

Sustaining Landscape Condition through Planned Maintenance: Findings from a Survey in a Malaysian Local Authority

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Abstract: Malaysia is seriously embarking on its beautification programme. Landscaping condition are being emphasized especially in the Local Authorities areas. The rapid growth of a town depends on the urban landscape that could contribute to the urbanization balance development. As more new towns and urban areas are developed and more money is spent on landscapes, the need to find a mechanism that responds to these issues is becoming urgent. Landscape in urban area refers to garden, green corridor, clearing space, plain, field in urban that used by township to exercise or walk. This paper highlights the perceived satisfaction on landscape condition in a local government agency in Peninsular Malaysia. The aim of this study is as a reference for local authorities to manage their landscape condition base on public response towards their satisfaction. There were 169 involved in the survey. The data was analyze using Statistical Package for Social Science (SPSS) Ver 17.0. The findings of the research confirm that landscape maintenance success drivers have a significant relationship with perceived satisfaction on maintenance of landscape condition.

Key words: Sustainability, maintenance, landscape, satisfaction

1. Introduction

The rapid growth of a town depends on the urban landscape that could contribute to the urbanization balance development. As more new town and urban areas are developed and more money is spent on the urban landscape, the need to find an urban landscape management system that responds to these issues is becoming urgent (Osman, 2005). Landscape in urban area refers to garden, green corridor, clearing space, plain, field in urban that used by township to exercise or walk. Societal needs recreational area or garden in town apparently as a result of the increasing quality of education and economic status. To create healthy living environment, comfortable and attractive, garden site preparation and recreation is very important and should be maintained with best possible ways by local authorities. The increasing of population will make the normal urban growth changes economically, standard of living, increasing the transportation network and industry which will affect the ecosystems and environment. However, the changes also alter the existing natural balance in the environment and ecosystem which are critical to the functioning or urban landscape.

Malaysia is not exempted in experiencing urbanization effect from increasing of the population. According to National Statistic Department (2009), Malaysian population is amounted to 27 million people. The great growth is recorded in big towns and capital city. This impact of urbanization causes the responsibility that is played by local government side increasingly become more complex and challenging. The task to maintain and manage landscape in town is the local authority responsibility. Through management grant that is administered by Housing Ministry and Local Government through National Landscape Department, a million dollar is allocated to manage urban landscape. On 1999, ministry had appropriated a sum of RM37.6 million for development and urban landscape management purposes (National Landscape Department, 1999).

For the state government of Terengganu, a sum of budget is allocated each year especially to manage and maintain amenities facility including urban landscape. On year 2011, as much as RM 47.5 million were appropriated to seven (7) local authority in Terengganu with 4.5 million to manage and maintain urban landscape. Based on Audit Report 2009, under 9th Malaysia Plan the number of RM185 million has been allocated for development programs of urban landscape and recreation parks involving five major projects, namely the development of new public parks, construction of the upgrading of public parks, public recreation program development, development of cyber parks / Cyberjaya and the development of federal public parks. The total of RM40 million has been allocated for projects to upgrade public parks. These provisions aim to improve the quality of existing Public Park by adding a number of parks and recreational facilities function in all areas managed by local authorities. it also includes additional work hard landscaped park facilities and soft landscape planting of trees and shrubs as well as major maintenance contracts within. A study in the open space by Hisham (2001) in urban housing areas across successfully found lack of facilities and equipment as well as games that are less attractive landscape. Even though this shows that the large expenditure has been allocated by the Government to improve the maintenance of the urban landscape, but the implementation is still weak. By such a study should be undertaken to investigate the maintenance of the urban landscape and the satisfaction of the communities on maintenance carried out by local authorities. The study tries to answer the following research questions:

- i) What is the extent of landscape maintenance succes drivers on perceived satisfaction of landscape condition?
- ii) What is the relationship between landscape maintenance success drivers and perceived satisfaction of landscape condition?

2. Literature review

There are many previous studies on the effective management of the landscape, the effectiveness of maintenance management in public sector facilities, buildings, city landscape management in Malaysia and the quality of services in local authorities (LAs) but there is still a lack of scientific studies about the quality of landscape maintenance management services performed by the LAs. The troubled development project or delayed in the growing numbers, especially during the economic downturn in 1998 (Lee, 2000). Based on current observations, there are weaknesses in the implementation stage which has been identified by the government. The development of FM in Malaysia started in the second half of 1990s (Pillay, 2002). Government has played a active role in the development of FM. FM generally involves several disciplines and services are usually the development, adjustment and management to all areas of non-expertise in all organizations, including building and systems, IT equipment, compliance with all requirements of the organization achieve its goals.

Hassan (2007), Chief Secretary of Government of Malaysia, despite the government commitment with the allocation of RM1.079 million (US\$306,012.47) for upgrading renovation, there is evidence of shoddy work and buildings falling into despair. Mean while the studies on urban green spaces or urban landscape have not received much attention so far. Few studies have been carried out in this area (e.g. Johari, 2007; Hussein, 2006; Mazlina and Ismail, 2007, 2008), however comprehensive studies are still to be conducted in order to achieve sustainable urban landscapes. According to Salleh and Ishak (2002), rapid economic growth and widespread urbanization is deteriorating the Malaysian cities and air and noise pollutions are becoming serious problems in many urban areas.

Urban landscapes now play important roles that contribute to the economic, environmental, social, cultural and psychological aspects of urban life. Figure 1.1 shows the diversification of the

roles of urban landscapes and parks. Recent studies have shown that urban parks and open spaces are used in a variety of ways, from providing opportunities to escape the urban environment, opportunities for socializing, to learn about nature and the environment, self-awareness, places to relax, to keep fit and to play (Morgan, 1996).

Urban green space studies have great significance in the near future in accommodating the increasing urban population. Therefore, more studies should be focused on urban green spaces of Malaysian cities. Also getting green space information quickly and accurately can provide a foundation for urban environment, green space system planning and all-level of decision making.

The quality of urban landscape may be judged by its ability to meet the needs of its users. Taylor (1989) suggested that to have quality means it should have all of those characteristics and features that satisfy the customers' perceived desires. A quality urban landscape requires those responsible for planning, management and maintenance of such areas to understand the users' wishes, and translate them into characteristics and features. Management strategies should therefore take into consideration the purpose of the area, the users and their objectives (Greenhalgh and Worpole, 1995).

According to Reeves (2000), high quality urban landscape will eventually help to create a more civilised urban environment. Arler (2000) added that without these qualities the important opportunities that urban living can provide might not be fulfilled. Indeed, as opportunities disappear, future generations will live a poorer life in cities. True respect for future generations, as embedded in sustainability thinking, implies that thorough investigation and discussion with all present stakeholders as well as the consideration of future stakeholders is the only way to recognise and conserve aspects of urban landscapes that are considered important (de-Shalit, 1998). Appropriate management guidelines and standards would seem to be a way of ensuring that such forward thinking is captured. As described earlier, the dynamic changes in cities have altered the use, role and value of urban landscape and parks; they are no longer solely places for recreation (Burgess, et al., 1988; Greenhalgh and Worpole, 1995).

As government policies change in line with the emergence of new theory relating to the widening role of urban green infrastructure, the demands by users upon the urban landscape are expected to increase. The quality of the urban landscape management will, directly or indirectly, depend upon the good stewardship of the planners, implementers and managers, and other professionals involved. It is only through the adoption of a strategic approach to planning and management that urban landscape can be adequately provided, protected, and managed, to carry out its functions and roles (Morgan, 1996).

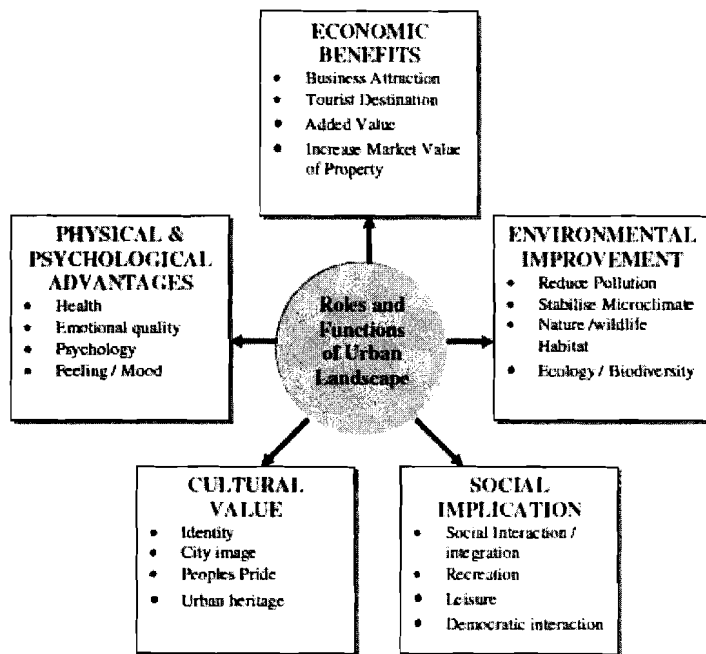


Figure 1: The important roles and functions of urban landscape (Morgan, 1996)

3. Methodology

The study is a non-experimental research and using quantitative method. The design of the study is through a structured survey which the unit analysis of the study is government servant in Majlis Bandaraya Kuala Terengganu area. The rationale for using this unit analysis is because it represents the population of working people in government sector in Kuala Terengganu. The survey forms were distributed using simple random sampling to the respective department and collected right after the respondents have fulfilled the survey forms. From the total of people employed in the government sector, only 6,534 people in various departments (Human Resource Department of Terengganu, 2010) are used as the sample for the study. Justification for the selection of government departments as the unit of analysis is that these departments provide more services compared to private sector. Sufficient sample size is necessary to view a more detailed study results. People who work in the government sector are used as the sample because it is easier to get the responses and demography factor also can also be one of the reasons. From the number, the sample size necessary to conduct this study was 361.

The researchers used Microsoft Excel format of randbetween (a,b) to get the selection of department for respondents. The independent and dependent variables, were adapted from Koo et al (1999) employing a Five-Likert response scale ranging from one (strongly disagree) to five (strongly agree). However, some demographic information also gathered.

4. Findings and Conclusion

4.1 Respondent profile

There were 169 useable responses participated in the study. The majority of respondents were Malay (99.4%) and a Chinese (0.6%). More than 70% respondents were having certificate and diploma qualifications. Degree and post graduate qualifications were recorded 26.5% only. Meanwhile, more than 75% of the respondents were having less than RM2500 income. Most of the respondents were female (55%) and male (45%).

4.2 Factor Analysis and Reliability Analysis

Factor analysis is used to determine the construct adequacy of a measuring device (Cooper & Schindler, 2001). The principal component analysis (PCA) method with varimax rotation (Hair, Anderson, Tatham & Black, 1998) was applied in this study. After components of variables were extracted from factor analysis using varimax rotation, reliability test was conducted to assess the “goodness” of a measure.

Table 1 shows the reliability coefficients (Cronbach’s alpha) of the variables which ranges from 0.855 to 0.889. Basically, all the variables in the study show acceptable Cronbach’s alpha values, which are more than 0.8.

Table 1: Reliability Coefficients

Variable	Cronbach Alpha
Perceived Satisfaction (PS)	0.855
Landscape Maintenance Success Driver (QSD)	0.889

4.3 The extent of landscape maintenance success drivers on perceived satisfaction on maintenance of landscape condition

This study set out with the aim of assessing the extent of Landscape Maintenance Success Drivers and perceived satisfaction of landscape maintenance perceived satisfaction on maintenance of landscape condition in a Malaysian Local Authority as its first research question. The extent of Landscape Maintenance Success Drivers in a Malaysian Local Authority can be observed from Table 2. From Table 2, the dependent variable, Perceived Satisfaction showed the mean value of 3.20 with standard deviation of 0.85. This indicates that all the participating respondents were concerned about satisfaction of landscape condition. Meanwhile, the independent variable, Landscape Maintenance Success Drivers showed the mean of 3.93. All the respondents agree Landscape Maintenance Success Drivers are important. The standard deviations of dependent variable, cost was 0.76 also small, indicating that most respondents were close to the mean of the dependent variable.

Table 2: The extent of landscape maintenance success drivers on perceived satisfaction on maintenance of landscape condition

Variable	Mean	Standard deviation
Landscape Maintenance Success Driver (QSD)	3.93	0.76
Perceived Satisfaction (PS)	3.20	0.85

Table 3: Results of regression analysis

	<i>Dependent variable</i>
	Perceived Satisfaction
<i>Independent variable</i>	
Landscape Maintenance Success Drivers (QSD)	0.584**
F value	85.836
R ²	0.341
Adjusted R ²	0.337

Table 3 shows the relationship between Landscape Maintenance Success Drivers towards Perceived Satisfaction on maintenance of landscape condition. The result showed that the F value of 85.836 is significant at a confidence level of 0.01, and R² of 0.341 indicated that the independent variable explained about 34% of the variance in Perceived Satisfaction on maintenance of landscape condition. From the Table 3, Landscape Maintenance Success Drivers is found to have significant positive relationships with Perceived Satisfaction on maintenance of landscape condition ($p < 0.01$). There are no multicollinearity problems as tolerance and VIF values were less than 1.0 and less than 10.0 respectively.

This study investigates the extent of Landscape Maintenance Success Drivers towards Perceived Satisfaction on maintenance of landscape condition in a Malaysian Local Authority. The findings show that Landscape Maintenance Success Drivers is important in a Malaysian Local Authority. It cannot be denied that Landscape Maintenance Success Drivers focused a lot on activities related to continuous improvements and ensuring better landscape condition particularly about the safety and health related issues. Moreover, Landscape Maintenance Success Drivers (mean=3.93) requires not only good action plan and also good execution. Therefore, the top management of the local authority will drive all human resources towards achieving a safe and healthy landscape condition.

The local authority was concerned about proper plans to achieve overall landscape condition effectiveness, continuous improvements, high safety and environmental standards. It is certainly essential for local authority to properly plan such activities due to the stiff challenges of the more environmental and safety concerned citizens. The pressures of some NGOs also reflect that fast actions must be taken. On the other hand, the citizens' awareness of taking care of their surroundings can also enhance better landscape conditions.

5. References

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