

# Analysis of Business Process Reengineering in Administrative Service in Ngebel Sub District Office of Ponorogo Regency of East Java Province, Indonesia

Fibi Chandra Puspita<sup>1</sup>; and Suwardi Unisri<sup>2</sup>

<sup>1</sup> Master of Public Administration Program of Universitas Slamet Riyadi Surakarta and Ngebel Sub District Office of Ponorogo Regency.

<sup>2</sup> Master of Public Administration Program of Universitas Slamet Riyadi Surakarta,

## Abstract

This research aims to analyze problem and to design procedure in administrative service in Ngebel Sub District Office of Ponorogo Regency. This research was conducted through interview, observation, and documentation. Informant as the data source of research is internal informant (service provider) and external informant (service user). The method used in deciding the data source was purposive sampling method. The result of research showed that based on the result of fishbone/cause-effect and value added analyses on administrative service held, some classical problems were still found. The administrative service procedure analyzed had Value Added Ratio of 86.36% and thereby needed improvement. The problems existing need business process reengineering on administrative service in order to support the achievement of objective, an effective and efficient administrative service. The analysis of the business process reengineering result using Business Impact Analysis showed 21 positive and 8 negative values, and thereby this result is feasible to be implemented further.

*Keywords:* Administrative Service, reengineering, public

## Introduction

Administrative service in governmental institution is an obligation to public service providing institution. Government, as a public service provider including administrative service, is responsible for providing high-quality public service in accordance with the enacted legislation. The problems often found in administrative service always attract public, mass media, and online social media's attention.

There are some factors affecting administrative service held by regional government, particularly sub district. The most dominant factor and attracting most researchers' attention is service accessibility. Service accessibility can be defined as the public's easy access to public service and distance to public service unit. This research attempts to elaborate the administrative service problems and to design a more effective and efficient administrative service method. It can be done through doing business process reengineering applied to governmental institution as public service provider.

As suggested by C. Brennan and A. Douglas (2002), people need high-quality service. A high-quality public service will affect public satisfaction index indicated not only with figure but also the number of complaint to public service. It is in line with Rob Gandy et al., in *Demonstrating Access to Public Services Diagrammatically* (2011) stating that the service provided by the government should reach all geographical territories of a region. Access to administrative service is the main focus of public service provider and planner's attention.

The implementation of administrative service is inseparable from the procedure specified by the public service provider. The procedure mentioned refers to the business process map specified and elaborated in

Standard Operating Procedure of service provider. As suggested by V. Weerakkody et al., (2011), the series of business process reengineering is required in preparing standard operating procedure. The business process reengineering involves some stages from problem analysis to implementation plan.

A business process in an organization, according to Hammer and Champy (1993), includes activity, input, and output elements implemented chronologically. Another argument states that the structure of process is something that cannot be ruled out. As suggested by Davenport (1993), a business process is a working activity related to the chronology, from the beginning to the end, identifying input and output of process. It can be said that a business process is an activity that can be measured in the frame of clear structure that later provide service product for the customers.

The business process mapping can be studied using the Republic of Indonesia Minister of State Apparatus Utilization and Bureaucratic Reform's Regulation Number 19 of 2018. The regulation states that the business process map is a diagram depicting an affective and efficient work relation in an organizational unit that can be used as a guideline for the good governance of government.

The business process map specified by a service providing organization, like government, is then conceived as a process map by all units of public service provider. As suggested by Jacka (2009), the process map is aimed at enabling the service provider and the service user to understand the procedure and work order of a business process. Based on the business process map, the implementation of which is then adjusted with situation and condition, the business process map is likely reengineered based on the analyses.

Hammer and Champy (1993) stated that the business process reengineering is conducted through rethinking fundamentally as the initial process. It can be said that before making business process reengineering an analysis is required to do based on the previous implementation of business process. Hammer and Champy (1993) also stated that the procedure of business process reengineering involves redesigning radically to improve the previous business process and then analyzing the process performance.

Making a business process reengineering, a public service provider organization needs supporting system, organizational policy, and efficient organizational structure. It is in line with Manganelli (1994) elaborating the objective of business process reengineering, to achieve the optimization of work procedure and organizational productivity. In the same vein, another initiator of business process reengineering, Davenport (1993), also elaborated the objective of business process reengineering as an organization's attempt to make the work procedure and the process of organization follow time development more efficiently and adaptively.

In the business process reengineering, there are some methodologies that can be applied in the organization. Vakola (2000) stated that the business process reengineering methodology is expected to provide consistent technique and guideline to the organization that will implement a business process reengineering. Some methodologies used in the business process reengineering, according to Schumacher (1997), are among others: (1) Hammer-Champy's methodology, (2) Davenport's methodology, (3) Manganelli-Klein's methodology, and (4) methodology developed by KODAK Company.

The business process reengineering (BPR) methodologies have different procedures, including the interpretation of methodology and thereby resulting in new methodology. Similarly Dumai (2018) modified Hammer-Champy's methodology of business process reengineering to result in the one called *Business Process Management* (BPM). The procedure of BPM is still closely related to Hammer-Champy's BPR methodology, adjusted with the condition of organization that will apply the business process reengineering.

In further development, a business process map is also made in public sector it means that the government also applies business process map as the guideline to do good governance in the government, including providing public service. Through the implementation of business process in private sector, a business process reengineering can be made as well in governmental (public) environment. The business process applied in this private sector is also called government process. The business process reengineering conducted in governmental (public) sector is then called *Government Process Reengineering* (GPR).

As suggested by Ming (2013), Government Process Reengineering is a Business Process Reengineering applied to governmental organization with the objective as same as the BPR's objective. GPR, according to

Ming (2013), will provide quantum leap in the transformation of government process; thus, the government has a guideline in implementing good governance, particularly in providing public service.

GPR, according to Zhigang Li (2016), is a large-scale reformation made by the government that will affect philosophy, basic principle, organizational structure and organizational behavior in achieving maximum government performance and service quality. He said that it is not easy to achieve a convenient procedure and a more efficient organizational restructuring attempt. Zhigang Li (2016) also elaborated that GPR is a government transformation and innovation in adapting to time development by utilizing modern information technology to achieve efficient good governance as the basis of *electronic government (e-government)* implementation.

*Government Process Reengineering (GPR)* is also applied in other states by using method developed in accordance with the condition of respective state territories. One of states implementing GPR model is India. India, through *National Institute of Smart Government (NISG)*, developed *Business Process Reengineering* enacted in the government as the *Government Process Reengineering*. The *Government Process Reengineering*, according to NISG (2012), is the application of business process reengineering concept in the service provided by the government. The government process reengineering, still according to NISG, aims to improve the quality of service in all services provided by the government.

Meanwhile, according to Republic of Indonesia's Department of Communication and Informatics (2021), public sector organization, in this case the government, has applied *Business Process Reengineering (BPR)* method in good governance through *Government Process Reengineering (GPR)*. *Government Process Reengineering* is conducted in the instrumental reforming attempt that expectedly will change the governance of public sector from traditional hierarchic bureaucratic model into horizontal bureaucratic one and thereby all process will be customer-oriented.

There are 2 (two) methodologies in *Government Process Reengineering* model: (1) the one suggested by Ming (2013) and (2) another one suggested by *National Institute of Smart Government (2021)*. These two methodologies have similar processes, but the one suggested by NISG is the development of *Government Process Reengineering* adjusted with the development of business problem dynamic in public sector.

Ming (2013)'s methodology initiated the implementation of GPR by prioritizing the stakeholders' understanding to change the management of governance. Having agreed the vision of GPW, the process mapping is then made and the process performance is measured. The output of current process includes the map of current process, cost analysis, time and quality, and policy becoming the guideline of process. Having studied the business process conducted currently, the business process reengineering is then conducted. The business process redesigning, according to Ming (2013), focuses on customers and reduces the hand-off number, and thereby the process will be expectedly more efficient. The business process redesigning techniques, still according to Ming (2013), include among others: designing business process blueprint, adopting other state's business process reengineering, making policy reform leading to bottleneck and under delay, reducing hand-off, doing parallel working method, and accelerating transaction completion. Based on the procedure of process conducted, according to Ming's (2013) method, the process reengineering model is selected and evaluated then. It is accomplished through *Tangible benefits-Net Present Value (NVP)* and *Intangible benefits* analyses. These analyses are used to rank the process and to select the process to be reengineered. Then, considering the result of process analysis, identification is conducted on the technology to be used in the process reengineering. The last procedure, according to Ming (2013), includes synchronizing organizational structure, elaborating main duty and function of organization, adjusting performance management system, and adjusting the supporting policy according to the new process design. Slightly different from Ming (2013), *National Institute of Smart Government (NISG)* conducts *Government Process Reengineering* using a distinctive methodology. The methodology used by NISG (2021) is embarked on by identifying the problem arising in the application of business process currently. This problem identification can be seen from some parameters: (1) *Man*, (2) *Management*, (3) *Methods*, (4) *Materials*, and (5) *Money*. Particularly, *man* parameter uses internal element of service as the source, including service providing officer and external element of service including the people as service user.

In NISG's (2021) method, GPR's vision and objective are then identified based on the objective of e-government. Then, problem analysis review is conducted and then summarized using *Cause-Effect/Fishbone Analysis* to get root cause consisting of primary cause and secondary cause. Then in the last stage of analysis, problem statement is obtained, constituting the final conclusion of problems occurring. Considering the result of Cause-Effect/Fishbone Analysis, *Value Added Analysis* is conducted to obtain value added ratio. This *Value Added Ratio* (VAR) is then used to find out whether or not a process still needs reengineering to obtain higher ratio.

Furthermore, based on NISG's (2021) methodology, business process reengineering is conducted using some method selected based on process analysis. The reengineering methods include, among others: process redesign, removing process, process outsource, and replace or automation process. Having conducted business process reengineering in accordance with the analytical study, the result of business analysis reengineering is analyzed using *Business Impact Analysis* (BIA) to find the size of positive and negative values. The result of *Business Impact Analysis* (BIA) shows whether or not the result of business process can be implemented further. Then the analysis is conducted on the implementation plan by elaborating the role of *person in charge* (PIC) in each of implementation plan.

Reengineering in this research intended to the business process of administrative service in Ngebel Sub District Office of Ponorogo Regency. As suggested by Moenir (1992), public service is an activity conducted by an individual or a group of individuals using certain procedure and method to meet others' need. Moenir (1992) also said that in a service, interaction is needed between service officer and service user in a service system.

The government plays an important role in service to community and thus, the government is required to deal with the challenge in service to community more anticipatively, as suggested by Osborne and Plastrik in Sabarudin (2015). Ratminto and Atik Septi Winarsih (2006) stated that public service is divided into 3 (three): (1) administrative service, (2) product service, and (3) services. The relationship between *Business Process Reengineering* and *E-Government*, as suggested by Tan (2003), viewed from the e-government implementation aspect is a perspective of process with information technology testing. Information technology can be used effectively in providing public service such as redesigning government process. The successful implementation of e-government can be in line with the business process of service providing organization following time development.

## **Method**

This study was a descriptive qualitative research with applied research model. The data source used in this research consisted of two: primary and secondary. Primary data source is selected using purposive sampling technique. The primary data source in this research included informants constituting internal and external elements of service. Internal element of service included the component found in providing administrative service in the research object, while the external element of service is the people as service users with certain criteria.

Meanwhile, secondary data source used in this research included document and event. Document in this case was the document supporting research while the event observed was the administrative service process over times. This research used instrument arranged in the form of interview guide. Interview guide was used in structured manner with open-ended question containing questions about the administrative service process.

Technique of collecting data used in this research was interview with snowball sampling technique, documentation with content analysis technique, and observation with direct observation on administrative service process. The technique of analyzing data used in this research was an interactive data analysis supported with research data matrix.

## **Result and Discussion**

The identification of administrative research problem was conducted by classifying some parameters, among others: (1) *Man* divided into men as service officer and community as service user, (2) *method*, the service procedure enacted, (3) *materials*, service facilities and infrastructure as the factor supporting administrative

governance, (4) *money*, supporting service budget allocation provided, and (5) *Management*, the policy supporting the service specified. *Man* parameter coming from external element – community as service user – is divided into two. These categories were obtained from a study on the members of community coming from the villages farthest and closest to administrative service unit in the sub district. From the result of interview with service users, many complaints are still delivered the public.

Meanwhile, *man* parameter coming from internal element of service, in this case administrative service officer, shows a data indicating inadequate in educational qualification of service officer. Similarly, this parameter is also viewed from quantity, participation in the training for service providing, and poor understanding on the service procedure. The result of interview and observation shows that only about 25% of service officers do comply with the qualification to be a service officer.

From *methods* parameter, an understanding on the procedure of administrative service, it can be seen that the procedure of administrative service has been socialized to village government, despite people's poor understanding on the procedure to be done in dealing with administrative service. The result of observation on procedure parameter shows the shortest and the longest time to deal with administrative service. Complying with the administrative service procedure, the shortest time taken is about 110 minutes or 1 hour and 50 minutes. Meanwhile, the longest time taken is 315 minutes or 5 hours and 15 minutes. From the result of interview, it can be seen that the level of compliance with the administrative service requirement is about 68%. It is in line with the data of summary of service document that cannot be processed or not meeting the requirement, 0.06%.

From *material* parameter, the facilities and infrastructures supporting administrative service, the result of research shows some supporting facilities still less optimum in supporting the administrative service process as they need rejuvenation. Out of equipments provided for administrative service, about 80% is still usable. Out of the usable equipments, only 50% supports the administrative service process optimally. It is because the equipments used in administrative service are largely granted by Population and Civil Registration Department of Ponorogo Regency requiring equipment rejuvenation.

Then, from *money* parameter, it can be seen that the availability of budget allocated to support administrative service is still not maximal, as it is highly affected by refocusing budget used to handle Covid-19 pandemic. The result of research shows that the estimated needs in administrative service field that can be met is still 14% of total budget needed. It is, of course, still far below the real need to support administrative service.

From *management* parameter, the policy supporting the operation of administrative service in addition to the document of standard operating procedure and standard public service, based on the result of research there is reward and punishment policy for the service officer. The policy is intended to support the operation of administrative service, but the form of reward and punishment is still internal to organization, and thus, the policy is still less effective in supervising the implementation of administrative service.

The research conducted through *forum group discussion* with the implementation of Public Consultation Forum (FKP) studies stakeholder needs and stakeholder requirement. Through synchronizing the result of FKP and Work Plan (*RENJA*) document of Ngebel Sub District, the vision of *government process reengineering* is obtained, to integrate information technology of village and sub district services into the improvement of access to quick, appropriate and accurate public administrative service.

The process mapping stage in this research is conducted using *flowcharting* method on the business process levels-0 to-2 in accordance with the document of Business Process Map for Ngebel Sub District. From the result of research, it can be seen that the development of business process map has not covered the level-n business process. Thus the procedure has not been determined optimally in the standard operating procedure. The study on the document of Standard Operating Procedure found 11 (eleven) administrative services out of 38 (thirty eight) service types handled in Ngebel Sub District Office. These 11 (eleven) administrative services have similar service procedures and repeated processes and therefore the process reengineering is required. The process mapping analysis is then conducted using *swimlane* and *software Visual Paradigm v.16.0*, so that the study on level-n business process map is obtained.

In the process analysis stage, two analyses are conducted: *Cause-effect/Fishbone Analysis* and *Value Added Analysis*. From the result of *Cause-effect/Fishbone Analysis*, the root cause is obtained in accordance with the parameter studied. Those parameters are then analyzed using *cause-effect/fishbone analysis*, from which primary cause and secondary cause are obtained to result in problem statement later.

Having conducted *cause-effect/fishbone analysis*, value added analysis is conducted on the administrative service procedure with shortest time. This value added analysis is conducted to identify the steps of process with added value as expected by the service users. In this analysis, the procedure of administrative service is divided into 3 (three) categories: (1) value added, (2) non-necessary value added, and (3) non value added. Value added analysis is conducted to obtain value added ratio. *Value Added Ratio* (VAR) represents the percentage of total time taken for value added activity. The bigger the VAR value, the better will be the process. From the result of research, VAR value of 86.36% is obtained from the administrative service procedure in Ngebel Sub District Office; thus, a business process reengineering is required in administrative service.

In the business process reengineering stage, some options of reengineering technique are conducted: process redesign, process network, removing process, process outsource, and process automation/replace. This stage starts with raising an alternative reengineering solution using divergent thinking method. Divergent thinking method is conducted based on the result of Public Communication Forum (FKP) as a brainstorming instrument. This method leads to an action plan in providing public service as a basis to select the business process reengineering technique.

Considering the result of divergent thinking, the mapping of business reengineering plan is conducted. In this research, the techniques used in the business process reengineering are (1) redesign, (2) removing, and (3) replace/automation. Based on the reengineering techniques used, the business process reengineering is done through *Visual Paradigm ver. 16.0* in the business process of administrative service in village and sub district.

After the result of business process reengineering in administrative service has been obtained, the business process reengineering performance analysis is conducted using *Business Impact Analysis* (BIA) by considering the following aspects: (1) public service efficiency and effectiveness, (2) organization, (3) certainty, and (4) building. The result of *Business Impact Analysis* (BIA) shows 21 (twenty one) positive and 8 (eight) negative values. The result of BIA is used to determine the implementation plan and the business process recovering strategy.

In the implementation plan, the business process reengineering output is applied to the administrative service of Ngebel Sub District of Ponorogo Regency through determining supporting activity, time target *person in charge* (PIC), *output* and contribution and reinforcement of business process value. The implementation plan has been included into the plan of monitoring and evaluation on the business process resulting from reengineering. Monitoring and evaluation is conducted to meet some indicators: (1) implementer's understanding, (2) service work unit's understanding, and (3) evaluation of reengineered business process.

Considering the result of research with research method and analysis, the discussion section elaborates the relationship between business process reengineering and some studies. The relationship between business process reengineering and the policy of business process mapping indicates that business reengineering study meets the principles of business process mapping: (1) definitive, (2) chronology, (3) service customer/user, (4) value added, (5) relationship, (6) cross function, (7) simple representative, and (8) objective consensus.

The relationship between business process reengineering and *business process reengineering* theory is also in accordance with 4 (four) keywords as suggested by (1993): (1) Fundamental, (2) radical, (3) dramatic, and (4) process. The business process reengineering essentially helps realize the attempt of improving the performance of public service in Ngebel Sub District Office of Ponorogo Regency. Meanwhile, the relationship between business process reengineering in administrative service and public service is one of fundamental innovations in the administrative service procedure and it is also related to the attempt of reforming public service governance.

The business process reengineering in administrative service is an attempt of achieving an effective and efficient service that meets the components of service quality like reliability, (2) responsiveness, (3) confidence, (4) empathy, and (5) tangible. The fulfillment of 5 (five) components of service quality will balance the administrative service unit's ability of providing public service and the attempt of answering the problems in administrative service.

As the implementation of *e-government*, the business process reengineering provides business process design that utilizes information technology maximally. It indicates that the mandate of electronic-based government system policy is implemented and tried to be applied in achieving the objective of first-rate service in the government.

## Conclusion

In the study using *business process reengineering* analysis in the administrative service in Ngebel Sub District Office of Ponorogo Regency through government process reengineering method, some studies need attention. In the implementation of administrative service governance, there are still classical problems often found. Considering these problems, it can be concluded that the less speed and appropriateness in administrative service, in turn, will result in extravagance, in both time and cost aspects.

Referring to the problems occurring in administrative service provided by the government, analyses are required to be the guidelines in implementing business process reengineering. The design of business process reengineering result in administrative service is an applicative model and the simplification of process and the perfection of administrative service business process. The perfection of administrative service business process can be transformed into a procedure of administrative service followed by the policy supporting administrative service business process.

The simplification of administrative service process will, of course, have implication to time and cost saving and to fulfilling the service user's expectation. Using digital technology, as the one to support the design of business process reengineering, will shorten the time taken to deal with administrative service.

This study's finding can be used as a material of analysis in the aspect of business process reengineering in the administrative service provided by the government. It is because the government is required to be more adaptive to the dynamic development of society as service user. Through *business process reengineering* using *government process reengineering* method, the focus of strategic design on the attempt of improving administrative service will more capably solve the problems arising in administrative service.

Some attempts need to be taken to implement the new design of administrative service procedure as the result of business process reengineering: (1) perfecting the regulation of administrative service, (2) easy access to administrative service to the community, and (3) business process used as the guidelines for developing standard operating procedure.

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