Use of Balanced Scorecard in Municipality Performance Assessments: Municipal Scorecard Model

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Abstract—Performance assessment process plays an important role in terms of strategical management of municipalities, because performance assessment enables an institution to determine the areas requiring development. But most of the municipalities are unable to employ qualified personnel to manage this process. Most of them (especially the small ones) either never benefit from this process or are unable to utilize from it effectively. Preparing a data set for performance assessment to use in municipalities will bring great contributions to the institutions. The purpose of this study is to establish an effective performance assessment model for (small) municipalities on the same scale by using balanced scorecard strategic management tool. The model designed here is applied to the data of three sub-provincial municipalities in Konya in Central Anatolia Region in Turkey. In accordance with the findings of the study, the model established here is believed to be applicable for all municipalities in Turkey.

Index Terms—municipality, performance assessment, balanced scorecard, strategic management

I. INTRODUCTION

Performance assessment process cannot be conducted so easily in governmental organizations as in private ones. Governmental organizations are obliged to act on a limited scale under some strict regulations. The research studies indicate that there are many important problems in performance assessment process of municipalities as a governmental organization. Especially in Turkey, the issue of performance assessment following the regulations started in 2003 has become quite popular for municipalities. Besides several models offered for performance assessment processes of municipalities, we recommend the balanced scorecard method in our study, as a strategical management tool.

Balanced scorecard is a strategic performance assessment method, which establishes a framework for strategic performance management by turning missions and strategies of companies into comprehensible performance measurements [1] and which gives a wider viewpoint about organizational performance for senior managements. Kaplan and Norton emphasized in results

of this study that performance measurements should be conducted in four dimensions. These dimensions are named as finance, customer, intracompany functions, learning and development.

Balanced scorecard claims that strategic management process will be more meaningful with the presence of customer, intracompany functions and learning and development measurements/indicators, which combine financial viewpoint in addition to the financial measurements/indicators. Kaplan and Norton state that balance scorecard should not be taken into consideration as a stereotype method for industrial or organizational applications [2] and each organization is not required to apply each of four dimensions [1] in this method. You can either utilize from two or three dimensions of these four dimensions only or add one or more dimensions in accordance with the sector conditions and organizational strategies of business area. However, Kaplan and Norton state that there is no need to spare a different dimension for all parties of the organization when establishing scorecards. Hence, the sectors in which these organizations are located are different from each other in terms of their internal and external environmental conditions. Therefore, the dimensions of balanced scorecards must be determined by taking current conditions of organization into consideration. One of the most important characteristics of balanced scorecard method is the use of strategy maps. Strategy maps are a convenient means of establishing a chain ring when making cause and effect relationships among strategical targets. The basic dimensions of balanced scorecard are also the most important elements of strategy maps [3].

II. LITERATURE REVIEW

There are many studies in the literature about performance assessment processes of municipalities. As an example, Yasa [4] conducted a study on applying balanced scorecard method in Kutahya Municipality. In the study, incomes of municipality, its expenses, realization rates of income and expense budgets and increase rates of incomes and expenses when compared to the previous year are evaluated for Kutahya Municipality on a financial dimension. The municipality is determined to be better than the target values in terms of budget realization rate and more expenses than

incomes. However, it is seen that investment expenses cause most of the increase in expenses. On a customer dimension, the people are asked if they are pleased with the service given and investments made. On internal processes dimension, the purpose is to find a solution for the problems faced in the shortest time and to increase the effectiveness and efficiency. On a learning and development dimension, it is emphasized that the working atmosphere should be improved, communication environment should be developed among employees, social activities should be increased, a management understanding should be developed to take opinions of employees into consideration when establishing strategic plans and giving a value to its employees and satisfaction levels of employees should be increased.

In his large-scale [5] research, he studied on the effect and role of different performance assessment approaches used in municipalites with an important social role among all governmental organizations when evaluation and developing institutional performances. In the study, two different performance assessment approaches, that are activity report and balanced scorecard method, are compared to see their capacities and efficiencies when assessing strategic performance in governmental organizations. In the end, it is observed that the performance assessed with balanced scorecard application is lower than the one assessed with an activity report. The study offers an application to improve service capacity of governmental organizations, to increase their accountability, to produce performance data in terms of assisting the use of effective and efficient sourse management to make a connection between budget and activities by using strategy maps in order to prepare a valid, reliable and balanced performance measurement scale together with other measurements already developed for governmental organizations. In the study, four dimensions are offered in balanced scorecard application recommended for sub-provincial municipalities in metropolitan cities. These dimensions are customer dimension, urban development dimension, financial dimension and internal processes-learning dimensions.

Tekir [6] applied balanced scorecard method in sub-provincial municipality of Bornova in Izmir to explain performance assessment system in government sector. Ozkan [7] classified the services offered by municipalities in his study that are environmental protection, housing, health, culture, social, security, transportation, sports and recreational services and defined the urban life quality indicators of these services by using objective data. Sekercioglu [8] dealt with individual performance assessment in municipalities and applied it to the authorized officers in personnel operations of sub-provincial municipalities of Izmir province. Guven [9] conducted a questionnaire in order to see the perception levels of personnel in local managements on performance audit phenomena.

Eker [10] conducted a questionnaire study in municipalities to determine the performance assessment perception in strategic management and as a part of it. In the result of the study, recommendations on organizational structure, model recommendations on performance assessment and suggestions for future research by academicians are stated for municipalities. Zeytinoglu [11] aimed to evaluate the performance reports published by the municipalities in Turkey in accordance with the reporting criteria suggested by the Governmental Accounting Standards Board and to reveal the effective factors to prepare qualified performance reports. As a result, of the study, it is seen that most of the performance reports prepared by municipalities do not meet the criteria suggested and certain parts of reports, taken as qualified, should also be improved. Besides, it is also determined that the factors affecting the qualified performance reporting are budget income and the length of reports.

Acar [12] studied on the problems of performance experienced during performance assessment process and what is required to improve performance. The study includes many applications from different countries and Yalvac Municipality is taken as an example. Akdogan [13] examined the relation between financial performance of municipalities and service performance in terms of statistics in his study. Kizilboga [14] conducted an empiric study on what problems of performance management are faced in municipalities and stated some suggestions for the problems determined here. Alioglu [15] conducted a study suggesting mathmetical models for institutional performance assessment in municipalities. There are two model applications in the study. In the first one, the model that bases on blurred clusters approach is suggested for assessing how close a municipality is to the ideal one. The values realized and ideal values are expressed in blurred figures and an analysis is made depending on the distance in between. The second model compares the performances of municipalities with similar characteristics with blurred TOPSIS method. This method figurizes the measurement data via using blurrization method to compare. Traditional AHP method is used when calculating the measurement weights in the first model. In the second model in which blurred TOPSIS is applied, the measurement weights are calculated via Chang's ranking analysis method. Dual comparisons used when calculating the weights are obtained from the results of questionnaires filled in by specialists.

Civi [16] focused on the process of performance management in municipalities in his study and gave some suggestions. The author stated that all facilities in a municipality should be included in management systems, priorities, criteria and targets to reach the objective should be organized in a development plan, the municipalities should establish their management systems in an effective, efficient, economic and accountable manner and they should also prepare general and compulsory criteria. Dinc [17] focused on the methods of performance assessment in local managements and made an example application in Afyonkarahisar Municipality. In the study, the performance indicators of the years 2002, 2003 and 2004 developed by Performance Assessment Project in Municipalities by the Ministry of Interior

Affairs (BEPER) are used when assessing the performance of Afyonkarahisar Municipality. As a result of the study, it is observed that Afyonkarahisar Municipality showed high performance in terms of such indicators as service quality and administrative activities, but low performance in terms of service costs. Koseoglu [18] mentioned about the problems faced during performance management process applied in municipalities and their background. The author emphasized as a suggestion in his study that the municipalities may use balanced scorecard method; however, stated no specific suggestion related to this.

The Ministry of Internal Affairs, General Directorate of Local Administrations, conducts the most comprehensive studies on performance assessment processes of municipalities and BEPER (Performance Assessment Project in Municipalities) is conducted within the General Directorate since August 2002. However, BEPER project focuses on ranking the municipalities in terms of their performance rather than focusing on performance assessment processes of municipalities. The purpose of performance assessment is not to rank employees/divisions/organizations according to their performances, but to prepare input data to contribute performance development. In this view, general assessment criteria should be designed to assess the performance of service units (municipalities). Hence, the main purpose should be to determine the performance gap in the services to be offered for the target population. The application should be designed accordingly to serve its real purpose.

III. Design and Application of the Model

A. Purpose and Importance of the Research

Performance assessment process plays a crucial role in terms of strategic management of municipalities. The reason is that performance assessment enables to determine the areas the institution needs to improve. However, most of the municipalities do not have qualified personnel to manage this process. Most of them (especially the small ones) either never benefit from this process or are unable to utilize from it effectively. Preparing a data set for performance assessment to use in municipalities will bring great contributions to the institutions. The purpose of this study is to establish an effective performance assessment model for (small) municipalities on the same scale by using balanced scorecard strategic management tool.

There have been 63 performance indicators for metropolitan municipalities and 70 for other municipalities and metropolitan sub-provincial and first-level municipalities within the present BEPER project. However, BEPER project is interested in general performance and service unit performance of municipalities. It does not focus on sub-level service unit performance or individual/group performances [19]. The number of these indicators is quite high in terms of the efficiency of performance assessment. Besides, Agcakaya [19] made an accurate evaluation and indicated the weak

side of the system and contributed to our purpose in this project. When the literature is reviewed, there you will see no study, focusing on developing a model that uses balanced scorecard for all municipalities or the ones on a certain scale.

It is important for the success of the system that key performance areas as basic indicators should be determined by taking scorecard elements into consideration and should also be focused on strategy maps. Otherwise, the system only ranks performances, but never reveals the shortcomings of main strategies. In addition to this, the strategic plans to be prepared by institutions require the use of a performance assessment system, which will give significant input for performance based budgets and performance programs. In this view, the system must be re-designed.

It is possible to use a strategic management tool to remove the above-mentioned problem in performance assessment system to be established for municipalities. In this aspect, the balanced scorecard strategic management tool will be wise to use, which is a brand new term in the literature and enables a strategy based performance assessment.

Re-integration of the system by using balanced scorecard method will make important contributions to the applications of effective performance assessment in municipalities. Besides, the proposed model will both enable to make a comparison among municipalities and give them an opportunity to make a self-assessment in terms of their own performance.

B. Research Method

In the study, purposeful sampling method is preferred and only three sub-provincial municipalities in Konya are involved in this study. The reason of selecting these three sub-provinces is that their populations are very similar. The municipality names are not stated herein and called as X, Y and Z municipalities. The mayors of all three are interviewed and detailed information is given. Their opinions on the issue are stated and then held interviews with all unit managers in terms of performance criteria, including deputy mayors initially. These units are Human Resources and Training, Editorial Department, Financial Services, Technical Works, Town Planning and City Development, Fire Department, Municipal Police, Water and Sewage, Support Services, Transportation, Data Processing, Purchasing Department, Public Information Office, Parks and Gardens, Strategy Development, Cleaning Services and Water Works Department. Moreover, the opinions of not only managers, but also of unit employees are taken into consideration. In the interviews, the focus is on what performance indicators and strategic objectives are required during the performance assessment processes of a small-scale municipality and related viewpoints come to the forefront. Therefore, the suggestions obtained from these interviews are collected in a single text cumulatively. In this view, firstly, a strategic objective list is prepared for each municipality, and then, criteria groups are determined and the objectives that do not serve for its strategic purpose in senior criteria groups are eliminated by the help of

strategy maps (Table I). Total criteria scores are described, common performance indicators are defined for each main criterion and assessment based scores are determined (Table II, Table III, Table IV and Table V). Total scores, obtained from three sub-provincial municipalities' data, are calculated via using interpolation method. The achievement scores and groups are determined for municipalities via a suggested achievement scale.

C. Design of the Model and Application Findings

Common strategic objectives, prepared via using strategy maps, are given in Table I.

All indicators on citizen, finance, process, learning and development dimensions as defined in the model designed here are shown respectively in Table II, Table III, Table IV and Table V with their calculation methods and their location within total dimension scores.

TABLE I.   CRITERIA GROUPS AND STRATEGIC OBJECTIVES DEFINED BY STRATEGY MAPS

Criteria Groups	Objectives	Criteria Total Score
Citizens	Providing high satisfaction among citizens	1.300
	Increasing tax assessment	
	Increasing collection ratio	
Finance	Keeping personnel costs under 25%	1.000
	Provining an equilibrium between income and expenditure	
	Decreasing in-debt periods	
	Reaching more citizens	
	Genel yönetim giderlerini azaltmak	
Process	Increasing process quality	1.300
	Organizing effective demonstrations	
	Making a culture out of strategic management	
	Increasing personnel satisfaction	
	Increasing the professional skills of employees	
	Improving personel interaction among employees	
Learning and Develop-ment	Increasing unionization ratio	1.000
	Increasing number of educated employees	
	Increasing the participation of employees in management	
	Increasing the technology use of employees	
	Total	**4.600**

TABLE II.   INDICATORS ON CITIZEN DIMENSION, CALCULATIONS AND SCORE DISTRIBUTION

Indicator	Notation	Calculation	Score
Citizen Satisfaction	C1	Average scores on satisfaction questionnaires	1.300
		Total	**1.300**

TABLE III.   INDICATORS ON FINANCE DIMENSION, CALCULATIONS AND SCORE DISTRIBUTION

Indicator	Notation	Calculation	Score
New enterprises per thousand people	F1	(Number of new business areas / Total population) * 1.000	100
In-debt periods (Payment periods of average current debts)	F2	Due day of current debts	120
Tax Collection/Tax Assessment Rate	F3	Tax Collection/Tax Assessment	100
Net debt/Net assessment rate	F4	Net debt/Net assessment	80
Budget realization rate (Income Budget)	F5	Income budget realized/income budget planned	100
Budget realization rate (Expenditure Budget)	F6	Expenditure budget realized/expenditure budget planned	100
Personnel expenditure rate in total expenditure	F7	Personnel expenditure / Total expenditure	120
General management expenditure rate in total expenditure	F8	General management expenditure / Total expenditure	80
Illegal water consumption rate	F9	1 – (Water collection / Water assessment)	80
Income creation capacity	F10	Income created by municipality other than central government / Total income	120
		Total	**1.000**

TABLE IV. INDICATORS ON PROCESS DIMENSION, CALCULATIONS AND SCORE DISTRIBUTION

Indicator	Not.	Calculation	Score
Rate of Successful projects such as AB, TUBITAK, Development Agency, etc. in total budget	P1	Total project budget / total budget	120
Presence of an available website	P2	Presence of an available website	70
Waiting periods of citizens in internal serv.	P3	Waiting periods	100
Rate of complaints with on-time solutions	P4	Number of complaints solved on time / Total complaints	120
Presence of a str. plan	P5	Presence of a str. plan	70
Rate of planned areas in total areas	P6	Planned areas / total areas	120
Aphalt roads per person (meter)	P7	Total asphalt roads (meter) /Total population	120
Network drinking water	P8	Netwrok drinking water / Total areas of drinking water	100
Green areas per person (m2)	P9	Number of green areas / Total population	120
Rate of natural gas use	P10	Number of houses with natural gas / Number of houses	100
Number of fire station vehicles per ten thousand	P11	(Number of fire engines / Total population)* 10.000	100
Waste water collection rate	P12	Number of houses in sewage system / Total number of houses	100
Housing rate per thousand people	P13	(Number of building permits per year / Total population) * 1.000	60
		Total	**1.300**

TABLE V. INDICATORS ON LEARNING AND DEVELOPMENT DIMENSION, CALCULATIONS AND SCORE DISTRIBUTION

Indicator	Not.	Calculation	Score
Number of employees in comparion studies	LD1	Number of employees in comparion studies / Total number of employees	80
Number of employees participating fairs, congresses, panels, symposiums, etc.	LD2	Number of employees participating fairs, congresses, panels, symposiums, etc. / Total number of employees	80
Average training times per person	LD3	Total training hours / Total number of employees	150
Rate of unionized employees in total employees	LD4	Rate of unionized employees / total employees	70
Number of employees with higher education / number of total employees	LD5	Number of employees with higher education / number of total employees	100
Average rate of personnel satisfaction	LD6	Average value of questionnaire	250
Absence rate at work	LD7	Absence rate at work	100
Number of suggestions per person	LD8	Number of suggestions from employees / Number of total employees	70
Rate of Computer use	LD9	Number of computers / Number of total employees	100
		Total	**1.000**

A scale is developed to describe the achievement range of municipalities to use in this model designed here and shown in Table VI.

TABLE VI. ACHIEVEMENT GROUPS SCALE AS SUGGESTED

Score Range of Municipal Achievement	Municipal Achievement Group
800-1000	A
700-799	B
600-699	C
500-599	D
Under 500	E

Scorecard assessment values of X Municipality are calculated in Table VII. The values targeted for related indicator are taken as the best value among all municipalities (three municipalities) involved in this comparison. The municipality with the best value is presumed to get full score from the related indicator. The indicator score of related municipality is calculated via using interpolation method between the results of related municipalty and indicator scored targeted. Instead of this, scoring could have been made via developing some scales for each indicator. As an example of our application, it is given below on how we make our calculations related to new enterprises for thousand people:

Rate of New Enterprises for Thousand People in Municipality X is 3,36, Y is 21,44 and Z is 4,75.

The best value is taken as 21,44 as the targeted value (the best value for this indicator is the highest value). The indicator score of Municipality Y is accepted as 100, which is the targeted indicator score, interpolation method is used for collecting data in Municipality X and Z; therefore, indicator score is calculated as 15,67 for Municipality X and 22,16 for Municipality Z.

No interpolation method is used for personnel expenditures within total expenditures, and calculated as full score for the ones below 30%, which is the legal obligation (120 points) and 0 for the ones above. Therefore, the value targeted is taken as <0,30. The municipality is scored with full score if it has a website (70 points) and with 0 if no website is available (the targeted value is to have a website). Again, the municipality is scored with full score if it has a strategic plan (70 points) and with 0 if no strategic plan is available (the targeted value is to have a strategic plan). When the targeted value is 0, the maximum value to 0 is taken as full score as the distance to 0 (the municipality with 0 value is scored full points), the minimum value is taken as 0 and intermediate values are subjected to interpolation.

For example, when calculating illegal water consumption of Municipality Y, Municipality X with 0 value is scored with full points (80 points), and the maximum value 17,16% is scored with 0 for Municipality Z, and Municipality Y with 3,2% value is calculated as in the following: 17,16–0 = 17,16. As 17,16 difference represents 80 points, 3,20 represents 14,92 as a result of interpolation.

The municiapalities do not give a response to some indicators. For example, Municipalities Y and Z presented no data on citizen satisfaction and Municipality Y does not give a response to in-debt periods. Therefore, the data with missing responses from any of these municipalities are excluded in the assessment and shown as (-) in indicator score. Hence, (-) means exclusion of related indicator from the assessment, as no data found available from the municipalities in this comparison.

TABLE VII.   SCORES AND TOTAL SCORE OF X MUNICIPALITY SCORECARD DIMENSIONS

Dim..	Indicator	Indicator Score as targeted	Indicator Score of X Municipality	Dimension Score of X Municipality	Total Score of X Municipality
Citizen	C1	1.300	-	-	
Finance	F1	100	15,67		
	F2	120	-		
	F3	100	53,43		
	F4	80	42,40		
	F5	100	100	640,38	
	F6	100	100		
	F7	120	120		
	F8	80	21,88		
	F9	80	80		
	F10	120	107		
Process	P1	120	0		
	P2	70	70		
	P3	100	-		
	P4	120	120		
	P5	70	0		1.992,14
	P6	120	120		
	P7	120	54,77	826,96	
	P8	100	100		
	P9	120	120		
	P10	100	0		
	P11	100	82,19		
	P12	100	100		
	P13	60	60		
Learning and Development	LD1	80	0		
	LD2	80	35,66		
	LD3	150	150		
	LD4	70	70		
	LD5	100	69,14	524,80	
	LD6	250	-		
	LD7	100	100		
	LD8	70	0		
	LD9	100	100		

Basing on each performance indicator of Municipality X, the dimension scores calculated, maximum dimension scores, total scores and achievement group are given in Table 8. Satisfaction indicator is not included into the assessment as there is only one single data about it in citizen criteria group. However, if this model, established with more extensive studies, is extended for all municipalities, then the questionnaire results of citizen satisfaction to be used by all municipalities can be preferred. The column of 'Maximum dimension score', given in Table 8, indicates the total number of indicators, which all three municipalities presented data. When calculating the total scores and achievement groups of municipalities, the Scale of Achievement Groups is based on as shown in Table 6. According to this, an interpolation is made in this part to reduce the maximum value to 1.000 points. The value over 1.000 points is calculated for the municipality, which obtained 1.992,14 within 2.830 points. Therefore, the result is 704. The equivalent of this value is the Group B in achievement group scale given in Table 7. Hence, it is determined that Municipality X is within Group B municipality class with a score of 704.

Following the same method, municipalities Y and Z are also calculated and the data obtained are shown in Table VIII with their dimension scores, total scores and achievement groups.

TABLE VIII.   TOTAL SCORES AND ACHIEVEMENT GROUPS OF X, Y AND Z MUNICIPALITIES

Dimension	Maximum Dimension Score	Dimension Scores of X Municipality	Dimension Scores of Y Municipality	Dimension Scores of Z Municipality
Citizen	-	-	-	-
Finance	880	640,38	619,4	691,72
Process	1.200	826,96	732,66	893,32
Learning and Development	750	524,80	615,08	367,84
TOTAL	2.830	1.992,14	1.967,14	1.952,88
Reduced Total Score		704	695	690
Achievement Group		B	C	C

IV. CONCLUSION

Performance assessment is a new term for the municipalities in Turkey. Therefore, municipalities face many serious problems in this process. There is a BEPER project, initiated in 2002 by the Ministry of Internal Affairs in order to prepare a common data set. In this project, there are 63 performance indicators for metropolitan municipalities and 70 for other municipalities and metropolitan sub-provincial municipalities. However, the number of these indicators is quite high. Besides, it is important for the achievement of this system that key performance areas based on these indicators must be determined by taking scorecard elements into consideration and must be focused on strategy maps. Otherwise, the system only ranks their performance and does not indicate the shortcomings of main strategies. In addition to this, the strategic plans, to be prepared by the institutions, require the use of performance assessment system, which will bring significant input for performance programs and performance based budgets. In this view, the system must be re-designed. We recommend the use of balanced scorecards at this stage as a strategic management tool.

A model is designed in this study, which we aim to prepare a common data set for performance assessment process to be used by small-scaled municipalities, and applied tp three sub-provincial municipalities in Konya with the data realized at the end of 2012. In this view,18 strategic objectives are determined in total, one for citizen dimension, five for finance dimension, five for process dimension and 7 for learning-development dimension by basing on four scorecard dimensions. After that, score distributions of scorecard dimensions are determined within total scores. Performance indicators are prepared for each scorecard dimension. The number of performance indicators determined at this stage is 33 in total; 1 for citizen dimension, 10 for finance dimension, 13 for process dimension and 9 for learning-development dimension. The calculation methods and score distributions of indicators in that dimension are determined. By basing on the data of three sub-provincial municipalities in Konya (defined as Municipalities X, Y and Z), achievement scores are calculated for each municipality. The achievement group of each municipality is determined by basing on the achievement group scale established at model design stage. As a result of the application, it is determined that Municipality X is in Group B with 704 points; Municipality Y is in Group C with 695 points and Municipality Z is in Group C with 690 points. This study will contribute to detect the shortcomings of each municipality and to make a self-evaluation. Each municipality may increase its score and its achievement group in following years by focusing on its indicators, which reduced its score. Therefore, it will increase its chance to reach strategic objectives. Then, it will serve for the main purpose of this performance assessment.

Municipalities may see how far they are from their objectives and which objectives are intensely deviated by analyzing their results of performance assessment. Municipalities may utilize from deviation tables and difference ranking tables at this stage. The indicator scores targeted, indicator score of related municipality and targeted score are available in deviation tables. Table IX shows the deviation table of Municipality X in 2012.

TABLE IX. DEVIATION TABLE OF X MUNICIPALITY IN 2012

Dimen-sion	Indicator	Indicator Scores as Targeted (Calculated)	Indicator Score of X Municipality	Difference
Citizen	C1	-	-	-
Finance	F1	100	15,67	84,33
	F2	-	-	-
	F3	100	53,43	46,57
	F4	80	42,40	37,6
	F5	100	100	0
	F6	100	100	0
	F7	120	120	0
	F8	80	21,88	58,12
	F9	80	80	0
	F10	120	107	13
Process	P1	120	0	120
	P2	70	70	0
	P3	-	-	-
	P4	120	120	0
	P5	70	0	70
	P6	120	120	0
	P7	120	54,77	65,23
	P8	100	100	0
	P9	120	120	0
	P10	100	0	100
	P11	100	82,19	17,81
	P12	100	100	0
	P13	60	60	0
Learning and Development	LD1	80	0	80
	LD2	80	35,66	44,34
	LD3	150	150	0
	LD4	70	70	0
	LD5	100	69,14	30,86
	LD6	-	-	-
	LD7	100	100	0
	LD8	70	0	70
	LD9	100	100	0

TABLE X. DIFFERENCE-RANKING TABLE OF X MUNICIPALITY IN 2012

Indicator	Difference	Percentage (%)	Cumulative Percentage (%)
P1	120	14,32	14,32
P10	100	11,94	26,26
F1	84,33	10,07	36,33
LD1	80	9,55	45,88
P5	70	8,35	54,23
LD8	70	8,35	62,58
P7	65,23	7,79	70,37
F8	58,12	6,94	77,31
F3	46,57	5,56	82,87
LD2	44,34	5,29	88,16
F4	37,6	4,49	92,65
LD5	30,86	3,68	96,33
P11	17,81	2,12	98,45
F10	13	1,55	100
Total	837,86	100	100

Table X shows the difference-ranking table of Municipality X. percentages of each indicator is calculated within total deviation of difference occurred here. Then, cumulative percentages are calculated. By the help of these cumulative percentages, we search for an answer to the question, 'How does total achievement score get closer to the maximum and which indicators do we need to focus on primarily for this?'

According to the results obtained, the Municipality X is expected to reach a development of 62,58% for full achievement if it focuses on the first six strategies respectively as given in Table X. The municipality will focus on indicators given in difference-ranking table, develop strategies for them and follow fixed strategies to maintain its current situation for other indicators. Using the same method, deviation and difference-ranking tables are also prepared for Municipalities Y and Z.

This study must be tried several times by increasing the number of samples and then it can be used for all municipalities in Turkey together with some alterations. Besides, the data set we obtained in our study is designed for small-scaled municipalities. The same method can be re-designed for medium and large-scaled municipalities (metropolitan) and three different scorecard applications many be used for three different scales. Besides, it is emphasized that, in any further application, achievement scores and groups will be integrated with shares obtained from central budget of municipalities and some effective enforcements will be brought into the agenda for managers and municipalites with repeatedly reducing achievement groups and this will make important contributions to the achievement of the system.

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