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**Framing the role of and defining criteria for usefulness of citizen satisfaction surveys
in local urban environmental management:
The case of the Local Government Unit of Quezon City, Philippines**

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Abstract

The delivery of urban environmental services is among the functions devolved to local governments. As public services, they are routinely evaluated typically using 'hard' performance measures. The current trend of local governance incorporates citizens' perspectives in assessing service performance. In this study, the importance and 'usefulness' of citizen satisfaction surveys in local urban environmental management are explored using the case of the local government of unit (LGU) of Quezon City, Philippines and its experience with the Citizen Satisfaction Index System (CSIS). For Quezon City, citizen satisfaction ratings are an important indication of city performance. For the Environmental Protection and Waste Management Department (EPWMD), data and information is considered 'useful' if it is: (1) able to help craft the future directions of the Department, (2) able to help identify the services that can be removed, (3) able to reflect actionable community feedback, (4) presented in the form of disaggregated data and evidence, and (5) easy to interpret by the users. In applying the criteria to evaluate the data and information generated from the CSIS 2014 and 2016, the study demonstrates the merits of using 'soft' performance measures in appraising and improving local urban environmental services.

Key words: urban environmental management, urban environmental services, environmental governance, citizen satisfaction

Urban Environmental Services

The challenge of urban environmental management is to maintain and improve urban environmental quality to safeguard the productivity, health and well-being of urban dwellers, especially the poor (Coolidge, 1993; Bartone, 1994; Leitmann, 1994; Jones et al., 2014; Jeppesen et al., 2016). The host of environmental problems induced by urban activities and processes are the concern and responsibility of numerous actors from both public and private sectors of society (UNEP-IETC, 2003; Bartone, 1994; Wingqvist, 2012).

The provision of urban environmental services to achieve qualities of air, water, and land resources which are conducive to health and well-being is among the roles of the State. The government as instrument of the State takes on the burden of provisioning of services such as air and water quality management, pollution control, community greening, and solid waste management, among others, in order to ensure maximum social welfare. That is, because these services have significant, non-excludable, positive externalities (i.e. benefits), the private sector will have the tendency to under-provide the services, therefore necessitating State intervention (ADB, 2013). Government typically prioritizes the delivery of environmental services (e.g. solid waste management, water treatment) which they have some level of control of (Boex et al., 2014; Jones et al., 2014).

Public management theories argue that decentralization of local public good finance and delivery improve the public service provision by improving allocative efficiency, promoting accountability, and improving cost recovery (Azfar et al., 1999; Jones et al., 2014; J-PAL, 2012; Boex et al., 2014). Decentralization is implemented in many countries including the Philippines in order to transfer the locus of power and devolve functions from central institutions like the national government to local government authorities.

In the light of this trend of decentralization, Leitmann (1994) concluded in his study that municipal capacity affects environmental quality such that management solutions heavily depend on the adequacy of financial and human resources to maintain and expand environmental services and infrastructure. Meanwhile, urban governance challenges to service delivery in developing countries seem to centre around issues on policy (in)coherence, bottom-up and top-down performance monitoring and oversight, and local problem solving (Wild et al., 2012; Jones et al., 2014).

Citizen Satisfaction Survey as Performance Management Tool

Improving urban environmental quality is reliant on the effective management of urban environmental services (Bartone et al., 1994) and there is considerable evidence that (good) governance plays an important role in effective delivery (Jones et al., 2014; Wingqvist, 2012) alongside financial capacity (Stren, 2012; Coolidge et al., 1993). Performance management is therefore a vital process in urban environmental management.

Under the dominant public management paradigm, productivity or output-input efficiency measures are most commonly used in the performance management of local governments (Coe, 2000; Kelly, 2003) and are widely preferred over measurements of outcomes (Barzelay, 1992; Kelly, 2003). "Outputs" are defined in terms of (1) work load, (2) some measure of effectiveness, and (3) equipment and personnel utilization rates (Hatry et al., 1992). These objective measurements apply private-sector productivity values to public service delivery (Kelly, 2003). In the perspective of decentralized local governance, where in the purposes and methods of (municipal) administration are ideally citizen-oriented and/or citizen-driven (Giannocarro et al., 2008), objective performance management using 'hard indicators' fail to be responsive to public demand (Glaser and Bardo, 1994).

Citizen survey research emerged during the era of 'reinventing government' reform movement in the 1980's and 1990s (Osborne and Gaebler, 1992), reintroducing 'soft indicators' like citizen satisfaction to public performance management (Stipak 1979; Bouckaert & Van de Walle, 2003). Citizen satisfaction surveys have increasingly become a tool of choice for public administrators and technical managers to gauge the 'outcomes' of service delivery from the perception and opinion of the customers of public services – the citizens (Swindell & Kelly, 2000; Kelly, 2003; Cassia & Magno, 2009; Stipak, 1979). Under the concept of 'good governance', the use of citizen satisfaction research increase the elements of accountability (by holding the public sector responsible for government performance) and participation (by allowing citizens to have 'voice' in the decision-making processes of government) (Swindell and Kelly, 2000; Glaser & Bardo, 1994; Manasan et al., 1999).

The major assumption behind citizen (satisfaction) surveys is that citizens are able to make informed judgements about a service even if they do not personally receive the service (Swindell and Kelly, 2000; Miller & Miller, 1991). Another assumption is that there is a direct causal relation between the quality of a certain service delivery and user satisfaction (Bouckaert and Van de Walle, 2003).

Criticisms stem from these assumptions, questioning the validity of the data and information from such surveys as basis for decision-making. Stipak (1979) argues two critical problems that should dissuade policy-makers from using survey data on citizen satisfaction with local services: (1) expressed satisfaction may not reflect service performance, and (2) there are statistical and conceptual complications in analyzing subjective indicators of performance. With the conceptual and analytical issues surrounding citizen satisfaction surveys, there is no consensus as to its utility as a valid indicator of governance performance (Kelly & Swindell, 2002).

Kelly and Swindell (2002) discuss the two general types of errors that citizens might make in evaluating local service. Errors of attribution are made when and if citizens inaccurately believe that government is providing a service that it is not actually providing, or not providing a service that it actually does. On the other hand, assessment errors are made when the citizen evaluation of service quality (subjective) contradicts the objective indicator. The second error is said to be normal when the citizens are evaluating services that they have not personally received or experience (Kelly and Swindell, 2002). The absence of a clear statistical correlation between service outputs (objective indicators) and citizen assessment of service outcomes (subjective indicators) have been extensively demonstrated (Cassia & Magno, 2009; Swindell & Kelly, 2005).

Meanwhile, Bouckaert and Van de Walle (2003) raise the issue of the construct validity of “satisfaction” – what does it mean and what exactly does it measure. There are also studies exploring the non-service related factors that may affect citizens’ attitudes toward their local government the services provided; these include (1) citizens’ race and income, (2) neighborhood characteristics, (3) and characteristics of the local government itself (Kelly, 2000) (see Brown & Coulter 1983; Stipak 1977). With the conceptual and analytical issues surrounding citizen satisfaction surveys, there is no consensus as to its utility as a valid indicator of governance performance (Kelly & Swindell, 2002). These criticisms, however, have not entirely dissuaded the public sector from adapting this type of soft performance measures.

Uses and Usefulness of Citizen Satisfaction Surveys

Miller and Miller (1991) proposed that citizen satisfaction surveys can be used: (1) to assess community needs, (2) to guide long-range planning, (3) to guide short term planning, (4) to assess communication with citizens, (5) to evaluate community services, and (6) to determine policy support.

Walker (1996) also elaborates on the merits of citizen surveys, including its utility in (1) resource allocation decisions, (2) improving service by making changes in the way the service is provided, (3) determining cost-optimal service levels, (4) evaluating performance based on bottom-line citizen satisfaction, and (5) providing management information that are difficult to quantify (e.g. suitability of equipment and services).

Specifically on citizen assessments on the quality of the urban environment and services, studies are local in scope, specific to an environmental feature (e.g. parks, green spaces) or a service area (e.g. waste and pollution management), and unique in the various service qualities explored. Citizen satisfaction assessments are usually subsumed under the broader topic of quality of life or living environment in urban areas or cities.

In a case study by Alizadeh and Kianfar (2013) on the citizens' satisfaction with public sector services in Tehran, Iran, 'parks/jungles/green spaces development' and 'decrease and monitoring environmental pollutants' were among the factors determined as the key factors of citizens' satisfaction. Dinarvandi et al. (2014) specifically studied parks in Tehran, Iran and used citizen satisfaction survey to elicit information on the needs of the citizen towards improving service quality by identifying engineering requirements for prioritizing services to parks. Meanwhile, a study by Shan and Yu (2014) offered empirical evidence to the validity of citizen assessment as a policy tool of urban public services, through assessments of urban green spaces in Guangzhou, China.

As to the concept of 'usefulness', there is little to no formal literature prescribing standards. Intuitively, 'usefulness' has to do with specific realized utility of an object or item to the user in the performance of his or her functions, often towards achievement of certain goals. In this way, 'usefulness' is subjective or user-defined. It is also to be distinguished from mere 'usability' where data or information are in a form which can be used but not necessarily meaningfully utilized.

A user may define and assess 'usefulness' of citizen satisfaction surveys to him or her by reflecting on how he or she is able to (or intends to) use the survey data and information to fulfill activities, processes, or outcomes that may be necessary or desirable to him, her, or to the organization.

A paper by Cassia and Magno (2009) explored the antecedents of the executive decision to adopt citizen surveys as a performance management tool in local governments (the sample

being Italian towns). The results of the study indicate that 'subjective and objective indicators are perceived as equally reliable by public officials'. The results also showed that the local chief executives (town mayors) sometimes do not adopt citizen surveys because 'they add little or no value to officials' understanding of services performance', compared to other feedback mechanisms like analysis of complaints, public meetings, and personal informal contacts. This means that the data collected from the survey either did not provide them with meaningful information or the 'actual data analysis methods are not developed enough to give significant support decision making'.

The current study attempts a related investigation on the 'usefulness' of citizen (satisfaction) survey data and information, based on the perception of the technical managers (officers) of the local government, instead of local chief executives. Whereas Cassia and Magno (2009) explored reasons behind (non)adoption of the citizen survey as a tool, the present work frames measures of citizen satisfaction within the larger context of environmental management, and examines the usage of such tool and how its results informed and influence the planning processes for urban environmental services.

Framework

This study applies the interdisciplinary systemic model called the environmental protection process (EPP) framework developed by Tapio and Willamo (2008). The EPP framework reflects two major systems namely, the human environment and ecological environment, but resolves that man and nature are found in both systems. It categorizes the factors affecting human action into individual factors¹, societal factors², and ecological factors. The physical infrastructure of societies constrains the effects of these factors on human action. Human action in turn affects intakes from and outputs³ to the ecological environment which causes primary changes to the system. These changes cause secondary changes or impacts to both human and ecological environments. An 'impact' is simply *what happens*, whereas a (environmental) 'problem' is when this impact is judged to be negative. When an impact is defined to be a problem, targets are set and measures are developed to address the problem and protect the environment.

Urban environmental management applied as the provision of urban environmental services is at the confluence of human and ecological environmental systems. It can be regarded as an approach to controlling ecological factors and systematizing human action to regulate impacts and prevent or minimize environmental problems in the urban sphere. Urban environmental services (UES) manifest the measures for environmental protection as they

affect the quality of the urban environment, ultimately affecting the health and well-being of citizens. The relationship of these factors means that there is a need to continuously improve the service delivery.

INSERT FIGURE 1 HERE

In pursuit of performance management, citizen satisfaction survey (particularly assessing Environmental Management) is an approach to secure (ideally) representative feedback from the citizenry regarding the performance of the urban environmental services. Because actionable feedback potentially improves performance and consequently produce development results, citizens can become productive development partners.

Once data from the citizen survey have been analyzed, the performance information can be received by the urban environmental service (UES) provider, which in this case is the local government unit. Local governments can then use the data and information from the citizen satisfaction surveys to shape decisions and plans towards service improvements for the UES.

In highlighting the role of citizen satisfaction survey as a performance management tool for local urban environmental services, it is assumed that the use such soft performance measure complement existing objective measures, although the relationship between the two are not explored in the current study. While it is recognized that the local government service provider may have other means and options to seek out citizen perceptions and subjective evaluations (e.g. public hearings, workshops, consultations), literature suggests that these methods may not be as useful in areas with a large population where the quality of information collected from the citizens may be diminished or where the decision makers of the organization are separated from service delivery (Dalehite, 2008). The emerging role of citizen satisfactions survey addresses the need of the local government to secure representative and sensible information from the users of public services (Dalehite, 2008).

The utilization of the survey results assumes that the concerned local government values citizen satisfaction and related ratings. Intrinsic in the factors of local government (politics and administration)⁴ are organizational criteria of what and how data and information are 'useful' in terms of planning and decision-making, based on the mandates and functions of the assigned Environmental Management unit that delivers the UES. Ultimately, the more

'useful' the data and information from citizen satisfaction surveys are considered by the local government, the more relevant they become to the environmental protection process. This framework is examined in the case of the Local Government Unit (LGU) Quezon City's experience with the Citizen Satisfaction Index System (CSIS) implemented in the Philippines.

Case Study: The Philippines' Citizen Satisfaction Index System (CSIS)

The Department of the Interior and Local Government (DILG) of the Philippines, which oversees the decentralized local government units (LGUs), has been using various performance measurement tools since the 1980s. The Local Governance Performance Management System (LGPMS), an online self-assessment tool, is one of Department's latest products that measures thematic performance of local government Units (LGUs). This and other suites of performance evaluation tools mostly measure output indicators which reflect productivity. Results are then used to inform management decisions to improve efficiency and to build the internal capacity of the LGU. Recently, the Bureau of Local Government Supervision (BLGS) developed the Citizen Satisfaction Index System (CSIS) as a component of its Local Governance Watch program.

The CSIS is 'set of data tools designed to collect and generate relevant citizen's feedback on local governments' service delivery performance and on citizens' general satisfaction'. It was specifically mandated under the Medium Term Philippine Development Plan (MTPDP) for 2011-2016 under in which a National Citizen Satisfaction Index Survey is to be rolled out to gauge the quality, reach, and responsiveness of government agencies. It is ultimately designed to be an empowerment tool that allows citizens to become the 'centre of local administration'.

The CSIS was pilot-tested in 2012 and has been annually implemented in selected city LGUs through the assistance of Local Resource Institutes (LRI) (DILG, 2016). The CSIS survey design and instruments are standardized by the national implementing agency (BLGS-DILG) for quality control of the surveys conducted by the LRIs. It is also done to ensure consistency and comparability of analysis and reporting among and across the participating localities.

The CSIS has consistently used a multi-stage probability sampling method in selecting respondents per LGU who meet the criteria (males and females, at least 18 years of age and have been residents of the LGU for at least six months during the time of interview). This

method is said to ensure that every (criteria-eligible) citizen has an equal chance to be selected for the survey and thereby express his/her thoughts and opinions regarding their LGUs performance. The BLGS-DILG has decided to pursue a sampling size of 150 respondents for each participating LGU, in order to widen the implementation of the CSIS, given limited annual resources of the agency.

As of the 2016 version of the tool, the CSIS assesses seven public service areas namely: (1) Health, (2) Support to Education, (3) Social Welfare, (4) Governance and Response, (5) Public Works and Infrastructure, (6) Environmental Management, and (7) Economic and Investment Promotion. The 'Environmental Management' service area evaluates the following specific services: (1) community-based greening projects, (2) pollution control program, (3) solid waste management, (4) waste water management, and clean-up programs.

The following are the core concept indicators used in survey:

- **AWARENESS** refers to the respondents' knowledge of the services offered by the LGU.
- **AVAILMENT** refers to the contact of respondents with local government bureaucracy due to programs and services offered.
- **SATISFACTION** refers to the respondents' contentment after having availed of or experienced the services offered by the LGU.
- **IMPORTANCE** refers to the level of importance and significance citizens gave to the programs based on their perceptions. [Used in the CSIS 2013 to 2015 versions]
- **NEED FOR ACTION** refers to the citizen's assessment on whether or not a particular service requires specific and decisive actions for improvement or reform. [Used starting the CSIS 2016 version]

Case Methodology

This study explores the importance and 'usefulness' of data and information generated from citizen satisfaction surveys in local urban environmental governance using the case of the local government of unit (LGU) of Quezon City, Philippines and its experience with the CSIS.

Site. Quezon City is special among the Highly Urbanized Cities (HUCs) in the Philippines. It has the biggest land area among the cities of the National Capital Region. As of 2015, it is the most populated city in the Philippines with an estimated population of 2.94 million. It is also beginning to play a major role in the bigger development arena as the 'Green Lung of

Metro Manila', the 'Knowledge Industry Capital of the Philippines', and the 'Health and Wellness Center in Asia'.

Scope. Quezon City has undergone two CSIS survey rounds. The first survey was implemented by the DILG in 2014. The second round was initiated by the city government, still using the DILG-prescribed tool. These two iterations follow different survey designs. The sampling size for 2014 was 150 respondents while that of 2016 was 1,000. In both, the environmental services are evaluated by citizens under the Environmental Management service area.

Methods. This study used two methods: documents analysis and focus group discussions. Among the documents reviewed were: (1) CSIS Manuals 2014 & 2016, (2) CSIS Results Reports 2014 & 2016 for LGU Quezon City; (3) Quezon City Citizen-driven Priority Action Plan (CPAP), 2014 – Monitoring & Evaluation Document; (4) Quezon City Environmental Management Plan as part of its Comprehensive Development Plan (CDP) for 2010-2016.

As the lead unit mandated to provide urban environmental services to Quezon City, the Environmental Protection and Waste Management Department (EPWMD), hereon referred to as the Department) was selected to be the primary source for the evaluation of the usefulness of the data and information from the CSIS. A focus group discussion was conducted with key officers of the Department to discuss the following points:

- Perceived Importance of Citizen Satisfaction and Related Ratings
- Defining the Criteria for "Usefulness" of Data and Information
- Applying the Criteria to CSIS Data and Information on Environmental Management.
- Over-all perceived usefulness of CSIS and attitude towards future iterations

To gain a broader perspective on city planning processes and political and administrative strategies employed by Quezon city, another focus group discussion was conducted with officers from the City Planning and Development Office (CPDO), specifically the Special Projects Division (SPD), which is mandated to oversee and monitor the services and projects under the Environmental Management unit of the city.

Perceived Importance of Citizen Satisfaction and Related Ratings

The Quezon City - City Planning and Development Office (CPDO) and Environmental Protection and Waste Management Department (EPWMD) expressed that LGU Quezon City considers it important to know ratings on citizen satisfaction as well as citizen ratings on public services which they perceive as 'important' and 'needs appropriate action'. This

valuing of citizen ratings conforms to the trend of public management which regard citizens as ultimate beneficiary of public services who are able to assess the performance.

According to the CPDO, citizen satisfaction ratings are an important indication of city performance. They enable the city government to recognize its strengths and weaknesses in the discharge of public services based on the perception of its constituents. Feedback from citizens are valuable in so far as it gives the city government a lead on what services they should prioritize taking into consideration what citizens think contribute to their welfare.

Particularly on Environmental Management, the EPWMD expressed the same positive reception of citizen satisfaction and related ratings. They value receiving such citizen ratings and information because they are a form of touching base with the communities and could be considered an external audit of the Department's performance in terms of urban environmental services delivery.

The EPWMD acknowledged that they currently do not include soft indicators like citizen satisfaction in their own performance measurement tools which are more concerned on productivity and effectiveness measured internally. Results – whether showing positive or negative feedback - from external or third party studies are welcomed by the Department and they carefully study the recommendations reported by survey proponents. The EPWMD also expressed that they would eventually want to do their own citizen satisfaction surveys to complement existing performance measurement techniques.

The CPDO and EPWMD recognized that the valuing of citizen satisfaction ratings is both a political and administrative strategy. It is a political strategy because such ratings can be an anchor for the crafting of the executive agenda and as a yardstick of performance competitiveness of the LGU.

'Cities and municipalities often compete for various awards for local governments. They want to their service [performance] to be competitive. This motivates the LGU to make their services at par, even sometimes better, than [the performance of] its peers. Especially for Quezon City which is a Highly Urbanized City [HUC], we definitely would like to be able to compete with other cities [HUCs].' (CPDO)

In the experience of the EPWMD, citizen satisfaction ratings are an important contribution to the administrative strategy of their Department. Such ratings are valuable input that can lead to better planning of public services beyond what is dictated by the political agenda of

officials. They said that, in the situation of the current local administration, the Mayor is very critical about evidence-based management and administration of city resources, and insists in measuring if and how well the services have addressed the needs of the citizens.

Defining the Criteria for Usefulness of Data and Information

To enhance the understanding on how the citizen satisfaction and related ratings are valued by LGU Quezon City, the 'usefulness' of the data and information made available to them through CSIS surveys are established. In the context of the fulfilling the mandate and functions as lead city unit responsible for Environmental Management, the EPWMD defined the following criteria for 'usefulness'.

Data or information is useful if:

1. It is able to help craft the future directions of the Department. (Crafting Future Directions)
2. It is able to help identify the services and projects that can be removed because they are no longer considered important or beneficial to citizens. (Scope of Services)
3. It reflects community feedback on service delivery and performance that is actionable. (Actionable Community Feedback)
4. It is presented in the form of disaggregated data, figures, and hard facts that can give evidence to performance for purposes of reporting and planning. (Disaggregated Data and Evidence)
5. It is easy for users [the Department officers] to interpret. (Ease of interpretation)

Supplementing the above, the CPDO (represented by the Special Projects Division which supervises the Environmental Management cluster) proposed the following criteria that apply to broader LGU planning considerations.

Data or information is useful if:

1. It can serve as input to models for visualization, and trend and spatial analysis. (Input to Further Analysis)
2. It is standardized, comparable data which other LGUs also have. (Standardized & Comparable Data)

The criteria defined by the EPWMD are congruent with the meaningful uses of citizen satisfaction surveys proposed by Miller and Miller (1991). They align in defined 'usefulness' in terms of: evaluating community services and assessing community needs [Actionable

Community Feedback]; guiding planning and determining of policy support [Crafting Future Directions]. The criteria also match the merits discussed by Walker (1996) as ‘usefulness’ in terms of: evaluating performance [Actionable Community Feedback]; improving service by making changes in the way the service is provided and resource allocation decisions [Crafting Future Directions, Scope of Services]; and to a degree, providing management information that are difficult to quantify [Disaggregated Data and Evidence].

The supplementary criteria by the CPDO also match usefulness in terms of certain applications of citizen satisfaction data suggested by Miller and Miller (1991), particularly on analyzing disaggregated data [Inputs to Further Analysis], and benchmarking data against past data and other communities [Standardized & Comparable Data]. An aspect in the literature not reflected in the case criteria is usefulness in terms of determining cost-optimal service levels (Walker, 1996) and incorporating survey findings into the performance measurement system (Miller and Miller, 1991).

Applying the Criteria to CSIS Data and Information on Environmental Management

The EPWMD applied their criteria of ‘usefulness’ to the data and information on Environmental Management collected and generated from the CSIS 2014 and 2016, and in the process, they also expressed the limits of the usefulness. It is to be noted that as of the research period the environmental management unit of the city has only utilized 2014 survey results. In this light, the assessments on the 2016 iteration reflect the perceived potential of the data and information to meet the criteria of ‘usefulness’.

i. Crafting Future Directions. The results for CSIS 2014 showed high satisfaction ratings for Environmental Management, informing the Department that their service delivery was satisfactory for the period surveyed. However, the results yielded low ‘Awareness’ of the programs and services they offered. This particular information signaled the Department to develop a stand-alone Information Management Program to intensify the information campaigns for the offered services. The EPWMD also led the development of Environmental Management component of the Citizen-driven Priority Action Plan (CPAP) which responded to the low-rated results of CSIS 2014. In these two ways, CSIS 2014 was useful in crafting the future direction of the Department, at least for the planning cycles following the survey.

The Department found the 2016 concept ratings to be also insightful as to future directions to be taken. It was noted that even though the EM sector received a high over-all ‘Satisfaction’ rating, they also received a high over-all ‘Need for Action’ rating. This is taken to be a signal

of citizen demand for continued improvements to the provision of environmental services. This also signals the Department that they continue to be relevant to the city. Low ratings of certain sub-service areas alert management on what divisions need to perform better. The extensive list of citizen recommendations also provides the Department with insight on demanded interventions.

ii. Scope of Services. Both CSIS 2014 and 2016 did not provide data or information that identified services and projects that can be removed because they are no longer considered important or beneficial to citizens of Quezon City. However, high over-all and sub-service area ratings generally signaled the Department that they can continue and maintain satisfactory service delivery without necessarily allocating more resources to certain programs or services.

ii. Actionable Community Feedback. The Department considers the results of CSIS 2014 in its totality useful in so far as it provided them a handle on community feedback on service delivery and performance. The results from CSIS 2016 are all the more valuable partly because of the increased sample size (from 150 to 1,000 respondents) which enhances confidence in the representativeness of the data and information. For the local government, this enables them to claim that they are listening to more voices.

What is particularly useful for the Department in the 2016 iteration are the 'reasons' on (i) non-availability, (ii) satisfaction, and (iii) non-satisfaction for each of the five sub-service areas. These 'reasons' were collected verbatim in the local language by the LRI and later clustered into major thematic responses in English. EPWMD expressed that in the upcoming planning sessions, these responses will be helpful information to reflect on by the different divisions under the Department to understand better the logic behind people's perceptions and attitudes towards the services. From both iterations, the information on the recommendations from citizens on how to improve the EM services were actionable feedback that clearly informs them what interventions were demanded.

iv. Disaggregated Data and Evidence. CSIS data and information are available in two forms: tabulated raw data (disaggregated data sets) and a results report. Quezon City was unable to utilize the raw data in 2014 and has not decided if they will use the raw data from the 2016 results. The results report as a product was useful because of the narrative and analysis provided, as well visualization of some data sets. The EPWMD appreciated concept scores and ratings as these gave them quick indications of performance. The figures on

basic information on Solid Waste Management experience were particularly helpful as they complemented internal compliance measurements.

The EPWMD appreciated that the five environmental management sub-service areas are presented in detail in the 2016 report, with the scores and ratings on each of the concept indicators. The survey results are all the more useful because 'reasons' for non-availment, satisfaction, and non-satisfaction were collected and reflected. According to the EPWMD planning division chief, these qualitative indicators can serve as a basis to give directives to the division chiefs on what services to target and how to approach them. The ranked recommendations will be especially helpful in the prioritization of interventions.

v. Ease of Interpretation. The planning officers of the EPWMD found it difficult to interpret some of the findings of CSIS 2014 on their own after the results were brought down to their department, through their Department Head who attended the survey utilization conference with the city's Executive Committee. Some of the officers only saw and based their actions and plans on summary tables and sections of the results report and not on the specific sub-service area ratings. There were confusions in the step-wise relationship of the CSIS key concepts. These are attributed to the lack of proper dissemination to the division officers of the EPWMD.

The data and information from CSIS 2016 were deemed much more user-friendly, mainly because the scores and ratings of each of the five sub-service areas are presented and explained in detail. This gives the planning officers more information to explore and analyze. The scoring system and rating scales were much simpler and easier to interpret.

Influence on the Planning of Urban Environmental Services in LGU Quezon City

The usefulness of the results of CSIS is ultimately manifested in its influence in the planning of environmental services in the city. Part of the CSIS 2014 process facilitated by the DILG is the development of a Citizen-driven Priority Action Plan (CPAP) to address the different service areas with low (concept) ratings. Quezon City's Environmental Management service area was considered a primary strength of the local government with its high 'Satisfaction' and high 'Importance' ratings. However, the service area rated low percentage scores on 'Awareness', 'Availment', and 'Satisfaction' on 'pollution control programs' and 'community-based greening projects'. To respond to these results, the Environmental Management unit, committed twelve (12) actions under three target sub-service areas to its component the CPAP. 'Solid Waste Management' received high ratings but as it constitutes the biggest operation of the unit, the Department opted to include it in the plan.

The EPWMD clarified that these committed actions were not new services but improvements to existing services to intensify performance and increase the reach of services. To support the actions, the EM cluster allocated more resources to these programs and services. The EPWMD shared that beyond the CPAP and the assistance of the CSIS proponents, the Department was able to use the data and information from CSIS 2014 as a basis for projects developed. In particular, they were able to use the results to justify the development and additional funding for an information management program as a stand-alone program and not just a component subsumed in different programs. With the additional resources, they were able to compile environmental management databases, popularize information, and develop materials for the information campaigns. This allowed them to sustainably address the issue on low awareness of the programs and services provided by Quezon City.

'When we deliberated with the finance committee as well as in the executive level, we provided the [CSIS] results as justification to increase the budget for information campaign.[...] The usual practice is that the department [services] are allocated with a set amount yearly. [We thought] how does this allow for innovation? In our case, the need [for an information management program] was well-founded on the [citizen satisfaction] survey, literature, so it was easy for us to justify [the request] for additional budget.' (EPWMD)

As for CSIS 2016, the EPWMD said that they will definitely be using the data and information made available to them soon after the utilization conference.

Over-all perceived usefulness of CSIS and attitude towards future iterations

Overall, Quezon City - here represented by the CPDO and EPWMD - expressed that the CSIS has proven to be a useful performance measurement tool for evaluating urban environmental services provided by the City. It has been helpful in upholding evidence-based management on the part of EPWMD, complementing the existing objective measurement tools. The City is therefore open to future iterations of the CSIS with an enhanced version of the tool that responds to the limits and gaps of its usefulness. The EPWMD, in fact, would welcome the opportunity to be capacitated in conducting citizen satisfaction surveys in order for them to institutionalize and sustain this soft performance measurement tool in their operations.

Conclusions

Literature cautions about using citizen surveys as a basis for public decision making because of conceptual and analytical complications. The current work has attempted to show the merits of using such tools in appraising and improving urban environmental services.

Using the case of LGU Quezon City, Philippines, the study examined how the local government values 'soft' performance measures like citizen satisfaction and related ratings. It characterized the usefulness of data and information on Environmental Management from the CSIS 2014 and 2016 iterations, based on the criteria defined by its main user, the Environmental Protection and Waste Management Department (EPWMD) which is the lead unit of the city's Environmental Management unit.

The criteria established by the EPWMD include 'usefulness' in terms of (i) crafting future directions for the department, (ii) identifying the scope of services, (iii) receiving actionable community feedback, (iv) having disaggregated data and evidence, and (v) interpreting findings with ease.

The study has shown that the CSIS results have proven to be useful in crafting the future direction of the EPWMD and providing the Department with a handle on actionable citizen-community feedback. The 2014 results were particularly used in developing the EM sector's Citizen-driven Priority Action Plan which targeted low rated sub-service areas, and in justifying additional budget for a stand-alone information management program. The survey allowed the EM unit to touch base with the communities, and thereby fulfilling what they consider a third-party performance audit.

The 2016 results, though yet to be utilized by the LGU, have been assessed to meet the criteria of usefulness. The increased reliability of the results because of the bigger sample size is appreciated as it means the LGU is listening and responding to a greater number of constituents. The data and information are deemed particularly useful because the five sub-service areas are presented in detail, including the scores and ratings on each of the concepts and the 'reasons' for non-availment, satisfaction, and non-satisfaction, as well as an extensive list of recommendations from citizens.

The data and information available from both surveys, however, were not particularly useful in identifying the scope of services, or what programs and services to retain and what to

remove. While technically available, the tabulated raw data which is potentially useful for related planning processes, have not been accessed and utilized by LGU Quezon City. The EPWMD encountered difficulty in interpreting the findings for 2014 partly because of the way the results were disseminated to the unit

The study has demonstrated the intersection of public management and urban environmental management the context of the Philippines' most populous city. As a 'soft' performance measurement tool, the citizen satisfaction survey, as in the case of the Philippines' CSIS, links the individual (the citizen) to the societal factors of politics and administration imbued in the local government whose actions have a huge impact on the urban environment through the discharge of urban environmental services. In defining the criteria and characterizing the 'usefulness' of the CSIS tool, the study has demonstrated the role of citizen satisfaction survey in local urban environmental management.

To enhance the understanding of the relationship between objective and subjective indicators in local urban environmental management, it may be worthwhile for future research to look into analyzing results of citizen satisfaction surveys against output indicators monitored by local government units like garbage collection frequencies, pollution control compliance rates of households and business establishments, air and water quality indicators, and similar measures. Further study could also be made towards identifying and comparing criteria of "usefulness" of data and information from citizen satisfaction surveys as defined by different local government units.

Notes

1. Individual factors include knowledge, values, emotions, experiences, and resources. (Tapio and Willamo, 2008)
2. Societal factors include politics, administration, legislation, economy, science, education, religion, mass media, and social activism. (Tapio and Willamo, 2008)
3. Intakes and outputs come in the form of energy substance, living material, or macrostructures.
4. 'Politics' pertains to political decision-making manifest in the production of plans, laws, budgets, and taxes that affect the environment. Meanwhile, 'administration' has to do with the production of materials to assist in decision making as well as the implementation of the decisions. (Tapio and Willamo, 2008)

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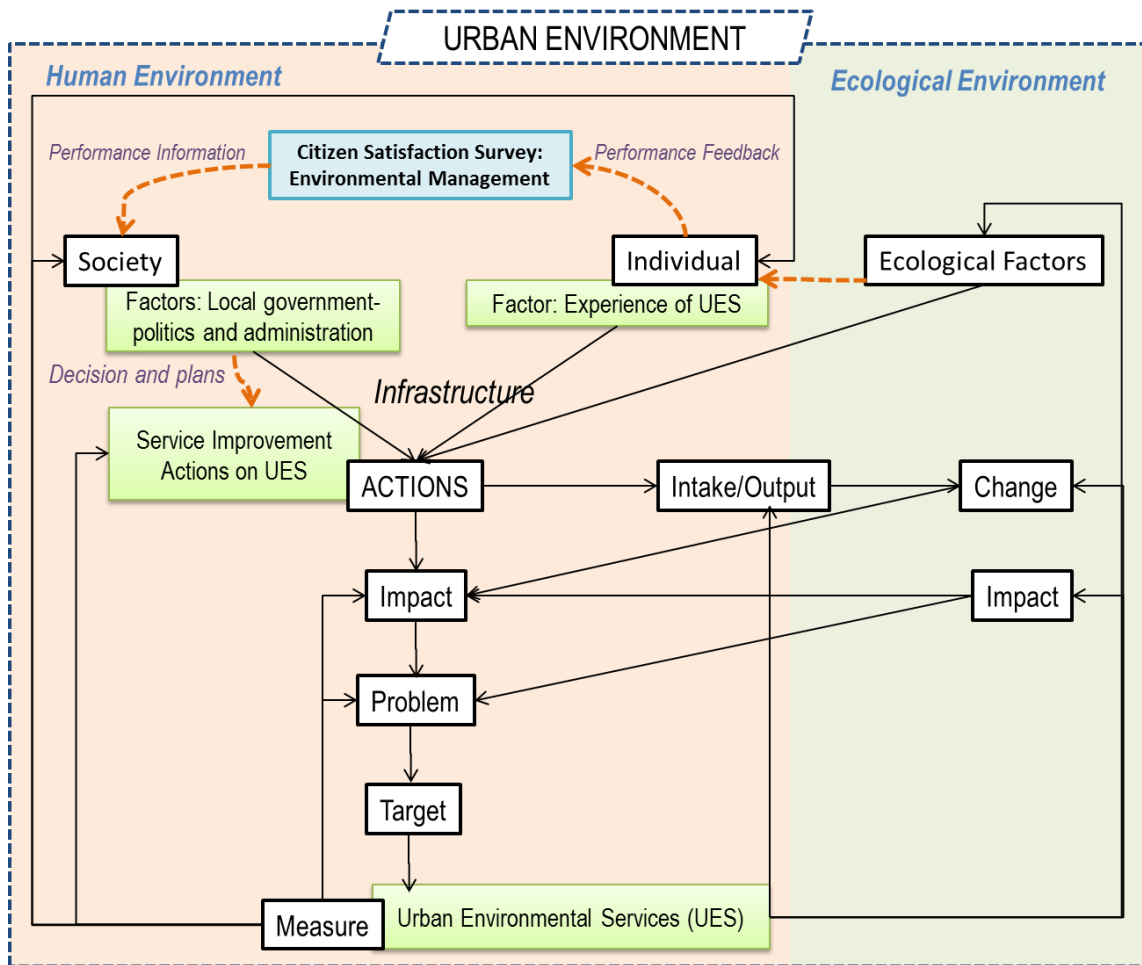


Figure 1. Modified EPP Framework adopted from Tapio and Willamo (2008) reflecting Citizen Satisfaction Survey as performance management tool for the Urban Environmental Services (UES).