Public Sector Innovation Through Web Marriage Management Information System

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ABSTRACT

Improving the quality of public services is carried out by the government, one of which is by creating public service innovations. SIMKAH (Nikah Management Information System) is present as a public service innovation related to marriage registration services at the website-based District KUA. The research method carried out at the Office of Religious Affairs (KUA) of Tanjung Morawa District, Deli Serdang Regency using a qualitative descriptive approach with 5 variables including Relative Advantage, Compatibility, Complexity, Triability and Observability. The results showed that the SIMKAH is an update of the marriage registration service which was originally manual to online so that the service delivery becomes effective and efficient. This can be seen from the five indicators in the theory of innovation attributes, only in the complexity indicator that there are still obstacles, namely technical problems such as system error network problems and lack of human resources who specifically manage this application, as well as the complexity that can be seen from the understanding and ability of the community to access online services that cannot be generalized. So that improvements are needed from the central system of the Ministry of Religion and socialization to the community regarding the use of SIMKAH innovations in marriage registration services. Data uniformity and integrated data backup in marriage registration services is very necessary to provide solutions to existing problems with the previous service system.

Keywords: Innovation; Public Service; Information System; Marriage Management; KUA.

INTRODUCTION

The implementation of the Nikah Management Information System (SIMKAH) is carried out based on an orientation towards improving public services in marriage registration administration services so that in its implementation innovations are built based on the urgency of existing problems, namely assisting in the uniformity of marriage registration systems throughout Indonesia so that it is clear the graph of the level of marriage in an area, helping to back up marriage data integrated with Disdukcapil, preventing forgery of marriage books and making it easier for KUAs to provide information to the public about marriage data via the internet online, then providing information to the public to facilitate marriage services so that it is possible that unregistered marriages can be minimized. Based on the results of pre-research conducted by researchers at the Tanjung Morawa District

Religious Affairs Office on February 20, 2023 to March 17, 2023, it can be seen that the Tanjung Morawa District KUA in early 2015 used a manual-based system which still experienced many obstacles in its application due to the entire recording process which was still typed manually and data errors often occurred. In late 2019, innovation in the development of marriage registration services made progress with the emergence of a website-based SIMKAH.

The Tanjung Morawa Sub-District KUA is one of the sub-district Religious Affairs Offices that has the highest number of marriages in Deli Serdang Regency and has implemented the use of web-based SIMKAH in marriage registration services for the past 2 years. KUA Tanjung Morawa District has also become one of the Revitalized KUAs. An innovation in marriage registration services carried out aims to make it easier for prospective brides to register
themselves independently which can be done anywhere, without having to come directly to the KUA office and wait to be registered by the officer. Facilitating online data searches, the process of recording documents by typing, securing data even if the file is physically damaged, and displaying a bar code in the marriage book which aims to check the original data of the bride and groom by scanning it via cellphone (Ali & Anwar, 2024).

With the implementation of online services in marriage registration services, of course, it facilitates accessibility in receiving services, namely the community only needs accessibility through online media to reach these services. However, the process of marriage registration services through SIMKAH still experiences several obstacles in its application in the KUA of Tanjung Morawa District, for example the lack of a socialization process carried out by the local government to the community so that this policy cannot be accessed evenly by the community.

In addition, technical issues and human resources also support the success of this program. Facilities that have not been fully maximized such as the lack of computer facilities and unstable electronic networks. Therefore, Public Sector Innovation through the Web-Based Nikah Management Information System (SIMKAH) at the Religious Affairs Office of Tanjung Morawa District, Deli Serdang Regency is the objective in this research study. The concept definitions in this research include: 1. Public sector innovation is a process that arises from quality renewal actions that continue to experience sustainability and lead to a combination of organizational changes, procedures and policies related to the innovation. 2. Public Service is the process of providing services to the public in the form of goods, services or administration with the aim of meeting their needs. 3. Electronic Government (e-government) is the modernization of government activities and interactions with the community through digitalization in creating effective, efficient and transparent public services in response to community aspirations by paying attention to three important aspects including: support elements (government support), capacity (government capacity/ability), and value (benefits for society). 4. SIMKAH is an abbreviation for "Marriage Management Information System" a Windows-based computer application program which has the function of collecting marriage data from all KUA (Religious Affairs Offices) in the Territory of the Republic of Indonesia "online", the data will be stored safely in local KUA, in the district/city at the Provincial Regional Office and at Bimas Islam.

METHODS

This research was conducted at the Office of Religious Affairs of Tanjung Morawa District, Deli Serdang Regency, which is located on Jalan Medan- Lubuk Pakam KM 18.5 Tanjung Morawa in June - September 2023 using descriptive qualitative research methods. The researcher took informants from Framubakti/ SIMKAH Operators at the Tanjung Morawa District Religious Affairs Office as key informants because they were believed to be able to provide more accurate information regarding the use of the SIMKAH Application at the Tanjung Morawa District KUA. Meanwhile, the main informant came from the Head of the KUA, Tanjung Morawa District. Data sources are taken into consideration in determining data collection techniques, namely primary data and secondary data. Primary data is obtained from observations and interviews with respondents while secondary data is obtained from data collection or data processing in the form of documentation studies (document analysis) in the form of reviewing personal, official institutional documents, references or regulations (literature reports, writings and others that have references to the focus of research problems). Determining the accuracy and validity of research data is done through triangulation. Triangulation is a way to determine the existence of data and information bias in research (Afrizal et al., 2024). Triangulation helps control information in the event of contradictory information such as a.Triangulation of Data Sources and b.Engineering Triangulation
RESULTS AND DISCUSSION

Information technology is a supporting tool in an effort to provide quality services to the community and to relieve the Marriage Registrar of the Tanjung Morawa District Religious Affairs Office because it facilitates services to the community and modernization in data presentation. The implementation of marriage registration services certainly cannot be separated from the role of KUA employees/staff. SIMKAH was originally a desktop-based computer application program that was useful for collecting marriage data from all KUAs in Indonesia online. SIMKAH is the latest innovation in optimizing KUA performance, assisting in marriage registration and facilitating the provision of information to the public online, so that the possibility of unregistered marriages can be minimized. Therefore, innovation in public sector services does not require a new discovery, but is a new approach that is contextual in the sense that innovation is unlimited, which can be innovation resulting from expanding or improving the quality of existing innovations. In his book Diffusion of Innovations, (Rogers, 1983) states that there are several factors that influence the success of innovation, namely Relative Advantage, Compatibility, Complexity, Triability and Observability.

Since 2020, services through website-based SIMKAH have been implemented at the Tanjung Morawa District KUA, which was encouraged by the decision of the Directorate General of Islamic Community Guidance to use this application in every District KUA. With the service innovation through website-based SIMKAH at the District KUA, it will help the services provided by KUA to the community. Services via the website are also a form of new innovation for the government to be able to provide fast services and guarantee the security of data that will be stored in the application (Haddad et al., 2019.). The use of web-based SIMKAH can store the database of prospective brides, so it does not take a long time when you want to find and reopen it. From the results of the researcher's research, it shows that public service innovation in SIMKAH web is said to be quite effective but still has several obstacles. This is because there are still some employees/staff of the District KUA Office and the community who do not fully understand the use of SIMKAH web properly. From the results of the researcher's research, it shows that public service innovation in the SIMKAH website is said to be still quite effective but still has several obstacles. This is because there are still several employees/staff. The District KUA Office and the public do not fully understand how to use this SIMKAH website properly.

Relative Advantage

The indicators of Relative Advantage as Excellence and Novelty Value which includes advantages that provide convenience in service and the development of something new from an innovation. With the existence of SIMKAH Web, all marriage data can also be stored because of the integrated system so that SIMKAH Web is important to be discussed in this study. From before the existence of SIMKAH Web, marriage registration was still done manually so that data was only stored in the form of written files, there was no transparency of how much fees had to be paid, besides that a lot of written data was lost because there was no place to store files.

Rogers (1983), states that relative advantage is one of the most important characteristics in innovation. Relative advantage is the value at which an innovation is considered better and superior than what existed before. The extent to which an innovation is considered superior to what it replaces is known as relative advantage. The more profitable an innovation is, the better the quality of the innovation. Moreover, in a marriage registration service through the Marriage Management Information System (SIMKAH). So that the entire process of recording marriage registration becomes faster, more practical, safer and more accurate. The Director General of Islamic Community Guidance issued Instruction Regulation No. II/369 of 2013 concerning the Implementation of the Marriage Management Information System (SIMKAH) and the follow-up to the instructions of the Director General of Islamic Community Guidance issuing Instruction Regulation No. B.4708/DJ.III.II.2/ HM.00/11/2018 concerning the implementation of website-based SIMKAH, by presenting information technology-based innovations, especially in the
Office of Religious Affairs. This marriage card is equipped with a QR code that is connected to the Marriage Management Information System (SIMKAH) application so that the card will be able to minimize large or small losses that will be experienced by the public due to fake marriage books.

SIMKAH was originally a desktop-based computer application program that was useful for collecting marriage data from all KUAs in Indonesia online. SIMKAH is a modern form of marriage registration. SIMKAH is the latest innovation in optimizing the performance of the KUA, assisting in marriage registration and making it easier to provide information to the public online, so that the possibility of marriages not being registered can be minimized. Using a website-based SIMKAH can store the prospective bride and groom's database, so it doesn't take a long time when you want to find and open it again. Then with the renewal of SIMKAH Web, marriage registration services can be carried out online by the community, there is an output in the form of a barcode to check integrated marriage registration, in addition, regulations regarding fees to be paid are more transparent, and file data storage is safer because it can be done online via the website.

Compatibility

The level of compatibility of marriage management service innovation through SIMKAH web at the KUA of Tanjung Morawa District when viewed from the values of the community in Tanjung Morawa District, it is in accordance with the values of the community. Namely in accordance with what is needed by the community where the community wants to get good service. In addition, the KUA also has conformity with good service operational standards in the form of public interest, legal certainty, professionalism, transparency, accountability, conditionality, participation, equal rights, speed, convenience, affordability, timeliness, balance of rights and obligations.

Based on the results of the data obtained, this is very much in line with the theory of Niswaty et al., (2024) regarding the innovation category, namely Sustaining Innovation, where the innovation process that brings new changes must remain based on current or existing service conditions and systems. SIMKAH Web is in accordance with the existing values and needs of those who are desired in this innovation as well as the sophistication felt by the public as users, such as all management can be made easier both in terms of service and correspondence. The SIMKAH innovation is also easy for people to use and apply because this innovation can be used easily anytime and anywhere just via Android. In the SIMKAH innovation, people can choose the type of wedding administration service they need. In selecting the type of service, people will see a display like Figure 2 on the SIMKAH web page

![Figure 2. Display of the SIMKAH web page for Community Users](image)

Complexity

In the Complexity attribute, it is possible for an innovation to have a level of complexity that may be higher than before (Haddad et al., 2019.). Complexity is the level of complexity of an
innovation in the form of difficulties or obstacles experienced by users of the innovation, namely operators who are directly involved in managing and implementing the SIMKAH web innovation. In general, new innovations have a higher level of complexity than before, but there are quite a few innovations that offer more practical and simpler methods so that any complexity that an innovation has is not a problem. New innovations usually have a higher level of complexity than innovations, previously existed. However, new innovations offer better and easier ways, so it's generally less of a problem (Nasaruddin et al., 2024; Ogaba & Abado, 2017; Pananrangi et al., 2023; Syarifuddin et al., 2021).

The level of complexity that becomes an obstacle to the ongoing innovation activities of marriage management services through SIMKAH web at the KUA of Tanjung Morawa sub-district, when viewed from the problems and obstacles experienced by employees who are directly involved in managing these innovations, namely slow and error servers. Another problem related to the technical process of marriage registration services through SIMKAH is the problem of population data that has not been updated.

The Director General of Islamic Public Guidance has collaborated with the Population and Civil Registry Office so that the process of recording marriage data is integrated with population data directly. Through the SIMKAH application, when the prospective bride and groom enter their KTP and KK data and the marriage takes place at the KUA, it will be directly integrated with the Population and Civil Registry Office. Vice versa, if the community has already held a marriage at the KUA in processing a new KK, it has been recorded as a married couple.

**Triability**

In the triability attribute, an innovation must also be observed in terms of how it works and produces something better (Eka, 2019; Hartuti & Manik, 2020). This electronic-based public service has been tested and socialized. Marriage management services through SIMKAH at the Tanjung Morawa District KUA were initially desktop-based where the data was not integrated with users throughout Indonesia but only stored in the operator's computer file. Then there was a renewal innovation in the form of a website-based SIMKAH which had been tested for use in the KUA internally, especially SIMKAH operators in all sub-districts in Deli Serdang.

This SIMKAH trial has been carried out from the District KUA Office, but it still cannot be realized properly. Based on this explanation, the researcher concludes that the SIMKAH web innovation at the Tanjung Morawa KUA has gone through a trial phase first to see the effectiveness of its use. This is done as an effort made so that the results of making these innovations are in accordance with established procedures. So that this innovation has been unraveled and proven to have advantages or more value than before. From this explanation, it can be understood that the SIMKAH trial has been carried out by the District KUA Office, but it has not yet been implemented properly.

Based on this explanation, the researcher concluded that the SIMKAH web innovation at KUA Tanjung Morawa had gone through a trial phase first to see the effectiveness of its use. This is done as an effort to ensure that the results of the innovation are in accordance with established procedures. So this innovation has been unraveled and proven to have advantages or more value compared to before. However, despite this, the implementation of the SIMKAH web innovation has received a positive response from the public. Where the public is satisfied with the SIMKAH website's innovative services.

**Observability**

In the Observability attribute, an innovation must also be observable in terms of how it works and produces something better. This electronic-based service innovation is quite easy to understand and accept by the community. This is because the community can get information virtually, and in taking care of files can go through the application and make payments through a virtual account, and then stay at the KUA Office to deliver physical files without having to repeatedly come to the Tanjung Morawa District KUA Office. Ease of observation means that it
is easy or not to observe an innovation. An innovation must be observable in terms of how it works and produces something better (Askary et al., 2022; Castellacci, 2023; Cruz & Paulino, 2022; Nurbakti et al., 2017). The use of SIMKAH at the KUA of Tanjung Morawa District is an innovation to public services in terms of the recording process, registration in an effort to improve services. There are developments in the implementation of services, namely marriage registration can now be done independently without having to be registered by an officer. Thus, it provides convenience for employees who are directly involved in the community marriage management process.

In addition, operators who are directly involved in managing SIMKAH web in all Sub-district KUAs in Deli Serdang are given training on service procedures, procedures for making and using SIMKAH Web at the Ministry of Religious Affairs Office. Then in its implementation it is also monitored by the Ministry of Religious Affairs, if there are obstacles experienced in the process of making it, a means is provided for operators to complain about what are the obstacles and obstacles in the implementation of these innovations (Afrizal et al., 2024). In terms of use or operation of this innovation, the SIMKAH web service at KUA Tanjung Morawa District. It also has Observability characteristics, namely innovation that is very easy to understand, because this innovation uses a sophisticated system through information and communication technology, so that the innovation seems modern and simple. Moreover, in data input and data verification. The SIMKAH web innovation is integrated with the civil registry, so that just by entering the family registration number, all information regarding the couple's identity is visible in SIMKAH Web.

Discussion

Public services are basically closely related to broad aspects of social life in the life of the state (Arhas et al., 2022; Saleh et al., 2024; Takdir et al., 2021). The government has the task of providing various public services needed by society in other forms in the fields of education, health, information technology and others (Akib et al., 2022; Arhas et al., 2021; Niswaty et al., 2020). Services provided by the government in the form of meeting the needs of the entire community, government agencies, community organizations and so on in supporting government programs, especially national development and development, must be supported by the use of technology and information. The application of computerization is the most appropriate option in supporting the performance of staff in providing services to the community because by implementing the information system the goals that have been set will be achieved effectively and efficiently.

Information technology is a supporting tool in efforts to provide quality services to the community and makes things easier for Marriage Registrar Employees at the Tanjung Morawa District Religious Affairs Office because it makes services easier for the community and modernizes the presentation of data. The implementation of marriage registration services certainly cannot be separated from the role of KUA employees/staff. SIMKAH was originally a desktop-based computer application program that was useful for collecting marriage data from all KUAs in Indonesia online. SIMKAH is a modern form of marriage registration. SIMKAH is the latest innovation in optimizing the performance of the KUA, assisting in marriage registration and making it easier to provide information to the public online, so that the possibility of marriages not being registered can be minimized. Using a website-based SIMKAH can store the prospective bride and groom's database, so it doesn't take a long time when you want to find and open it again. The innovation of marriage services through SIMKAH web is in the form of a barcode that can be used to check integrated marriage registration. Management can be facilitated both in terms of service and correspondence. So that people do not need to repeatedly come to the office.

Relative Advantage
Based on these instructions, it is necessary to have a web-based Marriage Management Information System (SIMKAH) as an innovation in services at the District KUA Office. The presence of the Marriage Management Information System Innovation (SIMKAH) clearly has the characteristics of Relative Advantage. For example, with the Web-based Marriage Management Information System (SIMKAH) there are many benefits such as the entire marriage registration/registration process can be integrated with the population administration information system, can be accessed online anywhere and at any time, can present marriage data in real time, Minimize errors in prospective bride and groom data, and prevent marriage book falsification.

Apart from that, innovation also has benefits that are more valuable than previous innovations. This can be measured in several ways, including costs. This SIMKAH web innovation also has benefits related to costs for the community as users and recipients of SIMKAH web services. With this SIMKAH Web, explanations regarding wedding costs are more transparently explained directly to the public without any gratuities other. So that people feel they are getting the benefit of cheaper costs compared to the previous system.

Compatibility

The SIMKAH web innovation already has the characteristics of Compability or suitability, namely when viewed from the needs of the community, norms, good service operational standards, and also applicable laws and regulations. SIMKAH Web is in accordance with existing values and their desired needs in this innovation as well as the sophistication felt by the community as users, such as all arrangements can be facilitated both in terms of services and correspondence.

Furthermore, there are reasons for preferring to implement service innovation in registering marriages using SIMKAH. Based on the results of interviews with several informants, it can be concluded that the SIMKAH web innovation already has the characteristics of compatibility or suitability, namely when viewed from community needs, norms, good service operational standards, and also applicable laws and regulations.

Complexity

Another technical problem related to the marriage registration service process through SIMKAH is the problem of incomplete population data renewed. The Director General of Islamic Community Guidance has collaborated with the Population and Civil Registry Service with the aim of the process of recording marriage data being integrated with population data directly. Through the SIMKAH application, when the prospective bride and groom enter their KTP and KK data and the marriage takes place at the KUA, it will immediately be integrated with the Population and Civil Registry Service. Likewise, if people have had a wedding at the KUA during the processing of a new KK, they are already registered as husband and wife.

This problem often occurs during the data input process. Therefore, the process of socialization or providing understanding to the public is carried out from the beginning of registration. So if there is data that needs to be updated or updated in Capil, it can be done before the data input process. Because when the data has been updated by Dukcapil, all data will be reconnected with Capil. So, when the data input process is carried out via the Simkah Web application, the officer only needs to enter the NIK of the prospective bride and groom (Catin) then all the necessary data appears.

Triability

Marriage management services through SIMKAH in KUA Tanjung Morawa District were initially desktop-based where the data was not integrated with users throughout Indonesia but was only stored in the operator's computer files. Then came a new innovation in the form of a website-based SIMKAH which has been tested for use within the KUA, especially SIMKAH operators throughout the sub-district in Deli Serdang.
The Tanjung Morawa District KUA has carried out outreach on pre-marital guidance, where in this outreach activity there is also material on the use of SIMKAH Web in marriage registration services. However, during this socialization there were still many people who did not participate in the activities because they were busy. So there are still many who don't know about SIMKAH.

**Observability**

The use of SIMKAH in the Tanjung Morawa District KUA is an innovation for public services in terms of the recording and registration process in an effort to improve services. There has been a development in the implementation of services, namely that marriage registration can now be done independently without having to be registered by an officer. Thus, this provides convenience for employees who are directly involved in the community marriage management process. Apart from that, operators who are directly involved in managing the SIMKAH website in all KUA Subdistricts in Deli Serdang, were given training regarding what are the service procedures, procedures for creating and using the SIMKAH Web which are carried out at the Ministry of Religion Office. Then, the implementation is also monitored by the Ministry of Religion, if there are obstacles experienced in the manufacturing process, facilities are provided for operators to complain about the obstacles and obstacles in implementing the innovation.

**CONCLUSION**

The conclusion that Public Service Innovation through the Marriage Management Information System (SIMKAH) can be seen is that based on the research results, it can be concluded that public service innovation through SIMKAH has been quite successful, but there are still indicators of complexity (Complexity) which are still not optimal. Relative Advantage, with this SIMKAH Web update, marriage registration services can be carried out online by the public and employees so that data can be backed up through the system, the output of the marriage service innovation via this SIMKAH web is in the form of a barcode that can be used to check the integrated marriage registration, apart from that, the regulations regarding the fees that must be paid are more transparent, and file data storage is safer because it can be done online via the website. Compatibility, this SIMKAH Web innovation is in accordance with the existing values and needs of the community who want easy access to services in innovation and the sophistication felt by the community as users, such as all management can be made easier both in terms of service and correspondence. Complexity, SIMKAH often experiences server errors or is in an error condition, human resources who still lack understanding regarding internet use are also one of the problems. Triability: The innovation in SIMKAH has been tested and proven to have benefits for application users or greater value compared to previous innovations. Possibility of observation (Observability) after the government has made efforts to disseminate information about procedures and how to use SIMKAH innovations, the public can observe the convenience and advantages that SIMKAH has, so that people can decide to use SIMKAH.

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