

Population Database Utilization Strategy in Public Service by Users in Indonesia

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ABSTRACT

This research focuses on effectiveness, efficiency and population database utilization strategy in public service by user institutions. The populations of this study are 32 (thirty-two) user institutions. It means all population is being use as sample. The study observes that the effectiveness and efficiency in using population database has significant correlation with the improvement of public services. Effectiveness in utilizing population database (X1) contributed 14.8%, while the efficiency in utilizing population database (X2) contributed 13,9% to variable quality of public serves (Y) respectively. It means that the more effective and efficient population database utilization, the higher improvement of public service quality. In line with the utilization of population database as mention above, it has found strategy formulation or “Mode” in improving quality of public service.

Keywords: *Population database, effective and efficiency, public service quality.*

Introduction

In a country there are three interrelated and interdependent elements, including territory, people and natural resources (Suradinata, 2005:14). Effective and efficient and good quality service is a fundamental requirement for people to be met by the government through the working units of public services. Availability of the accurate population database is very essential for realization of the effective, efficient and good quality public services. Database is considered accurate when all people are recorded well and there are no double or duplicate data for certain people, but in fact, until 2010 the condition is still far from expectation, where many people were not recorded and many people are recorded several times (double). These conditions was also caused by the bureaucratic reform in the fields of population administration, as a result, many people worried about the occurrence of duplicate data across regions. In anticipating and avoiding occurrence of duplicate data, Ministry of Home Affairs have been anticipating this situation by implementing online computer system from across the region (city and regency) to central government called Population Administration Information System (SIK) and also implementing enrolment of National Electronic Identity Card (KTP-el) which is already equipped with fingerprint images, iris images to complete others demographics data such as record of personal data, photographs, signatures and others.

Effective efforts in providing accurate population database have been carried out since 2010, which is characterized by recording of fingerprints and iris of the eye in addition to recording the people biodata and photograph, the results of which have been realized by the end of 2012 and can be used for the 2014 Indonesia election. With recording of fingerprints and iris of the eye, then the duplicate data can be prevented to the maximum, so that the accuracy of population database in Indonesia can be guaranteed. The accurate population database is expected to enhance the effectiveness, efficiency and quality of public services. Public service institutions become the users of the population database, most of which are already utilizing the new population database of the Ministry of the Internal Affairs. Investigating the effect of Effectiveness, Efficiency and Strategy of Population Database Utilization on the Public Service Quality in Indonesia is a focus of this study.

Literature Review

According to Bendictus de Spinoza, F. Hegel and Adam Muller, the integralistic theory states that a state is a societal structure that is integral. All of its groups, all of its components, all of its members are closely linked to each other and constitute a unified societal entity that is organic. Integralistic country is a country that attempts to address the interests of individual and group and prioritizes the interests of public as a whole. According to Suradinata (2005: 14) "Geography is not just limited to the land, water, and climate, or" physiography "but also contains a much broader sense that may include the existence of the relationship and dependency of the three elements of territory, people, natural resources and political system, socio-cultural system, economic system, circulatory system, legal system and defense and security systems". Suradinata defines an administration "a rational process that involves human and other elements as a system to achieve its intended purpose" (Suradinata, 2013: 72). "The power of government in a broad sense can be divided into two (2) principles, namely the principle of expertise in the form of higher institutions, department, tribunal/court, commissions and other agency of expertise, and the principle of regionalism in the form of deconcentration and decentralization (Suradinata, 2014: 82). Customers evaluate the quality of a service on 5 dimensions: *Tangibles*, *Reliability*, *Responsiveness*, *Assurance* and *Empathy* (Zeithaml et al. 1990). The Service Triangle Model states that the output of a good quality service is dependent on three elements of human resources (people), system and service strategy (Albrecht & Zemke, 1990 in Dwiyanto, 2008). Efficiency is the best ratio between the input and output of services. Ideally, the service will be efficient if the bureaucracy of service can provide service inputs such as cost and service time that facilitate the public and users (Dwiyanto, 2006: 76).

According to Stoner (1982), the effectiveness is the ability to choose the right targets. Effectiveness means the achievement of the goals as expected by the organization. According to Stoner et al (1996: 9)"... Efficiency is the ability to minimize the use of resources in achieving goals of the organization." Armstrong (2006) states that in essence, a strategy is associated with goal setting (i.e. strategic objectives) and the

achievement of strategic compliance by allocating or adjusting resources with existing opportunities (resource-based strategy). According to Ermaya (2012), strategic management is a set of decisions and actions where the priority will determine long-term performance of various institutions in a variety of scales, in both business and government institutions. The conceptual framework is summarized in figure 1 below.

Population Sample and Analysis

Population in this research consists of 32 (thirty two) Population Database Using Institutions. Sample in this research is total sample (saturated sample), thus all members of population are used as sample, including 32 population database using institutions. The methodology used was a mixture of quantitative and qualitative methods (Concurrent Embedded). Quantitative method was used to study and analyze to which extent the influence of effectiveness and the efficiency of population database utilization on the quality of public services in Indonesia, either separately or together. Analysis of the data was used to determine the relationship, contribution and influence of the effectiveness (X1) and the efficiency of population database (X2) utilization, either separately or jointly on the quality of public services (Y). Effectiveness (X1) and the efficiency (X2) values were scored using a Likert from lowest rank 1 to highest rank 5. The quality of public services (Y) Variable in this study is using "Likert Scale" as a commonly used. Model for strategy of population database utilization was developed based upon Strategy Management Model (Wheelen & Hunger in Suradinata, 2012) as shown in Figure 2 below. Each of questions of strategy is used according to Figure 2.

Figure 1: Conceptual Framework

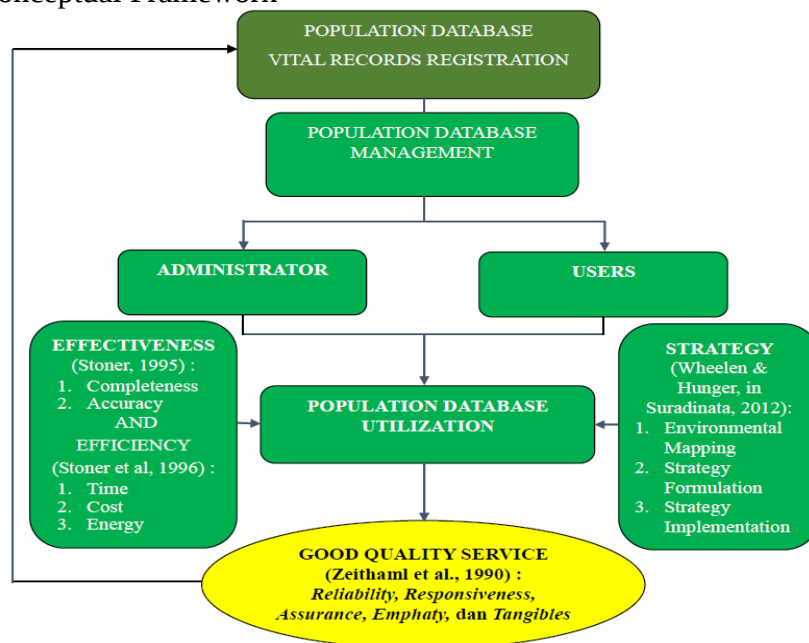
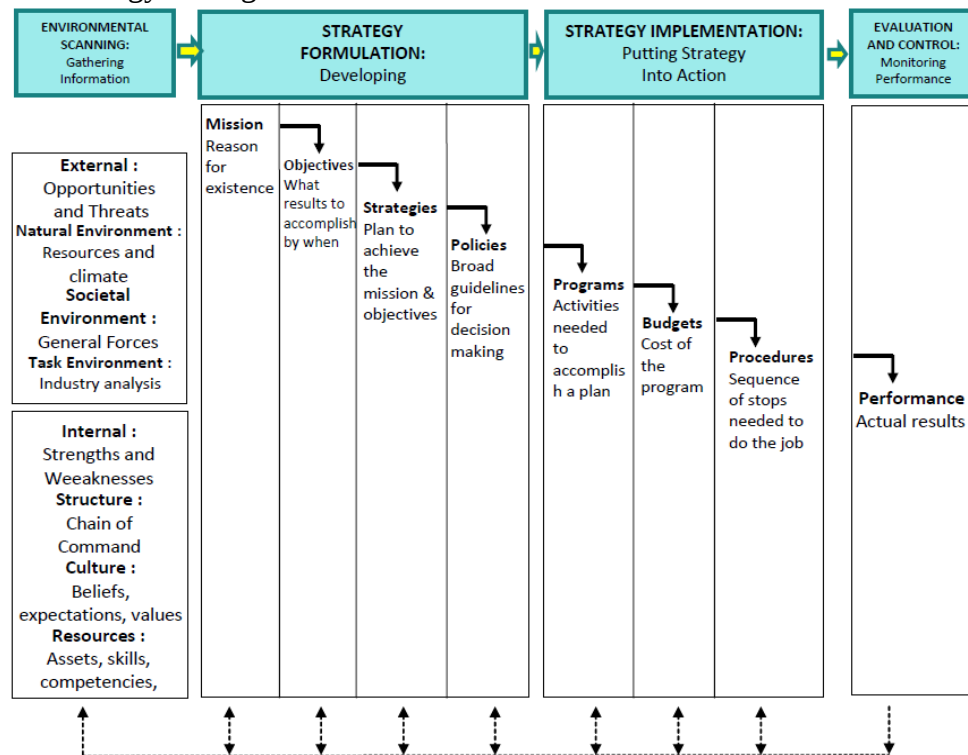


Figure 2: Strategy Management Model



Feedback/Learning: Make corrections as needed

Strategy Management Model is Adapted from Wheelen & Hunger, (2012)

Results and Discussion

Population of Indonesia on 31 December 2013 amounted to 253,602,815 people, the world's fourth largest after China, India and the United States. Registration of the population data in Indonesian is family-based stored in the database, both at the regional and national levels with the structure and composition: by sex, age group, occupation, religion, marital status, education and region (provincial, district / city, yang-district and village / urban village). Of the 34 provinces, 33 provinces of which already have codes of administrative area, where province with the largest population is West Java, while the smallest population is West Papua. According to the demographic data based on proportion age group, population data of productive or working age group (between 15 and 64 year old) is 188.830.525 people (74.46 % of all population). It means that Indonesia will face what so called, "Demographic Bonus", a condition when the number of productive age will reach the highest level compare to elderly and children people. This condition is predicted will occur by many experts in 2020-2030. Demographic bonus on one hand could be opportunities and on the other hand could be threats. Huge number of productive age group could be an advantage for development, however it could also be a disaster if it not anticipates with huge number of job opportunities or if that huge human

resources have no competitiveness. Therefore, this golden opportunity should be prepared as good as possible. In related to population database utilization that would increase labor efficiency, it is very necessary to anticipate with more employment opportunities in other sectors with purpose to optimize demographic bonus and at the same time, provide workforce as consequence of workforce efficiency due to utilization of population database by institution-user.

Table 1 shows the distribution of variables used in this study according to selected variables, and also shows means of each variables used. Unexpectedly, our data on effectiveness variables are differ between data completeness and data accuracy. Even record of the system will produce data accuracy, the mean of data accuracy (X1.1= 2.2) which is relatively low. However, for the data completeness, the mean of variables are quite reasonable high. In general, the mean of effectiveness of data utilization has 2.43. Intrinsically, our data shows the value of efficiency of each category. The most useful findings is that the efficiency is occurred according to three factors, time (X2.1), costs (X2.2) and labor efficient (X2.3). Importantly, in the introduction of technology used to population data related activities, the labor efficient (Mean of X2.3 = 4.66) are among the most efficient. However, it does not followed by both time and costs efficient (means of X2.1 and X2.2 are 3.63 and 3.5 respectively). Since the last two variables, the mean of variables much lower than those mean of labor efficient. Our findings consistently with the fact that reduction of labor employing to the new system in population recorded data have to followed by the improvement capacity in labor its self.

Table 1: Mean and Distribution of each variables answered by respondents

No	Item	Respondents's answer										Mean
		1		2		3		4		5		
		f	%	f	%	f	%	f	%	f	%	
X1	Effectiveness of Population data base utilization											2,43
X1.1	Data completeness	3	9,4	14	43,8	3	9,4	11	34,4	1	3,1	2,78
X1.2	Data Accuracy	11	34,4	9	28,1	8	25,0	2	6,3	2	6,3	2,22

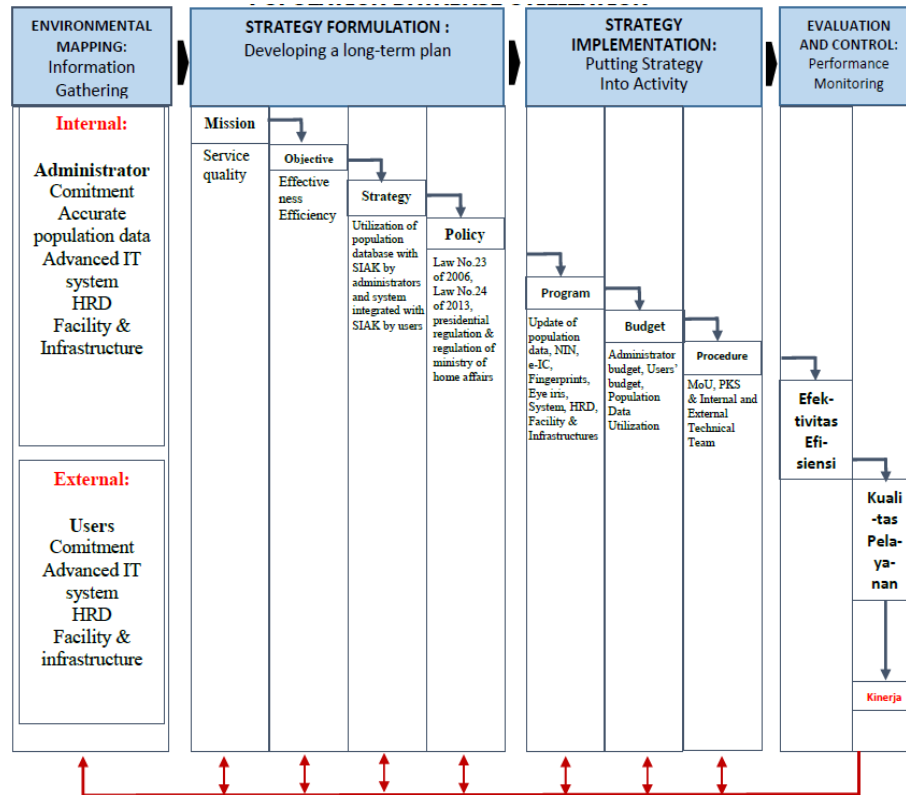
No	Item	Respondents's answer										Mean
		1		2		3		4		5		
		f	%	f	%	f	%	f	%	f	%	
												3,91
X2.1	Time Efficiency	0	0	0	0	18	56,3	8	25,0	6	18,8	3,63
X2.2	Cost efficient	0	0	0	0	19	59,4	10	31,3	3	9,4	3,5
X2.3	Labour effcient	0	0	0	0	4	12,5	3	9,4	25	78,1	4,66

No	Item	Jawaban Responden										Mean
		1		2		3		4		5		
		f	%	f	%	f	%	f	%	f	%	
Y	Quality of Public Services											4,83
Y1	Reliability	0	0	0	0	0	0	16	50,0	16	50,0	4,50
Y2	Responsiveness	0	0	0	0	2	6,3	15	46,9	15	46,9	4,41
Y3	Assurance	0	0	0	0	2	6,4	19	59,4	11	34,4	4,28
Y4	Emphyaty	0	0	0	0	1	3,1	21	65,6	10	31,3	4,25
Y5	Tangibles	0	0	0	0	0	0	19	59,4	13	40,6	4,41

Results of the analysis and testing of the effect of effectiveness of population database (X1) utilization and Quality of the Public Services (Y) variable were showed that Effectiveness of Population Database (X1) Utilization gives a contribution of 14.8% to Quality of Public Services (Yang). So when the effectiveness of the database population utilization is higher, the quality of public services will be higher accordingly. The testing results of the effects were consistent with the opinion of Zeithaml et al (1990) that one of the indicators of customer satisfaction is responsiveness where one of its elements is accuracy. In this study, the effectiveness (accuracy) produced positive effect on the quality of public services. Efficiency of Population Database (X2) Utilization gives a contribution of 13.9% to Quality of Public Services (Yang). Efficiency of Population Database (X2) Utilization has a positive influence on the Quality of Public Services (Yang), so when the efficiency of the database population utilization is higher, the quality of public services will be higher accordingly. The testing results of the effects were also consistent with the opinion of Zeithaml et al (1990) that one of the indicators of customer satisfaction is responsiveness where one of its elements is speed. In this study, the time efficiency (speed) produced positive effect on the quality of public services.

Results of analysis and testing of the effects of Effectiveness of Population Database (X1) Utilization and Efficiency of Population Database (X2) Utilization simultaneously on the quality of public services (Yang) are contributed 23.8% to the Quality of Public Service (Yang). The testing results of the effects of the effectiveness and efficiency were consistent with the opinion of Zeithaml et al (1990) that one of the indicators of customer satisfaction is responsiveness where the elements are accuracy and speed. In this study, the effectiveness (accuracy) and the time efficiency (speed) simultaneously generated positive effect on the quality of public services. Regarding the strategy management model (Wheelen & Hunger in Suradinata, 2012), and paying attention to the answer and the views of the respondents as well as the condition of the population database using institutions, the author could create a strategy model of population database utilization in Indonesia as shown below.

Figure 3: Strategy Model of Improving Quality on Public Service with Population Database Utilization



Feedback/Learning: Perform necessary improvement

Conclusion

From the research, “The Influence of Effectiveness, Efficiency and Population Database Utilization Strategy on Quality of Public Service in Indonesia”, it can be concluded as below:

1. The effectiveness of population database utilization (X1) has correlation and effect on quality of public services with contribution 14.8 % improvement on quality of public services (Y).
2. The efficiency of population database utilization (X2) has correlation and effect on quality of public services with contribution 13.9 % improvement on quality of public services (Y).
3. The effectiveness and efficiency of population database utilization has correlation and effect on quality of public services with contribution 23.8 % improvement on quality of public services.
4. Strategy Model has been developed and confirmable from this research is Strategy Model of Population Database Utilization in Increasing Quality of Public Services as describe in figure 3.

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