

Diffusion of Website-Based Innovation in Population Services in Pekanbaru City

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Abstract

The purpose of this study is to determine the innovation of the Integrated Population Service Information System (Sipenduduk) in Population Services at the Population and Civil Registration Service of Pekanbaru City along with its inhibiting factors. The problems in this thesis are the lack of socialization, sipenduduk innovation, and limited knowledge of digital technology from the community. The type of research in writing this thesis is a qualitative descriptive research method in which this study explores and analyzes to provide meaning and significance in solving problems. The data collected are in the form of words, pictures, and not numbers. So that an explanation and description of the research topic can be obtained that is in accordance with the title of the research. This writing consists of primary data, namely research in the form of interviews, documentation, and observation, and secondary data obtained, namely from the results of interviews in the study. The study used Nvivo software to help analyze the research results. The literature review was strengthened by using the VOSviewer application. The results of this study are the lack of socialization carried out by the Population and Civil Registration Service of Pekanbaru City due to limited APBD resulting in a lack of public understanding regarding the website mechanism.

Introduction

The steps taken by the Population and Civil Registration Service of Pekanbaru City in changing population data administration are by trying to innovate online services in the form of the sipenduduk website which can be accessed via sipenduduk.pekanbaru.go.id using the Pekanbaru City APBD of ± 75 million. The Integrated Service Information System (Sipenduduk) was first launched in 2020 in accordance with the Decree of the Head of the Population and Civil Registration Service Number 43A of 2020. This is in line with the Riau Provincial Regulation Number 6 of 2015 concerning the Information Technology-Based Government System and Information Disclosure based on the principles of benefit, fairness, and equality, certainty, law, synergy, transparency, security, partnership, ethics, accountability and participation. As well as the Pekanbaru Mayor Regulation Number 107 of 2021 concerning the Electronic-Based Service System at the Population and Civil Registration Service.

This sipenduduk innovation is a system created by the government for public services in Pekanbaru City (Government to Citizen). The sipenduduk website was designed as an innovation carried out by the Pekanbaru City Population and Civil Registration Service in providing digital population administration public services as a form of implementing the Pekanbaru smart city government program and the conditions at that time in early 2020 there was Covid-19.

Sipenduduk as an online service in the form of a website that is expected to help the people of Pekanbaru City in getting services. The Sipenduduk website has 13 services offered in providing services ranging from recording population biodata to child validation. Currently, all services are carried out online and there are no assessment criteria yet. With the number of people who conducted a survey for sipenduduk satisfaction totaling 228 people recorded on the Sipenduduk website.

The next problem that occurred was that the Population and Civil Registration Service in implementing E-KTP and Death Certificate services on the sipenduduk website could optimally only process 220 E-KTP documents and 1 death certificate document per day. Applications received every day using the sipenduduk website were 500-700 per day. The following is a graph of sipenduduk usage in June, July, August, September 2023:

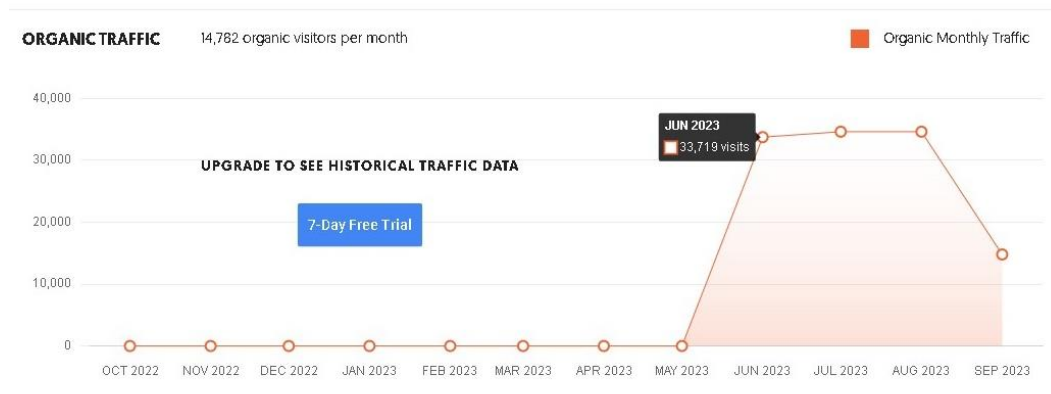


Figure 1. Graph of people accessing the Sipenduduk Website in June 2023

Source: <https://app.neilpatel.com>, 2023

In Figure 1, it can be seen that 33,719 users accessed the sipenduduk.pekanbaru.go.id website in June 2023.

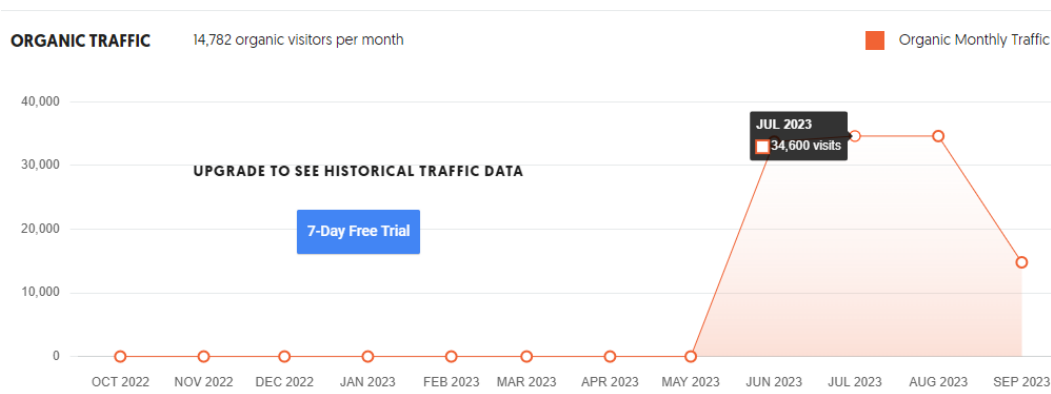


Figure 2. Graph of Users Accessing the Sipenduduk Website in July 2023

Source: <https://app.neilpatel.com>, 2023

In Figure 2, it can be seen that 34,600 users accessed the sipenduduk website in July 2023. July experienced an increase from June 2023, with 881 users accessing the sipenduduk.pekanbaru.go.id website.



Figure 3. Graph of Users Accessing the Sependuduk Website in August 2023

Source: <https://app.neilpatel.com>, 2023

In Figure 3, it can be seen that 34,600 users accessed the sipenduduk website in September 2023. The month of August did not experience a decrease or increase in sipenduduk website users from July 2023.

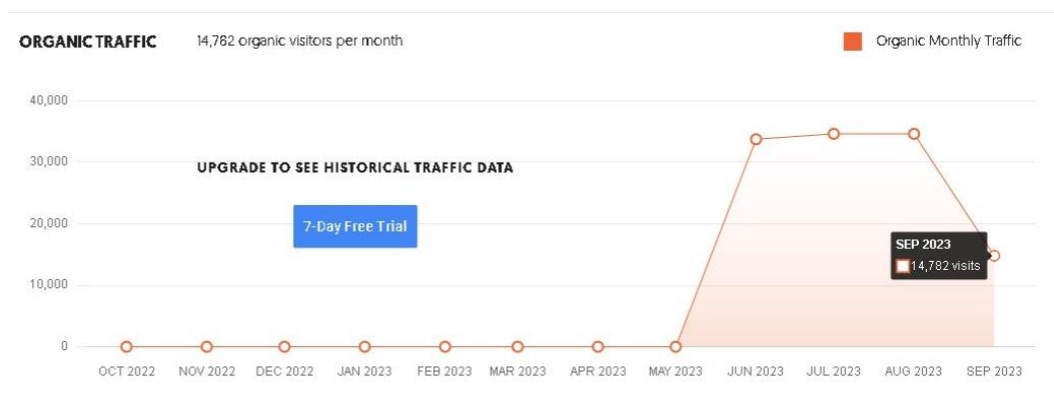


Figure 4. Graph of Users Accessing the Sependuduk Website in September 2023

Source: <https://app.neilpatel.com>, 2023

In Figure 4, it can be seen that 14,702 users accessed the sipenduduk website in September 2023. September experienced a decrease from July 2023 with 19,898 users. The lack of public understanding regarding the mechanism of the sipenduduk.pekanbaru.go.id website is because in 2022 only two socializations were held at the City Government level by presenting representatives from each sub-district and in addition, socialization related to the sipenduduk website. Based on the phenomena stated above, the author can conclude that the formulation of the problem for this study is How is the Innovation of the Integrated Population Service Information System (Sipenduduk) in Population Services at the Pekanbaru City Population and Civil Registration Service?

State of The Art

Research in the public service sector is always interesting to study in the midst of the era of the 4.0 revolution that continues to develop. The government is required to provide quality services. Studies examining services to the community have been widely conducted by researchers, including services carried out by the government in the fields of taxation services (Alfianida et al., 2023; Purwadinata & Kaluge, 2017), emissions sector (Yulistiar & Manggalou, 2023), agricultural sector (Mukti et al., 2023), institutions (BP IPY, 2022), health sector (Pratiwi, 2021), development (Holidin, 2007), employment (Setyawan et al., 2023; Anjaningrum et al., 2023). Meanwhile, this study focuses on the population service sector as a

strategic sector for improving the quality of population administration services through information technology-based innovation. The readiness of reliable, superior apparatus, leadership (Siswanto et al., 2022), budget (Affandi & Marijan, 2022), new ideas (Efrata et al., 2020)) and technological instruments (Sianturi et al., 2022) are challenges in implementing the integrated population service system (SIPENDUDUK) innovation in Pekanbaru City. This research is interesting and relatively new because this research also emphasizes the model of implementing innovation in urban areas of services and trade which tend to be easier to implement with the support of a good internet network, but the community has not been able to utilize this innovation optimally. Untuk mempertegas posisi state of the art penelitian ini didukung dengan literatur review menggunakan aplikasi VOSviewer. Peneliti membatasi pada 200 paper yang relevan mengkaji tentang inovasi.

The results of the references are dominated by innovation studies in the public sector (Hilmawan et al., 2023; Lukman, 2021; Jaya & Prasetyo, 2021; Anggadwita, 2013; Asmara et al., 2023), universities as innovation actors (Hutapea et al., 2020), innovation in the creative industry (Hidayat, 2017; Anjaningrum et al., 20023; Nurgraha & Mulyadi, 2018) and innovation in local governments in Indonesia (Alfachrizi, 2023; Febrian et al., 2021; Ahmad & Yani, 2020; Ahmad et al., 2020). This is certainly relevant to the research to be conducted. The following are the mapping results in the following image:

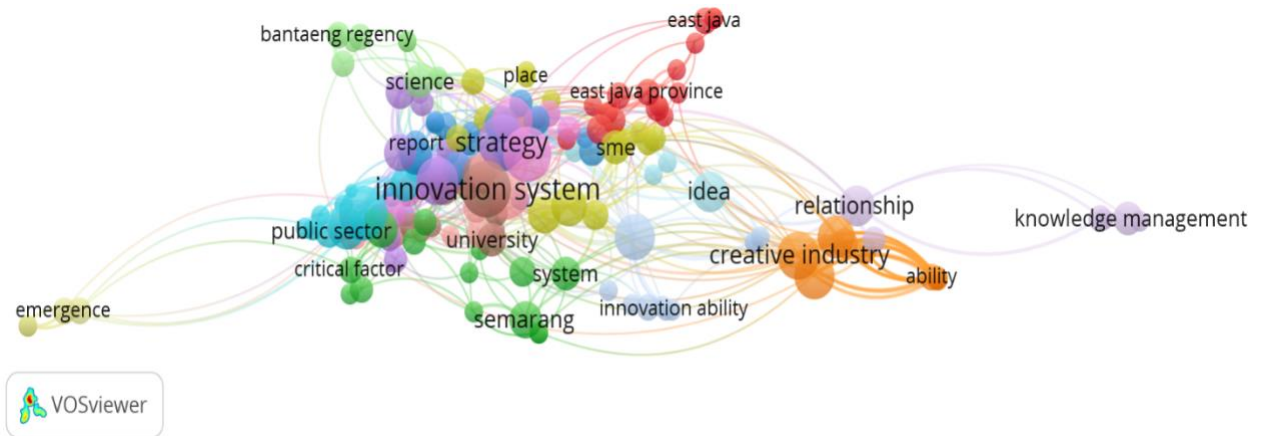


Figure 5. Identification and VOSviewer Analysis of relevant research and related sources of analysis using VOSviewer, 2024

Methods

This study was conducted in Pekanbaru City, with the consideration as a metropolitan city that focuses on trade and service cities. The high mobility of the population in Pekanbaru City must be supported by effective and efficient population services. This study uses qualitative methods (Norman et al., 2021; Smith & Sparkes, 2020; Lichtman, 2023) with a descriptive approach to identify population service innovations. Data collection techniques in this study are FGD, interviews, observations, documentation, Online research methods (ORMs) (Hooley & Buchanan, 2024) to collect data and information via the internet and other digital technologies. ORMs in this study include the results of data collection available from the official government website. Data collection from the official government website, namely the Population and Civil Registry Service of Pekanbaru City. The data that was successfully collected was then captured, while some data that had not been visualized on the website in the form of text information was coded using the Nvivo 12 Plus analysis tool.

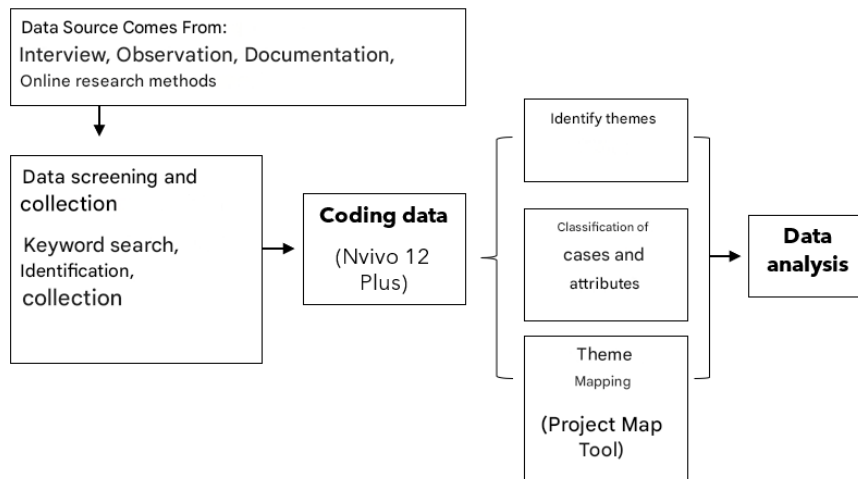


Figure 6. Research data analysis process.

Results and Discussion

According to E.M. Rogers & Shoemakers in (Prabowo, 2022:30) innovation is an idea, practice, or object that is suggested as new by an individual. The speed or slowness of the acceptance of innovation by society depends greatly on the characteristics of the innovation itself. Which characteristics of innovation according to Rogers can affect the speed of information acceptance. The characteristics of innovation are: 1) Relative advantage; 2) Compatibility; 3) Complexity; 4) Triability; 5) Observability.

In Government Regulation of the Republic of Indonesia Number 38 of 2007 concerning Regional Innovation Article 1 Paragraph 1 regional innovation is all forms of renewal in the implementation of regional government. Which regional innovation aims to improve the performance of regional government administration.

Improving the welfare of the people of Pekanbaru City certainly requires policies that are right on target regarding public services in Pekanbaru City, of course so that the objectives of the services provided to the people of Pekanbaru City regarding population administration are in accordance with the suggestions and objectives that have been determined by the Population and Civil Registration Service of Pekanbaru City.

In this study, as explained above, the data obtained by the author came from interviews that had been selected according to the criteria of researchers who were considered to be able to represent the research that had been raised. The selected informants were people who knew and were involved in the Innovation of the Integrated Population Service Information System (Sipenduduk) in population services at the Population and Civil Registration Service of Pekanbaru City.

In Population Services, it is hoped that good services will be created for the people of Pekanbaru City. Based on the research variable indicators, some of them are:

Relative advantage

Relative advantage is the extent to which this innovation is considered beneficial to its recipients. The level of benefit or usefulness of an innovation can be measured based on its economic value, or from social status factors, pleasure, satisfaction, or because it has very important components. The more profitable an innovation is for its recipients, the faster the innovation will spread.

Based on the Relative Advantage Indicator, it can be concluded that Sipenduduk is a population administration service information system that brings benefits from what used to be 14 working days to being short. With Sipenduduk, people do not need to deliver files, just send them from home, helping people who can receive services from the Pekanbaru City Population and Civil Registration Service quickly and no longer have to wait long. Sipenduduk also provides benefits for population administration service providers who can work more optimally, and this Disdukcapil in helping the community. Sipenduduk also has neat and well-archived data in online documents.

Compatibility

This compatibility is the level of conformity of innovation with the values, past experiences, and needs of the recipient of the innovation. Innovations that do not conform to the values or norms believed in by the recipient will not be accepted as quickly as innovations that conform to the norms in society.

Based on the Compatibility Indicator, it can be concluded that Sipenduduk is a website designed to help people obtain information about population administration documents. By using the Sipenduduk website, people are more optimal in having population documents because they can be made in a practical way and do not use costs and easy and fast services. However, based on the results of observations made by the author, the utility value of Sipenduduk is difficult to apply in various circles because of the difficulty of using and applying the Sipenduduk website. The community has a social impact in using Sipenduduk, namely having documents. In the service standard, it used to be 14 days, now it's one day, right? In the past, people came, now they don't. When viewed from the difference in using offline services by using Sipenduduk, people no longer need to deal with administrative documents directly because they can take care of them from their own homes. In terms of method or way, this is rather difficult according to the community. Every policy has consequences. Judging from the largest percentage, 80% of Pekanbaru city residents understand how to use online services, while the other 20% are about how to provide assistance. Sipenduduk Innovation, if viewed from the elderly, the community can come manually to us at Disdukcapil

Complexity

Complexity is the level of difficulty in understanding and using innovation for recipients. An innovation that can be easily understood and used by recipients will spread quickly, while innovations that are difficult to understand or even difficult to use by recipients of innovation will be slow to spread.

Furthermore, based on the Complexity Indicator, it can be concluded that the purpose of Sipenduduk is to make things easier, but indeed everything that is new to society must have its challenges. Therefore, for the elderly to access Sipenduduk, they are assisted by relatives and those who fill out the registration are done by themselves by entering the various identities needed. Users must download until printing, there are printers in stores if there are none at home. So for Disdukcapil, this is a challenge that people must solve themselves. The point is not 100% satisfied.

Downloading the files, all the people are assisted. The form offered is in PDF format so it cannot be filled in directly, it must be changed to Word first. The public thinks that this is very complicated. Maybe also because the public is not or is not used to it. From the results of the author's observations, there are procedures uploaded by the Department on the Youtube page. So, the main factor is the lack of socialization to Sipenduduk, making it difficult to access, download, and upload documents using the website.

Triability

Triability is the ability where an innovation can be tried or not tried by its users. So that innovation can be quickly adopted, an innovation must be able to demonstrate its superiority.

Based on the Triability Indicator, it can be concluded that the Sipenduduk innovation can be accepted by the people of Pekanbaru City starting from a 3-month trial. First, Disdukcapil created Sipenduduk in 2019, which was used internally, not for the public. So whether or not this innovation is accepted by the community, there must be hard work from those who make the innovation so that it is quickly accepted by the community. Many do not understand how to access, download, and upload documents and what's worse is that many people still don't know that now managing population data in Pekanbaru City is through Sipenduduk. The community can understand and accept this innovation if there is a solution. The advantages that can be accepted by the people of Pekanbaru City, especially in making E-KTP using Sipenduduk, are that people come to the Pekanbaru City Population and Civil Registration Office to pick up their KTP, there are already hours/shifts. Which is based on the author's observation results that in taking this population document, the day and time of taking the population document can be adjusted. However, based on the author's observation results, there are still many crowds in front of the office because people do not know that taking population documents must first register via the website. The advantage of the death certificate is that you don't need to pick it up at the Pekanbaru City Population and Civil Registration Office located on Jalan Jendral Sudirman. What can be accepted by the people of Pekanbaru City, especially in making a Death Certificate using Sipenduduk, the file is sent directly to email and can be printed without having to go to the Pekanbaru City Population and Civil Registration Office.

Observability

The meaning of observability is the ease or difficulty of observing the results of an innovation. An innovation whose results are easy to observe will be accepted more quickly by the community, and conversely, innovations that are difficult to observe the results will take a long time to be accepted by the community.

Furthermore, based on observability, it can be concluded that the community feels that the Sipenduduk innovation based on website technology is good. People who have difficulty understanding this Sipenduduk, Disdukcapil makes a regional regulation, in which the community may be assisted by other people. From some people who see the many innovations to take care of population documents, they feel confused. The community hopes that this innovation can continue to develop for the better in the future. The community considers that the development of this Sipenduduk can also be seen from the mechanism for taking care of Sipenduduk. Previously, this community was required to queue to work on population documents such as KTP, now with the development of technological innovation related to Sipenduduk, the community in making population administration documents such as KTP only by accessing, downloading and uploading the documents needed to take care of KTP. To carry out supervision, maintenance. For the community itself, it is necessary to be enthusiastic in the sense of caring about its documents. The Sipenduduk innovation according to the Head of the Population and Civil Registration Service of Pekanbaru City is easily accepted.

Conclusion

Based on the results of field research on the Innovation of the Integrated Population Service Information System (Sipenduduk) in Population Services at the Population and Civil Registration Office of Pekanbaru City, it can be concluded that: The lack of socialization carried out by the Population and Civil Registration Office of Pekanbaru City is due to the limited APBD for socialization regarding the Sipenduduk innovation, resulting in a lack of

public understanding regarding the mechanism of the sipenduduk.pekanbaru.go.id website. The socialization that was held directly presented representatives from each sub-district. The Population and Civil Registration Office of Pekanbaru City explained that in addition to direct socialization, it also always disseminates information on various social media owned by the Population and Civil Registration Office of Pekanbaru City such as Facebook, Instagram, and also WhatsApp. The Population and Civil Registration Office on the Sipenduduk website does not provide a digital form that can be filled in directly but provides a form in PDF format which technically cannot be changed directly. This problem arises in a society that still lacks information and knowledge about digital technology. So this service innovation is still difficult for the public to accept.

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