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Innovation of Online-Based Licensing Services through the SSW Alfa Application in Kalirungkut Village, Surabaya City

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A B S T R A C T

The innovation of online licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City was raised to overcome the problem of the complicated and time-consuming permit application process. This study aims to evaluate the effectiveness of SSW Alfa in improving the efficiency of public services. The approach used is qualitative with a case study method, involving interviews and observations of users and village officials. The results of the study show a significant increase in the number of permits issued from 484 in 2021 to 714 in 2024, reflecting public acceptance of this innovation. Rogers' innovation attribute theory, especially the trialability and complexity indicators, is the basis for this analysis. The public is given the opportunity to try the application, which increases their trust and understanding. However, inhibiting factors such as the digital divide and difficulty in understanding technology remain, which require more attention from the village to provide support and training. Thus, SSW Alfa not only offers easy access, but also answers the community's need for a faster and more efficient licensing process.

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INTRODUCTION

Kalirungkut Urban Village, located in Rungkut District, Surabaya City, has taken significant steps to improve public services in the licensing sector by utilizing information technology, especially through the Surabaya Single Windows (SSW) Alfa application. The SSW Alfa application is designed to make it easier for the public to apply for various types of permits online, so that the process that was previously considered complicated is now simpler and more efficient. With this system, the public no longer needs to spend a long time at the urban village office to take care of the necessary permits. One of the advantages of the Surabaya Single Windows Alfa application is the ease of access it offers. The public can apply for permits from anywhere and at any time, simply by using a device connected to the internet. This is very helpful, especially for those who are busy or cannot come directly to the urban village office. With this system, Kalirungkut Urban Village is committed to providing more responsive and flexible services.

The permit application process through this application is also equipped with clear guidance, so that the public can follow the necessary steps without confusion. Each type of permit has terms and procedures that have been explained in detail in the application, so that the public can prepare the necessary documents properly. Thus, errors in submitting permits can be minimized, and the process becomes faster. In addition, the Surabaya Single Windows Alfa application also provides a feature for tracking the status of permit applications. The public can easily find out the progress of their applications in real-time, from submission to issuance of permits. This feature provides a sense of transparency and certainty for the public, so they do not need to worry about waiting without clear information regarding the status of the permits submitted.

Kalirungkut Village is also active in providing socialization regarding the use of this application to the community. Through various activities, such as seminars and training, the community is taught how to use the Surabaya Single Windows Alfa application effectively. Service officers in the village also play an important role in promoting the use of the SSW Alfa application. They can create video tutorials and documentation of the use of the application that is uploaded to social media. This will help people who prefer to learn through visuals and can improve their understanding of how to use the application. This aims to ensure that all levels of society, including people who are less familiar with technology, can make good use of this service.

In an effort to improve the quality of service, Kalirungkut Village also conducts periodic evaluations of the existing system. Input from the community is highly considered to make improvements and develop the application to be more user-friendly. By involving the community in the evaluation process, the village hopes to create services that are more in line with the needs and expectations of the community. Physical facilities at the village office are also an important factor in supporting the use of the SSW Alfa application. The Kalirungkut Village Office has been equipped with adequate facilities and infrastructure, such as computers, internet networks, and printers. This allows the community to access the application directly at the office if they do not have

a device at home. People who do not have access to technology at home can take advantage of the facilities provided by the village. For example, they can use the computers and printers available at the village office to take care of permits. This shows the government's commitment to providing inclusive services for all levels of society. The existence of the SSW Alfa application also supports the government's efforts to create a transparent and accountable government. With an integrated system, each permit application can be monitored and supervised better. It is hoped that this will reduce undesirable practices, such as illegal levies, which are often obstacles in the licensing process.

From the description of the problem analysis above, this study aims to analyze the extent to which the SSW Alfa innovation has been successfully implemented in an effort to improve the quality of licensing services at the Kalirungkut Urban Village Office, Surabaya City. The analysis includes how the process of implementing innovation from SSW Alfa at the Kairungkut Urban Village Office, the benefits and positive impacts generated and felt by the community for licensing services from the SSW Alfa application, and the challenges faced during the process of implementing services from the application in Kalirungkut Urban Village. Innovation will be easier to understand if we understand it using a certain model or framework of thought. In analyzing the problems that the researcher has outlined above, the researcher uses the innovation model theory as an update from Rogers quoted by Suwarno (2008) because the innovation theory as an update is clearer and easier to understand with the focus used in Rogers' theory, namely: 1) relative advantage or relative advantage; 2) compatibility or suitability; 3) complexity or complexity and; 4) trialability or possibility of being tried; 5) observability or ease of observation.

LITERATURE REVIEW

Innovation in the context of the public sector is defined as the creation and implementation of processes, products, services, and delivery methods that result in significant improvements in efficiency, effectiveness or quality of outcomes. According to the theory of innovation attributes by Rogers cited by Suwarno (2008) includes Relative Advantage, Compatibility, Complexity, Triability, Observability, which will be described as follows:

1) Relative advantages are the level at which an idea is considered better than previous ideas and is economically profitable.
2) Compatibility is the extent to which an innovation's past is perceived as consistent with the existing values, past experiences, and needs of the adopter. Therefore, innovations that are incompatible with the salient features of the social system will not be adopted as quickly as compatible ideas.
3) Complexity is a level at which an innovation is considered relatively difficult to understand and use. Difficulty in understanding and using it will be an obstacle to the speed of innovation adoption.

4) Trialability is the degree to which an innovation is small-scale. New ideas that can be tried on a small scale are usually adopted more quickly than innovations that cannot be tried first.
5) Observability is the degree to which the results of an innovation can be easily seen as technical-economic advantages, thus accelerating the adoption process. Other potential adopters do not need to go through the trial stage anymore, they can continue to the adoption stage.

METHODOLOGY

This research is included in descriptive research using a qualitative approach. Qualitative methods rely on text and image data, have steps for data analysis, and use a variety of designs.(Creswell, 2014). This qualitative descriptive research was chosen to be able to provide a clear picture of the phenomena that occur in the field based on the focus of the research conducted, namely the innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City. In this qualitative research, the researcher will be the research instrument. The focus of this research is to explain and analyze how the implementation of online-based licensing service innovations through the SSW Alfa application in Kalirungkut Village, Surabaya City and to explain and identify what are the inhibiting factors in the implementation of this innovation. The determination of informants in this study was carried out using purposive sampling techniques.(Creswell, 2008)explains that the purposive technique is to select the best candidate places and informants being studied so that they can help answer the problem formulation. In this case, in the research on Innovation in online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City, the key informants were the Secretary of Kalirungkut Village, Head of Government and Public Services of the Kalirungkut Village Government, and the people of Kalirungkut Village who took care of licensing through SSW Alfa.Primary data in research is obtained directly through interview results and observations, while secondary data is obtained through literature studies or documentation.(Sukirman, 2021). Data collection techniques through interview, observation and documentation processes(Sugiyono, 2014). Data collected from the observation, interview, and documentation processes are tested for data validity using data source triangulation techniques. where data from the interview, observation, and documentation processes are presented so that conclusions can be drawn.(Moleong, 2014). Triangulation of data sources involves using multiple sources of information to verify the findings obtained.(Elia & et al., 2023).

RESULTS AND DISCUSSION

In this study, to analyze the implementation of SSW Alfa service innovation in Kalirungkut Village, Surabaya City, the researcher used Rogers' theoretical approach related to five attributes to see innovation in a government agency, including:

1. *Relative Advantage*

The innovation attribute theory proposed by Rogers explains that there are several factors that influence the adoption of an innovation, one of which is relative advantage. Relative advantage refers to the extent to which an innovation is considered better than previous ideas or practices. This can be measured from various aspects, such as efficiency, cost, time, and benefits obtained. When people see that an innovation offers significant benefits, they tend to be more open to adopting it. Therefore, relative advantage is one of the key indicators in determining the success of an innovation in society.

The SSW Alfa innovation in Kalirungkut Village has brought significant changes in handling permit applications, especially in terms of ease of access and clarity of the process flow. With a user-friendly page display and various optional features available, the public can easily understand the steps required to apply for a permit. This not only increases user convenience but also reduces the confusion that is often experienced in the manual permit system which was previously complicated and time-consuming. With SSW Alfa, the public now has better access to the information and procedures needed, so they feel more confident in applying for a permit.

Table 1 Application for permits with SSW Alfa in 2023-2024 in Kalirungkut Subdistrict

No	**Types of Licensing**	**Number of Submissions**	
		2023	**October 2024**
1	Business domicile certificate	268	175
2	Marriage introduction letter	254	196
3	Widow/widower statement letter	27	69
4	Statement of never having been married	35	153
5	Non-formal income statement	8	121
Total number of permit applications		592	714

Source: Kalirungkut Subdistrict Data Recap

Table 1 shows the application for permits with SSW Alfa in Kalirungkut Village for 2023 and 2024. From the data, it can be seen that there is variation in the number of applications for each type of permit. The total application for permits increased from 592 in 2023 to 714 in 2024, reflecting an increase in public interest in managing permits through SSW Alfa. In the context of Rogers' innovation attribute theory, especially the Relative Advantage indicator, SSW Alfa can be seen as an innovation that provides convenience and efficiency in managing permits. This relative advantage may be a motivating factor for the public to be more active in applying for permits, especially for types that have experienced an increase in applications. For example, with SSW Alfa, the public can experience a faster and more transparent process in managing Non-Formal Income Certificates, which increased significantly from 8 to 121 applications. This shows that SSW Alfa not only meets administrative needs but also provides

added value to the community, thus encouraging them to use this service more in the coming years.

The relative advantages of SSW Alfa innovation in Kalirungkut Village can be seen from various aspects that show significant improvements compared to the manual licensing system previously implemented. One of the main advantages is the time efficiency obtained by the community. Previously, the permit application process required a lot of time and effort, because the community had to come directly to the village office and follow complicated procedures. With SSW Alfa, the community can now apply for permits online from anywhere and at any time, which not only saves time but also reduces the physical burden they have to bear.

In addition to time efficiency, relative benefits are also seen in terms of cost. With a digital system, people no longer need to spend transportation costs to go to the village office. This is very meaningful for people who live far from the village office or for those who have physical limitations. This cost reduction is one of the factors that encourages people to be more accepting and adopting SSW Alfa's innovation, because they feel the direct benefits of the savings obtained.

Transparency in the licensing process is also a significant relative advantage of SSW Alfa. Communities can easily monitor the status of their permit applications, which reduces the uncertainty that often occurs in manual systems. With this transparency, communities feel more involved and in control of their permit application process, which in turn increases satisfaction with the services provided. This creates a greater sense of trust in the government and the licensing process, as communities feel they can see and understand each step taken in their permit application.

Despite the many benefits felt, there are still challenges faced, especially for segments of society who are not familiar with technology. To overcome this, the sub-district has provided support and facilities for those who have difficulty accessing digital services. Thus, SSW Alfa strives to ensure that all levels of society can enjoy the benefits of this innovation, without exception. This shows that relative benefits are not only measured in terms of efficiency and cost, but also from efforts to reach the entire community and ensure that this innovation is accessible to everyone.

The Kalirungkut Village has taken several steps to address the challenges faced by segments of society who are not familiar with technology in accessing SSW Alfa services. One of the main efforts is to provide facilities such as computers and internet access at the village office, so that people who do not have devices at home can still access these services easily. In addition, the village also held socialization for the community so that they better understand how to use the SSW Alfa application. With these steps, the Kalirungkut Village is committed to ensuring that all levels of society, including those who are less familiar with technology, can enjoy the benefits of this innovation. This support shows that the Kalirungkut Village is not only focused on implementing technology, but also on inclusivity and accessibility for the entire community.

Innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City shows significant progress in

reducing the complexity of the licensing process. Innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City shows significant relative advantages, in accordance with Rogers' innovation attribute theory. This theory states that relative advantage is the degree to which an innovation is considered better than previous ideas. In the context of SSW Alfa, the community feels the ease and speed in the permit application process which was previously complicated and time-consuming. With this system, permit applications can be done online from anywhere and at any time, which not only increases efficiency but also reduces the physical burden on the community.

SSW Alfa also increases transparency in the licensing process, where the public can easily monitor the status of their permit applications. This creates a greater sense of trust in the government and increases public satisfaction with the services provided. Thus, SSW Alfa not only serves as a tool to simplify the licensing process, but also as a means to build better relations between the government and the public. The positive acceptance of the public towards this innovation shows that SSW Alfa has succeeded in meeting the relative advantage indicator in Rogers' theory.

2. *Compatibility*

The innovation attribute theory proposed by Rogers emphasizes that the success of adopting an innovation is greatly influenced by several attributes, one of which is compatibility. Compatibility refers to the extent to which the innovation is in line with the values, experiences, and needs of the user. If an innovation is considered relevant and in line with the social and cultural context of the user, then it is likely that the innovation will be adopted more quickly. This shows that understanding the background and characteristics of users is very important in designing innovations that can be accepted by the community.

Compatibility also includes aspects of how innovation can be integrated into existing routines and practices. Innovations that are considered compatible will be more easily accepted because they do not require major changes in user behavior or habits. Conversely, if innovation is considered to be in conflict with existing values, then its adoption will be hampered. Therefore, it is important for innovation developers to consider this compatibility so that the resulting innovation can be accepted and used effectively by the target community.

The suitability of innovation with user values, experiences, and needs is a key factor in the successful adoption of an innovation. In the context of the SSW Alfa application in Kalirungkut Village, the SSW Alfa innovation was designed to replace the manual licensing system previously used. By understanding the needs of the community who want a faster and more efficient licensing process, SSW Alfa offers a solution that is relevant and in accordance with user expectations. This shows that the innovation developer has considered the social and cultural context of the local community, so that this innovation is more easily accepted and adopted by residents. The suitability of SSW Alfa can also be seen from the efforts of the village office in providing facilities and assistance for residents who do not have electronic devices. The village office provides

computers and tablets at the village office as well as short training to help the community understand how to use the application. Thus, SSW Alfa not only focuses on technical aspects, but also pays attention to social aspects that are important to ensure inclusivity in public services. This reflects the government's commitment to reaching all levels of society, including those who may not be familiar with digital technology.

The Kalirungkut Urban Village has shown a strong commitment to providing special treatment for the elderly and people who are not familiar with digital applications when accessing SSW Alfa services. In an interview with Mrs. Rr. Budi Hariani, Secretary of the Urban Village, it was stated that the urban village provides special assistance for this community group, ensuring that they are not left behind in the licensing process which is now digital-based. This reflects the government's awareness of the importance of inclusivity in public services, where all levels of society, including the elderly or those less experienced with technology, can access available services without barriers.

As a stimulus for people who do not have electronic devices to access SSW Alfa, the village office provides facilities such as computers and tablets at the village office. With this facility, residents who do not have personal devices can still apply for permits easily. In addition, the village office also offers assistance in the form of account creation and short training on how to use the application. This shows that the government does not only rely on technology, but also pays attention to the social needs of people who may have difficulty adapting to the digital system.

This effort not only increases community participation in the licensing process, but also creates a more inclusive and responsive environment to community needs. By providing adequate support, the village seeks to ensure that all residents, regardless of their technological background, can effectively utilize SSW Alfa services. This is important to increase public trust in public services and ensure that the innovations implemented can provide maximum benefits for all groups.

The suitability of this innovation is also reflected in the implementation of existing regulations. SSW Alfa is implemented based on Surabaya Mayor Regulation Number 41 of 2021, which covers aspects of business and non-business licensing. By following relevant regulations, SSW Alfa not only meets community expectations but also increases public trust in the services provided. The suitability between innovation and regulations is important to ensure that innovation can be accepted and used effectively by the target community.

The innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City shows a high level of suitability with the social and cultural context of the local community, in accordance with Rogers' innovation attribute theory. This theory emphasizes that the success of adopting an innovation is greatly influenced by the extent to which the innovation is in accordance with the values, experiences, and needs of users. In this case, SSW Alfa was designed to replace the previously used manual system, so that it is more in line with the needs of the community who want a faster and more efficient licensing process. By considering the local context, SSW Alfa not

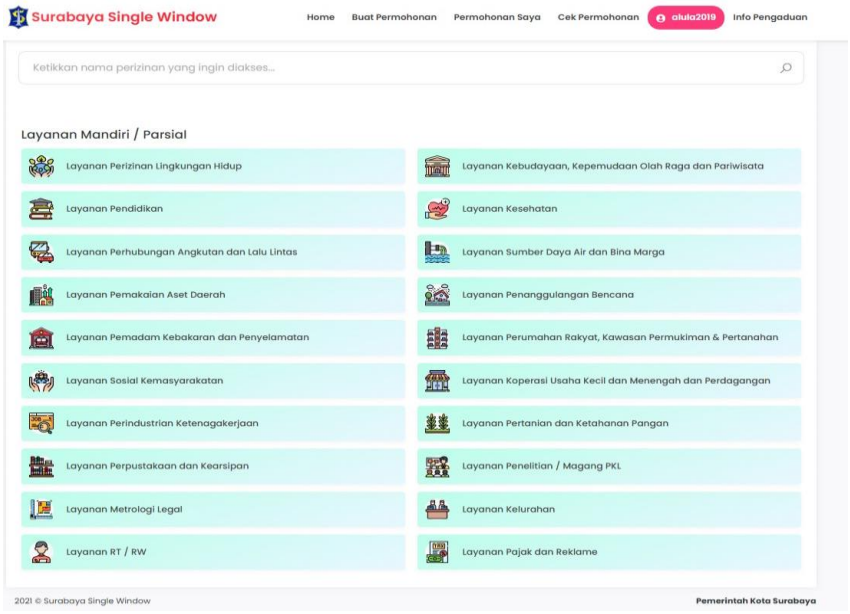
only offers easy access, but also answers the challenges faced by the community, especially for those who are not familiar with digital technology.

Furthermore, the conformity of SSW Alfa with the values that exist in society plays an important role in increasing the level of user acceptance. The sub-district has conducted socialization and provided support for people who have difficulty accessing digital services, such as providing computer facilities and training on how to use applications. This reflects the government's commitment to ensuring that all levels of society can utilize public services properly. Thus, the implementation of SSW Alfa not only focuses on technical aspects, but also pays attention to the social needs of the community, thus creating inclusivity in public services and increasing public trust in the innovations implemented.

3. *Complexity*

One important attribute is complexity, which refers to the extent to which an innovation is perceived as difficult to understand and implement. The more complex an innovation is, the more likely it is that individuals or groups will resist adopting it. This is due to the uncertainty and confusion that can arise when users are confronted with new procedures or technologies that are unfamiliar to them. Therefore, innovations that are perceived as complex can be a significant barrier to adoption, given that users tend to prefer solutions that are simple and easy to understand.

The SSW Alfa innovation introduced in Kalingkut Village aims to simplify the online licensing process. However, even though it is designed to increase efficiency, many residents still have difficulty accessing and using the application. This shows that the complexity of this innovation is a major barrier to adoption. Many users feel confused by the new permit application flow, and this lack of understanding causes them to prefer to take care of permits offline, which is considered more familiar and easier.



Source: Author's documentation

Figure 1 SSW Alfa system home screen display

The main display of SSW Alfa that is easy for users to understand can be analyzed through the lens of Rogers' innovation attribute theory, especially the complexity indicator. Complexity refers to the extent to which an innovation is considered difficult to understand and implement. In the context of SSW Alfa, a simple and informative display as in Figure 1 serves to reduce the complexity that users may face. By providing a clear initial menu and explanation of service requirements, SSW Alfa seeks to create a better user experience, thus facilitating the adoption of this application by the public. An intuitive and informative interface design is essential in reducing the lack of understanding that is often a barrier to the adoption of new technology. When users feel confused or unsure about how to use a system, they tend to refuse to adopt it. Thus, SSW Alfa which offers an easy-to-understand display can increase user trust and encourage them to try the services offered. This is in line with Rogers' theory which states that innovations that are considered complicated can hinder the adoption process.

The alignment of innovation with user values and needs also plays a role in reducing complexity. SSW Alfa is designed to replace the previous manual licensing system, which is often considered complicated and time-consuming. By understanding the community's need for a faster and more efficient licensing process, SSW Alfa offers a solution that is relevant and in line with user expectations. This shows that the innovation developer has considered the social and cultural context of the local community, making this innovation more easily accepted.

The community in Kalingkut Village showed varying understanding of the licensing service procedures through the SSW Alfa application. Although socialization has been carried out by the village, many residents still find it difficult to understand the steps that must be taken to apply for a permit online. This reflects that the complexity of the application can be a barrier for the community to adopt this new service, which in turn can hinder the effectiveness of the licensing system which is expected to simplify the administrative process.

One factor contributing to this complexity is the lack of public understanding of the technology used in the SSW Alfa application. Many residents do not have adequate devices or do not know how to operate the application. In addition, technical issues such as unstable internet connections also add to the difficulty in using the application. This reflects that although SSW Alfa has the potential to improve service efficiency, the complexity of its use may hinder wider adoption.

The level of understanding of the apparatus in Kalingkut Village regarding SSW Alfa services is quite good, although there is still room for improvement. The results of the interview with Mrs. Rr. Budi Hariani, Secretary of the Village Head, showed that the apparatus has demonstrated a fairly good understanding of this application. However, Mrs. Rina Aisyah, as the Government Section, emphasized the need for more intensive training and socialization to improve this understanding. This is important so that all officers can optimize the use of the application and provide accurate information to the community in need.

The consistency of village officials in implementing SSW Alfa services is also a major focus. Although they have shown commitment in using this application,

challenges remain in the practical application of the knowledge they have. Some officers still have difficulty in dealing with technical problems that arise, such as network disruptions and device limitations. This shows that although there is a good understanding, consistency in implementing services still needs to be improved in order to provide more responsive and efficient services to the community.

To achieve better consistency, further efforts are needed in terms of training and technical support for the apparatus. By increasing their capacity, it is hoped that the apparatus can provide better services and help the community in accessing SSW Alfa services more easily. In addition, more intensive socialization to the community is also important to ensure that they understand the procedures and benefits of this application, so that the adoption of new technology can run more smoothly.

4. *Triability*

Rogers' innovation attribute theory explains that there are several factors that influence the adoption of innovation by individuals or groups. One important attribute is triability, which refers to the extent to which an innovation can be tested or tried before being fully adopted. Triability provides an opportunity for users to evaluate the benefits and ease of use of an innovation without significant risk. With the opportunity to try, users can gain direct experience that can influence their decision to adopt the innovation. This is very important in reducing uncertainty and increasing trust in the innovation being introduced. The application of triability in the context of innovation allows users to provide constructive feedback, which can be used for improvement before the official launch. Limited trials involving a group of users can help innovators understand the challenges that users may face when using the innovation. Thus, triability not only functions as a tool to reduce risk, but also as a means to empower users in the innovation adoption process. Through this approach, it is hoped that innovation can be better accepted by the community, because they feel more involved and have the opportunity to contribute to the development of the innovation.

The SSW Alfa service innovation in Kalirungkut Village has gone through a trial phase before being officially launched. This trial involved a group of selected residents to provide input and feedback on the ease of use of the application. Through this approach, the village seeks to ensure that the application being introduced is well received by the community, as well as providing an opportunity for users to evaluate the benefits and ease of use of the innovation without significant risk. Thus, this trial is an important step in minimizing potential problems that may arise when the application is widely launched.

The village government's strategy in introducing and socializing SSW Alfa services includes various approaches aimed at reaching all levels of society. One strategy implemented is holding community meetings, where information about the application is delivered directly. In addition, distributing brochures and utilizing social media are also part of this socialization strategy. The village government also involves officers at the RT and RW levels to provide

explanations and direct assistance to residents in need, especially those who are less familiar with digital technology. This approach shows the village government's commitment to ensuring that all people can access SSW Alfa services properly.

The success of the SSW Alfa innovation in being accepted by the community is highly dependent on the community's ability to adapt to new technology. Despite efforts by the village to provide support and training, challenges in accepting innovation remain. Therefore, it is important for the village to continue to socialize and provide support to residents, so that the benefits of this innovation can be felt by all levels of society, including those who are less familiar with technology. With the right approach, it is hoped that SSW Alfa can be an effective tool in improving public services in Kalirungkut Village.

Table 2 Number of permits issued

Number of permits issued	
Year	Amount
2021	484
2022	516
2023	592
2024	714

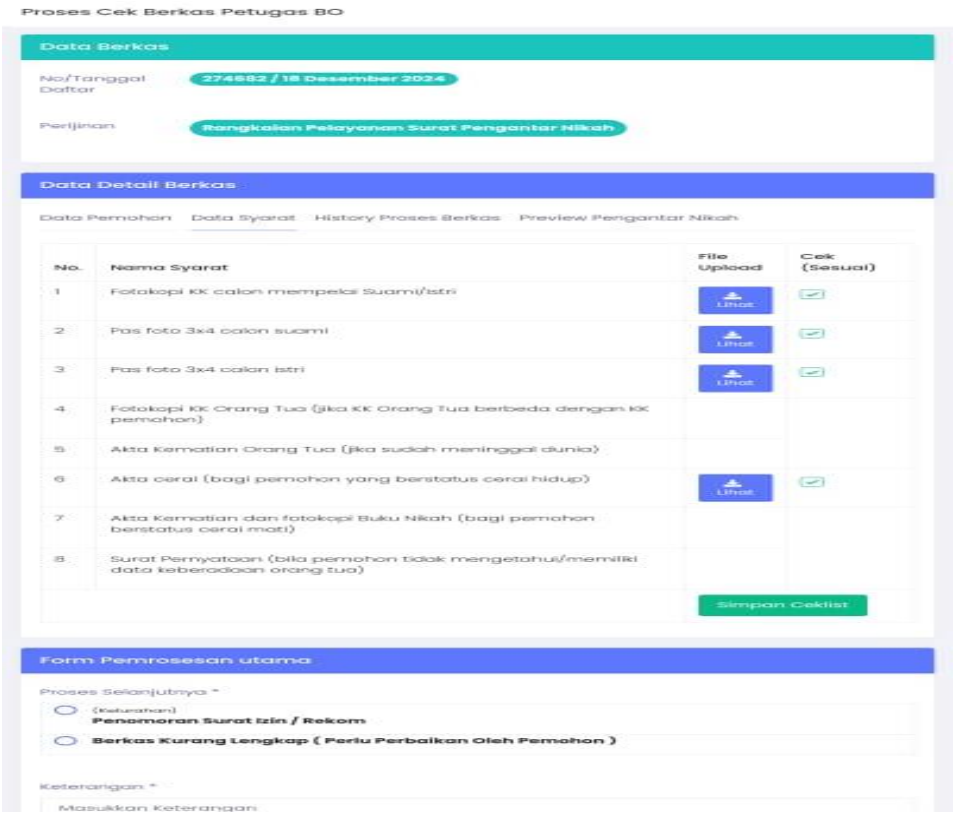
Source: Kalirungkut Sub-district Document

The success of SSW Alfa's innovation in being accepted by the community is greatly influenced by the community's ability to adapt to new technology. In the context of Rogers' innovation attribute theory, the indicator of trialability becomes very relevant. Trialability refers to the extent to which an innovation can be tested or tried before being fully adopted. In this case, SSW Alfa provides an opportunity for the community to try the service directly, so that they can feel the benefits and ease of use of the application without significant risk. By providing access to the community to try this system, they can evaluate the effectiveness and ease of use of SSW Alfa.

5. *Observability*

Rogers' innovation attribute theory explains that there are several factors that influence the adoption of innovation, one of which is observability. Observability refers to the extent to which the results of an innovation can be seen and evaluated by others. Innovations that have a high level of observability tend to be adopted more quickly, because individuals can observe the benefits and positive results obtained by other users. When the results of an innovation are clearly visible, this can increase the trust and interest of others to try the innovation, thereby accelerating the adoption process in society. Observability also plays an important role in creating an environment that supports the adoption of innovation. When people can easily see and understand the benefits of an innovation, they are more likely to participate and adopt the new system. In addition, observability can help reduce skepticism towards innovation, especially among individuals who are initially hesitant or do not understand new

technology. Thus, observability is one of the key indicators in the innovation attribute theory that can influence an individual's decision to adopt the innovation offered.



Source: Author's documentation

Figure 2 Display of the file checking process

The implementation of SSW Alfa in Kalirungkut Village shows a high level of observability, which is reflected in the ease of the community in monitoring the licensing filing process. With an integrated system, the community can see the status of their permit application in real-time, which not only increases transparency but also provides a sense of control to users. This allows residents to know clearly where their application is, thereby reducing the worry and uncertainty that often arises in the traditional licensing process. This observability contributes to increasing public trust in the system, because they can directly observe the results and benefits of using the SSW Alfa application.

From the organizer's side, the ease of monitoring incoming files also provides significant benefits. With a system that records and displays the number of files accurately, employees can easily create routine reports and manage the licensing process more efficiently. This not only speeds up the administrative process, but also reduces the possibility of errors that can occur in manual data processing. Thus, observability in SSW Alfa is not only beneficial for the community, but also for employees in improving the performance and accountability of public services.

The innovation of online licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City shows that observability is a key factor in accelerating the adoption of new technologies in the community.

The results of the study showed that the public can easily monitor the permit application process in real-time, which not only increases transparency but also builds trust in this new system. With the ease of observing the benefits and positive results of using SSW Alfa, people who were initially skeptical of digital technology began to switch and adopt this service. This is in line with Rogers' innovation attribute theory, which states that innovations that are easier to observe tend to be adopted more quickly because individuals can see the benefits obtained by other users.

Observability in the context of SSW Alfa also provides benefits for service providers. With a system that records and displays the number of files accurately, employees can manage the licensing process more efficiently and create routine reports easily. This shows that observability is not only beneficial for the community, but also for employees in improving the performance and accountability of public services. Overall, the SSW Alfa innovation in Kalirungkut Village not only improves service efficiency, but also ensures inclusiveness in access to public services, which is one of the main objectives of implementing technology in public services.

The innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City aims to simplify and accelerate the permit application process which was previously complicated and time-consuming. With SSW Alfa, the public can apply for permits online from anywhere and at any time, which not only increases efficiency but also reduces the physical burden on the community. However, the success of the implementation of SSW Alfa is not free from obstacles. These obstacles are the digital divide and Server errors. The following is an analysis of the inhibiting factors for online-based licensing service innovation through the SSW Alfa application in Kalirungkut Village, Surabaya City:

1. *Digital Divide*

The SSW Alfa innovation in Kalirungkut Village aims to simplify the licensing process through a digital platform. However, one of the biggest challenges faced is the digital divide that exists in society. This gap refers to differences in access and ability of the community in using information and communication technology. In this context, not all residents have the same access to electronic devices and adequate internet connections, which are very important for utilizing the SSW Alfa application effectively.

Many citizens, especially those from low-income backgrounds, do not have devices such as smartphones or computers. This makes it difficult for them to access the SSW Alfa application, which should make it easier to apply for permits. This inability to access technology creates inequities in public services, where only certain segments of society can enjoy the benefits of this innovation.

The digital divide also includes a lack of understanding and skills in using technology. Many residents, especially the elderly, find it difficult to adapt to digital applications. Although the sub-district has tried to provide training and socialization, there are still segments of society who feel alienated and unable to keep up with technological developments. This shows that innovations designed

to improve service efficiency can actually worsen inequality if not balanced with efforts to improve digital literacy.

This creates a cycle where those without access or technological skills continue to be left behind. Communities who cannot use the SSW Alfa application may revert to more complicated and time-consuming manual licensing methods, reducing the effectiveness of the innovation. This can also cause frustration among village officials who are trying to provide good service but are hampered by the inability of the community to adapt to the new system.

The sub-district has attempted to address this issue by providing facilities such as computers and internet access at the sub-district office. However, this solution does not fully address the broader problem of technological infrastructure in the area. The availability of facilities at the sub-district office does not guarantee that all residents will use them, especially those with limited mobility or time.

To overcome this digital divide, a more holistic approach is needed. The sub-district needs to collaborate with internet service providers to improve the quality of connections in the area. In addition, more intensive and sustainable training programs for the community must be held to improve digital literacy. In this way, it is hoped that the community can adapt more easily to technology and make optimal use of the SSW Alfa application.

From a social perspective, the digital divide can exacerbate inequalities in public services. Communities with better access to technology will be more likely to adapt to these innovations, while those without adequate access will be left behind. This can create dissatisfaction among citizens who feel neglected by a system that is supposed to benefit all. Overall, the digital divide is a significant inhibiting factor in the implementation of SSW Alfa innovations in Kalirungkut Village.

2. *Server Error*

Server errors are also a significant problem that hampers the implementation of SSW Alfa. When the server is down, the application cannot be accessed, and all licensing processes that should run smoothly are hampered. This creates frustration among users, both the public and officials, who expect fast and efficient service. This uncertainty can cause the public to return to more familiar manual licensing methods, thereby reducing the adoption of new technologies.

This condition reflects that although SSW Alfa is designed to simplify the licensing process, technical issues such as internet connection and server errors can hinder this goal. People who do not have sufficient understanding of technology may feel discouraged when faced with technical issues, and this can result in rejection of innovations that should provide benefits.

The sub-district has attempted to address this issue by providing facilities such as computers and internet access at the sub-district office. However, this solution does not fully address the broader problem of internet infrastructure in the area. Limited internet access in residents' homes remains a barrier, especially for those living in areas with inadequate networks.

In this context, it is important for the sub-district to conduct a comprehensive evaluation of the existing technological infrastructure. Cooperation with internet service providers to improve the quality of connections in the area can be a crucial step. In addition, training for officials and the community on how to overcome common technical problems can also help increase their confidence and ability in using the SSW Alfa application. Overall, unstable internet connections and server error problems are significant inhibiting factors in the implementation of the SSW Alfa innovation in the Kalirungkut Sub-district.

CONCLUSION AND RECOMMENDATION

Conclusion

Based on the analysis of the discussion of the research results, it can be concluded that the innovation of online-based licensing services through the SSW Alfa application in Kalirungkut Village, Surabaya City, it can be concluded that the success of adopting this innovation is greatly influenced by the attributes identified in Rogers' innovation theory which are explained as follows:

a) The relative advantage of SSW Alfa is clearly visible, where the public feels the ease and efficiency in the permit application process which was previously complicated and time-consuming. With this application, the public can apply for permits online from anywhere and at any time, which reduces physical burden and transportation costs.
b) Complexity, the application is one of the main barriers to the adoption of this technology. Although SSW Alfa is designed to simplify the licensing process, many people still have difficulty understanding and using the application. This shows that the more complex an innovation is, the more likely individuals or groups will refuse to adopt it.
c) Suitability, innovation with community values and needs also play an important role. SSW Alfa is designed to replace the previously used manual system, so that it is more in line with the expectations of the community who want a faster and more efficient licensing process. The efforts of the village government in providing facilities and training for people who are less familiar with technology also show a commitment to ensuring inclusivity in public services.
d) Triability is also a key factor in public acceptance of SSW Alfa. Through limited trials and socialization involving the community, the village provides an opportunity for users to evaluate the ease of use of the application without significant risk, which in turn increases public trust in this innovation.
e) Observability, the public can easily monitor the status of their permit application through the application, which increases transparency in the licensing process. This creates a greater sense of trust in the government and increases public satisfaction with the services provided.

Recommendation

a) Increased training and socialization, more intensive training programs and ongoing socialization are needed for the community so that they better understand how to use the SSW Alfa application. This can include workshops, video tutorials, and Q&A sessions involving village officials.
b) Simplify the application interface, SSW Alfa application developers need to consider simplifying the interface and flow of permit submission to be more user-friendly. By reducing complexity, it is hoped that the public can more easily understand and use this application.
c) Technology access facilities, the village office must continue to provide technology access facilities, such as computers and the internet, in the village office. This is important to help people who do not have devices or internet access at home.
d) Building effective communication, it is important to build effective communication about the relative advantages of using SSW Alfa. Clear and easy-to-understand information about the benefits of this application can increase public interest and trust in adopting it.
e) Periodic monitoring and evaluation, conducting periodic monitoring and evaluation of the use of the SSW Alfa application to identify problems faced by the community. The results of this evaluation can be used to make improvements and adjustments as needed so that the application is more in line with user needs.

ADVANCED RESEARCH

Future research on the adoption of online-based licensing services, such as the SSW Alfa application in Kalirungkut Village, should delve deeper into the socio-technical dynamics influencing user engagement and system sustainability. A mixed-methods approach combining qualitative insights from community perceptions with quantitative data analytics on user behavior could provide a comprehensive understanding of the factors driving or hindering adoption. Additionally, examining the interplay between digital literacy, socio-economic status, and technological acceptance through advanced modeling techniques—such as structural equation modeling (SEM) or machine learning-driven sentiment analysis—could yield valuable insights for optimizing system design and policy interventions. Comparative studies with similar e-governance innovations in different socio-cultural contexts would further enrich the discourse, shedding light on best practices and scalable strategies for enhancing digital public services.

REFERENCES

Ahmat Rofpi, & Katerina Bataha. (2024). Prosedur Pelayanan Surat Keterangan Domisili Usaha Di Kelurahan Penjaringansari Melalui Surabaya Single Window. Https://doi.org/10.35722/jurnalpubbis.v8i1.777

Anggunsuri, U., & Zahara, Z. (2023). Transition of Online Single Submission (Oss 1.1 To Risk-Based Approach) To Increase Investment in West Sumatera. *JCH (Jurnal Cendekia Hukum)*, *8*(2), 253. Https://doi.org/10.33760/jch.v8i2.617

Ayu, A. P., Nisa, F. L., & Muchtolifah. (2023). Inovasi Pelayanan Surat Pengantar Nikah Melalui SSW ALFA Memberi Kemudahan Terhadap Calon Pengantin dalam Pengurusan Berkas Nikah di Kelurahan Rungkut Tengah Surabaya. *Edunomika*, *07*(01), 1–8.

Bowo Prasetya, Y. (2017). *Evaluasi Pelaksanaan Program Surabaya Single Window (Ssw) Di Unit Pelayanan Terpadu Satu Atap (Uptsa) Kota Surabaya*. 1–11. Www.doingbusiness.org

Creswell, J. W. (2008). *Educational Research (Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. USA: Pearson.

Creswell, J. W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches 4th ed*. UK: Sage Publications.

Elia, A., & Dkk. (2023). *Metode Penelitian Kualitatif dan Kuantitaif*. Pustaka Ilmu.

Farid, M. (2015). Implementasi Electronic Government Melalui Surabaya Single Windows Di Unit Pelayanan Terpadu Satu Atap Kota Surabaya. Https://jurnalmahasiswa.unesa.ac.id/index.php/publika/article/view/11817

Gaba, F. V. B. (2024). *reformasi pelayanan surabaya single windows (ssw) alfa menggunakan pendekatan dynamic governance di kelurahan menur pumpungan kota surabaya*. *4*(04), 1–23.

Moleong, L. (2014). *Metodologi Penelitian*. Remaja Rosdakarya.

Mujiono, R., Tobing, L., Bengkel, B., & Irmayani, T. (2023). The Impact from the Implementation of Online Single Submission (OSS) towards the Ease of Business Licensing for Business Actors in North Sumatera Province. *Dinasti International Journal of Economics, Finance & Accounting*, *3*(6), 627–638.

Mukarom, Z., & Laksana, muhibudin wijaya. (2015). Manajemen Pelayanan Publik. In *Manajemen Pelayanan Publik* (p. 50).

Mulyawan, R. (2016). *Birokrasi dan pelayanan publik*.

Sugiyono. (2020). Metodologi Penelitian Kualitatif. In *PT. Global eksekutif teknologi* (Issue March). https://scholar.google.com/citations?user=O-B3eJYAAAAJ&hl=en

Sukirman. (2021). *Metode Penelitian Kualitatif: Sebuah Pengantar*. Penerbit Aksara Timur.