

# Evaluating the performance of ICT offices in Tabriz villages using balanced scorecard (BSC) model

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## Abstract

Nowadays Information and Communication Technology (ICT) offices play an important role in development of electronic government, acceleration of service delivery to villagers, and a reduction in travels. Constructing and developing these offices were taken in close consideration in early 2000's in Iran, and 48 ICT offices have been constructed in villages of Tabriz since 2007. However, the performance of these offices have not yet been investigated from qualitative and quantitative perspectives in order to specify their weaknesses and strengths in providing the villagers with services. The present study was aimed at evaluating the performance of ICT offices in Tabriz villages using balanced scorecard (BSC) model. In regard with its objectives, it was an applied descriptive survey. The statistical population of the study consisted of the authorities of the ICT offices with a minimum work experience of 3 years (30 offices) and the villagers covered by them, so 30 ICT authorities and 185 villagers covered by them were selected by a probability proportionate method as the study sample. The study instruments included two types of questionnaire whose questions were designed according to the four perspectives of evaluating model of BSC. The authorities also responded to financial, growth and learning, and internal questions, and the villagers responded to the questions related to the customer satisfaction in the form of a 5-point Likert scale. The results of the study indicated that on average the offices had an appropriate performance reached 70% of the defined operational goals. Moreover, regarding the customer satisfaction, the performance of the ICT offices placed first, regarding the internal perspective it

placed second, regarding the growth and learning perspective it placed third, and in regard with the financial perspective it placed last.

**Keywords:** *information and communication technology (ICT); performance evaluation; balanced scorecard (BSC); rural ICT offices*

## 1. Introduction

Since the second half of the 20<sup>th</sup> Century and after the industrial and agricultural revolution, man has stepped into information era in which the world's economy and industry is based on exchange of information, electronic communication and greater independence and man has encountered issues such as large volumes of data that need to be produced, processed, and analyzed. This has led man toward developing a new technology called information technology (IT) and created a new realm in information era (Rezayian, 2001). In information era, instead of focusing on capital and money, it is the volume of the data that has gained significance. Sovereignty belongs to computers, IT, experts, and highly skilled individuals, and instead of physical endeavor, there is an emphasis on utilization of the power of thought (Jerald & Anderson, 1981). In other words, in this era, activities rotate on a knowledge-based approach which can be actualized through a comprehensive development in a factor called "information". With entrance of communication and information devices, villagers are provided with various and valuable services in the villages of the third millennium (Jalali et al, 2006). Since less than one third of Iran's population lives in villages, equipping the villages with ICT services can play an important role in developing and accelerating the

provision of social-economic services. The history of ICT offices in Iran dates back to 2000, and at the present there are 9,700 ICT offices; therefore, it is necessary to evaluate their performance in order to strengthen their strengths and resolve their weaknesses.

Performance evaluation is one of the best methods to obtain information to be used in decision making in organizations; therefore, the managers need to evaluate the performance of their organizations in every period of time (Kaplan & Norton, 2001). In the present era, evaluating invisible assets and long-term competitive capabilities of the organizations is uniquely significant because presence of such assets is more vital for the success of the organization than visible and physical assets (Sattarifard, 2004). Therefore, organizations need a system that not only evaluates all aspects of the organization but it also measures the rate of the organization's success in terms of achieving its objectives and prospects. This system should also help the managers of the organizations with strategic planning and decision making (Sajedinezhad, 2006). In the present study, balanced scorecard (BSC) was proposed as a performance evaluation system that can help meet the organizations' objective. BSC helps the managers to improve the performance of their organization by presenting the performance level of the organizations. BSC approach provides this opportunity in specifying the organization's position in order to utilize this tool to find the faults. In so doing, one should attempt to define appropriate criteria to evaluate performance (Karimi, 2008).

Since 2007, 48 ICT offices have been constructed in villages of Tabriz. However, their performance has never been evaluated in order to identify their strengths and weaknesses or success so that necessary measures could be adopted according to the results of performance evaluation. Therefore, the main question of the study is, "What performance have the ICT offices had so far and what are their strengths and weaknesses?"

## **2. The study questions**

How is the performance situation of the ICT offices in Tabriz from the perspective of the internal processes?

How is the performance situation of the ICT offices in Tabriz from the perspective of growth and learning?

How is the performance situation of the ICT offices in Tabriz from the perspective of customer satisfaction?

How is the performance situation of the ICT offices in Tabriz from the financial perspective?

Therefore, the main objective of the present study is to evaluate the performance of ICT offices in Tabriz villages using BSC model.

ICT was created after the beginning of the industrial era and has willingly or unwillingly penetrated into the organizations. Nowadays, this is IT that proposes a new method of development with the emergence of technological model (Castles, 2001). With the dependence of the global economy on a system whose shape is always changing, one can observe emergence of new shapes and formats of relations between actors in different areas such as economy, government, electronic business, society, geographical environment, etc. There is no doubt that the effect scope of IT is not just limited to urban environments, but it reaches and covers even the furthest rural regions (Fazelnia & Kiani, 2003). Regardless of villages and deprived regions, development of ICT can have negative effects like an increase in the distance between villages and cities, an increase in immigration from villages to cities, the loss of local industries, loss of local markets, etc. However, global experiences indicate that proper planning and development of ICT can facilitate villagers' access to various health, educational, and governmental services, creation of occupational opportunities, an increase in awareness level in regard with activities related to manufacture, agriculture, and the market of agricultural products in a way that this technology is considered as one of the tools and opportunities for comprehensive development (Rezvani, 2004). It is noteworthy that the first village that was equipped with Internet

connection and its people used it was “Joan” in Spain in 1999 (Hamshahri Newspaper, 2002). The history of ICT in our country dates back to 2000 in the village of “Shah Kouh” in Golestan Province. In 2003, the village of “Gharn ABdad” in the same province was equipped with an ICT center, and the village was awarded the Asian-Pacific Award by UNESCO in 2007 and placed first in regard with innovation and creativity. However, the first plan with an extensive coverage that was carried out by Iranian government was the plan of equipping 10,000 rural ICT offices that was formally declared in the fourth plan of development (Seddigh, 2004).

What that indicates the necessity of studying the issue of ICT more than anything else is the situation that Iran possesses as a developing country. It is claimed that due to the rapid trend of development in the world, one cannot expect that the industrialization path will be paved in short run in order to step into the postindustrial era. However, it can be stated that this technology can be a master key that can change the current economic equations. On the other hand, one can claim that the significance of new ICT technologies is nowadays quite clear for all the countries all over the world. Awareness about the capacities of this technology as one of the tools and opportunities for comprehensive development and in order to take advantage of potential capacities of this technology in different fields, by signing Information Society Declaration of Principles (ISDP), Iran has practically committed itself to affecting the structure of the global information society. In one of the issues stated in the “action plan” of the principles announced to the countries, it is recommended that all villages should have access to the Internet and enter the global information society through education by 2015 (ICT Ministry, 2004). According to the formal statistics published by the International Telecommunication Union (ITU) in 2007, Iran has placed 87<sup>th</sup> among 170 countries in the world. The studies conducted by the World Bank in 1999 indicated that the critical situation in poor villages of developing countries has caused these countries to seek to design and implement more supportive and efficient plans. That is why developing policies and strategies of developing ICT has become an

important issue for most countries especially the Third World Countries (Riyahi & Hedayati, 2006). Rural ICT development and equipment of the rural community with ICT depend on understanding the internal and external perspectives of these offices more precisely and deeply. Regardless of the environment they perform, organizations always need to improve their performance and should make an utmost attempt in order to obtain the highest level of performance, which indicates that performance evaluation has always been a challenging issue within the realm of organizational management, and specification and exploration of appropriate indices to evaluate the performance of organization are highly significant in order to achieve the goals and prospects of the organization (Kaplan & Norton, 2001). BSC model was proposed by Kaplan and Norton in 1992. This model employs four vital perspectives of the customers, internal processes, growth and learning, and finance in order to control the short-term operations of an organization with its long-term prospects and strategies. Therefore, it highlights the key proportions of performance within the scope its central goals. The main perspectives of this model are financial perspective, internal processes, customer perspective, and learning and growth perspective. Balanced evaluation puts emphasis on the three temporal perspectives of the past, the present, and the future because it is likely that a past performance has caused a result in the present or the future, or a performance in the present leads to an outcome today or tomorrow. Moreover, in this model, the indices are classified into performance-provoking indices and consequences. This model tries to relate and create a relationship between organizational strategies and organizational operations by determining critical factors of success and strategic indices (Karimi, 2005). This model has three generations; in the first generation it mostly emphasizes the creation of balance among different perspectives, in the second generation, BSC is proposed not only as an evaluating system but also as a management system, and it puts emphasis on the role of the prospect, mission, and strategy of the organization. Kaplan and Norton (1996) (the third generation) proposed a more developed version of BSC as a strategic management system. They stated

that traditional management systems are incapable of creating a relationship between long-term strategies of the organization and its short-term performance. Managers who utilize BSC; however, are not forced to put emphasis on short-term financial indices as the mere factors for the performance of their organization. BSC enables them to begin four new managerial processes which separately and collectively help with the establishment of a relationship between long-term strategic goals and short-term performance (Ibn al-Rasoul, 2004).

Balanced evaluation provides the managers with a comprehensive view over what is happening inside and outside an organization. Many large companies use this method to evaluate the effects of strategic decisions on employees, customers, and profitability. These decisions can cause a change in the process of good production. Kaplan and Norton explained the logic behind balanced evaluation like this: the financial criterion that refers to past events was enough to evaluate the performance of the companies in the industrial era in which long-term capacities and relationship with the customers are not considered as factors in achieving success. These criteria; however, are not sufficient to guide and evaluate the performance of the companies in the present era in which creation of value and wealth production are possible by investing in the customers, material and good suppliers, processes, technology, and innovation. In addition to considering financial criteria, balanced evaluation provides new criteria to adapt evaluation methods with the conditions of the present era. In Iran, many studies have been conducted on rural ICT and the analysis of the effects of these offices in different cultural, social, and economic fields (Sidayi & Hedayatimoghadam, 2012; Shah Kouhi et al, 2012; Enabestan & Vaziri, 2011). However, there is no study that was directly aimed at the performance of ICT offices using BSC model.

In their study of presenting indices to evaluate the performance of Iran Automobile Assistance Company (IAAC) using BSC, Parhizgar et al (2010) concluded that the final percentage of evaluating indices of the company was 50% for financial

perspective, 88% for customer perspective, 77% for internal perspective, and 73% for growth and learning perspective. According to BSC model; therefore, IAAC can properly evaluate its important indices and monitor its main processes accordingly.

In their study of evaluating and analyzing the effect of ICT on the quality of the villagers' lives in the village of Gharn Abad, Shah Kouhi et al (2012) concluded that there is a significant relationship between utilizing ICT and enhancement of social and economic indices and access to services and rural infrastructures. In their study of evaluating the role of rural ICT offices in providing services to rural regions, Seydayi and Hedayatimoghadam (2012) concluded that despite of the fact that these offices are highly capable of providing services (educational, health, agricultural, postal, bank, etc.), their performance is only limited to bank and postal services (economic perspective) at the moment, and they have a poor performance in regard with social and cultural perspectives.

Behjuji (2014) evaluated the performance of plant pathology clinics in Tabriz using BSC method and concluded that in actualization of the defined operational objectives, clinics placed first in regard with internal processes, second regarding customer view, third in terms of financial perspective, and last regarding growth and learning. And in regard with effective factors in performance of the clinics, two factors of motivation and education played a bigger role than other factors in predicting the performance level of the clinics.

Anand et al (2005) sent BSC questionnaire to more than 75 global Indian companies. Their most important finding was that BSC was utilized by 45.28 and 43.9% of Indian and American companies, respectively. They also found that financial perspective is the most important perspective followed by customer perspective and growth and learning. Furthermore, they concluded that budgeting costs, incomes, average profit and interest, and valuating mechanism are among administrative management tools that are used by Indian companies. Most companies declared that utilization of BSC can lead to identification and utilization of chances,

reduction of costs, and improvement in the performance of organizations in the end of the year.

Chen et al (2006) studied and compared the hospitals of Japan and China. In their study, a hospital from China and one from Japan were selected. The key criteria were also determined in BSC framework. Analyzing the financial indices and internal processes indicated that Hospital C (China) was better than Hospital N (Japan) in terms of these two perspectives. The results of their study; however, indicated the superiority of the Japanese hospital in terms of the customer and growth and learning perspectives, which may be contributed to the fact that Chinese managers sought short-term profits than long-term ones. In a study entitled, "Improving the performance after applying BSC method", Changa et al (2008) investigated MMH hospital in Taiwan. The results of their study indicated that the criteria of the internal processes, growth and learning, financial perspective, and customer satisfaction had the highest scores, respectively.

### **3. Materials and methods**

In regard with its nature, the present study was a descriptive survey, and in regard with its objective, it was an applied research. The researchers aimed to describe and evaluate the performance of the ICT offices in the form of BSC model from the perspective of the members of the offices and the villagers in order to utilize the results of the study to develop and activate ICT offices and boost their strengths and resolve their weaknesses.

The statistical population of the study consisted of two groups: the members of the ICT offices active in Tabriz villages with at least three years of experience and the villagers that are provided with ICT services (48,000 families). Due to the high rural population of the study villages and in order to save time and study cost, it was decided to collect related data through sampling, and Cochran formula (Eq. 3.1) was employed to determine the sample size. The sample size of the customers was 10 individuals (out of 42,000 families), and in order to enhance the preciseness of the results, the sample size was increased to 185 individuals. 2. (Eq. 3.1)

$$n = \frac{N(t.s)^2}{Nd^2 + (t.s)^2}$$

Where, n is the sample size, N is the population size, t is the acceptable confidence coefficient of standard error, S<sup>2</sup> is the variance of the study variable, and d is the confidence degree or appropriate probability precision. The statistical population of the authorities of the offices with at least 3 years of experience consisted of 30 offices. The data collection instrument was questionnaire. Regarding the properties of BSC model, two types of questionnaire were utilized to evaluate the performance of the offices from four perspectives: A questionnaire was designed for the authorities of the ICT offices. This questionnaire was composed of 4 sections: demographic section (6 open-ended questions and 4 closed-ended ones), financial perspective section (19 open-ended questions), internal processes section (7 closed-ended questions), and growth and learning perspective (8 closed-ended questions). The second questionnaire was related to the customer satisfaction perspective based on BSC model which was designed in two sections: the first section was related to demographic information (6 open-ended questions and 4 closed-ended ones) and the second section was related to questions of customer satisfaction (20 closed-ended questions in the form of 5-point Likert scale) which was completed by the villagers who received ICT services. Validity of the questionnaire was confirmed by some rural development and ITC experts. The reliability of the questionnaire was calculated through Cronbach's Alpha which was 0.88, which indicates an acceptable level of reliability.

To evaluate the performance of the ICT offices using BSC model, first the strategic objectives of the offices were defined from four perspectives (financial, customer, internal processes, and growth and learning) afterwards indices that could measure the objectives were determined. In so doing, the performance of the ICT offices was evaluated from financial, internal processes, and growth and learning perspectives by the authorities of the offices residing in rural regions. And the customer perspective was

evaluated by the customers (villagers receiving ICT services) based on the defined operational goals (customer satisfaction). For the financial perspective, financial indices were utilized. However, the other three perspectives of BSC (internal processes, growth and learning, and customer) were measured in the form of poll and Liker scale.

month, respectively. Among the clients of the offices, 19.1% (35 people) were self-employed (not farmer) and 16.9% were farmers.

Table 1. Performance of the ICT offices in Tabriz from the four perspectives of BSC model

BSC Perspectives	Percentage of actualization of operational goals from the four perspectives
Customer Perspective	71%
Internal Processes Perspective	80%
Growth and Learning Perspective	81.53%
Financial Perspective	46.55%
Total	69.77%

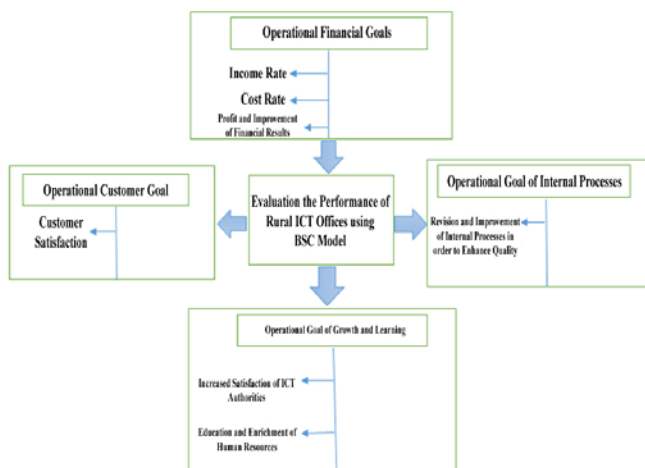


Fig. 2. The frame work of evaluating the performance of the rural ICT offices using BSC model

## 4. Results

### 4.1. Descriptive findings

The results of the study indicated that the highest frequency of age (i.e. 30%) was between 26-30 years and the mean age of the authorities was about 34 years. The minimum experience of activity in the ICT offices was 4 years and the maximum was 7 years. Moreover, the mean experience was 6 years. In regard with the participants' education, the highest frequency was related to diploma with 14 cases (46.7%). In regard with their place of residence, 86.7% of the authorities, (26 individuals) resided the villages of their service. Moreover, the results of the study indicated that the highest rate of reference to the offices is related to the group age of 26-30 years (26.2%) and the lowest rate of reference is related to the group age of 65 and more (1.1%). The mean age of the customers was 30 years and the mean reference to the offices was 7 times per month with a minimum and maximum of once and 15 times a

According to the results of the study, the ICT offices to a large extent succeeded in achieving the defined goals and have met 69.77% of the goals. Moreover, from the four perspectives, the ICT offices were placed first in regard with the customer perspective with a score of 81.53%, second regarding the internal processes with a score of 80%, third in regard with the growth and learning perspective with a score of 71%, and last regarding the financial perspective with a score of 46.55%.

### 4.2 The performance status of the ICT offices in Tabriz from the growth and learning perspective

To evaluate the performance status of the ICT offices in Tabriz from the growth and learning perspective of BSC, two criteria (in total four variables for each criterion) were employed in the form of two operational goals, and the mean statistic was used to score each variable from this perspective. Table 2 indicates the criteria and variables from the perspective of growth and learning of BSC model for the ICT offices. According to the mean of each variable, one can conclude that in the operational goal of enhancing the authorities' satisfaction, the variable of "the office authority's support of the company during related educational period" with a score of 3.94 gained the highest score and the variable of "the rate of satisfaction with the educational period of ICT services" with a score of 2.73 obtained the lowest score. In the operational goal of education and enrichment of human resources, the highest and the lowest scores of 4.13

and 3.60 were related to the variables of “the office authority’s attention to the employees’ creativity and skills” and “using motivational

from growth and learning perspective based on BSC model methods to provide better services”, respectively. According to the results presented in Table 2; therefore, the actualization percentage of the defined variables can be observed from the perspective of growth and learning based on the goal

rate that is the score 5 for each variable. Moreover, the actualization percentage for defined operational goals from the perspective of growth and learning was 63.55 and 78.45% respectively for “an increased in the satisfaction of the ICT offices authorities” and “education and empowerment of the human resources”. In total, the studied offices have met 71% of their defined operational goals from this perspective.

Table 2. Evaluating the performance of the ICT offices in Tabriz from growth and learning perspective based on BSC model

Operational Goal	Criterion	Variable	Mean	SD	Goal Value	Percentage of Variable Actualization	Percentage of goal Actualization
Increased Satisfaction of ICT Office Authorities	The rate of the related educational periods	The rate of the office authority’s support of the employees in the periods of education and workshops	3.94	0.81	5	78.8%	
		The rate of satisfaction with postal educational periods	2.73	1.33	5	54.6%	
		The rate of satisfaction with telecommunication educational periods	2.75	1.28	5	55%	63.55%
		The rate of satisfaction with ICT educational periods	3.29	1.2	5	65.8%	
Education and Empowerment of Human Resources	The rate of research and development opportunity	The rate of the office authority’s attention to the employees’ creativity and skill	4.13	0.67	5	82.6%	
		The rate of using motivational methods and awards in presenting better services	3.60	1.5	5	72%	78.45%
		The rate of the employees’ mastery over computer and software	4	0.89	5	80%	
		The office authority’s support of the employees’ innovative activities	3.96	0.77	5	79.2%	

### 4.3 The performance status of the ICT offices in Tabriz from the perspective of the internal processes

To evaluate the performance of the ICT offices in Tabriz from the perspective of internal processes based on BSC model, three criteria (a total of 7 variables) were utilized in the form of an operational goal, and mean statistics was employed to score each variable from this perspective. Table 3 indicates criteria and variables from the perspective of internal

based on BSC model for the ICT offices in Tabriz. According to the mean score of each variable, it can be suggested that in the criterion of paying attention to customer orientation, the variable of storage of the villagers’ information with a score of 4.54 had the highest score had the maximum rate, and in the criterion of the rate of paying attention to the diversity of services, the variable of the rate of proportionality between the working hours of the offices and the volume of the services with a score of 3.69 had the minimum rate. According to the results presented in Table 3; therefore, the actualization percentage of the defined variables can be observed from the perspective of the internal processes

according to the rate of the goal which is a score of 5 for each variable. Moreover, the rate of actualization of the defined goal of “improving the internal

processes in order to enhance the quality of the services” which was 80% from this perspective.

Table 3. Evaluating the performance of the ICT offices in Tabriz from internal processes perspective based on BSC model

Operational Goal	Criterion	Variable	Mean	SD	Goal Value	Percentage of Variable Actualization	Percentage of goal Actualization
Improving the internal processes in order to enhance the quality of services	The rate of tendency toward the employees	The rate of paying attention to the employees' education	3.73	1	5	74.6%	80%
		Storing the rural customers' information	4.54	0.68	5	90.8%	
	The rate of paying attention to customer orientation	The rate of paying attention to customer orientation by the employees	4.31	0.62	5	86.2%	
		The rate of cooperation of the related organizations with the office to provide the customers with more services	3.77	1.25	5	75.4%	
		Diversity of the activities and services provided to the customers	4.04	0.92	5	80.8%	
	The rate of paying attention to the diversity of services	The effect of the environment and the rate of development of villages in providing ICT services	3.92	0.84	5	78.4%	
		The rate of proportionality between the working hours of the office and the volume of the service	3.69	0.90	5	73.8%	

**4.4 The performance status of the ICT offices in Tabriz from the customer perspective**

In order to examine the performance of the ICT offices in Tabriz villages from the customer perspective, one criterion (a total of 20 variables) was employed in the form of an operational goal, and the mean statics was used to score each variable from the customer perspective. Table 4 indicates the criterion and variables from the customer perspective based on BSC model for the ICT offices in Tabriz villages. According to the mean of each variable, it can be stated that the ICT offices were more successful in terms of customer perspective in a way that in the last variable of this criterion, the customers of the offices were asked to determine the rate of their satisfaction with the performance of the rural ICT offices, and this variable obtained the maximum score, i.e. 4.51, and the variable of ICT services cost gained the minimum score, i.e. 3.51. Moreover, this table

indicates the percentage of the actualization of the variables for the customer perspective based on a 5-score scale. In this regard, the percent of actualization of the defined operational goal of “an increase in customer satisfaction” for this perspective was 81.53%.



Table 4. Evaluating the performance of the ICT offices in Tabriz from customer perspective based on BSC model

Operational Goal	Criterion	Variable	Mean	SD	Goal Value	Percentage of Variable Actualization	Percentage of goal Actualization
Customer satisfaction	An increase in customer satisfaction	Effect on reduction of commuting in the city	4.10	1.10	5	82%	81.53%
		Effect on reduction in receiving bank and administrative services	4.03	1.03	5	80.6%	
		Use of Internet, fax, and telephone services	3.75	1.25	5	75%	
		Bank services of the ICT office	4.14	1.01	5	82.8%	
		Postal services of the ICT office	3.87	1.13	5	77.4%	
		The cost of telecommunication services	3.51	1.15	5	70.2%	
		The cost of postal services	3.58	1.22	5	71.6%	
		The location of the ICT office in the village	3.98	1.06	5	79.6%	
		The performance of the ICT office compared to other rural offices	4.05	1.01	5	81%	
		Behavior and performance of the office's employees	4.15	1.07	5	83%	
		Responsiveness to the customers' needs and demands	4.18	1	5	83.6%	
		The level of guidance provided by the employees	4.28	0.86	5	85.6%	
		The rate of the employees' awareness and skill in responding to the customers	4.18	0.99	5	83.6%	
		The rate of satisfaction with the bank services of the ICT office	4.23	0.98	5	84.6%	
		The rate of satisfaction with the telecommunication services of the ICT office	3.96	1.07	5	79.2%	
		The rate of satisfaction with the postal services of the ICT office	4.23	0.89	5	84.6%	
		To what extent are you willing to refer to the rural ICT office to do various administrative tasks?	4.12	0.97	5	82.4%	
		To what extent do you recommend the villagers and acquaintances to use the services provided by the ICT office?	4.19	0.99	5	83.8%	
		To what extent is the presence of the ICT office necessary in your village?	4.49	0.85	5	89.8%	
		To what extent are you satisfied with the services provided by the ICT office?	4.51	0.70	5	90.2%	

#### 4.5 The performance status of the ICT offices in Tabriz from the financial perspective

Evaluation of the performance of the ICT offices from financial perspective of BSC was carried out this way that after the financial data were extracted

from the related documents and other calculations conducted by other organizations, the rate of the total income, total cost, and the profits of the ICT offices were calculated in 2014 for each office separately, which is indicated in Table 5, below.

Table 5. Estimating the financial data of the ICT offices in Tabriz villages in 2015

Number of the Offices	Total Income (Million Rials)*	Total Cost (Million Rials)	Total Profit (Million Rials)
30	4.332	1.548	2.784
Mean	144.40	51.61	92.79

\* One million Rial ~ 31.25 dollars

According to Table 5, it can be understood that the average income of the ICT offices of Tabriz was 4.332 million Rials, their average cost was 1.548 million Rials, and their average profit was 2.784 million Rials. However, since this information cannot tell us whether the ICT offices were successful in achieving their operational goals, the variables of “income-cost ratio” to examine the operational goal of “income increase”, “cost-income ratio” to examine the operational goal of “cost reduction”, “profit-income ratio” and “investment efficiency ratio” that are obtained through the ratio of profit to fixed investment to examine the operational goal of “increased profit and improved financial outcomes” were employed (See Table 6). According to the results presented in Table 6, the more the “income-

cost ratio”, the ICT offices have moved toward an increase in their income and the less the “cost-income ratio”, the ICT offices have moved toward a decrease in their income. And finally, the more the “profit-income ratio” compared to the “profit-fixed investment ratio”, the ICT offices have moved toward an increase in their profit and improvement in their financial outcomes.

Table 6. The rate of obtaining the defined operational goals from financial perspective of BSC model

Operational Goal	Variables (Ratio)	Mean	SD	Goal Value	Percentage of Actualization of the Ratios	Percentage of Actualization of Operational Goal
<b>Increase in Income</b>	Income-Cost Ratio	2.88	2.55	5	57.6%	46.55%
<b>Decrease in Costs</b>	Cost-Income Ratio	0.38	0.27	5	7.6%	
<b>Profit and Improvement in Outcomes</b>	Profit-Income Ratio	0.60	0.27	5	12%	
<b>Financial</b>	Investment Efficiency	5.45	8.97	5	109%	

According to the results presented in Table 6, from the financial perspective the ICT offices have reached to 46.55% of their defined operational goals, which places in a lower rank compared to other three

perspectives. Therefore, it is necessary that the defined financial goals be taken into closer consideration and more effective steps be taken forward to resolve the weaknesses.

### 5. Conclusion

It is understood that nowadays programs of economic and social development of countries and also their rural development plans will not have necessary and expected efficiency without considering the total role and proper share of ITC. The most important characteristic and advantage of the modern

technologies is overcoming the time and place and removing spatial distances and decentralizing. On the other hand, the main problem of the villages in Iran is that they are dispersed and away from administrative, economic, cultural, political, and social centers. Therefore, ICT can be considered and employed as the most appropriate means to resolve the main problems of the villages and villagers. All

governmental and private organizations need a type of effective performance evaluation system in order to reach development, growth, and sustainability, which measure the efficiency and effectiveness of the organizations' programs, processes, and human resources. Performance evaluation is a process that is determined to evaluate the progress toward achieving the assigned goals, and it includes data on the efficiency of delivery of goods and services and the rate of the customers' satisfaction, achievements, and effectiveness of the activities in order to reach their certain goals. By indicating the rate of the organizations' performance, BSC help the managers improve their organizations. In determining the position of the organization, BSC approach provides the opportunity to utilize this tool to find the faults in the organizations. In this regard, one should just utilize appropriate criteria in order to evaluate the defined performance. In the present study, analyzing the total percentage of the performance of the ICT offices from the four perspectives (69.77%) indicates that the offices to a large extent succeeded in achieving their operational goals. Therefore, it can be concluded that the rural ICT offices in Tabriz

operated successfully and achieved their operational goals. According to the results of the present study, the following suggestions are proposed to enhance the success of the ICT offices and remove their weaknesses.

Since the ICT offices obtained the minimum score on the financial perspective and the variable of "profit-income ratio" had a lower percentage compared to

other variables, it is suggested that ICT offices be enabled to provide more financial services such as issuing credit cards, devoting ATMs, giving self-employment loans with low interest rate and without any typical bureaucracies of other banks, etc. whereby the offices' income will increase.

Due to the high motivation of the authorities of the ICT offices to participate in high quality educational courses that was evaluated from the growth and learning perspective, it is suggested that governmental organization see to holding educational courses. If the ICT system is considered to be composed of three sections hardware, software, and human agent, after hardware, software, and necessary infrastructures were prepared, the main effective factor in success of the ICT offices will be their human resources, and availability of expertise and high education can lead to the creation of a kind of credit and value among the villagers and their attitude toward the human resources will change.

According to the evaluations that have been conducted over last years by the affiliated organizations (to the Telecommunication Company), it is suggested that evaluations be carried out constantly in order to provide the organizations with the feedback of the performance of the offices, whereby the weakness of the offices can be resolved and their strengths can be boosted in order to provide better services.

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