

## The Mediating Role of Citizen Satisfaction in the Relationship between Service Quality and Relationship Quality: The Case of Performance Measurement System Design in Indonesia Local Government.

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### Abstract

*Nagari* Government is the lowest local government in Indonesia. This type of government plays a crucial role to make the society better in term of social, economic, and security. The term *Nagari* is similar with *Desa* in other Province in Indonesia. One of *Nagari* in West Sumatra is *Nagari Pasar Baru* which is located in *Pesisir Selatan* Regency in West Sumatra. *Nagari Pasar Baru* has several initiatives to build the higher quality relationship with its society. According to the new paradigm in public management (Public value management), service quality, satisfaction of citizen and relationship quality is the focus of this paradigm. However, there is a lack of study that investigate the relationship quality in public sector, such as *Nagari* government. Therefore, this study aims to investigate the effect of the services quality on citizen satisfaction and relationship quality in *Nagari* Government which is developing the performance measurement system. In addition, this study also investigates the mediating role of citizen satisfaction in the relationship between service quality and relationship quality. By using the 122 respondents from society of *Nagari Pasar Baru* in *Pesisir Selatan* Regency, West Sumatra, and apply the hierarchical regression, we find that service quality is associated with the citizen satisfaction and relationship quality significantly. Further, citizen satisfaction has a significant relationship with relationship quality. In addition, citizen satisfaction has a mediating role in the relationship between services quality and relationship quality.

**Key Words:** service quality, citizen satisfaction, relationship quality, *Nagari* Government, West Sumatra.

### 1. Background

Public management paradigm has already changed from the new public management (NPM) to the public value management (PVM). The way to understand the government activity, constructive service quality and informing the government policy-making is the idea of public value management (O'Flynn, 2007). In addition, public value management has changed from the output to relationship, from the performance target to various goals including renewing mandate, responding to the citizen/user preferences, and trust through quality services (O'Flynn, 2007). Therefore, the objective of performance has shifted from management of input and outputs to multiple objective such as outcome, satisfaction, service outputs, trust and legitimacy.

As discussed above, it can be concluded that the focus of public value management is services quality, citizen satisfaction and relationship quality. Therefore, the study that focus on these variables become the topic issue, especially in public sector organization such as local government in Indonesia. The local government in Indonesia has been facing the threats and opportunity in order to give excellence services to the society. This condition is driven by the new government system, from centralization system to the decentralization system or autonomy. Therefore, local government must undertake some managerial initiatives for example; system, structure, strategy, staff, skill and management style. One of the system that



must be developed is the management control system (MCS). MCS include all the mechanisms of budgeting, strategic planning, resources allocation, transfer pricing, responsibility centre allocation, performance measurement, and evaluation and reward (Anthony and Govindrajana, 2007). They add that these mechanisms are used by managers to make sure that behaviour and decisions of their subordinates are consistent with the the objective and strategy of local government.

One of the management control system function is performance measurement system (PMS). Albernethy and Lilis (2001) define the PMS as a comprehensive accountability system developed to measure and evaluate both the non-financial and financial implications of activity performance and results. The crucial of PMS to accountability stems from the visibility and transparency which provides about organizational, group and individual behaviour and result. Moreover, performance measurement system can be applied to improve the management control system and accountability system, to reduce the fraud activities, and also to increase the overall system, as well as affecting the personnel behaviour (Scott, 2007). Further, Malina dan Selto (2004) argue that better performance measurement system can help the local government to implement strategy, give guidance to staff to behave, be able to asses the management effectiveness as well as a basis for reward system. PMS also produce knowledge repositories that can be drawn upon for problem identification and joint problem solving. These measures can develop share meanings, create awaransess of the problems, prepare the supporting information, and computational resources for problem solving (Lang et al., 1978).

To develop the performance measurement system in local government, it need to conduct the study how perception of citizen about service quality, satisfaction, and relationship quality. In order to know whether there is mediating role of citizen satisfaction in the relationship between services quality and relationship quality in local government (*Nagari Pasar Baru*). The prior studies that investigate the mediating role of citizen satisfaction in the relationship between services quality and relationship quality are still limited. In addition, there is a lack of research use the public oranization, such as local governement, as an object of research, especially in Indonesia. Therefore, this research would give a unique contribution to literature of public mangements. Thus, this study aims to investigate what the effect of the service quality on the citizen satisfaction and relationship quality. In addition, this study also determine whether citizen satisfaction has a significant effect on the relationship quality and the mediating role of citizen satisfaction in the relationhsip between service quality and relationship quality. Finally, the rest of paper disccuss about theoretical foundation and hypotheses development, research methodology, result and discussion, and conclusion and recommendations.

## **2. Theoretical foundation and hypothesis development**

### **2.1. Relationship quality**

The concept of the relationship quality is from the relationship marketing and customer relationship management (CRM). The premise under relationship marketing is that, the cost to attract the new customer is more expensive than to maintain the current customer. Therefore, the economic institutions tend to maintain a long-live relationship with their customer. In addition, Morgan and Hunt (1994) define the relationship marketing as all activities directed towards constructing, developing, and maintaining successfull relational exchange. In addition, Berry and Parasuraman (1991) argue that the final objective of organization is to strenghten better relationship and develop the loyal customers. Further,



Berry (1985) add that to create the long-lasting customer relationships, organization has to be able to attract, develop, maintain, and enhance the good customer relationship. Relationship quality is a key concept for relationship marketing and also as a determinant for the customer loyalty. Rauyruen and Miller (2007) argue that relationship quality is associated with service quality, satisfaction, commitment and trust in a bussiness to bussiness (B2B) environment .

## **2.2. Service quality**

The term of the service quality has been introduced by Parasuraman, Zeithmal and berry (1985). They argue that attempts to define and measure the service quality is largely coming from the good sectors. However, there are some key words of the service quality, that are match of expectation and performance (Lewis and Boom, 1983). In addition, Lehtinen and Lehtinen (1982) notes that service quality has three dimensions: physical quality, corporate quality and interactive quality. Finally, Parasuraman et al. (1985) suggest that there are ten dimensions of service quality that are realibility, responsiveness, competence, access, courtecy, comunication, credibility, security, understanding the customers, and tangibles. The effect of service quality and citizen satisfaction has been documented by Agus et al. (2007) and they conclude that there is a significnat relationship between service quality and citizen satisfaction. Beside, the relationship between service quality and relationhsip quality also has been investigated by researchers, such as Pepur, Mihanović, and Pepur (2013). They find that there is a significant effect of the service quality and relationship quality. Based on the above argumentation, the current empirical research develops the hyphoteses as can be seen below:

H1a; service quality is significantly associated with relationship quality

H1b; service quality is significantly associated with citizen satisfaction

## **2.3. Citizen satisfaction**

Citizen satisfaction is other important concept in the public value management paradigm. Kotler (1994) claims that customer satisfaction is important for customer retention. In addition, Aaker(1991) states that satisfaction is a key determinant to every level brand loyalty. Fornel (1992) defines the customer satisfaction as an overall attitude formed based on the experience after customers use service or purchase the product. Further, Crosby, Evans and Cowless (1990) state that satisfaction is the evaluation of the experience of interacting with a local government from the first time untill to the present time. It is used by citizen to estimate future experience. In addition, satisfaction is a comprehensive feeling, which is affected by services quality, product quality, price, and contextual and personal factors (Zeithaml and Bitner, 2000). In addition, if local government could satisfy the citizen, the citizen would try to build the good relationship with the local government and vice verse. The citizen satisfaction also can mediate the relaitonship between services quality and relationship quality. Therefore, the next hypothesis is as follows.

H2a; citizen satisfaction has a singificant relationship with relationship quality

H2b; citizen satisfaction has mediating role in the relationship between service quality and relationship quality.

## **3. Methodology**

The object of study is citizen in local government (Nagari Pasar Baru) who has been served from March to June 2014. The number of citizen served in that period are about 150 people



and it become a sample of study. This study use the survey method. Service quality use the concept of Parasuraman, Zeithaml dan Berry (1985). Thus, Parasuraman et al. (1985) use the ten dimensions that are reliability, responsiveness, competence, access, curtecy, communication, credibility, security, understanding customer dan tangible. In addition, citizen satisfation and services performance adopt the intrument developed by Agus, Barker dan Kandampully (2007). Further, relationship quality use the intrument developed by Negi dan Ketema (2013). The instrument use the 5 likert-scale: from strongly disaggre to strongly agree. This study apply the validity and reliability test to ensure the instruments valid and reliable. Validity test use the KMO test and cronbach alpha for realibility test. This study also conduct the multicollinearity and heterokecidasticity test. In addition, we use the simple, multivariate and hierarichal regression to reject the hyphoteses. The hierarchical regression using procedure introduced by Baron and Kenny (1986). To test the mediation role of the citizen satisfaction in relationship between service quality and relationship quality, the following conditions must hold: (1) service quality must significantly relate to the citizen satisfation in the first equation; (2) service quality must have a significant relationship with relationship quality in the second equation; (3) the citizen satisfaction must associate with the relationship quality in the third equation. The mediation role of citizen satisfaction exists when the effect of the service quality on the relationship quality should be less in the third equation than in the second. A full mediation exist when this effect stops being significant in the third equation. Therefore, the equations are as follow:

$$CS = a + \beta_1 SQ_i + e \dots\dots\dots(1)$$

$$RQ = a + \beta_1 SQ_i + e \dots\dots\dots(2)$$

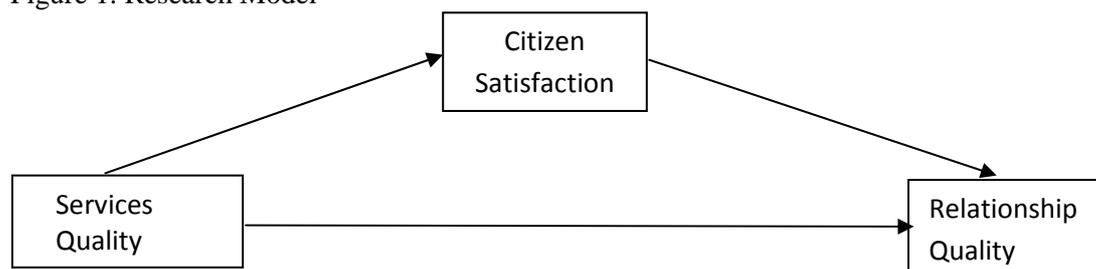
$$RQ = a + \beta_1 SQ_i + \beta_2 CS_i + e \dots\dots\dots(3)$$

Where,

- CS = Citizen Satisfaction
- SQ = Services Quality
- RQ= Relationship Quality
- a = Constant
- $\beta$  = Coeficient
- e = Term error

The full model can be seen in the figure 1

Figure 1. Research Model



#### 4. Result and Discussion

The object of study is society in *Nagari Pasar Baru, Pesisir Selatan Regency, West Sumatra Province, Indonesia*. Local/*Nagari* Government is the lowest of government in Indonesia<sup>1</sup>.

<sup>1</sup> In other Province in Indonesia, *Nagari* is synonym of *Desa*



Nagari Pasar Baru has 5,141 people with 1,193 household. This Nagari has three *Kampung*: Pasar Baru, Lubuk Kumpai and Luhung. The Nagari is led by Wali Nagari which is supported by three divisions and a secretary as well as treasurer. There are several services that can be delivered by Nagari Government, such as the birth certificate, identity card and other certify letters. The location of Nagari could be found the following map. As mention before, the aims of the study is to investigate the mediating role of citizen satisfaction and service performance of Nagari Pasar Baru government in the relationship between service quality and relationship quality. Relationship quality is an important aspect in the public value management paradigm.

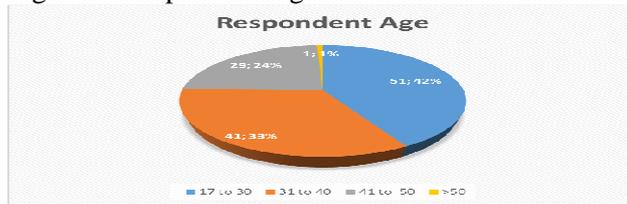
Figure 2. Map of Nagari Pasar Baru



The result of survey indicate that the number of citizens are being serviced in the period of March to June 2014 are 155 people and the questioners that can be analysed is 122 quistioners. This numbers are adequate to conduct analysis refers to Tabachnick and fidell (2007) who argue that the minimum number of sample is  $50 + 8m$ , where  $m$  is the number of independent variabel. In this case, the number of independent variabel (determinants) is two, that are services quality and citizen satisfaction. Therefore, the minimal number of sample is  $50 + 8 \times 2$  yaitu 66 responden. However, the final sample is 122, much higher than minimal sample suggested by Tabachnick dan fidell (2007) and the number of sample, therefore, is adequate.

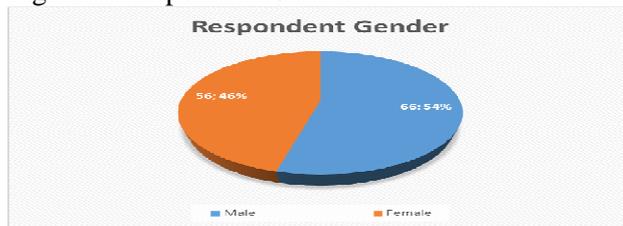
The profile of respondent is shown in chart below. The number of respondent which have age of 17 to 30 years is 51 people or 41.80%. In addition, respondent age of 31 to 40 years is 41 or 26.45%. Finally, the number of respondent which is age of 41 to 50 and more than 50 are 29 (or 23.77%) and 1 (or 0.82%).

Figure 3. Respondent Age



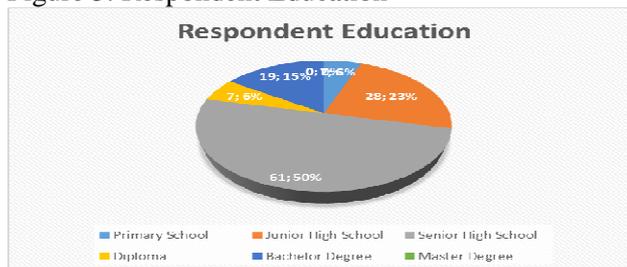
Turn to the gender, more than 50% of respondents are male (54.10%) and the rest is female (45.90%).

Figure 4. Respondent Gender



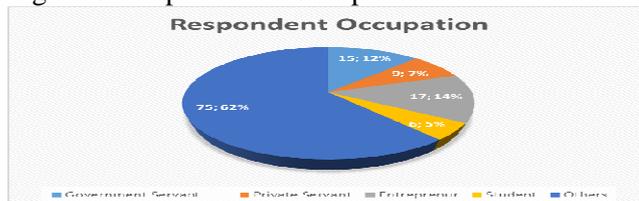
Refers to the education, most of respondent were graduated from senior high school (50%), followed by junior high school, bachelor degree, primary school and diploma.

Figure 5. Respondent Education



Further, the occupation of respondents are ranging from entrepreneurs (13.93%), government servants (12.29%), private servants (7.38%), students (4.92%) and others (61.48%).

Figure 6. Respondent's Occupation



The next analysis is to test the validity and reliability of instrument used in this study. The validity test apply the KMO test and the result of validity test for citizen satisfaction, and relationship quality can be seen in following Table. The factor loading value show that they are lower than 0.4 and it means that all variables are valid.

Table 1. Result of Validity Test for Citizen Satisfaction and Relationship Quality

No	Variabel	Factor Loading	Cut off Value	Conclusion
1.	Citizen satisfaction	0,567 – 0,902	0,4	Valid
2.	Relationship quality	0,538 – 0,907	0,4	Valid

Thus, the service quality of validity test result can be found in Table below. the result show that all indicators have factor loading greater than 0.4 and it can be concluded that service quality is a valid instrument.

Table 2. Result of Validity Test for Service Quality Dimensions

No.	Indikator	Factor Loading	Cut off Value	Conclusion
1.	Reliability	0,585 – 0,864	0,4	Valid
2.	Responsiveness	0,415 – 0,849	0,4	Valid
3.	Compentency	0,863 – 0,933	0,4	Valid
4.	Access	0,767 – 0,916	0,4	Valid
5.	Courtecy	0,792 – 0,901	0,4	Valid
6.	Communication	0,784 – 0,947	0,4	Valid
7.	Credibility	0,875 – 0,968	0,4	Valid
8.	Security	0,747 – 0,935	0,4	Valid
9.	Understanding	0,756 – 0,913	0,4	Valid
10.	Tangible	0,795 – 0,936	0,4	Valid

Having analysed the validity test, the next analysis is reliability test that use the cronbach alpha. If the cronbach alpha is greater than 0.5, it means that the variable is reliable. The following tabel show that all variables are reliable due to cronbach alpha' greater than 0.5.

Tabel 3. Result of Reliability Test for all Variables

No.	Variabel	Cronbach Alpha	Cut off	Conclusion
1.	Citizen satisfaction	0,550	0,5	Reliabel
2.	Service quality	0,828	0,5	Reliabel
3.	Relationship quality	0,859	0,5	Reliabel

The descriptive statistic for citizen satisfaction and relationship quality is shown in the Table below. Citizen satisfaction has a minimal and maximal value of 6 and 15 respectively. In addition, the avarage value is 11.36 which means that respondent perception fall in level of 3.7 (almost satisfy). However, the minimal and maximal value for relationship quality variabel indicate 13 and 25 respectively. Thus, the means value is 19,61or 3.9 for each. Therefore, it can be concluded that relationship quality of *Nagari Pasar Baru* Government is relatively high.

Table 4. Descriptive Statistic for Citizen Satisfaction and Relationship Quality.

No.	Variabel	Min	Max	Means	SD
1.	Citizen behavior	6	15	11,36	1,500
2.	Relationship quality	13	25	19,61	1,807

Descriptive statistic for service quality demonstrate in following Table. The minimal and maximal value of reliability is 13 and 35 respectively. In addition, the means value is 27.11 which indicate that perception of citizen about the reliability of service delivered is almost reliable (average value per item is 3.87). Further, the minimal and maximal value of responsiveness is 11 and 25 respectively. The means value is 19.75 which imply that responsiveness of local government is relatively high. The detail of minimal, maximal dan means value for each dimensions can be seen in Tabel below.

Table 5. Descriptive Statistic for Service Quality

No.	Variabel	Min	Max	Means	SD
1.	Reliability	13	35	27,11	3,042
2.	Responsiveness	11	25	19,75	2,006
3.	Compentency	9	15	11,80	1,239
4	Access	10	20	16,07	1,695
5	Courtecy	12	20	15,98	1,629
6	Communication	10	20	16,07	1,670
7	Credibility	8	20	15,93	1,959
8	Security	12	20	15,88	1,679
9	Understanding	11	20	16,06	1,607
10	Tangible	12	30	22,46	2,771

The next analysis is the normality test which use the skewness and kurtosis value to ensure the variables are normal. The result show that the skewness and kurtosis for each variabels are still below 10. Therefore, we can conclude that the data is normal. In addition, the multicollinearity and heterocedasticity use the glejser test and VIF respectively. Thus, the result show that there is no problem of multicollinearity and heterocedasticity.

Table 6. Result of Normality Test

No.	Variabel	Skewness	SE	Kurtosis	SE
1.	Service quality	-0.237	0.219	2.408	0.435
2.	Citizen behavior	-1.371	0.219	2.802	0.435
3.	Relationship quality	-0.359	0.219	3.097	0.435

As mention above, there are four hypotheses in this study. The first three hypotheses are answered by three mathematic models. The result of regression is demonstrated in following table. All models are feasible due to value of the F significant is far below 0.05. Further, the R square for first model is 46.4% which indicate that service quality can explain the relationship quality 46.4% and the rest is explained by other variabels. However, the R square for second model is lower than first model (6.3%). In addition, R square for third model is lower than first model as well. The value of R square for third model indicate that 14.6% of citizen satisfaction is explained by service quality and around 86.4% is explained by other variables.

The result regression for all model can be seen in Table below. The first hypothesis state that service quality has a significant positive with the relationship quality. The result show that there is a significant positive association between service quality and relationship quality at the 1% level (see model 1). Thus, the hyphotesis is accepted. The finding is consistent with those reported by Pepur et al (2013). Furthermore, the positive result can describe that the better service quality increase the relationship quality.

In term of citizen satisfaction, the regression result indicate that service quality has a positive and statistically significant impact on citizen satisfaction (see model 2). The positive finding imply that the higher service quality improve the citizen satisfaction. Moreover, past result that focus on the relationship between service quality and citizen satisfaction (e.g. Agus et al., 2007) find that positive relationship.

Table 7. Regression Result for Model 1,2 and 3.

No.	Variabel	Model 1	Model 2	Model 3
1.	Constant	5.209	6.962	14.375
2.	Service quality	0.081(10.91)***	0.025(2.837)***	
3.	Citizen satisfaction			0.460 (4.530)***
4	F stat	103.86	8.050	20.522
5	F sig	0.000	0.005	0.000
6	R <sup>2</sup>	0.464	0.063	0.146

Note: Dependent variabel for model 1, 2 and 3 are relationship quality, citizen satisfaction, and relationship quality respectively. \*\*\*, \*\* and \* are significant at 1%, 5%, and 10% respectively

The third hypthosis states that citizen satisfaction has a significant association with the relationship quality. As shown on Table 7 in model 3, this study find that citizen satisfaction has a significant impact on the relationship quality (t=4.530,  $\alpha=0.000$ ). Thus, this hypthosis is accepted.

Table 8. Result of Hierarchical Regression

No	Variabel	Model 1	Model 2
1	Constant	5.209	3.317
2	Service quality	0.081 (10.191)***	0.075 (9.438)***
3	Citizen satisfaction		0.272 (3.408)***
4	F Stat	103.859	62.332
5	F Sig	0.000	0.000
6	R <sup>2</sup>	0.459	0.512
7	R <sup>2</sup> Change	0.053	

Note: Dependent variables is Relationship quality  
 \*\*\*, \*\* and \* are significant at 1%, 5%, and 10% respectively

Move to final hypthosis, it states that there is a mediating role of citizen satisfaction in the relationship between service quality and relationship quality. To answer this hypotesis, we use the procedure introduced by Baron and Kenny (1986). The result show that all assumptions are satisfy. Therefore, hierarchical regression show that significant value of service quality is still significant for two models. However, the coefficient of service quality decrease from model 1 to model 2. Further, it can be concluded that the citizen satisfaction has a mediating role in the relationhsip between service quality and realtionship quality, but partial mediating.

## 5. Conclusion and Recomendations

The relationship between services quality and relationship quality has been documented by many researcher in private sector. However, this kind of study is limited in public organization, especially in Indonesia local government. Beside, study that investigate the mediating role of citizen satisfaction in the relationship between service quality and relationship quality are limited. Therefore, this study investigate the effect of the service quality on citizen satisfaction and relationship quality. Further, this study also test the mediating role of citizen satisfaction. From the regression result show that the service quality has a positive significant relationship with the relationship quality and citizen satisfaction. Thus, citizen satisfaction also has a positive significant association with relationship quality. In addition, citizen satisfaction has a mediating role in the relationship between service quality and relationship quality. The practical implication is that, the local government should increase the service quality in order to get improve the relationship quality.



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