidad de la organización, la confianza organizacional, el desempeño organizacional, la responsabilidad social y los valores laborales de los empleados. Además, la media de todas las dimensiones estaba entre 4 y 5 (entre apropiado y completamente apropiado). En conclusión, hubo un ajuste entre todas las dimensiones de los factores sociales que afectan la calidad de los servicios según los criterios propuestos.

**Palabras clave:** Factores sociales, calidad del servicio, organizaciones de servicio, expertos, técnica Delphi.

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## Abstract

Municipalities in Mazandaran province (Iran), like other service organizations, are working within legal frameworks. In light of the increasing importance of customer satisfaction and respect in municipalities, the objective of this article is to identify and evaluate indicators of social factors that affect the quality of educational services. The statistical population of the present study included experts and university professors in the Mazandaran province. 15 people were selected by a non-random sampling method. Based on previous studies, research literature, and interviews conducted, the questionnaire was designed and approved. Of 36 questions on social factors that affect the quality of educational services, 7 were related to the quality of educational services. The examination of the items of the questionnaire was carried out with the Delphi technique approach and the suitability of the components and dimensions was measured using the SPSS software. According to the results of the second round of the Delphi technique, 33 indicators of social factors that affect the quality of educational services and 5 indicators of quality of service obtained a score higher than 3. The educational services based on the criteria proposed by the experts included the behavior of the employees, in addition to their competence and skills, innovation in the provision of educational services, coordination and responsibility of the organization, organizational trust, organizational performance, social responsibility and the labor values of employees. Furthermore, the mean of all dimensions was between 4 and 5 (between appropriate and completely appropriate). In conclusion, there was an adjustment between all dimensions of social factors that affect the quality of educational services according to the proposed criteria.

**Keywords:** Social factors, service quality, service organizations, experts, Delphi technique.

## Introduction

Since the role of educational services in the daily lives of human beings was revealed, the issue of “quality of service” has also been considered among organizations. The quality of educational services is recognized as the main component of the success in an organization in today's competitive environment, and any decrease in customer satisfaction with the organization due to poor quality of service is a concern. Nowadays, the quality of educational services is an important and effective factor in the success and failure of organizations, including municipalities (Mohammadi & Bakhtiari, 2015). In other words, quality of service is defined as the measurement of performance against expectations or the gap between expectations and perception of educational services (Shahriar, 2013). The problem of quality of service is created in organizations that do not pay attention to recognizing customer needs and meeting them. Due to limited resources that affect all organizations, including municipalities, managers must first identify the needs and expectations of their customers and then measure their perceptions of educational services received, the gap between the expectations and perceptions of their customers and finally select the most cost-effective solutions to fill the existing gap (Bahadori et al., 2013). Nowadays, in a competitive world, customers are at the center of attention of service organizations such as municipalities and their satisfaction is the main factor in gaining the competitive advantage of organizations, so

customer satisfaction plays a vital role in achieving the organization's goals in new business processes (Habibipour & Karimzadeh (2012).

Also, providing high-quality educational services requires the ability to control quality at all times and the ability to solve specific problems that may arise (Pariza, 2014). It leads to increased productivity and customer satisfaction and reduces organizational costs. Quality of service is the largest problem of service organizations, so all organizations, especially service organizations, such as municipalities, should seek to improve the quality of their educational services (Mohammadnia et al., 2010). In the literature of educational services, the importance of quality of service and its relationship with customer satisfaction has been strongly emphasized.

Researchers state that high quality of educational services is a prerequisite for customer satisfaction. Having a knowledge of the concept of quality of service and efforts to improve it will lead to the provision of quality educational services, and increasing the level of quality of educational services leads to increased customer satisfaction (Safiek et al., 2014). The great efforts are nowadays made by researchers, experts, and managers of organizations to improve performance management tools and expand customer-oriented attitudes, indicating that customer satisfaction is currently one of the most important factors in determining the success of organizations (Matoubi & Talebi, 2015). The municipality is one of the institutions of civil society, which is one of the developmental and participatory structures of the country within the framework of governance in the social, local and urban areas in the constitution (Hedayat & Elmi, 2012). Municipalities will succeed in achieving their goals and maintaining a balance between present and future needs if they consider the satisfaction of the citizens. Satisfaction of the citizens will make them actively participate in fulfilling the duties and responsibilities and the participation of the citizens is considered as the core of decision making. Citizens' satisfaction is a key factor in continuous improvement in the work process to increase efficiency and improve the quality of comprehensive urban management (Mohammadi & Bakhtiari, 2015).

Municipalities in Mazandaran province, like other service organizations, are working within legal frameworks. Increasing the importance of customer satisfaction and respecting them in municipalities, especially the municipalities of Mazandaran province, requires identifying and removing barriers of providing high-quality service and improving the process of providing service. Accordingly, the issue of customer satisfaction in this organization is one of the important factors and customer dissatisfaction results from a gap between customer expectations and the performance of municipalities in Mazandaran province, as customer perceptions (Sari, 2019). Thus, given what was stated above, the aim of this article is to identify and screen indicators of social factors affecting the quality of educational services.

## Methodology

The present work was developmental in terms of objective and descriptive in terms of nature. It was conducted using library method (based on past studies, research literature) and qualitative (interview) method. The statistical population of the study included experts who were familiar with the subject of quality of educational services. Their number was unknown and scattered throughout the country, so they were selected purposefully and by considering the characteristics such as knowledge and experience in the subject, willingness, sufficient time to participate in the study, and effective communication skills (Ahmadi, 2009), having scientific research and articles related to the subject of research, availability, experience, appropriateness of the field of study, PhD level of education, and teaching at the university.

To select an appropriate sample from the population of experts and university professors of Mazandaran province, a non-random purposeful sampling method was used. Accordingly, to select the appropriate sample, 15 people were selected from the population of experts and university professors who met the research inclusion criteria. Based on previous studies, the research literature and interviews conducted, the model was designed and approved and out of 36 questions on the social factors affecting the quality of educational services, 7 questions were related to quality of educational services. In the mentioned questionnaire, respondents were asked to determine the importance of each of the items.

This questionnaire is scored based on a five-point Likert scale, ranging from "completely inappropriate" option to a "completely appropriate" option. After obtaining the opinion of the experts using the approach of Delphi technique, the number of items of the questionnaire of social factors affecting the quality of educational services changed to 33, and the questionnaire of quality of educational services changed to 5 items. To assess the result of survey of the research experts, the mean fit of the dimensions with the desired variable and the mean fit of the components with the desired dimensions were examined using SPSS software.

## Results

Based on past studies, the research literature and interviews, a total of 33 indicators (criteria and sub-criteria) were identified. In the first step of Delphi technique, these criteria were first provided to experts and they were asked to provide suggestions on integrating some of the criteria into a new one, and finally, no indicator was added to sub-criteria.

In the second step of the Delphi technique, 33 indicators of social factors affecting the quality of educational services were first screened to select the criteria that were more important and appropriate. Then, each of the criteria were reviewed by experts of this field, who were composed of 15 people and were familiar with all the sub-indicators. Delphi technique was used for the initial screening of identified criteria. Delphi's technique continued in two rounds, and in the second round, it was stopped when expert reached a final agreement. Finally, the remaining 33 indicators in the second round obtained score above 3 again. Thus, the Delphi technique was stopped and the indicators of social factors affecting the quality of educational services were used for the final analysis.

### ***Identification and screening indicators of quality of service***

Based on previous studies, the research literature and interviews, a total of 5 indicators were identified. In the first step of Delphi technique, these criteria were provided for experts of this field and they were asked to provide suggestions on integrating some of the criteria into a new one, and finally, no

In the second step of the Delphi technique, 5 quality of service indicators were first screened to select the criteria that are more important and appropriate. Then, each of the criteria were reviewed and examined by 15 experts who were familiar with all the sub-indicators, according to Delphi technique.

Delphi's technique continued in two rounds, and in the second round, it was stopped when expert reached a final agreement. Finally, the remaining 5 indicators in the second round obtained score above 3 again. Thus, the Delphi technique was stopped and the indicators of social factors affecting the quality of educational services were used for the final analysis.

### ***Reviewing the results of a survey of experts***

Question 1: What are the components of social factors affecting the quality of educational services in the municipalities of Mazandaran province?

Dimensions and components of social factors affecting the quality of educational services based on the proposed criteria of experts include employees' behavior, competence and skills of employees, innovation in providing service, coordination and accountability of the organization, organizational trust, organizational performance, social responsibility and employees' work values. According to (Table 1), the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and this means that according to the experts of this research, there is a fit between all dimensions of social factors affecting the quality of educational services based on the proposed criteria.

**Table 1***Mean fit of dimensions of social factors affecting the quality of educational services*

Variable	Dimension	mean fit of dimension with variable
social factors affecting the quality of educational services	Employees' behavior	4.314
	Competence and skills of employees	4.268
	Innovation in providing service	4.107
	Coordination and accountability of the organization	4.097
	Organizational trust	4.325
	Organizational performance	4.125
	Social responsibility	4.365
	Employees' work values	4.604

Question 1-1: What are the components of employees' behavior in the municipalities of Mazandaran province?

According to Table 2, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of employees' behavior based on the proposed criteria.

**Table 2***Mean fit among dimensions of educational employees' behavior*

Variable	Dimension	Mean fit of dimension with variable
Employees' behavior	Staff commitment and conscientiousness	4.400
	The level of willingness to help and respond to the customer	4.333
	Having skill of negotiation and providing information to the customer	4.600

Question 1-2: What are the components of employees' skill and competence in the municipalities of Mazandaran province?

According to Table 3, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of employees' skill and competence based on the proposed criteria.

**Table 3**

*Mean fit among dimensions of educational employees' skill and competence*

Variable	Dimension	Mean fit of dimension with variable
Employees' skill and competence	Employees' professional knowledge and skills	4.333
	Mastery of employees at work	4.600
	Employees' politeness and ability to build trust and assure the customer	4.800

Question 1-3: What are the components of innovation in providing service in the municipalities of Mazandaran province?

According to Table 4, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of innovation in providing service based on the proposed criteria.

**Table 4**

*Mean fit among dimensions of innovation in providing educational service*

Variable	Dimension	Mean fit of dimension with variable
Innovation in providing educational services	Reducing the use of written and manual documents	4.467
	Development of technological and electronic educational services	4.733
	Providing accurate information to the customer by an informed person	4.600

Question 1-4: What are the components of coordination and accountability in organization in the municipalities of Mazandaran province?

According to Table 5, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of coordination and accountability in organization based on the proposed criteria.

**Table 5**

*Mean fit among dimensions of coordination and accountability in organization*

Variable	Dimension	Mean fit of dimension with variable
Coordination and accountability of organization	The division of tasks among employees	4.333
	Interaction and coordination among administrative departments	4.867
	Employees' social participation	4.467

Question 1-5: What are the components of organizational trust in the municipalities of Mazandaran province?

According to Table 6, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of organizational trust based on the proposed criteria.

**Table 6**

*Mean fit among dimensions of organizational and educational trust*

Variable	Dimension	Mean fit of dimension with variable
Organization trust	Lateral trust	4.400
	Vertical trust	4.267
	Institutional trust	4.200

Question 1-6: What are the components of organizational performance in the municipalities of Mazandaran province?



According to Table 7, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of organizational performance based on the proposed criteria.

**Table 7**

*Mean fit among dimensions of organizational and educational performance*

Variable	Dimension	Mean fit of dimension with variable
Organizational performance	Productivity	4.333
	Efficiency	4.533
	Effectiveness	4.333

Question 1-7: What are the components of social responsibility in the municipalities of Mazandaran province?

According to Table 8, the mean of all dimensions is between 4 and 5 (between appropriate and completely appropriate) and it means that according to the experts of this research, there is a fit among all dimensions of social responsibility based on the proposed criteria.

**Table 8**

*Mean fit among dimensions of social and educational responsibility*

Variable	Dimension	Mean fit of dimension with variable
Social responsibility	Economic responsibility	4.267
	Legal responsibility	4.200
	Moral responsibility	4.267
	Optional and voluntary responsibility	4.333

## Discussion

According to experts, the items presented as components of social factors affecting the quality of educational services are classified in 8 general categories, including employees' behavior, employees' competence and skills, innovation in providing service, coordination and accountability of the organization, organizational trust, organizational performance, social responsibility, and employees' work values. According to the results, the employees' behavior in the municipalities of Mazandaran province included three factors of commitment and conscientiousness of employees, the level of willingness to help and respond to the customer, and having skill of negotiation and providing information to the customer. These results are in

line with the results of the study conducted by (Varghese, 2019) who showed that all five variables of reliability, responsiveness, assurance, empathy, tangible factors, development of technological and electronic educational services, social participation of employees, social responsibility have a positive effect on customer satisfaction (Varghese, 2019). It was found that the employees' competence and skills in the municipalities of Mazandaran province included three factors of employees' professional knowledge and skills, mastery of employees at work, politeness and ability of employees to build trust and assure the customers). These results are in line with the results of the studies conducted by (Rasouli & Maghsoudpour, 2016) who showed that there was a relationship between channel marketing and its factors (completeness of educational services, transportation management, the way of collecting receivables, technology, micro and pristine markets) and quality of educational services provided (Rasouli & Maghsoudpour, 2016). These results are also in line with the results of the study conducted by (Palangard et al., 2016) who showed that improvement in educational services received by customers is one of the reasons for the profitability of bodybuilding clubs that offer educational services beyond the expectations of their athletes and they have more satisfied and loyal customers. They also showed that the quality of service leads to customer satisfaction and customer satisfaction will lead to increased loyalty and customer retention. As mentioned, the quality of provided educational services can be one of most important factors influencing customer loyalty (Palangard et al., 2016).

It was found that innovation in providing educational services in the municipalities of Mazandaran province included three factors of reduced use of written and manual documents, mastery of employees at work, providing accurate information to the customer by an informed person). These results are in line with those of the research conducted by (Sari, 2019) showed that the quality of provided educational services and mental image of customers had a positive and significant effect on the loyalty of the customers of Tehran Refah Bank and the quality of the educational services had a positive and significant effect on the mental image of the customers and the mediating role of mental image of customers in the relationship between the quality of provided educational services and customer loyalty was confirmed (Sari, 2019).

For the other hand, it was found that the coordination and accountability of the organization in the municipalities of Mazandaran province included three factors of division of tasks among employees, interaction and coordination among administrative departments, and social participation of employees). These results are in line with those of the research conducted by Bindal et al (2015) who showed quality of banking educational services through gap analysis technique in different dimensions of quality and can show key items to improve performance (Choi et al., 2016). It was found that organizational trust in the municipalities of Mazandaran province included three factors of lateral trust, vertical trust, and institutional trust. These results

are in line with the results of the research conducted by (Sanjuq, 2014) who showed reliability, assurance, empathy and responsiveness did not have a strong relationship with customer satisfaction, but the tangible aspects of quality of service had a positive effect on customer satisfaction (Sanjuq, 2014). It was found that organizational performance in the municipalities of Mazandaran province included three factors of productivity, efficiency, effectiveness. These results are in line with those of the studies conducted by (Tiregar et al., 2013) who showed a significant relationship between ergonomic level and quality of service in Zahedan (Tiregar et al., 2013).

### Conclusion

It was found that social responsibility in the municipalities of Mazandaran province included four factors of economic responsibility, legal responsibility, moral responsibility, and optional and voluntary responsibility). These results are in line with those of the study conducted by (Afghanpour & Hasiri, 2013) showed 5 dimensions of quality of service had a significant effect on employees' job satisfaction (Afghanpour & Hasiri, 2013). It was found that employees' work values in the municipalities of Mazandaran province included three factors of job satisfaction, organizational commitment, strong desire to participate in affairs. These results are in line with those of the research conducted by (Fahimnia & Mantegh, 2013) who showed the effect of service provided by librarians, information control, space and place, and order and coordination had a significant relationship with the dependent variable of trust in librarians. Among these variables, the variable of the effect of service provided by librarians had the strongest relationship with trust in librarians. They also showed that the independent variables entered in the regression equation predicted 45% of the variance of the dependent variable (Fahimnia & Mantegh, 2013). It was found that the quality of educational services in the municipalities of Mazandaran province included five factors of tangible factors, reliability, responsiveness, assurance, and empathy). Also, the reliability and empathy component were in good status and tangible factor was ranked the lowest among them (Mirzazadeh et al., 2013).

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