The effectiveness of urban management in Jordanian municipalities

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Abstract

Jordan faces huge forced migration from multiple surrounding countries (including Palestinians and Syrian refugees). As this is accompanied by its limited natural resources such as water and energy, there is an urgent need for effective urban management. Assessment of the effectiveness of urban management can contribute to supporting the decision-making process, in addition to enhancing planning practices. To assess the effectiveness of urban management, six variables were taken into account, including technical competence, efficiency in the use of resources, financial viability, responsiveness to the needs of urban growth, sensitivity to the needs of the urban poor, and concern for environmental protection. A qualitative approach utilizing in-depth-interviews was employed as a method of data collection; these interviews were conducted with the mayors from a variety of municipalities in Jordan. Empirical findings have revealed that the level of urban management effectiveness is low, although effectiveness differs across municipalities and across cities, based on financial, technological, and human differences. Findings revealed that Jordanian municipalities meet several challenges in the six variables that were utilized to assess effectiveness of urban management. Several recommendations to improve planning practices are suggested in this paper. These include institutional change, improvement of the performance of human resources, a reassessment of the funding allocated to municipalities from the public budget, institutionalization of the relationship between citizens and municipalities, increasing the participation of people in the decision making process, the development of public-private partnership, the establishment of a center for environmental research and reassessment of the current laws for urban planning.

Keywords: effectiveness, urban management, urban planning, municipalities, Jordan.



1 Introduction

Urban management can be defined as an instrument of all aspects of urban development, both public and private, through municipal government (Amos [1]). Farvacque and McAuslan [2] argue that the fundamental purpose of urban management development is to provide a policy and administrative framework in order to provide smooth implementation of the services. Similarly, Rakodi [3] and Williamson [4] consider that the basic function of urban management is to enable a city to effectively facilitate economic development, in order to promote public services. McGill [5] suggests that urban management is the capacity of a city's government to plan for, provide and maintain its infrastructure and services. Shabbir Cheema [6] and Zenker *et al.* [7] state that the main purpose of urban management is to create a city that is competitive, equitable and sustainable through real partnership between the public and private sectors.

It can be concluded from the above definitions that the core role of urban management is the capacity to control land use in order to exploit space effectively, both economically and socially. This control needs to be transferred efficiently to the local level (municipality), which is considered an important part of the development process. However, the role of national government is to oversee the system without intervening in local decision making by the municipality (Ratcliffe and Stubbs [8]). In this way, urban management involves several institutions working together at each system level (Chakrabarty [9]). Each country has a unique division of responsibilities between the various tiers of government and non-government institutions, and they all play different roles in managing the cities.

Over the last decades, Jordan has received successive waves of forced migration that have vastly increased its population. Nowadays, Jordan accommodates more than 1.5 million Palestinian refugees (Jaber and Probert [10]), and more than 1.4 million Syrian refugees. This large number of additional inhabitants, associated with limited natural resources (such as water and energy) has resulted in numerous additional problems, such as informal settlements, water deficiency, shortage of services, congestion, shortage of housing, pollution and environmental degradation, among others (Meaton and Alnsour [11]). Such huge challenges together with poor economic conditions have heavily influenced urban development, resulting in the direction, intensity and scope of city growth, and socio-economic factors.

Whereas urban development is shifting from a centralized model to being market-led (Wong *et al.* [12]), the current urban management practices in Jordanian cities do not meet the aforementioned challenges. Local municipalities have limited financial resources, and the process of decision making is centralized. Such a management pattern restricts the process of development at the municipal level (Center for Strategic Studies [13]). In addition, the laws pertaining to urban management are inadequate in many respects, and focus on the key nature of the power relationship between the state and its citizens (Alnsour [14]). According to McAuslan [15], urban management regulations in most developing countries will remain useless unless published in a language that people can understand. Rakodi

[16] argues that most urban management practices in developing countries are inadequate for their local environment. However, and even more importantly, in many instances such regulations cannot be enforced effectively in practice, because institutional capacity in Jordanian municipalities is still limited (Alnsour and Meaton [17]).

The above-mentioned challenges explain the extent of the need for effective urban management in Jordan. The main objective of this paper is to evaluate effectiveness of urban management in Jordan. The findings of the paper are expected to assist decision makers to understand problems which occur when managing cities, and to provide opportunities for enhancing urban management practice.

This study evaluates effectiveness of urban management in Jordan based on literature. Studies issued by international organizations such as the World Bank. the United Nations Development Program, and the United Nations Center for Human Settlements have argued that urban management effectiveness consists of a set of elements including financial viability, efficiency in the use of resources, and technical competence. Several authors such as [12, 18, 22] and Garba [23] have addressed the issue of effectiveness of urban government; they relate effectiveness to financial resources and institutional capacity in terms of technology, information and human resources. Rakodi [24, p. 525] and Davey [25, p. 10] argue that evaluation of the effectiveness of urban government depends on six variables including technical competence, efficiency in the use of resources, financial viability, responsiveness to the needs of urban growth, sensitivity to the needs of urban poor, and concern for environmental protection.

A distinguishing feature of this paper is that it provides data which is missing from existing studies. Hollis and Fulton [18] argue that urban management literature tends to focus on describing policy instruments rather than evaluating their influences. Authors such as Howe [19], Nelson and Moore [20], and Weitz [21], conclude that few empirical evaluations of urban management effectiveness have been conducted. Bengston et al. [22, p. 280] confirm that "there is a need for careful ex post evaluation of the effectiveness and impacts of growth management efforts."

2 Methodology

A qualitative method employing in-depth, face to face interviews was decided to be the most appropriate way to meet the research objectives; and, in fact, the nature of the research requires that a qualitative method is used. Moreover, such interviews provide a broader perspective and achieve a better understanding of the problems that face urban management. The research population consists of all the mayors of Jordanian municipalities (90 mayors). Thirty four face to face in-depth interviews were conducted with the mayors. The target was to conduct 45 interviews; however, 11 mayors refused to take part in this study.

The interviews were conducted with various mayors from Jordanian municipalities. 47% of the mayors were from the central region, which includes the cities of Amman, Salt, Zarqa, and Madaba. 27% of the mayors were from the



northern region, which includes the cities of Irbid, Ajloun, Mafraq and Jarash. 26% were from southern region, which represents the cities of Ma'an, Aqaba, Karak, and Tafila.

The respondents were asked to provide data regarding the number of citizens residing in their cities. 31% of the respondents have jurisdiction over a city or cities of 100,000–200,000 inhabitants. 29% have jurisdiction over a city or cities of 200,000–500,000 inhabitants. 38% have jurisdiction over a city or cities with less than 100,000 inhabitants. 2% of the respondents have jurisdiction over a city or cities of more than one million inhabitants. This suggests that 62% of the respondents deal with cities of more than 100,000 inhabitants.

Approximately 57% of the respondents are familiar with the elements of urban management. 43% are familiar with only some of the elements of urban management.

Mayors were asked to indicate the reality of urban management effectiveness in their municipality. They discussed the elements of effectiveness, which include technical competence, efficiency, financial viability, responsiveness, sensitivity and environmental protection. Empirical findings have revealed that the level of urban management effectiveness is low. Importantly, the level of urban management effectiveness differs from one municipality to another. This variation is related to financial, technological, and human differences between municipalities. Empirical findings also demonstrate that financial viability was the lowest element in urban management effectiveness.

The level of urban management effectiveness is quite low; almost all elements can be classified as at a substandard level, and urban management practices are, on the whole, ineffective. Such a low level of effectiveness has created a correspondingly poor built environment, with low quality of services in most Jordanian cities.

3 Analysis of urban management effectiveness

3.1 Technical competence

Mayors were asked about their definition of technical competence. They defined it as the knowledge, skills and experience required to perform effectively in the choice, design, and execution of investment in infrastructure and in its operation and management. The majority of mayors mentioned that technical competence within their municipality is currently unsatisfactory. Mayors were asked why technical competence within their municipality is limited, and what methods should be initiated to improve such competence. The majority agreed that the gaps which prevent access to a high level of technical competence in the municipality can be related to the lack of fixed policy, lack of procedural review, the unwillingness to update procedure in accordance with new trends in technical competence, and poor technical support concerning competency development.

Many mayors believe that the lack of standardized policy processes is due to the centralized government system, which divides technical competences into various sections, without using usefulness as the main criteria for selection. Therefore, many mayors suggested that the current level of technical competency in municipalities could be improved by augmenting independent decision making at the municipal level, and reducing centralization.

Respondents were requested to explain how the lack of a review process and their inability to update their procedures according to new trends affected technical competence. All the mayors surveyed believed that, despite the fact that they are completely aware of the possible consequences and ramifications of the lack of procedural updates regarding new trends in technical competences, representatives at the national level seek to avoid changes in technical competence, which may directly affect their activities. According to these mayors, professional skill-based training is missing in the municipalities.

Technical support in competency development plays a significant role in determining the outcomes of municipalities. Many municipalities have developed strategies that require significant investment in infrastructure in order to enhance their performance, without relying clearly upon technical competences. According to mayors, this is most clearly demonstrated in the areas of land administration and regional planning. The majority of the mayors confirmed that the technical competency of municipalities is not comprehensively formulated.

3.2 Efficiency

The interviews with the mayors showed that poor efficiency in the use of resources is closely related to the current urban management system. This system is governed by law, which is over-centralized. Most policies and procedures are decided by the central government. Despite the fact that municipalities have been granted independence, they are still subject to the central government. Mayors agreed that their control of resources and systems is still limited and, thus, the ability to use these resources in an efficient manner is often influenced by the central government, often in a detrimental fashion.

Failure to provide an efficient municipal financial system is one of the challenges of urban management in Jordan. According to the mayors, the ability to control financial affairs within the municipalities is severely restricted by the central government. Mayors agreed that this restriction often leads to an inefficient use of municipal resources. Many mayors estimated that 75% of municipal expenses are wages and salaries; this is particularly true in the larger municipalities such as Salt, Zarqa, Irbid, Karak, Tafila, Jarash, Mafraq, Ajloun and Ma'an. As a result, the current financial system is unable to distribute financial resources in an efficient way.

Findings also reveal that the efficiency of human resources can vary across municipalities. For example, many mayors revealed that their municipality was adversely affected by a surplus of employees. They estimated that the average of surplus employment exceeds actual need by at least 40-50%. Therefore, the central government has recently decided to recruit staff for the municipalities through the Civil Service Bureau. Additionally, the mayors agreed that most human resources are unskilled and untrained. For example, master plans for



Amman are developed by foreign experts, as are development strategies for individual cities. This does not mean that the local Jordanian workforce is unqualified with no local experience; rather, qualified persons prefer to work with the private sector due to limited financial opportunities in the municipalities. Efficiency of human resources is a key element in planning and managing the process of development, since it is they who provide timely and suitable services to municipal inhabitants, improve the city, and contribute to problem solving. As a result, human resource inefficiency has contributed to the lack of municipal participation in the development of cities.

According to the mayors, there is no an appropriate information system related to urban management. Due to a lack of data and information, municipalities have no capability to react effectively and in a timely manner to unpredictable urban problems. Inefficiency of information gathering and dissemination has created several challenges for decision makers in achieving efficiency in the use of resources.

3.3 Financial viability

Mayors revealed that the financial situation can vary from one municipality to another based both on the size of municipality itself and the number of inhabitants who are serviced by the municipality. Whilst the budget allocated to the Greater Amman Municipality alone is roughly JoD 350 million (i.e. \$494 million), the budget for all the other municipalities in Jordan collectively is about JoD 200 million (i.e. \$282.5 million). Apart from the Greater Amman Municipality, the financial situation for the municipalities is critical; all of municipalities are unable to carry out basic duties and tasks. The variation in financial situation between municipalities is related to the size of a municipality to the others, since the municipalities of greater cities such as Zarqa and Irbid are both suffering from a financial dilemma, due to the size of services and projects which have been implemented. The majority of the mayors indicated that their financial resources are insufficient to implement future plans or development projects. Mayors confirmed that lack of financial support is one of the most important challenges affecting investment of municipalities.

Overall, the mayors agreed that the share allocated to municipalities from the national budget is not enough, and that the total municipal debt for the country exceeds \$100,300,000. However, part of a municipality's budget does come from direct fees and taxes within its inhabitants. Regarding this fact, a number of the mayors commented on current impacts affecting the collection of fees and taxes as follows:

- 1. The national recession; this has negatively influenced the ability of citizens to pay taxes.
- 2. That the recession has also negatively influenced the internal economic sector of the municipality, with a corresponding reduction in financial gain.

Municipalities often collect fees in the form of payments. Some of the mayors believe that the lack of fee collection is related to the inability of municipal governments to enforce payment of such fees and taxes which are levied internally.



Moreover, the absence of population and commercial data with relevant financial information makes a comprehensive process of tax collection impossible. As a result, vigorous exploitation of the local revenue base is lacking; improvement of this aspect would vastly improve the financial status of most municipal regions.

3.4 Responsiveness

Municipalities are closely related to several governmental authorities, including the Ministry of Public Works, the Ministry of Interior, the Audit Bureau and the Civil Service Bureau. Mayors divulged their opinions about the network of relationships with governmental authorities. On one hand, most municipalities complain of financial and administrative routine; many consider that the current level of financial - administrative bureaucracy is the main barrier that hinders their work. Such bureaucracy sometimes pushes municipalities to search for a way to bypass the law in order to save time. Many municipalities were dissatisfied with the multiplicity of controls and pre-monitoring. As municipal councils are elected, many mayors prefer post-monitoring, which would leave them free to make decisions. On the other hand, the majority of the municipalities suffer from a lack of cooperation, coordination and communication with governmental authorities. As a result, all these obstacles have resulted in the failure to respond effectively to the needs arising from urban growth.

According to the interviewees, the government is responsible for comprehensive planning and balanced development of all Jordanian cities; once the central government has made its decisions, municipalities can prepare their own master plan. In other words, centralized planning is the starting point that master plans must be based on. In this way, municipalities should have the technical capacity to develop a vision for the future, and a specific mechanism for designing guidelines. Conversely, the majority of the mayors declared that municipal staff is unable to prepare such master plans and, thus, municipalities usually use foreign expertise to create them. It can be concluded that a lack of responsiveness to the needs arising from urban growth is also related to the fact that one framework which is used by all municipalities is lacking.

In Jordan, the key policy instruments of urban planning are comprised of the Town and Country Planning Act and the Down Zoning and Building Regulations. According to the interviewees, the development of the Town and Country Planning Act relied heavily upon the British planning system; this is relatively unsuitable for social-economic and environmental planning in a Jordanian context. However, Down Zoning is based on planning models from the USA. The mayors believe that down zoning has increased land prices in urban areas and decreased prices in rural areas. Building regulations were been designed by foreign consultants relying solely on engineering perspectives regardless of social context, economic problems and environmental challenges. Finally, and in conclusion, these acts and regulations are not reviewed and amended carefully and, thus, the lack of responsiveness to the needs arising from urban growth is exacerbated.

3.5 Sensitivity

Despite the fact that municipal councils are elected directly by the people, there is no fixed mechanism for consulting with inhabitants. According to the mayors. public participation takes the form of a continuous referendum, which often contributes to the reform development path and determines priorities. Many municipalities complain of an absence of confidence by their citizens in the local government. This can be explained by citizen unresponsiveness to municipal decisions in the issues of land acquisition. In some cases, inhabitants refuse to pay local government fees, because they are dissatisfied with the quality of services. Many mayors asserted that the fees due to the municipalities by citizens can be calculated to several million dinars. Several examples were mentioned by the mayors to signify the difficulties which they face with citizens, and they clarified the reasons for the unresponsiveness of citizens, such as the fact that, once people get used to the absence of authority and breaking law, it is self-perpetuating. Some mayors believe that their municipality's performance could be improved by breaking this gap of confidence which exists between the citizens and local government.

As well as the above observations, there were two additional important perspectives presented by the mayors towards public participation in the decision making process. The first perspective warns about the risk of transparency and openness, which may result in an increasing demand of services and infrastructure by citizens which is beyond the resources of municipalities. The second, positive perspective is that communication between a municipality and its citizens may lead to a higher understanding of the citizens' needs within the frame of the municipality's resources; this would result in a reformulation of priorities from the citizens' perspective and increase the importance of long-term projects.

The mayors stated that there are several communication instruments which are used to expedite communication between a municipality and its citizens, which are:

- 1. Commissioning local citizens to become members of their local municipal council.
- Reliance on experienced counselors' opinions to recognize the needs of citizens.
- 3. Facilitating the ability of citizens to make complaints.
- 4. Public meetings to discuss local topics of interest.

However, examination of the extent to which these communication instruments are used by municipalities confirms that they are not always followed or used, and that public participation still lacks a regular mechanism. This indicates that there is an urgent need to institutionalize the public participation process in order to make it a continuous pro-active process.

3.6 Environmental protection

According to the mayors in the survey, Jordan's environmental situation continues to be threatened by a number of factors. They revealed that the overwhelming number of refugees from Syria and Palestine has resulted in an enormous



additional pressure on infrastructure and social services, such as water, energy, sewerage, transport, schools, hospitals and other facilities. One of the fundamental messages that emerges from the research is that environmental standards of public services are characterized by low quality. This quality is directly related to the high cost of environmental and other social standards compared to the lack of adequate financial resources for municipalities.

Jordan suffers from a severe water shortage; however, it consistently uses more water than the available supply. Current use of water already outstrips renewable supply. The deficit is sourced by unsustainable over pumping of aquifers, which impacts negatively both on the water table and water quality.

In addition to the issue of refugees from surrounding countries, internal migration from rural to urban areas has become a pronounced source of air pollution. Urban growth in cities has also taken place by encroaching on agricultural land, which has an adverse impact on the local food supply; the combined impact of external and internal migration has actually been a disaster in terms of local food production compared to requirements, which much higher rates of food imports than previously. Finally, the location of industry within many residential areas, rather than in an area zoned for industrial use, has created major concern for the quality of air.

The mayors also averred that environmental protection requires data banks, funding, environmental models, vehicle inspection techniques, emission measuring techniques and monitoring systems, none of which are realistically currently available. At the present time, none of the municipalities in Jordan have an environmental research center. The non-availability of centers for environmental studies within municipalities has therefore led to inefficient environmental monitoring systems.

According to the mayors, regulation of the private sector in order to protect the environment is influenced by economic performance. Investment linked to high environmental standards often leads to high socio-economic costs, which are untenable in some instances. As a result of the severe economic hardship present in Jordan, compliance with high environmental standards is extremely difficult. Interviewees suggested that regulation of the private sector requires creating initiatives and promoting long-term responsibility by all stakeholders, to promote confidence in the ability to achieve and maintain high environmental standards.

4 Conclusions and recommendations

The level of urban management effectiveness in Jordan is low. Yet it differs across municipalities and across cities, based on financial, technological, and human differences among municipalities.

Findings reveal that there is a severe lack of technical competence in the municipalities. The causes behind this are represented by inflexible, fixed policies, technical competences are outdated and there is a lack of technical support in competency development. The relationship between local and central levels is characterized by confusion stemmed from the ambiguity of powers. This confusion raises a question about the confidence of the central government with



the experiences of local decision makers. Failure to provide an efficient financial system and qualified human resources comes as a result of an over-centralized system. Apart from the Greater Amman Municipality, the financial situation of all municipalities is critical; the proof of this is demonstrated by their inability to carry out basic duties and tasks. Due to the multiplicity of controls and pre-monitoring by the central government, municipalities cannot respond effectively to the needs arising from urban growth. This issue raises an important question. Why does over-centralization exist while the municipal councils are elected? Public participation lacks a formal mechanism, because communication instruments between municipalities and their citizens are often anecdotal rather than planned. Therefore, the level of sensitivity to the needs of urban poor is often limited. Concern for environmental protection requires high socio-economic costs. As Jordan suffers severely from water shortage and unavailability of energy. compliance with high environmental standards is extremely difficult. Such challenges raise questions about the ability to provide water and energy in Jordan in the future

In order to improve the effectiveness of urban management in Jordanian municipalities, this paper recommends the following strategies:

- The central government should look at each municipality as an individual unit, which is financially and managerially independent. This unit has a network of vertical and horizontal relationships with other municipalities and the community on one hand, and with the central government on the other hand.
- Institutional change, improving the performance of human resources and enhancing technical competences would be an important step in improving the effectiveness of urban management. The need for capacity building and actual performance should also be addressed.
- The development of detailed databases would help municipalities to effectively determine the priorities and needs of its local inhabitants, and assist with successful long-term planning. This will enable planners and managers to better understand the complexity of the urban process and acquire modern instruments to improve their productivity.
- The central government should reassess the share of public money allotted to municipalities from the public budget, since the current system is insufficient to meet basic duties and tasks. However, at the same time, municipalities should improve their ability to collect the sum total of taxes and fees assessed locally, which would also vastly increase their budget. In addition, searching for other sources of revenue is the responsibility of municipalities; such as partnerships with the local private sector and stakeholder involvement. Local municipalities require adequate resources, professional staff and adequate budgets; the provision of these will enhance overall efficiency.
- The relationship between citizens and municipalities should be institutionalized. Participation of people in the decision making process in relation to the city development is an important issue. This requires

- rethinking the concept of decentralization in Jordan to regulate the relationship between citizens and the municipalities.
- Municipalities should establish centers for environmental research and study, at least at a regional level. These centers could create effective monitoring and enforcement systems based on operational tools for the environment.
- Municipalities should reassess the current urban planning regulations to be more responsiveness in the socio-economic context.

Finally, addressing urban management effectiveness will improve the knowledge and understanding of urban management, which is believed to be important for the development of more effective planning strategies related to city development. It is important that further research studies examine urban management effectiveness in other countries in the Middle East. Africa and Latin America, where comparative research will extensively support local knowledge. However, further research should focus on the impact of urban management effectiveness on economic development. Such studies will enhance planning interventions and contribute to new strategies for managing cities.

References

- Amos, F., Strengthening municipal government. Cities, 6, pp. 202–208, [1]
- [2] Farvacque, C. McAuslan, P., Reforming Urban Land Policies and Institutions in Developing Countries, World Bank Publications: Washington, D.C, 1992.
- [3] Rakodi, C., Cities and people; towards a gender-aware urban policy process. *Public Administration and Development*, **11**, pp. 541–559, (1991).
- Williamson, L.P., Land administration "best practice" providing the [4] infrastructure for land policy implementation. Land Use Policy, 18(4), pp. 297–307, 2001.
- [5] McGill, R., Urban management in developing countries. Cities, 15(6), pp. 463–471, 1998.
- Shabbir Cheema, G., The challenge of urban management: Some issues. [6] *Urban management: Policies and innovations in developing countries*, ed. G. Shabbir Cheema, Westport: Greenwood Praeger Press, pp. 1–16, 1993.
- Zenker, S. & Eggers, F. & Farsky, M. Putting a price tag on cities: Insights [7] into the competitive environment of places. Cities, 30, pp. 133–139, 2013.
- [8] Ratcliffe, J. & Stubbs, M., Urban planning and real estate development, UCL, London, 1996.
- [9] Chakrabarty, B.K., Urban management and optimizing urban development models. Habitat International, 22(4), pp. 503–522, 1998.
- Jaber, O.J. & Probert, D.S., Energy demand, poverty and the urban [10] environment in Jordan, Applied Energy, 68(2), pp. 119–134, 2001.
- Meaton, J. & Alnsour, J., Spatial & Environmental Planning Challenges in Amman, Jordan. Planning Practice & Research, 27(3) pp. 376–386, 2012.



- [12] Wong S.W. et al. Strategic urban management in China: A case study of Guangzhou Development District. Habitat International, 30, pp. 645–667, 2006.
- [13] Centre for Strategic Studies. Governance in Jordan, University of Jordan, Amman, Jordan, 2004.
- [14] Alnsour, J., Illegal Housing in Jordan. *Jordan Journal of Social Sciences*, **4**, pp. 339–354, 2011.
- [15] McAuslan, P., *Urban land and shelter for the poor*, Earthscan, London, 1989.
- [16] Rakodi, C., Forget planning, put politics first? Priorities for urban management in developing countries. International *Journal of Applied Earth Observation and Geoinformation*, **3(3)**, pp. 209–223, 2001.
- [17] Alnsour, J. & Meaton, J., Factors Affecting Compliance with Residential Planning Standards in Jordan. *Habitat International*, **33(4)**, pp. 301–309, 2009.
- [18] Hollis, L.E. & Fulton, W., Open space protection: Conservation meets growth management, Brookings Institution, Center on Urban and Metropolitan Policy, Washington, D.C., 2002.
- [19] Howe, D., A research agenda for Oregon planning: problems and practices for the 1990s, *Planning the Oregon Way: A Twenty-Year Evaluation*, ed. C. Abbott, D. Howe, S. Adler, Oregon State University Press, Corvallis, OR, pp. 275–290, 1994.
- [20] Nelson, A.C., Moore, T., Assessing growth management policy implementation: case study of the United States' leading growth management state. *Land Use Policy* **13(4)**, pp. 241–259, 1996.
- [21] Weitz, J., From quiet revolution to smart growth: state growth management programs, 1960 to 1999. *Journal of Planning Literature*, **14** (2), pp. 266–337, 1999.
- [22] Bengston, D.N., Fletcher, J.O. & Kristen, C.N., Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States. *Landscape and Urban Planning*, **69(2-3)**, pp. 271–286, 2004.
- [23] Garba, B.S., Managing urban growth and development in the Riyadh metropolitan area, Saudi Arabia. *Habitat International*, **28(4)**, pp. 593–608, 2004.
- [24] Rakodi, C., Politics and performance: the implications of emerging governance arrangements for urban management approaches and information systems. *Habitat International*, **27(4)**, pp. 523–547, 2003.
- [25] Davey, J.K., *Elements of urban management*, World Bank Publications: Washington, D.C., 1993.

