



## **Introduction**

Public service is a form of service that is presented through their respective fields, such as transportation services, educational services, and other services such as banking or other public services engaged in administration or population (Mayarni et al., 2018). Meanwhile, according to Supriatna (in Dharmanu 2017), "public service" is an activity carried out by the government and other private parties for the benefit of the people. Furthermore, according to Hayat (2017), "good service" provides services in small forms to citizens or the community according to their respective needs and interests, as determined by the government in the form of legislation. According to Ratminto and Atik (2006), the importance of public services today is influenced by the operation of a service system that is oriented to the interests of the community. Good service management can only be realized if strengthening the bargaining position of service users is a top priority. Service users are placed at the center to get support from: 1) a service system that prioritizes the interests of the community, especially service users; 2) a service culture in service delivery organizations; and 3) human resources oriented to the interests of service users.

In accordance with the Strategic Plan of Kemenpan-RB for 2020–2024, what will be achieved are: 1) clean and accountable government organizations; 2) efficient and effective government organizations; and 3) government organizations with quality public services (Renstra Menpan-RB, 2020). The next strategic step that must be taken by the government is to carry out bureaucratic

reforms with the aim of helping to facilitate and serve the community professionally in accordance with existing regulations. Therefore, Islamy (2007) says that public services must be based on the principles of excellent service that is friendly to the community or consumers (In Freddy, 2019). Meanwhile, according to Sampara Lukman and Sutopo (2003), excellent service is very good service or the best service by helping and trying to take care of the needs of others or someone with superior quality according to the size of 1) use of time and accuracy, 2) speed or procedures that are not long-winded and free of errors, and 3) use of affordable administrative fees. Furthermore, as stated by Widodo (2001), the public bureaucracy as the perpetrator of public policies and services must be responsible for the attitudes, behaviors, and policies they adopt in order to carry out the duties, functions, and authorities given to them.

In the context of public services, the Bukit Raya District Government of Pekanbaru City is trying to make a breakthrough by implementing the use of IT technology to improve public services as a manifestation of the Pekanbaru City Government's smart city vision. This is also regulated in Law No. 23 of 2014 concerning Regional Government in Chapter XXI entitled "Regional Innovation Articles 386 to 390," which explains that, in essence, local governments must carry out innovations that support regional development. Therefore, the Bukit Raya District makes various public service innovations by utilizing the use of IT technology, including the 6 (six) pillars of the smart city development planning approach in Pekanbaru City based on

Pekanbaru Mayor Regulation Number 56 of 2019. One of them is smart government: "The vision is to work hard, be disciplined, creative, innovative, have an entrepreneurial spirit, be committed to implementing a clean government, good governance, and be able to provide services that are closer, faster, more precise, cheaper, and better." The services referred to here are government-to-citizen, government-to-business, and government for public services. Based on the Pekanbaru Mayor's Regulation Number 56 of 2019, the targets for achieving smart governance include: 1) improving government governance by developing a government system through the implementation of e-government activities; educating government officials to be more aware of the role of e-government in order to improve services and the bureaucracy more optimally; and developing an integrated data center that links work programs, indicators, objectives, and the results of regional organizations related to services in Pekanbaru City; as well as developing information systems to support and facilitate decision making. 2) increase the quality and quantity of public services in terms of technology and infrastructure by developing population administration services and civil status lists for the community, as well as administrative services in education, health, and human resources (Perda Kota Pekanbaru, 2020).

Bukit Raya District, as the first sub-district to realize E-Government and the Smart City Madani concept, Pekanbaru City, Riau Province, has made various innovations to public service activities at the Camat office, including in the form of

services such as pick-up and drop-off for application letters and business permits, public services in the form of product application programs whose contents contain features that make it easier for the public to manage letters and obtain effective, efficient, and transparent public services, as well as electronic signatures. The goal is to make it easier for the public to obtain a permit application, which can be completed in just a few minutes, as opposed to the previous one, which needed to wait a week to get a signature from the Camat himself. Based on the results of interviews with the Bukit Raya District, they also received a working visit from the Central Pariaman District, Pariaman City, West Sumatra Province, and appreciated the innovation of the PATEN service system in Bukit Raya District with the Integrated Service System (SIPADU), which already uses the application, "Ha-Pe". The visit of the group from Central Pariaman District consisted of 25 people, consisting of district and sub-district employees represented by the PPM Head of Central Pariaman District, to see services in Bukit Raya District and the realization of facilities development activities and village empowerment (Interview, 2021).

Apart from the appreciation from the neighboring provincial sub-district government regarding the information on the e-government-based public service system implemented by the Bukit Raya District Government, Pekanbaru City, the achievement indicator for the successful implementation of the program still depends on achieving organizational goals effectively through improving government governance to the fullest and

improving the quality and quantity of public services in accordance with the needs of the community. For this reason, it is necessary to examine in more depth the effectiveness of the e-government-based public service transformation implemented by the Bukit Raya District Government, Pekanbaru City. The aim is to determine the effectiveness of public services carried out by the Bukit Raya District Government in Pekanbaru City and the factors that influence it. Theoretically, to test and find new perspectives on the concept of public service effectiveness. Meanwhile, practically, it is useful for the government and the community as input for planning and realizing the development vision of Pekanbaru City as a Smart-City based on E-Government.

The theory used refers to the opinion of John M. Bryson (2002) about hexagonal services as a way to make organizations determine product or service strategies that must be carried out. This hexagon model rests on the idea that in order for a product or service to be effective, it must pass the so-called "market test," where there is a link or relationship between 6 (six) elements, namely: Who? Who wants the product or service (customer group, payer, client or user, target market), What? What product or service is desired specifically, Where? Where do they want it (location), When? When do they want it (delivery timing), How? How do they want it (shipping or selling method and technology used), Why? Why they want it (function fulfilled, purpose served, reason for delivery). Afterwards, the Service Hexagon must have an effective Service Management System. This includes a set of activities,

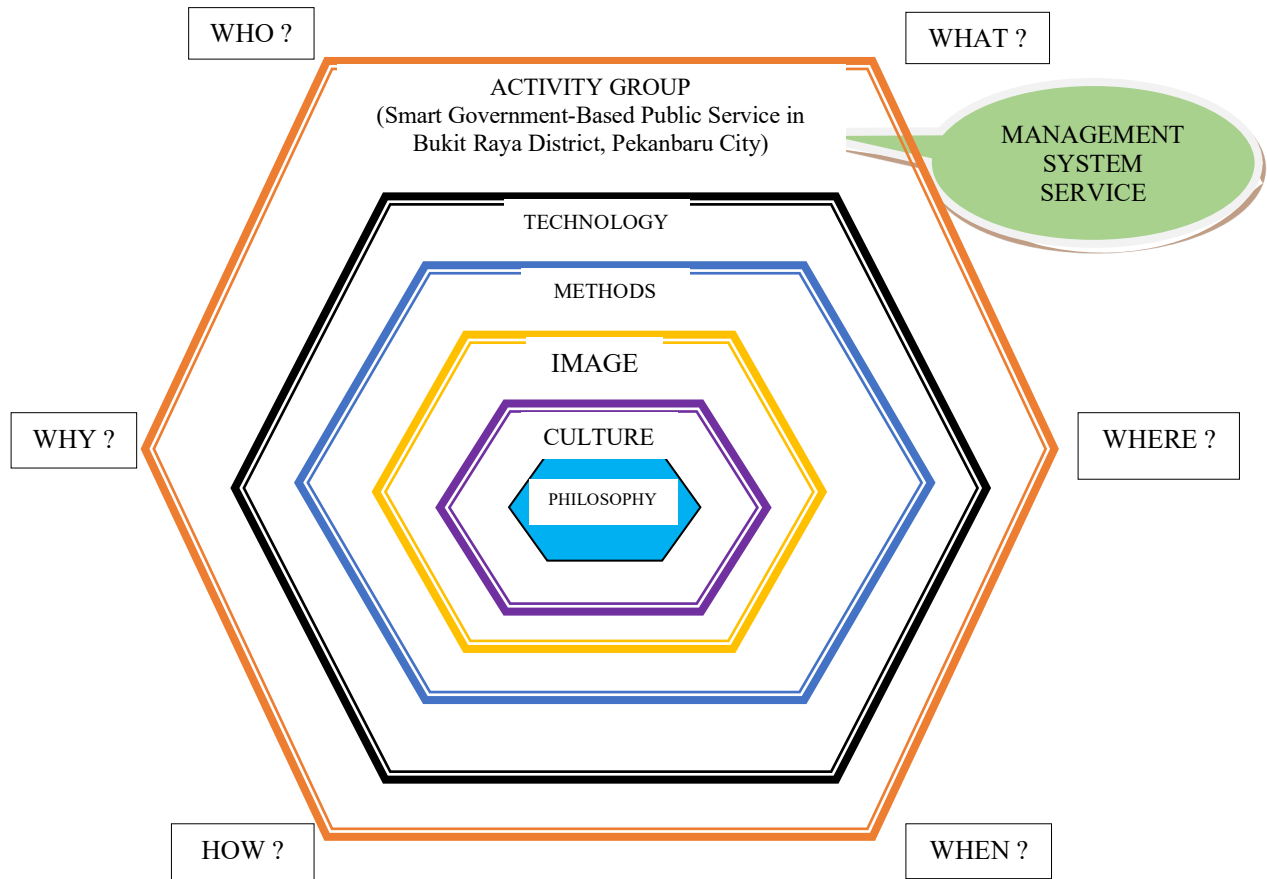
integrated methods and technologies, as well as service philosophy and culture, as well as an image for the service-providing company that is right for the job.

Furthermore, Bernard (1982) stated that service effectiveness can be assessed by the achievement of organizational goals (in Wibowo, 2007 and Handoko, 2008). Effectiveness is the ratio of the effective output to the input required for its achievement. Effectiveness is the measure of an action's effectiveness if it has achieved the predetermined goals. Therefore, according to Hani Handoko (2008), there are several criteria for evaluating effectiveness, namely:

1. Utility: to be useful to management in the completion of other tasks. A plan must be flexible, stable, sustainable, and simple.
2. Constancy and objectivity. Plans must be evaluated to find out whether they are clear, concise, real, and accurate. Decisions and other management activities only work if they are based on the right information at the time.
3. Scope: Planning needs to pay attention to the principles of comprehensiveness and consistent unity.
4. Cost effectiveness, in this case, is related to time, effort, and emotional flow.
5. Accountability: There are 2 aspects of accountability, namely: responsibility for planning implementation and implementation accountability, i.e., responsibility for the implementation of the plan.
6. Timeliness: Planners must devise a variety of plans. Changes that occur very quickly can cause plans to be

inappropriate or appropriate for time differences.

In this study, the framework of thought can be summarized as shown in the figure below:



**Figure 1. Thinking Framework of the Hexagon Service Model According to John, M. Bryson (2002)**

Adopting a theoretical perspective on hexagonal services according to Jhon M. Bryson (2002), it can be formulated about the Effectiveness Model of E-Government-Based Public Services in Bukit Raya District, Pekanbaru City as follows:

1. The Thinking Framework Model uses the Service Hexagon model by Bryson (2002), which resembles window aisles in a hexagonal building and includes 6 (six) main questions about service (Who, What, Where, When, How, and Why), which has a causal relationship with 6 (six) elements of the Service

Management System, which consists of elements of service philosophy, service culture, service image, service method/method, service technology, and a group of service activities. The six elements of the Service Management System can be described as follows:

- a. Service philosophy: provide service that is closer, faster, more precise, less expensive, and of higher quality.
- b. Service culture: hard-working, disciplined, creative, innovative, and has an entrepreneurial spirit.
- c. Smart government as a service image
- d. Service Mode/Method: Online

- e. Service technology: Internet/smartphone/WIFI
  - f. A collection of service activities, including SIPADU, PATENT, and IUMK shuttle services, PMB-RW, SAPA-WARGA, and the District Website.
2. The e-government-based public service model in Bukit Raya District, Pekanbaru City is a group of service activities by applying online methods and using online technology in several internet application features, namely SIPADU (Integrated Administrative Service System), Online Discussion Forum E-SAPAWARGA, PATENT and IUMK shuttle services, Community Empowerment Development Services Based on Community Associations (PMB-RW), and Website-Bukit Raya District.

## **Method**

The research method used is qualitative with a case study approach, namely analyzing the "etic and emic" processes of a social phenomenon. Bogdan and Taylor (1992) stated that qualitative research is a research procedure that produces descriptive data in the form of speech or writing and the behavior of the people being observed. Through qualitative research, researchers can identify subjects and feel what they experience in everyday life, be involved in the situation and setting of the phenomenon under study, and focus on the context under study, where each event or event is unique and different in other contexts. (Basrowi and Kelvin, 2008). According to Creswell (2016), the case study approach is a research method which is an attempt to find and understand the meaning related to social

and humanitarian issues in certain research objects. The research location is in Bukit Raya District, Pekanbaru City. Then, a purposive sampling technique was used in determining the informants of four district government officials, namely the Head of the Bukit Raya District of Pekanbaru City, the Head of Integrated Administrative Services, Bukit Raya District, Pekanbaru City, the Head of Community Empowerment Development, Bukit Raya District, Pekanbaru City, and IT Staff, Bukit District. Pekanbaru City Raya. Community informants are assigned as many as five people by accident according to the types of service applications applied, namely population administration services, sub-district website services, PATEN and IUMK shuttle services, "SAPAWARGA" services, and community empowerment development services based on the Neighborhood Association (Rukun Warga).

How to collect data using in-depth interview techniques, observation and documentation. In-depth interviews used interview guidelines and researchers were involved in an informant atmosphere (Bungin, 2011 & Hardiansyah, 2011). Through personal participation and close observation, the participant observer can gain an understanding that would not be obtained through external observation. (Horton and Hunt, 1984). The documentary method is a method of collecting data used in social research methods to trace historical data in the form of letters, documents and manuscripts, diaries, souvenirs, photo documentation, cultural artifacts, and so on. The main nature of this

documentation data is not limited to space and time, thus providing an opportunity for researchers to find out things that have happened in the past. (Basrowi, 2007). Data analysis techniques according to Miles and Huberman (Sugiyono, 2017) are data collection, data presentation, data reduction, and drawing conclusions. Relevant analysis methods are performance analysis techniques, individual experiences, and institutional behavior (Bungin, 2011). To achieve the validity of the research, triangulation is carried out with one or more theories, which explains that the facts cannot be checked for the degree of confidence with one or more theories. For this reason, the best step is to look for comparative or comparative explanations by describing the pattern of relationships and including explanations that emerge from the analysis to find comparison themes based on the possible data available. (Moeleong, 2006).

## **Result and Discussion**

### ***E-Government-Based Public Service Management System***

Based on information from the National Cyber and Crypto Agency (BSSN) of the Republic of Indonesia, Bukit Raya District, Pekanbaru City is the only sub-district in Indonesia that uses integrated service applications ranging from RT/RW, sub-districts to sub-districts online, which are equipped with digital signature features (Harahap, 2021). The Pekanbaru City District Government's Online-Based Integrated Service System (e-Government), which includes the Integrated Administrative Service System (SIPADU), PATEN and IUMK Shuttle

Services, Community Empowerment Development Services Based on Community Associations (PMBRW), Online Discussion Forums "SAPAWARGA," and the District Website. The Integrated Administrative Service System (SIPADU) consists of eight stages of application services to automate the administrative process of public services from the village to the sub-district easily, accurately, and quickly. PATEN and IUMK shuttle service, which is a service facility for managing PATEN and IUMK online without having to go to the village head office or sub-district office. This shuttle service application consists of four stages starting with LOGIN (entering) into the "SAPAWARGA" application feature, Bukit Raya District, Pekanbaru City, as a medium for submitting input, criticism, suggestions, questions, proposals, and so on by downloading this application through the Google Playstore.

In addition, there is also an e-PMBRW application, which is a service application in the planning sector through the PMB-RW cycle approach, which will produce a plan for structuring the Rukun Warga (RW) area, which includes Tri-Daya, namely Social Empowerment, Productive Economic Empowerment, and Environmental Area Arrangement at the local level. Rukun Warga (RW). This PMB-RW service application stands alone by opening a web browser on an internet page and consists of eight stages starting from inputting user data, searching for data, to printing documents. The last is the application service website for the Bukit Raya sub-district, Pekanbaru City, which is also independent and is

connected to the official website of the Pekanbaru City Government as a medium for delivering information and documentation. In detail, the online-based

innovation or breakthrough model for public services carried out by the Bukit Raya District Government, Pekanbaru City, can be seen in the following table:

**Table 1**

**Online-Based Service Management System In Bukit Raya District, Pekanbaru City**

No	Group of Service Activities	Type of Service	Functions and Purpose of Service Applications
1	E-“Sapawarga Bukit Raya” online discussion forum	Public service	Technology-based applications to convey input, criticism, suggestions, questions, and proposals between the government and the community. This application can be downloaded from the Google Play store.
2	District Website	Non Public Service	Media for delivering information about Bukit Raya District which is connected to the official website of Pekanbaru City <a href="http://www.pekanbaru.go.id">www.pekanbaru.go.id</a> .
3	PATEN and IUMK pick-up services	Public service	The public shuttle service facilities for the community in the management of PATEN or IUMK. The public does not need to go to the Lurah and Camat offices in the management of PATEN.
4	Integrated Administration Service System (SIPADU)	Public service	It is an application service for automating the public service administration process at the Kelurahan and subdistrict offices quickly, accurately, and easily.
5	Development of Community Empowerment Based on Rukun Warga (PMBRW)	Public service	The e-PMB-RW application is a planning application through the PMB-RW cycle approach that will result in a plan for structuring the Neighborhood Community Area (RKP-RW), which includes Tridaya, namely Social Empowerment, Productive Economic Empowerment, and Structuring Environmental Areas at the Neighborhood Unit level.

Source: Research Data, 2021.

The data presented in the table above illustrates that of the five groups of service activities in the form of online applications, four types are included in the public service, namely the "SAPAWARGA" Online Discussion Forum, the PATEN Shuttle Service, and IUMK, SIPADU, and PMB-RW. Meanwhile, what is not included in the category of public services but is a data and information service site as well as documentation about Bukit Raya District, Pekanbaru City, which is contained in the District Website application. In practice, the five online service applications have a relationship with each other even though they are on

different web pages. Then, each service application has an online work process in several different stages. There are even service sites that must first log in through other service applications, such as the PATEN and IUMK Shuttle Service Applications that require users to first enter the e-SAPAWARGA service menu.

**Effectiveness of E-Government-Based Public Services.**

To find out more about the effectiveness of e-government-based public services in Bukit Raya District, Pekanbaru City, according to the research framework, namely the Public Service Effectiveness Model, which adopts the



Service Hexagon Theory by John M. Bryson (2002), it will explore the answers of research informants about 6 (six) main question elements related to applied public services, then linked or linked with 6 (six) variables in the Service Management System as an action "Market

Feasibility Test" to achieve service effectiveness. The responses of research informants in Bukit Raya District, Pekanbaru City regarding six main questions about e-government-based services can be seen in the table data below.

**Table 2.**  
**Research Informants' Responses to Main Questions About Public Services in Bukit Raya District, Pekanbaru City**

No	Questions	Apparatus Informants	Community Informants
1	Who? Who will be served	Public	Heterogeneous
2	What? What services are needed	Integrated Adm Service	Hierarchy of needs
3	Where? Where is the service desired	Online	Online application, office
4	When? When is the service done	Anytime (24 hours)	According to the needs
5	How? How is the service done	Online using smartphone and WIFI	Online and offline (ownership difference)
6	Why? Why the service is needed	The function and purpose of excellent service	Community rights and government obligations

Source: Research Data, 2021

The data depicted in the table above shows that there are differences in responses between police informants and community informants regarding six main questions about services. The difference is evident in the answer to the first question, namely, Who? Who will be served, namely the community and community groups that are heterogeneous, and the second question is, What? What services are needed, namely integrated administrative services with different types of service needs for each group in society. The table data also indicates that from other main service questions, namely Where, When, How and Why regarding services, it is concluded that there is a strong desire and policy to implement an e-government-based Service Management System in Bukit Raya District, Pekanbaru City. On the other hand, people are still not ready to

accept and adopt it online because there are still differences in ownership of information technology in the form of using smartphones, WIFI, and online processes in internet applications. The data also shows that some people still want service matters to be carried out at the kelurahan/district office manually (offline).

Likewise, with the answer to the question Who? Who will be served and What? What services are needed by the community, turns out to be very different, namely the response of the informants of the apparatus, who simplify the community as a different service target with heterogeneous communities with different hierarchies of needs. This means that the sub-district government as a service provider organization does not consider the Who and What questions in the Service Hexagonal (Who is the

community element to be served? and what forms of service are needed?). According to community informants, the needs of residents are very diverse, ranging from primary (primary) needs to secondary and tertiary needs according to the social class or class of society. The E-Government-Based Integrated Service Website Feature design implemented by the Bukit Raya District Government of Pekanbaru City is general in nature,

meaning that it is not detailed according to the type of community needs. There are at least three types of services in the SIPADU Main Menu, namely population administration services, land rights certification services, and marriage certificate services, which are the basic needs of the community. In more detail, the types of community needs in Bukit Raya District, Pekanbaru City, can be seen in the following picture:

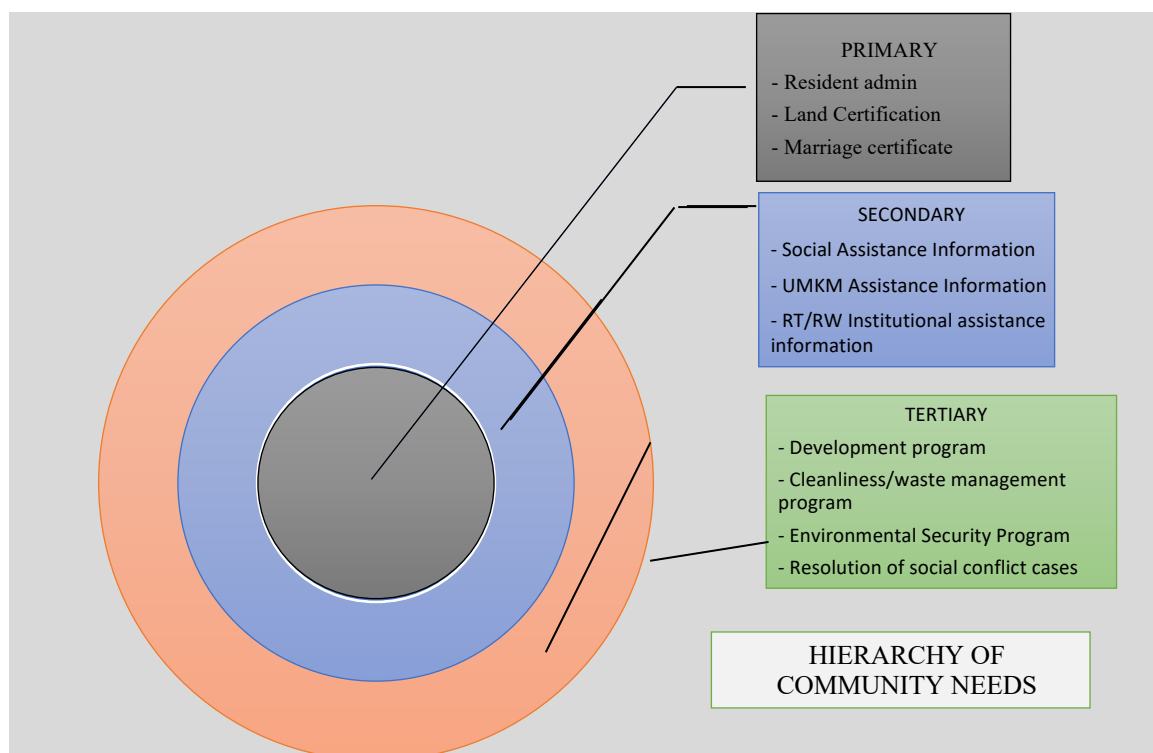


Figure 3. Hierarchy of Community Needs

To analyze more deeply how the relationship between the six main questions of service and the six elements

of the Service Management System are summarized in the Service Hexagon, the following table data can be seen:

**Table 3**  
**Informant Responses About the Relationship between Service Hexagon Elements and Main Questions of E-Government-Based Public Services in Bukit Raya District, Pekanbaru City**

No	Elements of the Service Hexagon	Informant Response About Service Management System	Key Questions about Service (5 W + 1 H)					
			Who	What	Where	When	How	Why
1	Service Philosophy	Closer, faster, precise, cheaper and better service	±	±	±	±	±	+
2	Service Culture	Hard working, disciplined, creative, innovative, have an entrepreneurial spirit	+	±	±	±	±	+

3	Service Image	Smart governance	±	±	±	±	±	+
4	Service Method	Online	±	±	±	±	±	±
5	Service Technology	Internet, Smartphone, WIFI	±	±	±	±	±	±
6	Group of Activities	SIPADU, PATENT & IUMK Shuttle Service, PMB-RW, SAPA-WARGA, Subdistrict Website	±	±	+	+	±	±

Description: + = Effective relationship  
 - = Ineffective relationship  
 ± = Relationships are less effective

Source: Research Results, 2021

The table data above illustrates the responses of research informants in Bukit Raya District, Pekanbaru City to the elements of the Service Hexagon, consisting of six elements, namely service philosophy, service culture, service image, service methods, service technology, and a group of activities implemented. In the Service Management System based on E-Government in Bukit Raya District, Pekanbaru City, in relation to the 6 (six) main questions of service, it turns out that in general it shows a positive and negative relationship (±) meaning that the form of the relationship that occurs is less effective. The element that most clearly shows an ineffective relationship is the element of the method/method of service that is carried out using online methods and the use of information technology in the form of internet networks, smartphones, and WIFI. It turns out to be less effective according to all the main questions of services that are considered less able to achieve the target service needs in different societies.

Data that shows a positive relationship that reflects the service relationship runs effectively, but only on the main question Why? Why is it necessary to carry out public services with an explanation the implementation of the functions and objectives inherent in the implementation of the main tasks of government and the right to service for

the community. Other elements that show a positive relationship with the effective running category are seen in the service culture element that supports carrying out a group of online-based service activities for all forms of service needed by the community according to the agreed time and place on the online internet connection to decide notifications. service document.

Based on the analysis of the relationship between six main questions about service and six elements in the E-Government-Based Service Management System implemented by the Bukit Raya District government in Pekanbaru City, in accordance with the research framework that refers to the perspective of Service Hexagon Theory according to Jhon M. Bryson (2002), it was difficult to find the relationship between each element or variable on a reciprocal and causal basis within the service hexagon. This is because the Service Hexagonal Theory, according to Jhon M. Bryson (2002), has a weakness in building a Service Management System in a conical hexagon model like window spaces, which should be in the form of the ordinary hexagon model which is the same and congruent by adding indicators of effectiveness. service as an intermediate variable or catalytic variable that can clearly show the relationship between variables in the applied service management system.

People in Bukit Raya District, Pekanbaru City, can see how six main questions about public services and six elements of

a Service Management System are linked in the table below:

**Table 4**  
**The Relationship of E-Government-Based Public Services with Elements of a Service Management System Controlled with Indicators of the Effectiveness of Public Services in Bukit Raya District, Pekanbaru City**

No	Key Questions about Service	E-Government-Based Public Services	Service Management System	Indicators of Effectiveness of E-Government-Based Public Services	
				Apparatus	Public
1	Who?	SIPADU	Closer, faster, precise, cheaper and better service	Lack of Responsiveness	Less satisfied
2	What?	PATENT & IUMK Shuttle Service	Hard working, disciplined, creative, innovative, have an entrepreneurial spirit	Creative	Less Smooth
3	Where?	PMB-RW Service	Smart Governance	Efficient	Less satisfied
4	When?	"SAPAWARGA" Online Discussion Service	Online	Creative	Less satisfied
5	How?	District Website	Internet, Smartphone, WIFI	Efficient	Less Easy
6	Why?	Group of Service Activities	Five Online Service Applications	Efficient	Less Easy

Source: Research Results, 2021

The table data above illustrates the relationship between six main questions about service and the elements in the e-Government-based Public Service Management System implemented by the Bukit Raya District Government, Pekanbaru City, through the controlling variable for the effectiveness of public services as a measure of program effectiveness, or the policies implemented for online-based services. It is very clear that there is a significant relationship between the variables summarized in the proportional service hexagon. The first question (Who) who will be served, turned out to be less efficient, and the public felt dissatisfied with the application of the online SIPADU Application. Although the maximum efforts made by sub-district government officials to carry out a PATEN and IUMK

shuttle service system are supported by a creative service culture, it turns out that it is still not easy for the community to feel dissatisfied because of factors such as time constraints and poor shuttle places. It is difficult to agree on a schedule depending on the completeness of the file and the extra costs involved in the shuttle service process.

In general, indicators of the effectiveness of e-government-based public services implemented by the District Government of Bukit Raya Pekanbaru City show the achievement of service effectiveness, except for the SIPADU Service Application, which is less responsive to various types of service needs in accordance with the hierarchy of diverse community needs. On the other hand, on the other hand, it shows the fact that the indicators of service effectiveness

according to the community's version as the target of public services are mostly less effective, both in terms of satisfaction, convenience, and fluency. To find out more about the reasons why

community informants judged the implementation of E-Government-Based Public Services to be less effective in Bukit Raya District, Pekanbaru City, the following table can be seen:

**Table 5**  
**Responses of Community Informants About the Causes of the Effectiveness of E-Government-Based Public Services in Bukit Raya District, Pekanbaru City**

No	E-Government-Based Public Service Management System	Informant Response	Factors Causing the Effectiveness of E-Government-Based Public Services
1	SIPADU	Less satisfied	People's needs are different with different applications.
2	PATENT & IUMK Shuttle Service	Less Smooth	Difficult time and place commitments and extra costs
3	PMB-RW Service	Less satisfied	Only the initial information, continuity and realization of the PMB-RW program remain with the leadership's decision
4	"SAPAWARGA" Online Discussion Service	Less satisfied	Not all citizens have smartphones and master their usage.
5	District Website	Less Easy	Not directly related to the basic needs of the community

Source: Research Results, 2021

Based on the table data above, it can be seen that the implementation of the E-Government-Based Public Service System in Bukit Raya District, Pekanbaru City is still relatively ineffective, which is indicated by the informants' responses to 5 five forms of online/online-based services that are considered to be less satisfactory, less smooth, and not easy in accordance with the needs of the service desired by the community. In two types of e-government-based integrated services implemented by the Bukit Raya District Government in Pekanbaru City, especially regarding the "SAPAWARGA" service and the PMB-RW Service, it turns out that the informant's response was not satisfied with the reason that not all community members had telephone communication tools. have a smartphone and understand how to use it, and have the ability to buy

internet connection packages. The online/online internet technology-based "SAPAWARGA" service can be downloaded from the Google Play Store. This application serves to convey input, criticism, suggestions, questions, and proposals between the government and the community. Therefore, only some residents can take advantage of this "SAPAWARGA" page. People in the community should be able to use the internet (WIFI) if the sub-district government wants to make things easier and faster for them.

Likewise, with the e-PMB-RW application as a planning application through the PMB-RW cycle approach, which will produce a plan for structuring the Rukun Warga (RKP-RW) which includes Tridaya, namely Social Empowerment, Productive Economic

Empowerment, and Structuring Environmental Areas at the Rukun level. Residents (RW). However, according to the assessment of community informants, this application only provides preliminary information about the Community Association (RW)-based development program, including social empowerment programs, productive economic programs, and environmental management programs. Meanwhile, the continuity of news and program realization, especially regarding the Rukun Warga (RW)-based development program, remains under the leadership's decision, which is not known to the public online, both at the village, sub-district, and Pekanbaru City government levels. This data concludes that the how and why questions in the service hexagon have not been effectively answered by the service provider, namely the District Government. Public services are carried out through the online application method using a smartphone, but it does not provide an alternative way for some citizens who have limited ownership of internet technology. The answer to the question Why? is namely why should we be providing services in the form of PMB-RW? To carry out a feedback cycle for the planning, organizing, implementation, and monitoring of development programs based on the Rukun Warga (RW) in all sub-districts. However, the application implemented is less transparent and responsive to the public. As a result, information on a sustainable basis and the realization of community-based development programs are ultimately less known to the public and more closely, quickly and precisely, and easily accessible to the public.

The PATEN and IUMK shuttle service applications require citizens to log-in to the E-SAPAWARGA account first, then carry out the chat stage, confirm the completeness of the files with the officer, and confirm the address for document transfer. The same process also applies to people who need District Website services, namely opening the website, typing in the user's address, and selecting the required service features. According to the informant, the application of this e-government-based integrated service application is not easy for the community, because there are five types of application/website features that are applied differently and make it difficult for the community. It would be nice if all types of public services introduced by the Bukit Raya District Government of Pekanbaru City were simplified, namely united into one service management system to make it easier for community members. They don't have to be separate from one another. For example, in one Bukit Raya Subdistrict Website application, the menu includes, among others, User List, Log-in, Select the Service Application Menu (SIPADU-Population Administration, Land Administration, Marriage Adm and others), (PMB-RW-Social Empowerment, Empowerment of productive economy, and Community-Based Environmental Management), Shuttle PATEN & IUMK, "SAPAWARGA" On-Line Discussion Forum (Discussion Column, Question and Answer Column, Complaint Column), and District Profile (Statis, Developments, Latest News, Documentation, and Pictures).

To find out in detail, how the effectiveness of E-Government-Based Public Services in Bukit Raya District,

Pekanbaru City can be seen in the following table data

**Table 6**  
**Effectiveness of E-Government-Based Public Services in Bukit Raya District, Pekanbaru City**

No	Indicators of Public Service Effectiveness	Question Type	Effectiveness of E-Government-Based Public Services		
			Effective	Less effective	Ineffective
1	Efficiency	How much effort was put into achieve the desired result?	3	6	-
2	Creativity	Are the methods and technologies used useful for the community?	4	5	-
3	Responsiveness	Does the service result solve community problems?	4	5	-
4	Satisfaction	Does the service result solve community problems?	4	5	-
5	Convenience	Do the results of the service provide convenience to the community?	4	5	-
6	Smoothness	Is the outcome of the service beneficial to the community?	4	5	-
7	EFFECTIVENESS Indicator Recapitulation	Was the desired outcome attained?	4	5	-

Source: Research Results, 2021

The data presented in the table above shows that, in general, according to the responses of the sub-district government officials, the E-Government-Based Integrated Service Management System that is applied is categorized as effective. This statement is different from the responses of community informants who still consider that online-based public services are categorized as less effective for various reasons as described earlier. According to the Camat, since the implementation of e-government-based integrated public services until now, it has proven the realization of the vision of the Bukit Raya District of Pekanbaru City, namely "The Realization of a Professional Bukit Raya District in Government Administration and Services to the Community." For the achievement of the vision, the sub-district missions that have been set include the following: improving

a good service system for the community, creating an effective and efficient implementation of activities in a related field, growing a good work system and improving human resources in the sub-district, improving and fostering better village governance, and creating new ways to increase community participation in existing development in sub-district areas.

A similar statement was made by the informant of the Head of Integrated Administrative Services, who said that the application of online-based public services makes it very easy for government officials or service officers to carry out their main tasks and functions. Public service applications and websites were created by Bukit Raya District to facilitate all forms of administrative services that can be felt directly by the local community. With this public service

innovation, not only the sub-districts benefit, but the community also feels it. So far, services that are carried out manually have several weaknesses, including long-winded procedures, taking a relatively long time, being often constrained if the authorized official is not in place, and so on. On the other hand, online-based services have advantages, including shorter, easier, and faster time spans and service procedures, wherever authorized officials are able to carry out their main tasks and functions while monitoring the performance of their subordinates in providing quality services to the community.

According to an informant from a government official who served as an expert staff in the IT field, the online-based public service management system has not been running effectively, meaning that it is still not effective because of technical obstacles or disturbances in the form of network disturbances that hinder citizens and officers from communicating online. Meanwhile, the availability of human resources for officers who have expertise in the field of information technology is still limited. In addition, this e-government-based public service innovation comes by facilitating all public affairs and obligations without eliminating the conventional ways of today's technological sophistication. People who want to take care of all the necessary things that are not in the application or website that has been made can come to the office to get them done. This technology-based public service innovation is made so that it does not change the existing conventional system, but can make it easier for people to follow developments in this

technological era in order to minimize time and make public services more effective.

The data shows that in the process of procuring and filling the workforce, there were 196 users of online innovation for the SIPADU application in 2019. Regarding this, there is a reason why Bukit Raya District dares to make a breakthrough because it has been implemented in various areas of Java Island. However, the difference in Java is that it does not use digital signatures but wet signatures. A new innovation was created to make it easier for the people of Bukit Raya to use the digital signature, in line with the vision of the Smart City Madani in Pekanbaru City. It also makes it easier for the community because there is no need to come to the sub-district office for their affairs from A-Z, because the community can print their own administrative documents. Furthermore, the innovation of small micro business shuttle services in 2017 amounted to 1,200 people, in 2018 there were 1,350 people, and in 2019, there were more than 1,600 people. For Foster Parent Innovation, in 2017, there were 8 people, in 2018 there were 13 people, and in 2020 there were 20 people with an implementation system coordinated by the direct sub-district government. However, when compared to a population of almost 1 million people, the data on the number of people who can be served only reaches about 10-15% of the realization.

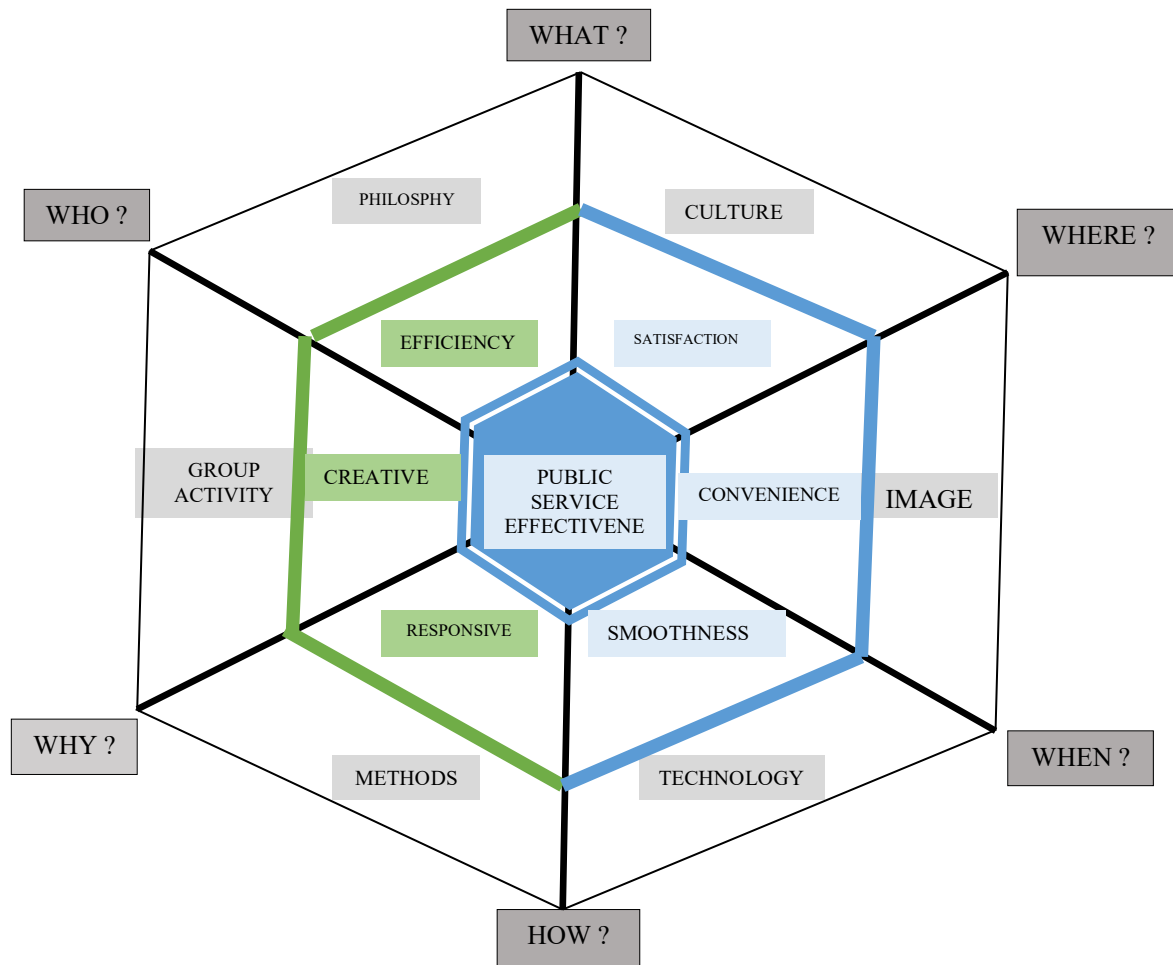
Based on the description above, it can be concluded that the E-Government-Based Public Service Management System implemented by the Bukit Raya District Government, Pekanbaru City, is still running ineffectively with several



contributing factors, including technical constraints on the online network, which result in connection difficulties and disturbances that are not smooth, limitations of smartphone ownership and ability to use them, service applications that achieve five internet website features that make it less convenient for citizens, the availability of public WIFI networks that can provide convenience for certain communities, limited human resources as information technology-based service operators, extra costs that appear in shuttle service, and data and information that are less transparent and continuous, especially in the shuttle service.

According to the Service Hexagon Theory, which is used by Jhon M. Bryson (2002), the six elements of the question about the service are rather difficult to prove to have a meaningful relationship with the six elements in the Service Management System. However, the lack of the Service Hexagon theory does not

include indicators of assessment of the effectiveness of services located at the center or core of the service hexagon as a controlling variable, which includes indicators of effectiveness according to the size of the service provider organization, namely the District Government, including efficiency, creativity, and responsiveness. While the indicators of the effectiveness of public services according to the size of the community as the target public for services, include indicators of satisfaction, convenience, and fluency. Thus, this research provides valuable input by adding to the Service Effectiveness Hexagon Theory, which consists of the interplay of interrelationships between; six main questions, six elements of the Service Management System, and six indicators of public service effectiveness, as reflected in the Alternative Model of the Hexagon Theory of Service Effectiveness as follows:



**Figure 4. Hexagon Alternative Model of Service Effectiveness**

**Conclusion**

The E-Government-Based Public Service Management System implemented by the Bukit Raya District Government of Pekanbaru City, the results showed that the results were less effective, with a percentage level of about 10-15% of community members who could be served according to their needs. There are several factors causing the ineffectiveness of e-government-based public services in Bukit Raya District, Pekanbaru City, including:

- Service Management System is too much and difficult.
- Limited human resources personnel with information technology expertise.

- The limited number of people who have Smartphone communication facilities and master their applications
- The existence of internet network disturbances as a technical obstacle for online applications.
- Lack of support for public WIFI network facilities for the community.
- There is an indication of extra costs in the application for the shuttle service document.
- Lack of transparent and continuous data and information on planning, organizing, implementing, and monitoring

development programs based on the RW.

From the Hexagonal Service Theory proposed by Jhon M. Bryson (2002), it can be concluded that it is difficult to prove that it has a meaningful relationship to achieve effective service, namely that there are six main service questions which are assumed to have a relationship with six elements of the Service Management System. The drawback is that it does not include six indicators of public services that can be measured by service-providing organizations and the community as the target public for services as a relationship controlling variable. Therefore, Bryson's theory was refined into the Hexagon Alternative Theory of Service Effectiveness.

### **Suggestions**

- a. Simplify the Service Management System into 1 (one) feature of the Bukit Raya Subdistrict internet website that summarizes the menu, including; User List, Log-in, Select the Service Application Menu (SIPADU-Population Administration, Land Administration, Marriage Adm and others), (PMB-RW-Social Empowerment, Empowerment of productive economy, and Community-Based Environmental Management), Shuttle PATEN & IUMK, "SAPAWARGA" On-Line Discussion Forum (Discussion Column, Question and Answer Column, Complaint Column), and District Profile (Statis, Developments, Latest News, Documentation, and Pictures).
- b. The Bukit Raya District Government of Pekanbaru City, as a public service

provider organization, needs to first conduct a study of six main questions about services that can be used as the main material in the preparation of Online-Based Service Applications. Then analyze public service policies using six elements of the Service Management System and monitor them through six indicators of service effectiveness. If the six elements are positively related to each other, then effectiveness is achieved. If there are many negative relationships, then the E-Government-Based Service Management System should be immediately revised according to the needs of the community.

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