

Presenting a model of Municipality performance measurement based on township-based components

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ABSTRACT

Urban community and municipalities in urban system are two separated components and most of the performance concerns in urban system are manifested in municipalities and regions under the supervision of central municipality and reforming the urban community and improving performance and its management in municipalities and its regions is not possible without considering this part and its position and improving its performance. In this study, the performance of Municipality district 5 of Isfahan is evaluated by four aspects by balanced Scorecard (BSC) and survey of township citizens was also done. The study method is combined (qualitative and quantitative) and qualitative method of theme analysis was used to analyze the interviews. MAXqda software was used for coding the data of interviews. For analysis of quantitative data and hypotheses test, factor analysis method and structural equations modeling was used by SPSS and PLS software. After designing the local model, at first by the components, the balance of performance of municipalities of the region was investigated in four aspects including: Beneficiary satisfaction of presenting services in township, financial, internal work processes and growth and learning are investigated. Then, by survey questionnaire, the citizens' satisfaction of municipality performance is evaluated in 11 townships. Finally, based on statistical methods, the correlation between balance in performance and citizens' satisfaction of performance are analyzed.

KEYWORDS: Municipality performance measurement, Citizens satisfaction of townships, Services quality components, Strategy map

1- INTRODUCTION

Based on a management proverb, what is not measured is not controlled. Thus, what is not controlled is not managed. This is true in all organizations including municipalities. Therefore, organizations as service or manufacturing and the like can not achieve the expected goals and results without control. The reality is that evaluation of performance is a hard and difficult process but when it is the evaluation goal of Municipalities performance, based on the variety of presenting services, this complexity is increased. Performance management is regarding organization management and it is not as specific system or technique and it is a natural management process (Floor, 1990). Thus, organizations as servitor or manufacturing and the like can not achieve the expected results and goals without control and evaluation. Philipat and Shepard (1992) referred that "main goal of performance management is creating the culture in which people and groups are responsible for continual improvement of processes, skills and their participation". Evaluation of Municipality performance means the evaluation of presenting the services to the public by municipalities. Performance measures mostly include the value, quality, effectiveness and the results of performing the services. Evaluation of Municipality performance means helping people to respond the questions as systematic.

Based on the tax citizens receive, which service components are received from municipality in townships?

How is the service quality in townships?

Are these services effective on improving the life quality components of citizens?

Before starting, it is better to define the difference between "performance measurement" and performance "management" as performance management is considered in a macro view and it is including the performance measurement. In other words, performance measurement (assessment) is one of the stages of performance management (McAdam, 2003).

2- Statement of Problem

Performance measurement is one of the main tools of high management to fulfill goals and plans of organization. In public organizations including Municipality, after determining vision and mission, goals, policies and strategies providing goals are determined based on legal duties and the required planning is done to fulfill the goals, duties and strategies by operational budgeting and assigning them to projects and Isfahan plan measurements 2016. During planning process, the needs, priorities and expectations of citizens of townships and environmental factors (economic, social, cultural and political considerations) threats, opportunities, resources, facilities and limitations are considered. Based on the required activities, the

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schedule of activities, procedures, methods, indices and components and required standards are determined. In the next stage, the program is executed by executive managers of organization (deputies and regions) and supervision on appropriate implementation of program and evaluation of the executive managers performance is done by high management of organization (Mayor) in the framework of policies of city council. To direct the executive managers of Municipality to fulfill the development and urban services plans, in accordance to the predicted schedule and by good quality, formulating evaluation system of Municipality performance of regions based on township progress document is necessary.

As it was said, to have good system for Municipality performance measurement, the activities, methods, inputs (consumed resources), outputs (results), incomes and social outcomes of implementing the indices and components in townships and expected criteria should be identified and prioritized. Norman (2007) referred that “performance management system of New Zealand after 15 years focus on the results, it is expected that government employees as responsible for the work results consider the work outcomes (the effect of results on society) and manage them”. It can be said the mentioned system should encourage the managers to implement the plans and fulfill Municipality goals by observing the good quality of presenting urban services to citizens (Norman,2007:536).

Performance measurement is one of the main tools of management to fulfill the goals, strategies and organization plans. In public organizations including municipalities, designing and establishing performances measurement system can lead to correct guidance of executive managers of municipality to fulfill vision, duties, strategies and development plans and improving urban services, based on quality, costs and time. As the municipality manages the city as public institution and the necessity of performance measurement and finally its performance management is completely obvious.

3- Study purpose

Epstein (1988) considered the benefits of using public service performance measurement based on three aspects:

- a. Decision making improvement
- b. Responsiveness improvement
- c. Improving public services performance (Epstein,1988:162).

Bracegirdle (2003) considered the goals of using performance measurement systems in municipalities by three cases:

Increasing responsiveness: It means public responsiveness between government and citizens or internal responsiveness between the chiefs of offices and members of city council.

Improving performance: This means the improvement of policies, plans, designs and processes applied in providing services, quality, quantity and services costs.

Helping to determine the costs: It is result-based budgeting. It assigns the resources to specific results consistent with the priorities (Bracegirdle,2003:7).

Based on the above review of literature, the present study goals are including:

Presenting the model of Municipality performance measurement with the priority of presenting the services based on township-based components

Presenting the solution to managers to improve the performance based on township progress document

4- Study theoretical framework

This study is based on open system theory. Municipality as a human organization is an open system and besides interaction with internal environment is interacting also with the external organization environment and various internal and external factors are effective on its performance.

Based on open system theory, the present study attempted that besides investigating the internal and external factors on performance of Municipality and identification of the factors with important on Municipality performance, a suitable model of Municipality performance measurement based on balanced evaluation model is presented. For performance measurement of organizations, MCAdam (2005) developed various models including Deming, Malcom Baldrige, European Factor Quality Management (EFQM) organization, balanced evaluation model, logical model and Benchmarking model and among the above models, Balance Square Card (BSC) are proposed for performance measurement of state sector of England (MCAdam,2005: 256). Thus, BSC has also some criticisms. Some theorists believe that some issues as change management, project management, IT development, Quality assurance and risk management are less considered. BSC is also flexible and this flexibility is observed in most of its aspects. In addition, considering the external environment only considers customers and the organizations will have other beneficiaries including providers, unified co-workers, local population and etc. (Halachmi,2005).

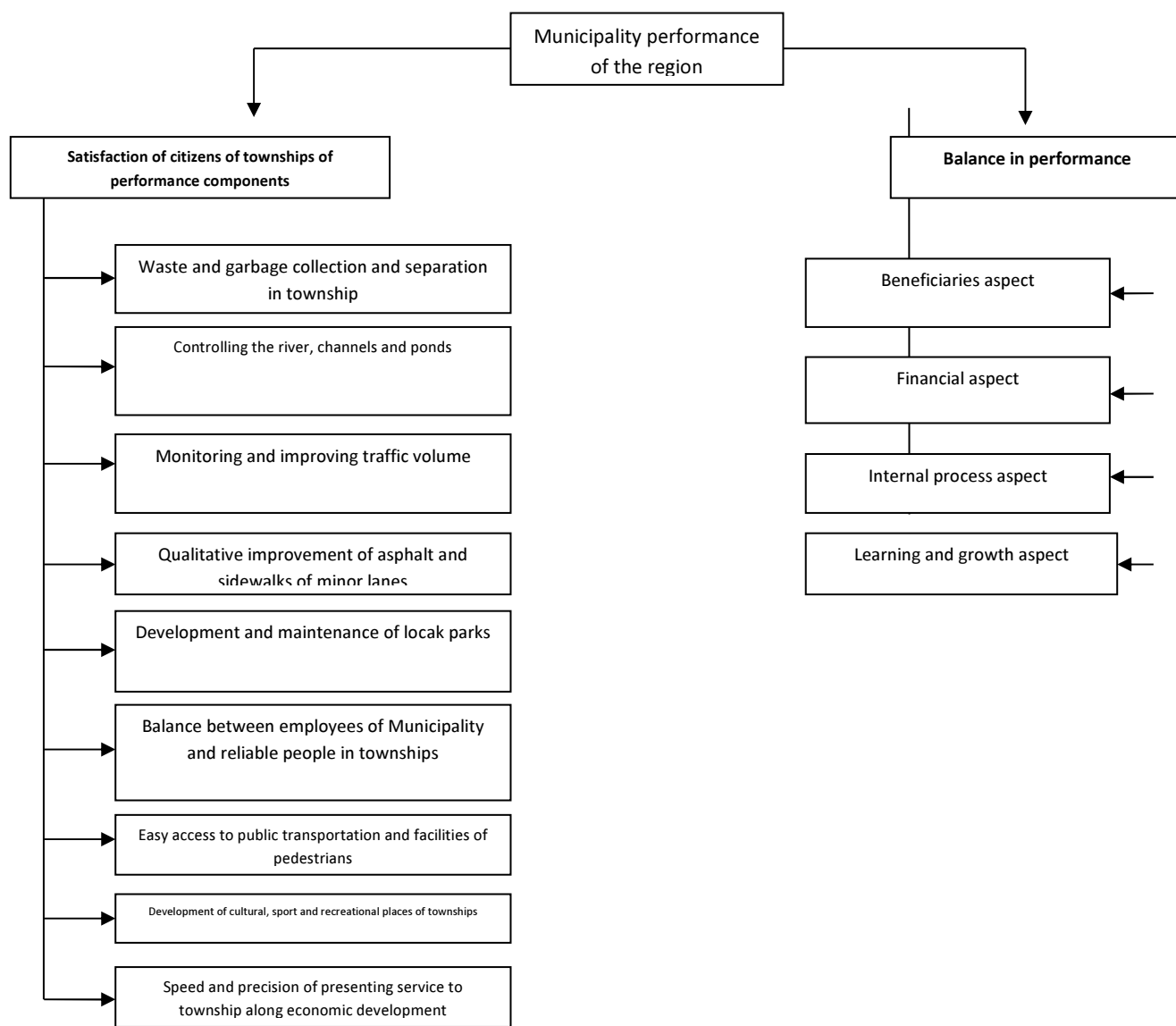


Chart 1- Conceptual model of study

5- Study hypothesis

The balance between four aspects of township citizens (beneficiary), financial aspect, internal process aspect and learning and growth aspect improve performance in Municipality for qualitative improvement of townships.

6- The investigation of performance measurement system of some of the municipalities in the world

The performance measurement system of some of the municipalities of the world is shown in Table 1.

Table 1- Performance measurement system of the studied municipalities

Explanation	Performance measurement model	Title	No
Ontario state municipalities by Municipality performance measurement indices present their reports for comparison and evaluation of Municipality performance to Urban affairs and housing ministry.	Modeling and comparison of municipalities performance	Municipalities of Ontario state of Canada	1
The most successful balanced evaluation model sample	Balanced BSC evaluation	Charlotte Municipality in northern Carolina of USA	2
	Balanced BSC evaluation	Seattle Municipality (US)	3
	Logical model	Philippine municipalities	4
	Balanced measurement model	England municipalities	5
	Balanced measurement model	Australia municipalities	6
Most municipalities started to work this model.	Balanced measurement model	Finland municipalities	7
	Balanced measurement model	Pretoria municipalities (Southern Africa)	8

7- The introduction of studied region and the evaluation of existing condition

Region 5 of Isfahan municipality, with more than 175,000 population in the south of Isfahan and Safe Mountain is at its geographic center. District 5 Municipality with three deputies, two districts of Sepahan Shahr and Safe and Tourism Company provide services to citizens of townships:

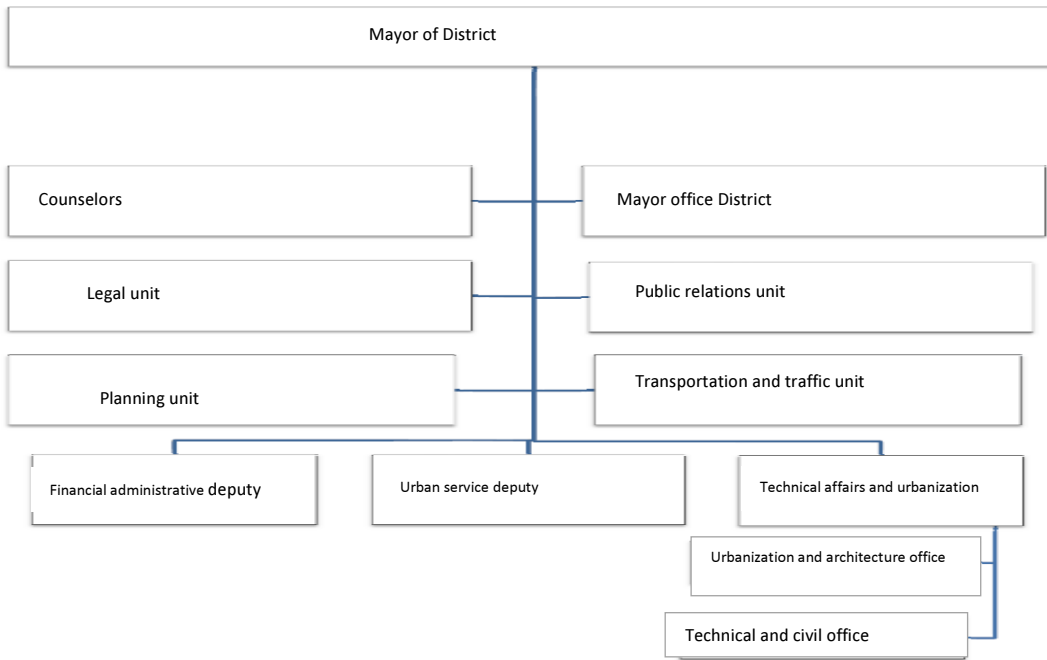


Chart 2- Organizational chart of District 5 Municipality of Isfahan

Based on the investigations regarding the evaluation of existing condition, it can be said that performance evaluation is done with the unit as “planning and IT” in the district. Thus, performance measurement of Isfahan 2016 should be done annually based on the following issue: Computer system, Education, Retirement, Budget control, Firefighting, Waste and garbage disposal management, City health, parks, transportation terminals, Urban furniture, Taxi system, Fruit and vegetable center, Cemetery, Bus and minibus system, commission article 77, commission article 100, legal and estate affairs, Building license and administrative and employment affairs.

8- Effective factors on Municipality performance

Based on the comparative studies of the comparison of Tehran condition with 14 big cities in the world and the relevant results in strategic-comparative studies book of the cities in the world and Tehran, it was defined that of 62 common processes in Municipality services list, Tehran Municipality and other municipalities of Iran including Isfahan don’t have many common services in the world.

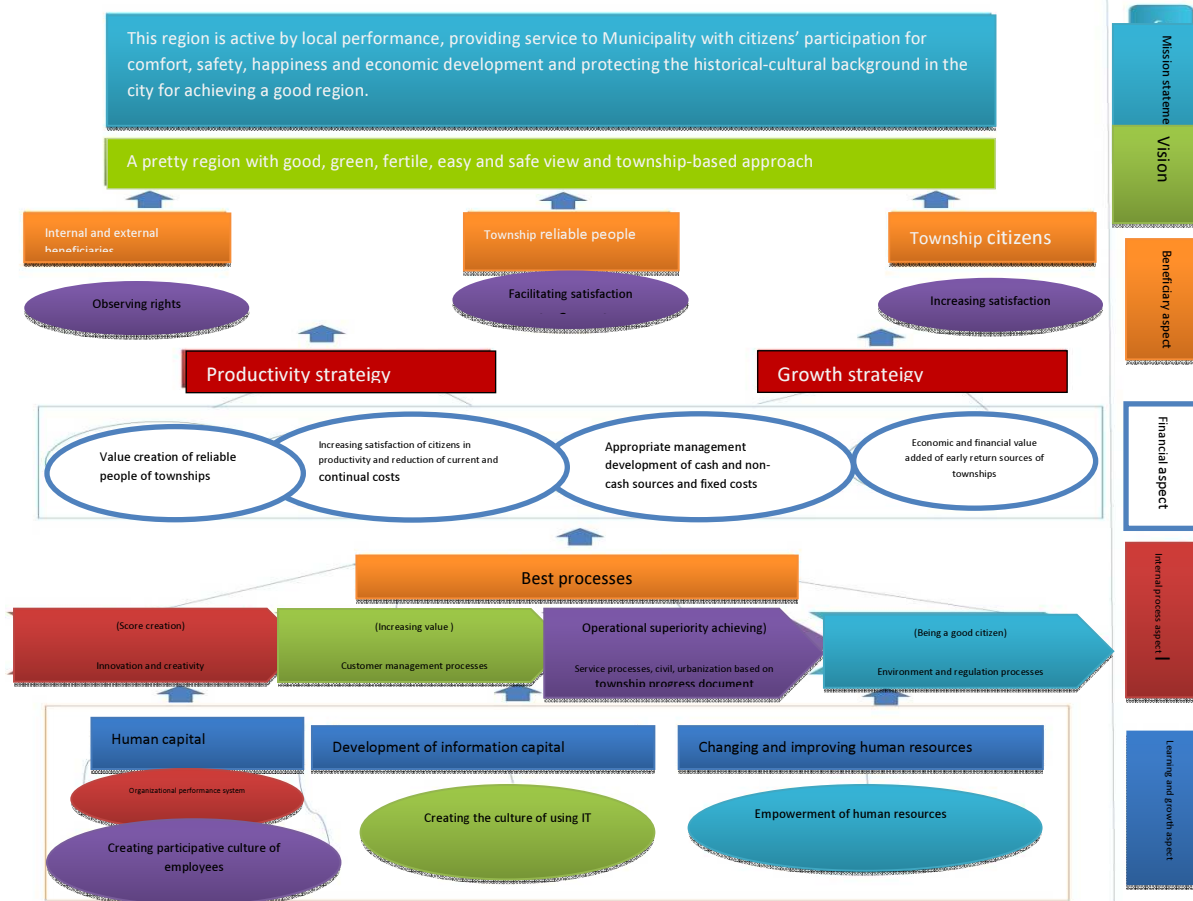
In this book, the lack of unit and systematic urban management, the legal barriers and ignoring some of the services are the major reasons of the lack of existence of a big set of common world services in Tehran Municipality. Only 13 services are presented in Iran Municipalities (designing the indices and measurement system of Tehran Municipality, 2010 :16-18).

- 1- Firefighting and safe city
- 2- Parking affair
- 3- Infrastructure and urban infrastructure affairs
- 4- Garbage recycle
- 5- Parks and green space
- 6- Transportation terminal
- 7- Urban facilities
- 9- Transportation and Traffic
- 10- Urban Beautification aspects
- 11- Cemetery
- 12- Crisis management
- 13- Supervising construction

Thus, in interview with the experts of the region and using library resources, the effect of following factors on Municipality performance in township are studied as:

- Collecting and separating waste in township
- Considering the condition of river, channels and paths
- Monitoring and improving traffic flow
- Qualitative improvement of asphalt and sidewalks of minor lanes
- Development and maintaining local parks
- Interaction between the employees of Municipality and reliable people of townships
- Easy access to public transportation and facilities of pedestrians
- Development of cultural, sport and recreational places of townships
- Speed and accuracy of presenting services to the center of township along the economic development

Table 2- The model of strategy map of Municipality of district 5 of Isfahan



Source: Researcher built

9-The applied indices in the study

Customer aspect:

- *per capital of garbage and waste collection in each township in 2013.
- *Per capita of local green space in each township in 2013
- *Tonnage of applied asphalt in each township in 2013

Work process aspect

- The volume of work activities of the progress document of townships during 2008 to 2013 based on operational schedule and its evaluation.

Organizational learning and growth aspect:

The education degree and per capital of in-service training of personnel of District Municipality in 2013.

Financial aspect:

The ratio of income of each township to the sum of current and civil costs in each township in 2013

Table 3- Proposed indices of Municipality performance of district 5 of Isfahan in service field

Index	Index type	Goal	Service field
Per capital of garbage collection and waste separation in each township in 2013	Efficiency	Urban efficiency in garbage collection services	Waste and garbage collection and separation
Operational cost of garbage disposal for each ton or household	Efficiency	Urban efficiency in garbage disposal services	Garbage disposal
Per capital of green space in each township by 2013	Effectiveness	Protecting trees and gasses of local parks	Green space
Operational costs to collect and treat septic and guiding surface water to river per mega Liter	Efficiency	Efficiency of municipality in surface and waste water disposal and guiding it	Organizing the river and guiding water
Tonnage of consumed asphalt (Binder and Topka) in each township in 2013	Efficiency	Efficiency of maintaining the minor lanes with hard and soft covering (Binder and Topka asphalt)	Supervising the lanes
Percent of flooring sidewalks with good to very good conditions	Effectiveness	Sidewalk condition in achieving public transportation	Sidewalk condition

10-The investigation of balance in performance of municipalities of townships of district 5 of Isfahan Municipality

$$\text{Per capital of garbage and separating dry and wet waste in each township} = \frac{\text{Collected garbage in each township} + \text{collecting separated waste in each township}}{\text{Township population}}$$

$$\text{Per capital of asphalt to township area ...region} = \frac{\text{Tonnage of basic asphalt in each township} + \text{Tonnage of stain} + \text{Basic covering tonnage in the lanes of each township repairing in each township}}{\text{Township...region} \times \text{Township area...}}$$

$$\text{Total score of region} = (\text{Below diploma and Diploma staffs in region}) 12 + (\text{Associate personnel in each region}) 14 + (\text{staff with BA degree in region}) 16 + (\text{staffs with MA and PhD degrees in region}) 20$$

$$\text{Score to each person in region} = \frac{\text{Total score of region}}{\text{Staffs of total region}}$$

$$\text{income to cost ratio} = \frac{\text{Income of each township}}{\text{Current costs of each township} + \text{civil costs of each township}}$$

11-DISCUSSION AND CONCLUSION

In this study, the municipality performance in 11 townships and Safe Tourism Company are evaluated based on progress document of townships by two methods. First method: Based on balanced evaluation method, Municipality performance in townships in 2013 is investigated in four aspects of balanced evaluation model and designed indices. By standardization of indices, the sum of difference is obtained by the maximum balance index between the four aspects in each municipality and the township with the lowest difference sum of maximum index is accepted as the most developed township. After determining balance, the effect of each of four aspects on balance is investigated. Second method: In this method, by survey questionnaire, the citizens satisfaction of Municipality performance is analyzed in four districts in 2013. In the mentioned questionnaire, the citizens satisfaction of garbage and waste collection and separation, dealing with the river and channels, asphalt of minor lanes in townships, monitoring the green space of townships, access to public transportation from the township center, traffic flow control in townships, continual relationship of Municipality with reliable people of townships, the behavior of authorities with visitors and the speed of work and finally the public satisfaction of township citizens of municipality performance in townships are dealt.

After applying two mentioned methods, the relationship between the required balance of Municipality performance by balanced evaluation model and citizens satisfaction of the townships of Municipality performance in townships is investigated.

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