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Performance Evaluation of Public Services: A Development of Public Services Quality Measurement and Customer Satisfaction Model on Three Cities in Java

Gita Gayatri a, Rifelly Dewi Astuti b, Fanny Mardianty c, and Sri Daryanti d

Decentralization in Indonesia was meant to aid in the shifting of power from the central government to local governments, with the main aim to increase public services towards a more expeditious, efficient, flexible, and high quality of services, changing the paradigm from a ‘served bureaucracy’ towards a ‘bureaucracy that serves’.

This research will evaluate: first, the perception of public service consumers towards the quality of public/government services, second, the perceived value received from public services, as well as third, the measurement of their satisfaction level resulting from the quality of services delivered by local governments at city level in the three areas of the Java Island. The research will use triangulation methods: qualitative research will be conducted using focus group discussions whereas quantitative research will be conducted using surveys.

The findings are: first, the ten dimensions of service quality for the public sector -i.e. tangibility, reliability, responsiveness, credibility, competence, understanding customers, access, security, communication, and courtesy- were all proven to form the service quality construct in the public service quality. Moreover the proposed model that depicts the relationship between public service quality, perceived value and satisfaction was also confirmed; hence provide an evaluation tool for public services in city level.

Keywords: Decentralization/Regional Autonomy, Quality of Public Services, Value Perception, Public Service Satisfaction, info bisnis.

Introduction

It has been more than ten years since the reformation in Indonesia, which was marked by the end of the New Order administration started, during these years, many aspects of social, national, and political life have underwent changes. One of the prominent changes that occurred in the government is the implementation of autonomy and decentralization. The passing of Bylaw Number 22 Year 1999 on Local Governments, which was then revised by Bylaw Number 32 Year 2004 had a widespread implication on the governance of the country. What was once a centralized government, with the central government holding a dominant role, has started to become more decentralized, as can be seen by the shift of power towards local governments, especially at city/regency level. From 1999 to 2005, for additional notes, a number of 136 new towns/regencies and six new provinces have been established.

The widening of areas, based on autonomy and decentralization, are mainly conducted in order to improve the quality of public services. Demands for more public services, both in
terms of quality and quantity, has become a problem for the government, whereas autonomy and decentralization is one of the solutions to reduce the state’s burden by shifting it to local governments (Suwondo, 2000). Autonomous regions have the authority to regulate and address needs of the public in their areas according to their capabilities (Suwarno, Yogi & Ikhsan, 2005).

A research conducted by Amiruddin on 2002 in nine cities in Indonesia revealed that there are several public services that are perceived as having bad quality by the public, among which are the provision of drinkable clean water, electricity, the high costs for installing new telephone lines, the expensive and unclear timespan for processing new citizen ID cards, the below-optimum services of public clinics (puskesmas), hospital discrimination, expensive education, and informal street hawkers.

Public service reform is perceived as being lagged behind reformation in other sectors; even though new regulations for public service were already passed in 1999 (Bylaw number 43 Year 1999), and more than two-thirds of civil servants have been decentralized from the central government into local government (province and Kabupaten/city level), the majority of the structure and values used and held have still remained the same (sitesources.worldbank.org). According to the Worldbank, the system and the philosophy used in Indonesia are still outdated, and produces below-standard performance in a society that is changing rapidly.

In the context of decentralization, public services should in fact be more responsive towards the interests of the public. The paradigm of public service should evolve from a service that is centralistic towards a service that focuses more on consumer satisfaction-oriented governance (Mohammad, 2003). Good public services will create a more conducive business climate and also appeal investors to invest in Indonesia, due to the ease and reliability of services. The provision of reliable public services may also have an impact on the public’s trust towards the government.

To this point, a comprehensive research is needed on the quality of public services after the regional autonomy and decentralization have been widely implemented in Indonesia. This research will also serve as a reevaluation, of the current public services. In addition, upon the conduction, it will be based on researches related to customer perceived service quality and satisfaction in the domain of public services marketing science. It is expected that this study will be able to map public service quality in Indonesia and society’s satisfaction level towards those services.

From the above expositions, this research then seeks to address the following questions. The first is ‘what factors construct public service quality’? Second, ‘what factors construct customers’ satisfaction towards public service quality’? The third is ‘which dimensions of public service quality does the customers perceive as being the most important’? The fourth is ‘how is the current quality of public services, perceived value, and customer satisfaction towards services provided by local governments, after the regional autonomy and decentralization’? The fifth, and last, is ‘how is the relationship pattern between perceived value and satisfaction, in the context of public services, when continuously mediated by value perception’?

From the above problems, the main objectives of this research are as follows. The first objective is to know what factors construct public service quality. The second objective is to know what factors construct customer satisfaction in a public service context. The third objective is to understand which dimensions of public service quality is considered as being the most important by public service customers. The fourth objective is to understand the current state of public services quality, perceived value, and customer satisfaction towards services provided by local governments. Finally, the fifth objective is to understand the relationship pattern between ‘perceived value’ and ‘satisfaction’ when mediated continuously by ‘value perception’ in the public services setting. For this case, it will be public services that are considered by the public as being the most important.

**Literature Review**

In the Indonesian context, the terminology ‘public services’ (layanan publik) is considered to
contain the same meaning with ‘general services’ (layanan umum) or ‘social services’ (layanan masyarakat) (Suwarno, Yogi & Ikhsan 2005). In the public sector, the terminology ‘government service’ is defined as ‘the delivery of a service by a government agency using its own employees’ (Savas, 1987 in Jauhar, 2001). The decree of the State Minister of State Employee Empowerment (Meneg PAN) number 63/KEP/M.PAN/7/2003 provides a definition of public services as every service activity performed by public service providers in an attempt to fulfill the needs of the service customers or the execution of the stipulations of the rule of law (in Suwarno, Yogi & Ikhsan, 2005).

Nurcholis (2005, in Suwarno, Yogi & Ikhsan, 2005) listed the various functions, across sectors, that public services conduct, includes: education, healthcare, religion, environment (city planning, sanitation and waste management, lighting), recreation (parks, theatres, museums and tourism), social, housing, funerals/crematorium, drinking water, legality (ID cards, passports, certificates, acts, etc).

Based on the State Ministerial Decree Number 63/KEP/M/PAN/7/2003 regarding the General Guidelines For The Provision of Public Services, public services can be broadly categorized into the following three groups: administrative assistance, goods assistance, and services assistance.

Service Quality

The conceptual framework for this research will be related to the service quality instrument developed by Parasuraman et. al. (1985, 1988, 1991). This instrument has proven to be popular and has been used in many studies in various services contexts. Parasuraman et. al (1985) provided ten indicators of service quality. The first is tangibles, consisting of the quality of tangible aspects of a service, such as physical office infrastructure, the use of computerized administration, the availability and conditions of waiting rooms, etc. The second is reliability, which refers to the ability and capability of the institution to provide reliable services. The third is responsiveness, referring to the ability of the institution and its employees to assist and provide customers with expeditious and accurate services, as well as responding to the wants of customers. The fourth indicator is competence, referring to the skills and capacities of the employees needed to perform services. The fifth indicator is access, which refers to the ease for both service providers and its customers to contact and engage one another. The sixth indicator is courtesy, which refers to the politeness, respect, and sincerity shown by the service provider. The seventh is communication, referring to the ability to explain and inform consumers in an easily-understandable manner, as well as the ability to listen to them. The eighth indicator is credibility, referring the honesty and trustworthiness displayed by the institution. This indicator also underlines the importance to treat customers’ interest as also being their interest. The ninth indicator of service quality is security, referring to service providers’ keeping their consumers free from danger, risk, and doubt. The last indicator is understanding customers, referring to always trying to understand the needs and wants of customers.

Even though in subsequent research (Parasuraman et al., 1991), the ten dimensions were grouped into five groups namely: tangibles, reliability, responsiveness, assurance, and empathy, the ten dimensions were still used and proved to be significant in various researches on public/government services, as in researches conducted by Arawati et. al (2007).

Customer Satisfaction

Oliver (1997) defined satisfaction as:

“Satisfaction is the consumer’s fulfillment response. It is a judgment that a product or service feature, or the product of service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment...”

Based on the above definition, Oliver (1997) emphasized that satisfaction depicts consumers’ experience and is a last-phase psychological process. Satisfaction is a central concept in modern marketing practices (Yi, 1990). A lot of studies have provided significant contribution in shedding light on this quite delicate consumer phenomena (Bearden & Teel, 1983; Oliver, 1980,
Service Quality, Perceived Value and Customer Satisfaction

Cronin and Taylor (1992) discovered that there is a causal relationship between service quality and customer satisfaction. Dabholkar, Shepherd & Thorpe (2000) also discovered that customer satisfaction is strongly mediated by the effects of service quality on behavioural intentions.

Empirical findings on literatures on service quality and satisfaction showed that service quality is one of the antecedents of satisfaction (Anderson & Sullivan, 1993; Cronin & Taylor, 1992, 1994; Reidenbach & Sandifer-Smallwood, 1990; Spreng & Mackoy, 1996; Woodside, Frey & Daly, 1989).

The illustration of the conceptual framework of this research can be seen below. The questions for the public service quality, public service perceived value, and public service dimensions will refer to the three groupings of public service based on State Ministerial Decree Number: 63/KEP/M.PAN/7/2003 about The General Guidelines For The Provision of Public Services, which includes: administrative services, goods services, and services.

All of the aforementioned researches show that a conceptual interrelationship exists between service quality, perceived value and service satisfaction (Rust & Oliver, 1994, In Cronin et. al, 2000). These conceptual bases are expected to provide a related illustration for this research about public services, and the synergy between the three variables are expected to harvest positive consequences for public services in Indonesia.

Methodology

Sampling Method

In accordance to the objectives of this research, the samples that will be gathered for both qualitative and quantitative researches should have the following characteristics. First of all, the samples should be customers of public services, either individuals (members of the society) on business actors that using public services. Respondents at this level will be chosen from individual/business actors level. Secondly, the samples gathered will consist of male or female individuals who live and reside (or conduct business in) a given town, holding an citizen ID card issued by that town, and have had experience using public services in the past three months. Third, the respondents will have to be 17 years old and above to ensure that they have used one or more public services (the least would be obtaining an ID card) and that they are decision makers.

For qualitative research, a mini Focus Group Discussion (FGD) would be conducted (Creswell, 1994). Two groups of respondents, namely: individual customers (the public) and business customers were invited to participate in this study. Two groups were drawn from each of the two cities (Jogjakarta and Depok), summing to the number of four groups and each group consists of a maximum of six respondents (Malhotra, 2004).

For the quantitative research, by means of questionnaires, samples will be gathered using a quota, non-probability sampling method, convenience sampling (Malhotra, 2004). The number of towns that will be used in the research per area will be determined proportionally based on the number of towns in the region in the three areas of Java Island (DKI Jakarta, Banten and West Java, DI Yogyakarta & Central Java, and East Java & Madura).

Data Analysis Techniques

As mentioned above, for the qualitative method, raw data in the form of records from FGD sessions will be processed into verbatim form, enscribed, and then analyzed using manual content analysis. As for quantitative analyses, the data will be analyzed using descriptive analysis, reliability analysis, factor analysis, and structural equaition modelling with the aid of SPSS 16.0 and AMOS 6.0 statistical softwares.

Result and Discussion

Qualitative Research Analysis – Focus Group Discussion
Table 1. Results from Focus Group Discussions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Examples of discussion (FGD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>The layout of the room is already quite good, however the parking lot is quite limited, which makes it very crowded. Respondent 6, Yogya 1 (Female)</td>
</tr>
<tr>
<td>Reliability</td>
<td>“I haven’t obtained clear information, and I don’t know what steps (to take.) They said the process would take three days, however when we came the person was not there. We came again three times (…) Respondent 3, FGD Yogya 1, (Female)</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>The employees didn’t respond to our being there. Instead they continued smoking, facing backwards, chatting, (the employees were infact) watching television. Respondent 3, FGD Yogya 1, (Female)</td>
</tr>
<tr>
<td>Competence</td>
<td>The officer responsible for taking fingerprints told me to come here first, ‘oh, here’s the form’; his/her knowledge about computers was still inadequate, and so was his typing skills. Respondent 4, FGD Depok 1 (Male)</td>
</tr>
<tr>
<td>Courtesy</td>
<td>(The officer) was apathetic, it wasn’t clear what he was doing: he (was) chatting and listening to music. The front liner wasn’t friendly. Respondent 1, FGD Depok 1 (Female)</td>
</tr>
<tr>
<td>Credibility</td>
<td>…BPN (National Land Administration Office). Probably, because the bank knew people (there), so they checked the authenticity of the certificate, because if (people) in Jakarta apply for credits, who knows. There are many counterfeit documents, so many manufactured…</td>
</tr>
<tr>
<td>Access</td>
<td>The office was in a very remote location, if you don’t have your own vehicle then you’d get problems. Respondent 3 FGD Depok 1 (Male)</td>
</tr>
<tr>
<td>Communication</td>
<td>About immigrations, even though it was quite complicated, it was still similar to the officer’s explanation. Respondent 2 FGD Depok 2 (Male)</td>
</tr>
<tr>
<td>Understanding</td>
<td>The Certificate of Inability, it was very complicated. They gave (us) three days, but because hospitalization began on August 17, which was a holiday. The request was submitted the following day, on August 18th, however it wasn’t processed on the same day. So…</td>
</tr>
<tr>
<td>Customer</td>
<td>For this service, the sacrifice (needed) is greater, even though the satisfaction itself is quite grand, you’d be very happy when you obtain your driving license. Respondent 4 FGD Depok 1 (Male)</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>(I) don’t think I’m satisfied with all public services…. (laughs) well I think I am quite satisfied. Respondent 3 FGD Depok 1 (Male)</td>
</tr>
</tbody>
</table>

Source: Data from fieldwork

The research was conducted in two areas in the Island of Java, Yogyakarta and West Java, the data collected from two categories of respondents, companies (represented by the management/owner of small & medium enterprises), and individual respondents. The FGD was, in short, conducted on four groups: two business groups and two individual groups.

Quantitative Data Analysis

Descriptive Analyses

Based on the data gathered from 305 respondents, the following facts were found. The sexes of the respondents were almost equally spread; out of the whole respondents, 56% were male while 44% were female. About 42% of the respondents were between 20 – 30 years old; another 23% were aged between 30 – 40 years old, while less than one percent was above 60 years old.

The Types of Public Services That Have Been Used

From the result shown legality services was the services used by most of the respondents, followed by healthcare and transportation. Housing and funeral services were the least used public services. The result also shows that most of the respondents used police assistance within the past year, followed by healthcare at hospitals and clinics. Other services include transportation services. In total 59% of the total respondent used public services because they felt obliged to do so.

Reliability Test

In total, a number of 305 respondents were gathered. The data then underwent reliability analysis using Cronbach’s Alpha to measure the reliability of the constructs (both the dimensions and sub-dimensions) used as the measuring instruments in this research. As previously stated, the acceptable Cronbach’s Alpha value is 0.7 and above (Hair et al., 1998). From the table below, it can be seen that each of the constructs, both at dimension level (overall public service quality, perceived value, and satisfaction) and sub-dimension level, meet this requirement.
Table 2. Reliability Analysis

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub Dimension</th>
<th>Cronbach Alpha/Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality</td>
<td></td>
<td>0.980</td>
</tr>
<tr>
<td>Tangibility</td>
<td></td>
<td>0.993</td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
<td>0.954</td>
</tr>
<tr>
<td>Responsiveness</td>
<td></td>
<td>0.910</td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td>0.930</td>
</tr>
<tr>
<td>Courtesy</td>
<td></td>
<td>0.957</td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td>0.842</td>
</tr>
<tr>
<td>Competence</td>
<td></td>
<td>0.902</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td>0.750</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td>0.885</td>
</tr>
<tr>
<td>Understanding</td>
<td>Customer</td>
<td>0.895</td>
</tr>
<tr>
<td>Perceived Value</td>
<td></td>
<td>0.756</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td>0.943</td>
</tr>
</tbody>
</table>

Source: Data from fieldwork

Overall Model-Fit Test and Model Re-specification

Structural model tests were conducted in order to evaluate the overall model-fit of the structural model. From this test, the obtained data will be compared with the proposed model in order to evaluate the fit amongst them. The results will be compared using the previously explained fit indices criteria (Santoso, 2005).

If the data obtained does not fit with the proposed model, the model should then be re-specified. Re-specification was conducted by first observing the modification indices output generated by AMOS 6.0, and then adding covariance paths between errors on question items in a construct, or by omitting indicators or question items having rather large error values. The elimination of question items was based on theory, or theory-driven, and not based on the obtained data, or data-driven.

Table 3. Goodness of Fit Results

<table>
<thead>
<tr>
<th>Indexes</th>
<th>First Model</th>
<th>Model with Covarians</th>
<th>Cut-off-points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normed $\chi^2$ (χ²/df)</td>
<td>2.798</td>
<td>2.434 (good-fit)</td>
<td>Good-fit/ Acceptable-fit ≤ 3</td>
</tr>
<tr>
<td>Bentler’s Comparative Fit</td>
<td>0.827</td>
<td>0.866 (acceptable-fit)</td>
<td>Excellent model-fit ≤ 2</td>
</tr>
<tr>
<td>Index (Compare Fit Index/CFI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodness-of-fit index (GFI)</td>
<td>0.618</td>
<td>0.665 (moderate-fit)</td>
<td>≥ .90 good fit, ≥ .80 x &lt; .90 acceptable fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root mean square error of approximation (RMSEA)</td>
<td>0.077</td>
<td>0.069 (moderate fit)</td>
<td>Acceptable-fit ≤ .05, Moderate-fit .05 &gt; x ≥ .08, Poor-fit &gt; .08</td>
</tr>
</tbody>
</table>

Source: Data from fieldwork

From the AMOS output featured in exhibit 1 above, there were suggestions for modification indices (MI), that is, by adding several covariances between question item errors within a specified construct. The addition can also be performed based on the assumption that items in a specified construct measure the same object (Arbuckle, 2006). After the addition of several covariances in the model, it can be seen that the goodness-of-fit value increased. Table below provides the value, comparing it with the benchmark values.

As evident above, the GFI value of the model was not perfect but improving after the mode respecification. However, bearing in mind that other indices produced adequate results, the analyses was then continued, by observing the factor loading between the hypothesized paths.

Hypotheses Analyses

The hypotheses were tested by analyzing the structural parameter estimates output generated by AMOS 6.0. Here, two criterias were implemented, by analyzing the significance level of the paths (p-value < 0.05), and by analyzing the path loading (positive value, close to one).

Based on the theoretical background set forth in the methodology and hypotheses development, relationships between contracts are said to be significant when the: t-value ≥ t-table value, the p-value < 0.001, and has a positive relationship. From the data obtained, hypothesis one that addressed the relationship between public service quality and perceived value proved to be significant, with a factor loading score of 0.942. Hypothesis two, addressing the relationship between perceived value and satisfaction, was
significant with a path value of 0.649. On the other hand, hypothesis three that addressed the relationship between public service quality and satisfaction proved to be insignificant at p=0.001. The p-value was then raised to 0.005, and thus the relationship was significant, although the relationship was rather weak (0.295).

The results mentioned above hinted the need for the structural model to be re-specified. There had been debates on the relationship between the constructs satisfaction and (perceived) service quality; the relationship between the two was yet to be finalized, resulting in difficulty in determining which one was the antecedent, and which one was the consequence.

In order to answer that question, one of the paths of the proposed structural model was redirected. Initially the path was from (public) service quality towards satisfaction. Thus, it was redirected from satisfaction towards (public) service quality. The results of the hypotheses testing can be seen in the following table:

From the results shown in the table above, it can be concluded that the three proposed hypotheses were significant, with t-values greater than the table-t value, a p-value of 0.001, and with loading values ranging from 0.607 to 0.884. These findings prove that the justified relationships are as follows: first, ‘perceived public service quality’ affects ‘perceived value’; secondly, ‘satisfaction’ affects ‘perceived value’; finally, ‘satisfaction’ affects ‘perceived public service quality’.

It can thus be concluded that every hypotheses was significantly proved to relate to one another, including hypothesis three which was respecified.

Conclusion

Based on the results of the analyses conducted and elaborated before, several conclusions can be drawn as follows:

First, the ten dimensions of service quality for the public sector used in this research, i.e. tangibility, reliability, responsiveness, credibility, competence, understanding customer, access, security, communication, and courtesy, at the same time validly formed the construct public service quality. Furthermore, through regression analyses, it was revealed that only three variables affected public service quality, namely tangibility, reliability, and credibility. The dimension reliability turned out to have the strongest effect in forming consumers’ perception towards public services quality.

The first hypothesis, proposing that a relationship existed between public service quality and perceived value, was supported. This indicates that there is a significant relationship between the overall dimensions of public service quality and respondents’ perception towards public services itself.

The second hypothesis proposed that a relationship existed between perceived value and satisfaction. This hypothesis was also supported, indicating that there is a statistically significant relationship between respondents’ perception towards the value obtained from using public services and consumers’ satisfaction from the services performed.

The relationship between public service quality and customer satisfaction also proved to be statistically significant with a reverse direction, that is, customer satisfaction affected public service quality. This result shows that satisfaction gained by public service consumers affect their perception towards public service quality. Should the consumers be satisfied, their perception towards public service quality will then be more positive.

Overall, this research has contributed theoretically to developing a measurement tool of Public Service Quality, confirming the previous study from various literatures. This research is also validating the relationship pattern between (Public) Service Quality; Perceived Value and

<table>
<thead>
<tr>
<th>Table 4. Re-specification Path between Public SQ and Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>perceived_value</td>
</tr>
<tr>
<td>Satisfaction</td>
</tr>
<tr>
<td>public_service_quality</td>
</tr>
</tbody>
</table>

Source: Data from fieldwork

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Satisfaction on public services context. Moreover, the public services sector might get the benefit by using the model for regularly measuring their performances on services quality, and understand whether the services being delivered to the customers (i.e. public and business users) is perceived as valuable and at the end contributing to the customers’ satisfaction.

**Research Limitations and Further Research**

The purpose of this research is to understand consumers’ perception of public service quality in the Island of Java, however the sample for this research was only gathered from three cities/regencies to represent the whole Java Island, i.e. West Java represented by the administrative town of Depok, Yogyakarta Special Region was represented by the regency of Sleman, and East Java was represented by the city of Surabaya. Further research should attempt to gather samples that represent the whole six provinces in the Java Island. The number of cities/regencies should also be increased to more than one per province.

In this research, the respondents gathered were classified based on their background as either individual consumers or business consumers. Further research should attempt to expand this classification. The analysis in this research did not differentiate between samples with different backgrounds, i.e. between individual or business respondents, and from different regions. Further research should employ such differentiation and also, should the data be different, more than one different model tests should be conducted.

The data analyses methods used in this research, both regression and SEM, did not account for the assumption of normality. Further research that emphasizes on regression analysis especially, should account for normality, heteroskedasticity, and multicolinearity of the data, as these assumptions are intended to produce a more specific analysis instrument. Complying with these assumptions will result in a more accurate analysis instrument.

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