

Exploitation of financial tools and good practices for the implementation of urban planning and management of the Municipality of Thessaloniki: The views of technical employees

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ABSTRACT: *Beyond any doubt, urban green helps to improve residents' quality of life. The lack of greenery in Greek cities is now provoking strong reactions from citizens who vigorously defend the protection of green spaces and other free spaces. Municipalities in Greece generally lack infrastructure and services, mainly due to the inefficient administrative structure and the lack of specialized staff. The financing tools used by municipalities focus mainly on European programs, local taxation and the use of municipal property. The objective of this study is to investigate the views of the technical employees of the Municipality of Thessaloniki on issues relating to how to get financial resources for the planning and the management of urban green areas, in order to formulate appropriate policies and to draw useful conclusions.*

KEY WORD: *Urban green, Financing, Environmental policy*

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I. INTRODUCTION AND LITERATURE REVIEW

Urban green leads to the sustainable development of cities through the interaction of a number of factors, namely the social context, the management objectives, the means, the management's results and the various information (Dwyer et al, 2003). The use of parks and trees in towns, in order to groom them and to improve the living conditions of their inhabitants, is now the primary concern of city planners (Grey and Deneke, 1992). In general, there have not been enough moves to improve the aesthetics of Greek cities and the welfare of citizens (Yerolympos, 1996). The main objective of modern urban policy is to create cities that are booming economically, bustling with culture and being clean, green, secure and socially just. Cities should provide people with very good and quality living conditions and a good urban policy should offer citizens the opportunity to participate in their city administration, to feel that they are holding their fortunes in their hands (Hall and Pfeiffer, 2000). The tools for better management of these sites are legal, financial, administrative and institutional (Carbone et al, 2015). Strategies for the urban environment should actively engage central administration, regions, municipalities, businesses, research institutions, non-governmental organizations and the private sector, while playing an important role the financial framework, the new technologies and the active participation of citizens (Tomalty, 2005).

II. RESEARCH OBJECTIVES

The objective of the study is to investigate the views of the technical employees of the Municipality of Thessaloniki in Greece on issues relating to how to get financial resources for the planning and the management of urban green areas, in order to formulate appropriate policies, to draw useful conclusions and furthermore, to find possible relationships and correlations between the research variables, by using appropriate statistical analysis methods. The present study is part of a wider research and the questionnaire that was used, was weighed properly as far as its reliability and validity are concerned.

III. RESEARCH METHODOLOGY AND DATA ANALYSIS

The present study aims to investigate the views of the technical employees of the Municipality of Thessaloniki on issues relating to the planning and the management of urban green areas. More specifically, the participants were members of the scientific staff (engineers, agriculturists and foresters).

The research instrument that used for the data collection was a self-completed questionnaire, which is the main tool of research in the social sciences (Cohen and Manion, 1997). A relevant bibliography was studied for the development of the questionnaire (Gillham, 2007). The questions selected for analysis in this paper are a general question about the problems that hinder work processes concerning planning and management of urban and peri-urban green areas, and five questions based on funding proposals. The first question offers multiple

choices and the respondents could choose more than one answer. The other five questions are presented as statements measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Babbie, 2011). Moreover, there are questions about some demographic data of the participants. The questions / suggestions measured with the Likert scale are: (a) "Better absorption and exploitation of European programs related to the implementation of urban regeneration and green constructions", (b) "Ensuring additional funding for green and redevelopment constructions through donations and sponsorships", (c) "Strengthen and simplify the funding of municipalities in order to be financially independent and able to effectively allocate their budget on spatial planning of free and green spaces", (d) "Strengthen the technical services of the municipality with financial resources and suitably qualified human resources" and (e) "Increase of fees for creation, maintenance and protection of green areas". The last question is a variation of the investigation for "Willingness To Pay" (WTP), where respondents declare the amount they intend to pay for the use of certain environmental goods (Kula, 1994). Finally, there are questions (nominal variables) related to demographic data of the participants (whether they are residents or not of Municipality of Thessaloniki, gender, age and occupation).

The study population included the 57 technical employees (engineers, agriculturists and foresters) of Municipality of Thessaloniki that involved in urban planning and management of urban green. The census of the population was attempted, that is to record all its members (Cohen et al, 2005). The questionnaires were distributed in employees' workplaces. Furthermore, the questionnaires were sent by e-mail. In total, 52 employees participated in the study (88,14%). The research took place in the period from April to July 2016.

Data handling and analyses were conducted using the IBM SPSS Statistics 21 and the Microsoft Excel 2007. More specifically, statistical analysis included:

Descriptive statistics. Descriptive statistics deal with methods of organizing and presenting data (Anderson & Finn, 1996).

Correlations. Correlation estimates the degree or the relationship between two or more variables (Healey, 2015). When one or all of the variables are measured on an ordinal scale, Spearman correlation coefficient is used instead of Pearson correlation coefficient (Foster et al, 2006).

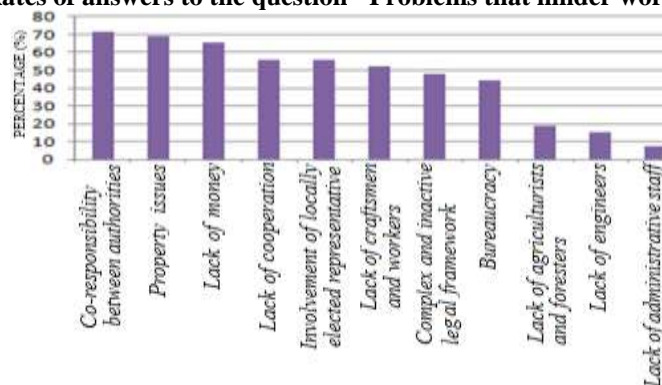
Mann-Whitney. This non-parametric test is used when the groups being tested are two and independent of one another and do not follow the normal distribution (Dawson and Trapp, 2004).

IV. FINDINGS

Descriptive statistics:

"Problems that hinder work processes": 71,2% answered *Co-responsibility between authorities*, 69,2% *Property issues*, 65,4% *Lack of money*, 55,8% *Lack of cooperation between contact points*, 55,8% *Involvement of locally elected representative*, 52,0% *Lack of craftsmen and workers*, 48,1% *Complex and inactive legal framework*, 44,2% *Bureaucracy*, 19,2% *Lack of agriculturists and foresters*, 15,4% *Lack of engineers* and finally 7,7% answered *Lack of administrative staff* (Figure 1).

Figure 1: Rates of answers to the question "Problems that hinder work processes"



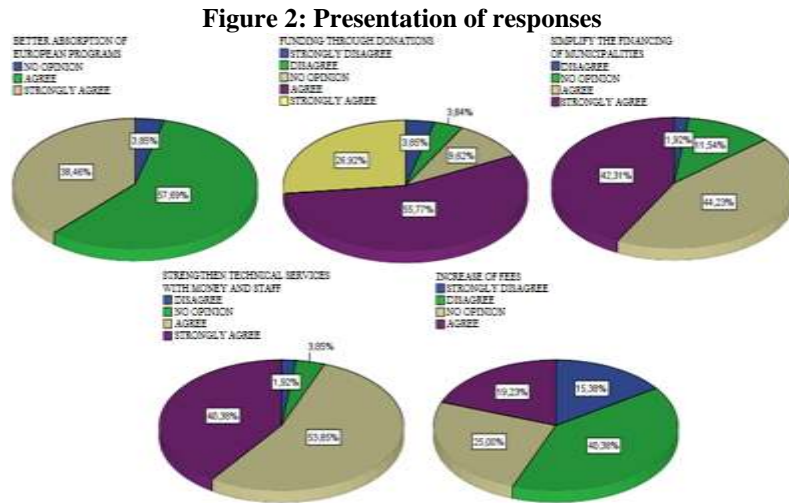
"Better absorption and exploitation of European programs": 38,46% answered *Strongly agree*, 57,69% *Agree* and 3,85% *No opinion*.

"Additional funding through donations and sponsorships": 28,83% answered *Strongly agree*, 45,95% *Agree*, 9,62% *No opinion*, 3,84% *Disagree* and 3,85% *Strongly disagree*. "Strengthen and simplify the financing of municipalities": 42,31% answered *Strongly agree*, 44,23% *Agree*, 11,54% *No opinion* and 1,92% *Disagree*.

"Strengthen technical services with financial resources and trained staff": 40,38% answered *Strongly agree*, 53,85% *Agree*, 3,85% *No opinion* and 1,92% *Disagree*.

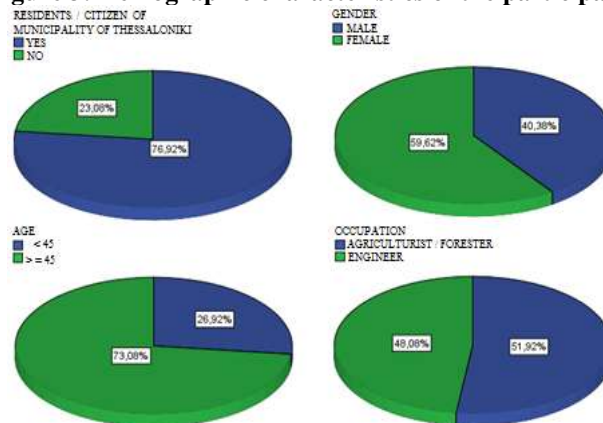
"Increase of fees": 19,23% answered *Agree*, 25,00% *No opinion*, 40,38% *Disagree* and 15,38% *Strongly disagree*.

All options with their percentages are presented in Figure 2.



Concerning the demographic characteristics of the participants, 76,92% are residents or citizens of Municipality of Thessaloniki and 23,08% are not, 40,38% are male and 59,62% female, 26,92% are aged < 45 years old and 73,08% ≥ 45, 51,92% are agriculturists or foresters and 48,08% are engineers. Aggregate presentation of responses is depicted in Figure 3.

Figure 3: Demographic characteristics of the participants



Correlations:

The correlations between the five ordinal variables and the variable "Age" are presented in Table 1. Spearman correlation coefficient was used.

Table 1: Correlations

	Better exploitation of European programs	Additional funding through donations	Simplify the financing of municipalities	Increase of fees	Strengthen technical services with money and trained staff	Age
Better exploitation of European programs	1,000	0,209	0,404**	0,002	0,170	0,140
Additional funding through donations	0,209	1,000	0,324*	0,090	-0,167	-0,029
Simplify the financing of municipalities	0,404**	0,324*	1,000	-0,171	0,124	0,185
Increase of fees	0,002	0,090	-0,171	1,000	0,087	0,079
Strengthen	0,170	-0,167	-0,124	0,087	1,000	0,275*

technical services with money and trained staff						
Age	0,140	-0,029	0,185	0,079	0,275*	1,000

* p < 0,05 ** p < 0,01

A significant positive correlation is demonstrated between "Strengthen and simplify the financing of municipalities" and "Better absorption and exploitation of European programs" (p<0,01). Furthermore, "Strengthen and simplify the financing of municipalities" is shown to be significantly associated with "Additional funding through donations and donations" (p<0,05). "Age" is positively correlated with "Strengthen technical services with financial resources and trained staff" (p<0,05). Generally, the variable "Increase of fees" has no correlation with the other variables of the study.

Mann-Whitney:

Resident / citizen of the Municipality of Thessaloniki:

Statistically significant differences are observed between the variables "Resident / citizen of the Municipality of Thessaloniki" and "Strengthen technical services with financial resources and trained staff" (p<0,05) (Table 2). The mean rank for those who are residents or citizens of the Municipality of Thessaloniki is 24,48 while for the rest 33,25. Respectively, the sum of ranks is 979,00 and 399,00.

Table 2: Mann-Whitney (variable "Resident / citizen of the Municipality of Thessaloniki")

	Better exploitation of European programs	Additional funding through donations	Simplify the financing of municipalities	Increase of fees	Strengthen technical services with money and trained staff
Mann-Whitney U	216,000	164,500	174,000	234,000	159,000
Asymp. Sig. (2-tailed)	0,548	0,068	0,117	0,891	0,046

Gender:

No statistical differences were found in the scores between male and female (Table 3).

Table 3: Mann-Whitney (variable "Gender")

	Better exploitation of European programs	Additional funding through donations	Simplify the financing of municipalities	Increase of fees	Strengthen technical services with money and trained staff
Mann-Whitney U	321,500	258,000	329,000	285,000	308,000
Asymp. Sig. (2-tailed)	0,735	0,105	0,865	0,318	0,540

Occupation:

No statistical differences were found in the scores between agriculturists / foresters and engineers (Table 4).

Table 4: Mann-Whitney (variable "Occupation")

	Better exploitation of European programs	Additional funding through donations	Simplify the financing of municipalities	Increase of fees	Strengthen technical services with money and trained staff
Mann-Whitney U	311,500	324,000	305,000	320,500	316,000
Asymp. Sig. (2-tailed)	0,763	0,975	0,676	0,922	0,841

V. DISCUSSION

According to the results of the study, it appears that:

- The majority of the participants considered the co-responsibility between authorities, the property issues and the lack of money to be the most severe problems which they encounter in their work. About 50% considered the lack of cooperation between contact points, the involvement of locally elected representatives, the lack of craftsmen and workers and the existing legal framework and bureaucracy to be second in severity, while the lack of engineers, agriculturists and foresters were considered milder problems. The lack of administrative staff was set last in the ranking. Hence, problems relating to cohesiveness and lack of cooperation between contact points should be resolved, together with a more flexible legal framework which regulates, amongst other things, the property issues.
- Necessary conditions for improving urban design and management are: better absorption and exploitation of European programs, securing funding through donations and sponsorships, strengthening and simplification of the financing of municipalities so that they are financially independent, and the strengthening of municipal technical services with money for the implementation and maintenance of projects and for the recruitment of appropriately trained staff.
- In the proposal "Increase of fees for creation, maintenance and protection of green areas" mainly negative and neutral responses were given to this measure, perhaps because officials think they will be more targeted by citizens if they do not actually use this income for green, coupled with the fact that they do not have as much financial capacity as they used to. Also, this variable has no correlation with the other variables of the study.
- Those who agree to strengthen and simplify municipal funding seem to be in favor of absorbing and capitalizing on European programs, as well as providing additional funding through donations and sponsorships.
- Concerning the occupation, the ratio of engineers to agriculturists and foresters is almost 1 to 1. As far as gender is concerned, 60% of the respondents are female, which shows that they are no longer male-dominated professions. 75% are residents or citizens of the Municipality of Thessaloniki. Regarding the age, almost 75% of the respondents are older than 45 years old. So, there is an aging of the technical staff, which will be more pronounced in the coming years due to the lack of new recruits.
- Older employees appear to be more in agreement with the strengthening of technical services with financial resources and suitably trained staff. In addition, the same question has resulted in statistically significant differences in the way respondents are residents or citizens, as they appear to be marginally unfavorable of the specific proposal. In general, the very high rate of agreement in the proposal to strengthen technical directorates demonstrates the trust of employees in their services.

BIBLIOGRAPHY

- [1]. Anderson, T., & Finn, J. (1996). *The new statistical analysis of data*. New York: Springer.
- [2]. Babbie, E. (2011). *Introduction to social research*. Wadsworth: Cengage Learning.
- [3]. Carbone, A., Coutinho, S., Tomerious, S., & Philippi-Junior, A. (2015). The management of green areas in the Municipality of São Paulo: Advances and limitations. *Ambiente and Societe*, 18, 4.
- [4]. Cohen, L., & Manion, L. (1997). *Research methods of education*. London-New York: Rutledge.
- [5]. Cohen, L., Manion, L., & Morrison, K. (2005). *Research methods in education*. London-New York: Rutledge Farmer, Taylor and Francis Group.
- [6]. Dwyer, J., Nowak, D., & Noble, M. (2003). Urban forests. *Journal of Arboriculture*, 29, 1, 49-55.
- [7]. Dawson, B., & Trapp, R. *Basic and clinical biostatistics*. New York: Mc-Graw-Hill.
- [8]. Foster, J., Barkus, E., & Yavorsky, C. (2006). *Understanding and using advanced statistics*. London: SAGE Publications.
- [9]. Gillham, B. (2007). *Developing a questionnaire*. London: Continuum International Publishing Group.
- [10]. Grey, G., & Deneke F. (1992). *Urban forestry*. Florida: Krieger Publishing Company.
- [11]. Hall, P., & Pfeiffer, U. (2000). *Urban future 21: A global agenda for twenty-first century cities*. London: Spon.
- [12]. Healey, J. (2015). *Statistics: A tool for social research*. USA: Cengage Learning.
- [13]. Kula, E. (1994). *Economics of natural resources, the environment and policies*. London: Chapman & Hall.
- [14]. Tomalty, R. (2005). *Urban environment issues*. Toronto: Canadian Environment Grantmakers' Network.
- [15]. Yerolympas, A. (1996). *Urban Transformations in the Balkans (1820-1920). Aspects of Balkan Town Planning and the Remaking of Thessaloniki*. Thessaloniki: University Studio Press.

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