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Design for Performance Measurement System using Entreprise Engineering Approach of the Local Government in Indonesia

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Abstract
Nagari government is the lowest local government in Indonesia. This kind of Government has a significant role to determine the development of Nagari. In addition, the nagari goverment has to have the adequate system to be able to enhance the performance. therefore, one of system that has to have is Performance Measurement System (PMS). In order to have a optimal PMS, it is better to developed rather than using the generic one, especially in new public management paradigm: public value management (PVM). Therefore, this study developed the PMS for Nagari government in Indonesia. By using Saosa et al (2005)'s framework, the study utilized several concept of performance measurement category, such as resources, process, output, society, and outcome. Further, the concept are working time (resources), speed (process), number being serviced (output), citizen satisfaction (citizen), and economy wealthfare (outcome).
Keywords: Nagari Government, Public value management, performance measurement system, and lndonesia's Local Government

1. Background of Study

The *Nagari* (or *Desa*) government is the lowest level of local government in Indonesia. Since Indonesia's government system change from centralization to decentralization, the local government put efforts to gain the optimal performance, including the Nagari government. Every Nagari competes to increase its performance. Therefore, the goverment search the public management concepts to be implemented. In the literature its self, there has been changed the paradigm from new public management (NPM) to public value management (PVM). The focus in new paradigm is on relationship rather than result, and the performance target also change to output, customer satisfaction, outcome, trust and legitimacy (O'Flynn, 2007). Therefore, the management concepts, , such as performance measurement system, are very important driver to achieve the performance.

Performance measurement system design is a stragic stage to achieve the optimal performance. to produce a comprehensive performance measurement system, it needs a design a performance measurement system. In addition, performance measurement system could be used to improve the management control, increase the overall system integrity, minimize fraud, and enhance accountibility system, influence the personel behavior (Scott, 2007). Further, Malina and Selto (2004) argue that a good performance meaurement system would help to implement a strategy, guide the personel behaviour, evaluate the management efectiveness, and as base for reward and punishment system. However, the weakness of current performance system in Nagari government is narrow and tend to use the the single measurement indikator. Therefore, the Nagari government need to have a more comprehensive performance meausrement system in order to be used to achieve the optimal performance and competitiveness of Nagari Pasar Baru.

The research on the performance meausurement system has been documented by many researchers, such as Kloot (1999) in Australia, Hoontis dan Kim (2012) in America, Pollanen (2005) in Canada, Rantanen et al (2007) in Finlandia, Micheli and Neely (2010) in England, Carvalho et al (2006) in Portugal, Sevic (2005) in Serbia, and Amirkhanyan (2011) in Columbia. The similar research was also done in indonesia by Suliantoro and Intan (2007), Wibowo (2009) and Kasa (2011). However, the number of research in outside of Indonesia is less than in indonesia its self. In addition,

there is a limited study that use the Nagari (local) Government in Indonesia, especially in West Sumatra.

This research would give a unique contribution to management control system literature due to a different object of the study compared to previous study. the uniqeness of study come from the uniqe characteristic of Nagari government in West Sumatra, Indonesia. in addition, the goverment system in Indonesia has been changed from centralization system to decentralization system. In West Sumatra, the governement system has also been shifted from Desa Government system to Nagari government. with these characteristics, this study would also contribute to the contigency theory.

The main objective of this study is to produce the performance measurement concept of Nagari Government. however, there are some stages that suggested by Sousa et al (2005). There are two stages in designing performance measurement system: conduct the inital analysis, and conduct the conceptual design. First stage consists of several activity: identify the mission and boundary, the problematic behaviour, service structure, map current situation, and generate the intervention strategy. Therefore, the second stage is to conduct the conceptual design which consists of several activities: define the future state requirement, generate the candidate conceptual design, and evaluate and select among conceptual candidates.

2. Performance Measurement

2.1. Performance meaurement system

There are two types of organization, that is profit oriented organizations and non profit oriented organizations. One of non profit oriented organization is public organization, such as govenrment organization. This kind of organiztion manages the public goods. The paradigm Managing organization public has been changed from *New Public Manaagement* (NPM) to P*ublic Value Management* (PVM). Stoker (2006) argue that public value are created not only based on the society prefferen, but the value build througth discussion involving the government and society. In Public value management paradignm, the society is the stockholder in term of on how the tax is expensed by the government. in addition, the value might be created throught development of economy, social and culture.

Perfromance is the ability of a entity, such as individu, group and organization, to gain the output relation to the objective which was determined (Laitemen, 2002). Performance measure is an indicator to measure satisfaction, efficency, effectiveness and etc. However, performance measurement is a process to quantify the output, satisfcation, outcome, satsifaction, efficency and effectiveness of an activity (Neely, Gregory dan Platts, 1995). In addition, Neely et al. (1995) define the performance measurement system as a set of metric used to measure activity. This metric could be in term of financial or non finnancial, or internal and external, or short-term and long-term. Further, Franco-Santos et al (2007) conclude that there are five function of performance measurement system: (i) measure activity performance, (ii) introduce and use the strategic management strategy in organization by developing, formulating, and implementing strategy, (iii) memfasilitasi komunikasi di dalam dan luar organisasi, (iv) influence the personell behaviour through reward and compensation system, and (v) as a means of continous improvemment.

In practice, there has been used several concept of performance measurement system , such as *Balance Scorecard (*Kaplan dan Norton, 1992*)*, *Performance pyramid system (*Cross dan lynch, 1989*)*, *Performance Prism system (*Neely, Adams dan Growe, 2001), *Cambrige performance measurement process (*Neely et al., 1997*)*, and etc. In addition, the performance measurement system also has been changing over time. Neely (2005) argue that there is five phase of performance meausurement changing, that are (i) stage of problem indentification, marked by the weakness of the financial performance, (ii) stage of solution identification, marked by raising of the integration performance measurement system, such as Balance scorecard, SMART and performance Prism, (iii) stage of

measurement development method, marked by development of new method and proses in implementing performance measurement in second phase, (iv) stage of emprical investigation to ensure validity of performance meausrement system implemented in differrent organization and (v) stage of theoritical validition of the system or framework of performance measurement.

The important of the performance measurement system is to monitor and implement the strategy and to ensure the strategy implemented succesfully (Atkinson, et al, 1997). In adddition, performance measurement system is important, in term of improvement, for service delivery, accountability and transparancy (Hoontis dan Kim,2012). Further, the performance measurement could improve the accountability because the stakeholders could see what managemen has been done through perfromance indicators (Kloot dan Martin, 2000). Theoritically, performance measurement system in public sector could help to evaluate the impact of programs on the stakeholder (Pollanen, 2005).

Sousa et al (2005) review critically about several perfromance measurement framework, such as *Balanced Scorecard* (Kaplan dan Norton, 1996), dynamic performance measurement (Bititci et al, 2000), and SMART framework (*Strategic measurement and reporting technique*). Furhter, Sousa et al (2005) argue that *enterprise engineering approach* (EEP) could be used to develop the performance meausrement system. Thus, Sousa et al (2005) describe that development of PMS using Entreprise Enggineering Approach consisting of five steps: need identification, design, implementation, operation and dispose. Thus, the first to fourth step is called as entreprise change or transformation. further, the second step divided into several steps, that is (i) conduct initial analysis, (ii) conduct conceptual design, (iii) conduct the prelimary design, and (iv) conduct detail design.

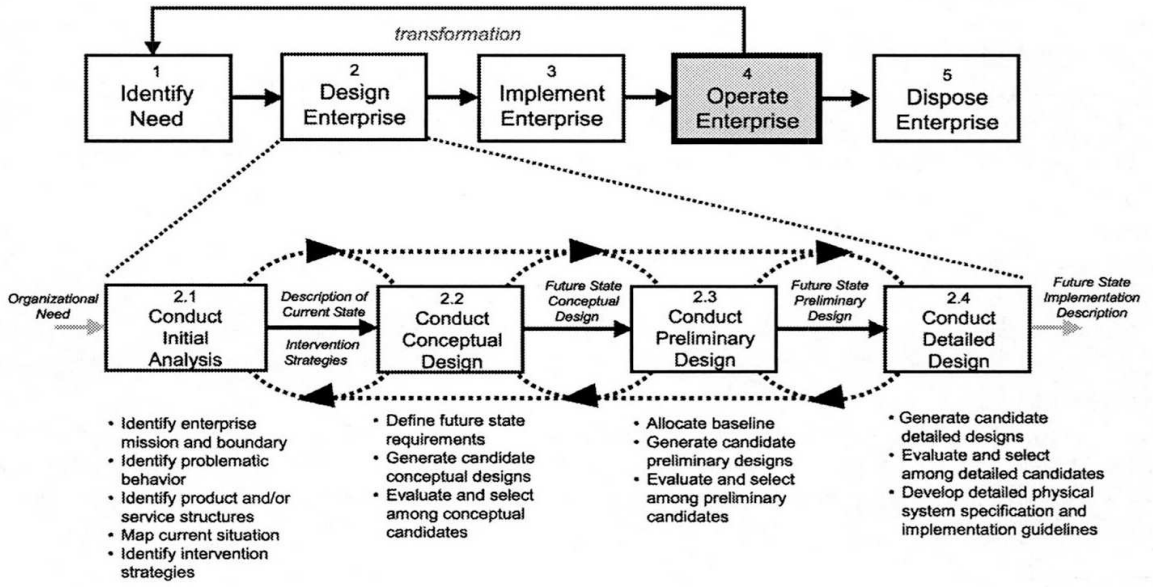

Figure 1 : Design of performance measurement system
(Source: Sousa et al., 2005)

To ensure that performance measuremetn system aligning with input, activity, output, oucome, the expert suggest to use the logic model (Herranz, 2010). The model (see figure 2 below) depict how performance measures are produced, which consists of resources, activity, output, intermediate outcome, and end outcome. In addition, indicators that used are number and percentage.

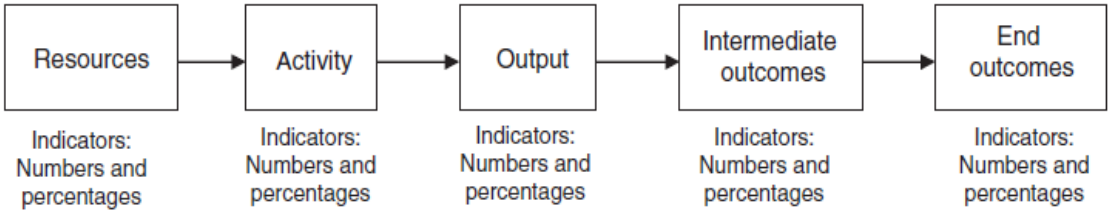

Figure 2 : Logic Model (Source: Herranz, 2010)

2.2. Performance measurement concept

Design for Performance measurement system have some recomendation from experts. Sousa et al (2005) review several recomendation for design from several experts. For example, Brown (1996) in Sousa et al (2005) recomend that performance indicator should link to vision, values, and key success factors; focus on the past, present, and future, link to needs of customers, shareholders, and employees; and flow down to all levels and be consistent. Kloot (1999) develop the perfromance measurement system, making it more business-like, that extent pf non-financial indicators. Customer service and quality are two of the areas in which non-financial performance measure are developed. In fact, Kloot (1999) measure the performance of the people and programs.

Pollanen (2005) argue that efficiency and effectiveness measure have been used for various purpose in Canadian Municipalities. Carvalho et al (2006) conclude tha there are several performance measurement of fire services; response time-fire incidents, sickness absence, call response time, and comnuity fire safety. Northcott and Taulappa (2012) conclud that the use of balance scorecard (BSC) as a performance management tool in New Zealand local government organizations is under-exploited. The concept of balance scorecard as performance measurement has been introduced by Norton dan kaplan (1991) which divided into four perspectives; Customer, financial, internal business, and learning and growth.

3. Methodology

This study follow Sousa et al (2005)'s procedure in which they have several step in developing the performance measures. Overall, there are steps to develop the performance measurement system, that is initial design and conceptual design. The initial design breakdown into several proceure: indentify the vision and boundary of organization, identify problematic behaviour, identify product and/or service structures, map current situation and identify the intervention strategies. Furtherd, the second step consists of several stages, that are define the future state requirements, generate the candidate conceptual design, and evaluate and select them among the conceptual candidates.

The object of this study is local government (*Nagari* Government) in west Sumatra, Indonesia. we use the primary and secondary data. The primary data was gathered throught quistioner and interviews. The data about mission, boundary, service structure of nagari government are from documents and interviews. However, the problematic behaviour was gathered by using quistioners. We use some variables for secondary data: releationship quality, citizen satisfaction, service performance and service quality. We do interview to get the conceptual design of performance measurement system. Having had the information about current situation, we use SWOT analysis to generate the strategy. Finally, the study use weight analysis to evaluate and select the conceptual design.

3. Result and discussion

The object of study is *Nagari* Government (*Nagari Pasar Baru*) in *Pesisir Selatan*, West Sumatra,

Indonesia. *Nagari* Government is the lowest of government in Indonesia[1]. *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 leaded by *Wali Nagari* which is supported by three divisions and a sectretary as well as threasurer. There are several services that can be delivered by *Nagari* Government, such as the birth certificate, identity card and other certify letters.

From the interview, we can conclude that there are several responsibility of Nagari Government, that is supporting the higher level government to socialize about new regulations, to collect the taxes, report about the movement of people, budgets, *Nagari* government financial statement, and accountability. Besides, the *Nagari* Government also have a role in developing the economic and social wealth, as well as sociaty security.

Performance measurement indicators, especially outcome, are from the need of society, such as economic, social and security needs. The Nagari Government have these three areas as strategic objectives. Thus, the nagari government has a role and responsibility to satisfy these society needs. However, design of performance measurement system using the logic model suggested by Herranz (2010). The key element and indicators of logic model are input (e.g., resources, investments), acitivities (e.g., services, process, strategies, methods), outputs (e.g., tangible products delivered by a program), and outcome (e.g., expected changes in the short, medium dan long term). In addition, Herranz (2010) argue that a logic model is illustrated with an outcomes sequence chart that provides a brief description and measurable indicators of how resources, inputs, and output lead to intermediate and end oucome.

The result of the conceptual design of performance measurement based the interview the stakeholders and analysing of *Nagari* government, we find several performance measurement indicator for input (resources) , proces, output, society, and outcome (see table below). in addition, the concept of performance measurement for resources or input are staff salary, supplies expensenses, uitlities expenses and working time. Further, they are speed, quality, flexibility, reliability, and cost for proses. In addition, the number of society being services per time, conflict resolved in society, and budget used report are the concept of performance measurement for output. Therefore, citizen satisfaction and accountability report are the concept of performance maesurement for sociaty. finally, relationship quality, trust, tax payment of local government, security, economy and social wealthfare are the performance measurement for outcome.

4. **Conclusion and Recommendation**s

The paradigm of public management has been shifted from new public management to public value management. in this new paradigm, however, the performance measurement also shifted from result to relationship, the target also change to output, customer satisfaction, outcome, trust and legitimacy. To have this kind of performance measurement indicator, public sector has to have the performance measurement system. Besides, the performance measurement system also have several advantages, such as performance management. however, there has already been the performance measurement system in practice. Further, performance measurement system could be also developed. For example, Sousa et al (2005) give framework to develop the performance measurement system. Based on the Sausa et al (2005)'s framework, we develop the performance measusurement system in Indonesia's local goverment. Further, we find several performance measurement, such as resources, process, output, society, and outcome. And we develop the concept of performance measurement of above category, such as working time (resources), speed (process), number being serviced (output), citizen satisfaction (citizen), and economy wealthfare (outcome).

[1] In other Province in Indonesia, *Nagari* is synonym of *Desa*

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