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# Relative Advantage Dimensions In The Online Health Information System (SINAKES) In Semarang City of Central Java

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#### Abstract

The government is responsible for the implementation of the administration of the State, so it is demanded to improve the quality of public services so that the fulfillment of community needs can run well. One way for the government to improve the quality of public services is by creating more and more quality service. In an effort to improve public services in the field of health personnel licensing, the City of Semarang made an innovation called SINAKES Online. The purpose of this study is to analyze the relative dimensions of advantage in SINAKES Online. This study used the attributes of innovation and supporting factors and inhibitors of innovation in Rogers and Albury's public sector. The approach method that used in this study was descriptive qualitative, while data collection by observation, interview, and documentation. Data validity was done by triangulating data and sources. Data analysis was carried out by collecting data until drawing conclusions, while the determination of informants was done purposively. The results showed that in providing health personnel licensing services seen from the relative profit dimensions of innovation could be measured from economic value, social status, pleasure/satisfaction, and important components. In addition, SINAKES Online Innovation has supporting factors, namely, the desire to change for the better, the availability of facilities and infrastructure, and a supportive environment, but there are inhibiting factors; short-term budgeting and planning and dependence on high performers. The recommendations given are the need for budget allocation specifically for the development of SINAKES Online and the need for IT development training for employees by holding workshops.

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Keywords: Information Systems, SINAKES online, Dimensions, Relative advantage.

# 1. Introduction

Along with the development of technology and information that is increasingly advanced at this time, the mindset of society becoming increasingly critical. Public is getting smarter and understands their rights and obligations as

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citizens, as well as their rights to get quality public services. Public service itself becomes a very important issue in the lives of Indonesian people because services cannot be separated in people's lives. Sinambela (2010: 3) revealed that basically every human being needs service, even it can be said that service cannot be separated in human life. Thus the running of public services is also a major concern for the government and society.

The Indonesian government currently realizing good governance in government life. Public service practices become an entry point in realizing good governance in accordance with Dwiyanto's statement (2008: 20) that the practice of service delivery through public service reform can have a broad impact on changes in other aspects of government life so that changes in the practice of public service delivery can be locomotive for the change effort towards good governance. There are still many complaints from the public regarding the services provided by government agencies. According to the Ombudsman there are still many allegations of maladministration by government agencies such as siding, discrimination, conflicts of interest, protracted delays, abuse of authority, deviations of procedures, requests for compensation for money and goods, are incompetent, do not provide services, and are improper. In accordance with the results of the 2016 RI Ombudsman survey on the number of reports of alleged maladministration to government agencies.

No	Alleged Mallegal Administration	Number of Reports	Percentage (%)
1	Penundaan berlarut	2818	31.20%
2	Tidak memberikan pelayanan	1375	15.20%
3	Laporan penyalahgunaan wewenang	960	10.60%
4	Tidak patut	475	5.30%
5	Berpihak	60	0.70%
6	Penyimpangan prosedur	1586	17.60%
7	Tidak kompeten	972	10.80%
8	Laporan permintaan imbalan uang/jasa	583	6.50%
9	Laporan diskriminasi	135	1.50%
10	Konflik kepentingan	66	0.70%
	Total	9030	100%

Table 1. Reports on Alleged Mallegal Administration in 2016 (in Indonesia)

Based on table 1. Source: RI's 2017 Ombudsman there are still many public reports related to maladministration carried out by government agencies. The most maladministration action received reports was a delay of 31.20% of 9030 reports with a total of 2818 reports of protracted delays that went to the Indonesian Ombudsman in 2016. According to the Indonesian Ombudsman the protracted delay was when the service system provided is delayed and it was delayed for a long time. Seeing the condition of public services, as poor as quality of public services provided, our citizens keep continuing to use existing services so that it does not close the possibility of stagnation in the quality of public services. Based on data from public complaints relating to the delivery of public services by government agencies, the regional government is currently a public organization with the highest level of public complaint reports, this is in accordance with public reports through the Ombudsman data, as follows.

Table 2, Sumber : Ombudsman RI 2017 above shows that the local government is an institution that often gets complaints from the public. Local governments found as the first place with 40% of the total number of public complaints. The table did not ruled out the possibility that local governments could be seen by the community as agencies that have poor services.

In order to realize a more efficient government and a leaner organizational structure in 2017 the Semarang City Integrated Licensing Services Board (BPPT) officially changed to the Semarang City One-Stop Integrated Investment and Licensing Service Office (DPM-PTSP). DPM-PTSP Semarang has 36 types of licenses that are served:

No.	Government Agencies	Number of Complaints	Cumulative Percentage
1.	Pemerintah Daerah	40%	40.0%
2.	Kepolisian	18.50%	58.5%
3.	BUMN/BUMD	7.20%	65.7%
4.	Badan Pertahan Nasional	7.00%	72.7%
5.	Instansi Pemerintah Kementrian	6.60%	79.3%
6.	Lembaga Peradilan	4.20%	83.5%
7.	Lembaga Pendidikan Negeri	3.00%	86.5%
8.	Rumah Sakit Pemerintah	2.10%	88.6%
9.	Perbankan	1.90%	90.5%
10.	Kejaksaan	1.40%	91.9%
11.	Perguruan Tinggi Negara	1.00%	92.9%
12.	Komisi Negara Lembaga Negara Non Struktural	0.90%	93.8%
13.	Tentara Nasional Indonesia	0.40%	94.2%
14.	Lembaga Pemerintah Non Kementerian	0.40%	94.6%
15.	Dewan Perwakilan Rakyat	0.30%	94.9%
16.	lain-lain	5.20%	100%
	Jumlah	100%	

Tabel 2. Public Complaints Report in 2016 (in Indonesia)

Table 3 Types of Licensing Services in DPM-PTSP Semarang City (in Indonesia)

No.	Type of Services	No	Type of Services
1	Izin Lokasi	20	Tanda Daftar Gudang
2	Persetujuan Pendirian Rumah Sakit	21	Tanda Daftar Industri
3	Persetujuan Penempatan Dan Pengelolaan Tower Bersama	22	Izin Usaha Toko Modern
4	Perstujuan Pendirian Hotel	23	Izin Waralaba
5	Persetujuan Pendirian SPBU	24	Surat Izin Usaha Perdagangan Minuman Beralkohol
6	Izin Mendirikan Bangunan (IMB)	25	Pengesahan Akta Pendirian Koperasi
7	Izin Gangguan (Ho)	25	Izin Usaha Angkutan
8	Izin Usaha Jasa Konstruksi (Iujk)	26	Izin Usaha Pusat Perbelanjaan

Type of Services	No	Type of Services
Pendaftaran Penanaman Modal	27	Izin Usaha Kawasan Industri
Izin Prinsip Penanaman Modal	28	Izin Tenaga Kesehatan (AA, Perawat, Apoteker Kecuali Dokter)
Izin Prinsip Perluasan Penanaman Modal	29	Izin Laboraturium Kesehatan Swasta
Izin Prinsip Perubahan Penanaman Modal	30	Izin Pedagang Eceran Obat/Toko Obat
Izin Usaha Penanaman Modal	31	Izin Klinik Pratama
Izin Usaha Perluasan Penanaman Modal	32	Izin Klinik Utama
Izin Usaa Penggabungan Penanaman Modal	33	Izin Optik
Izin Perubahan Penanaman Modal	34	Izin Usaha Apotek/Farmasi
Izin Usaha Perdagangan	35	Izin Penyelenggaraan Rekalme
Izin Usaha Industri	36	Izin Titik Reklame
Tanda Daftar Perusahaan		
	Pendaftaran Penanaman Modal   Izin Prinsip Penanaman Modal   Izin Prinsip Perluasan Penanaman Modal   Izin Prinsip Perluasan Penanaman Modal   Izin Usaha Penanaman Modal   Izin Usaha Penluasan Penanaman Modal   Izin Usaha Penluasan Penanaman Modal   Izin Usaha Perluasan Penanaman Modal   Izin Usaha Perluasan Penanaman Modal   Izin Usaha Penggabungan Penanaman Modal   Izin Usaha Pendagangan   Izin Usaha Industri	Pendaftaran Penanaman Modal27Izin Prinsip Penanaman Modal28Izin Prinsip Perluasan Penanaman Modal29Izin Prinsip Perluasan Penanaman Modal30Izin Prinsip Perluasan Penanaman Modal31Izin Usaha Penanaman Modal31Izin Usaha Penluasan Penanaman Modal32Izin Usaha Perluasan Penanaman Modal32Izin Usaha Perluasan Penanaman Modal33Izin Usaha Penggabungan Penanaman Modal34Izin Usaha Perdagangan35Izin Usaha Industri36

Based on table 3 Source: DPM-PTSP Semarang City 2018, that within a period of 4 years the number of applicants for licensing health workers in the city of Semarang continues to increase from each year. The number of applicants above did not ruled out the possibility of an increase every year, this will cause problems in terms of service if the system that is used still manual. The manual process which takes a long time and a long process will make delay in completing the licensing of health workers.

In accordance with the notice of services from the Semarang City DPM-PTSP thats doing the innovations to improve services in order to increase community satisfaction so that the City of Semarang DPM-PTSP creates an innovation in the form of simplifying the process of licensing health workers namely Health Workforce Information System (SINAKES) Online. SINAKES Online was officially launched on March 1, 2017 at the Kariadi Hospital Training Center in Semarang. With the existence of SINAKES Online, it could reduce the process and licensing time which was originally 10 working days to 18 working hours. Even though the presence of SINAKES online has facilitated and accelerated the licensing process, there are still some users who complained about filling out data online. Filling in online data has a time limit of 10 minutes, so if for 10 minutes the applicants have not finished filling in the data, the applicant's data will automatically be lost and they should refill the data again.

Apart from the user community, the Semarang City DPM-PTSP also acknowledged that there were still technical problems such as server problems. Making SINAKES online is carried out with the cooperation of third parties in the creation, maintenance and development of the system. So that if there are technical problems, they cannot be handled quickly by the Semarang City DPM-PTSP. Through the online SINAKES innovation DPM-PTSP Semarang city seeks to realize improved public services and needs to be appreciated because DPM-PTSP Semarang is the first regional agency to create an online Health Workforce Information System (SINAKES). We hope that with the existence of SINAKES online the community could more easily and quickly take care of the licensing of health workers. The purpose of this study was to analyze the dimensions of relative advantage in providing SINAKES online services in the city of Semarang, Central Java.

### 2. Methods

The research design used in this study was qualitative research. According to Moleong (2007: 4) quoting from Bogdan and Taylor, qualitative methodology is a study that produces descriptive data in the form of written or oral words from the people observed. The type of research used in this research was descriptive research. According to Sugiono (2014: 11) descriptive research is research conducted to determine the value of independent variables, either one variable or more (independent) without making comparisons or combining with other variables. Researchers used a purposive technique in selecting informants in this study, by specializing in subjects that were in accordance with the purpose or objectives of this study. According to Sugiyono (2014: 61) Purposive is a sampling technique with certain considerations.

The subjects to be selected in this study are as follows:

- (1) Head of Semarang City DPM-PTSP Welfare Licensing Services Division,
- (2) Semarang City DPM-PTSP Technical IT and Evaluation Staff,
- (3) Health Human Resources Staff (HRK) Semarang City Health Office,
- (4) Person in Charge of Semarang Indonesian National Nurses Association (PPNI),
- (5) Secretary of the Semarang City Physiotherapy Association (IFI), and
- (6) Health Workers / applicants for licensing health workers in Semarang City's DPM-PTSP.

According to Sugiono (2014: 14), research data are divided into three namely quantitative, qualitative, and a combination of both. Qualitative data is data in the form of words, sentences, schematics, and images. Data collection can use 2 (two) data sources; Primary Data and Secondary Data. Data collection techniques are the most strategic step in qualitative research. According to Sugiyono (2014: 137) data collection techniques can be done by observation (observation), questionnaires (questionnaire), interviews (interviews), and combined. Data collection techniques are one way researchers in obtaining data that meets the data standards set. To get data in the object of research, the techniques that researchers use are observation, interview, documentation techniques. Data analysis was performed by domain and taxonomic analysis. Analysis is the act of processing data into useful information, at this stage the researcher processes the data that has been inputted at the research stage using the interactive data analysis stage raised by Miles and Huberman (2009, 15-19) through data collection, data reduction, data display and withdrawal of conclusions and verification. Data Quality, to see data quality according to Creswell & Miller (2012: 286) Validity is another strength in qualitative research besides reliability. This validity is based on certainty whether the research results are accurate from the viewpoint of researchers, participants or readers in general. The validity of the data in this study by triangulating data and sources.

#### 3. Theoretical Study and Previous Researches

The first research conducted by Beata M. Marickova on Innovation in public service delivery: civic participation in Slovakia. The results of this study found that information and communication technology contributed greatly to the successful implementation of public service system innovations and the existence of ICTs can encourage Slovak citizens to participate directly in the service innovation process. The journal presents five examples of Co-creationbased innovations at the local government level in four selected fields namely: welfare, environment, social services and education in Slovakia. From the research that has been done, it is known that Co-creation innovation has pushed the level of community participation in decision making and implementation of public services conducted by the Slovak government. Secondly, another study conducted by Dayang Erawati Djamrut in 2013, entitled Innovation of public services in Sungai Kokong Subdistrict, Samarinda City, revealed that Sungai Kokong Subdistrict reformed the service units to make it easier for the community to obtain services. In terms of spatial planning in the theme of green, clean and healthy and the existence of a smoking area so as not to interfere with the health of non-smokers as well as speeding up services, Sungai Kokong District applies a SOP manual for the community to obtain information on file requirements so that the community would not confused. Third, a journal entitled Analysis of Service Innovation in the Central Java Police (Smile Police Case Study) in 2018 by Nina Wahyuni Mahasiswa, it is known that smile police innovation by the Central Java police is one of the ways of the Central Java Regional Police in providing services to the public. with the smile police community to contact the police when a very urgent event occurs and other needs for police services because Smile Police are present 24 hours. Smile Police innovations are considered to have run well assessed using the attributes of innovation, namely: relative advantage, compability, complexity, triability, and observability and the driving factors of innovation are political push, pressure for economy and improved efficiency bang for the back, pressure for improved service quality.

Fourth, Mochammad Rizki Dwi Satrio Sutrisno, with the title Innovation in Improving the Quality of Public Services (Study on Independent Ticket Printing Services at Malang Big Stations) in 2015. Innovations on improving the quality of public services at independent ticket printing services at Malang Big Stations use indicators called Service Standards Public consisting of Service Procedures, Time of Service Completion, Service Costs, Service Facilities and Infrastructure, as well as the Competency of Service Officers and seen from the typology of Public Sector Innovation through Mandiri Ticket Printing Products or Services. In the study found that the Mandiri Ticket Printing Service Innovation, is a service made by PT. Kereta Api Indonesia (Persero) to facilitate passengers in printing tickets that have been bought online on the website, applications, and official telephone and on external channels. In addition to making it easier for passengers, this service can reduce the number of queues at the station counter. The service procedure on the standalone ticket printing service does not change the existing standard operating procedure (SOP). That was because the self-printed ticket service was only a facility to print train passenger tickets.

Fifth, research conducted by Gayuh Sih Suwastiti entitled Public Service Innovation at the Tegal City Samsat Office (Case Study on Motor Vehicle Tax) in 2016. Public service innovation at the Tegal City SAMSAT office was seen from five indicators; relative advantage, compability, complexity, triability and observability. Besides the driving factors of innovation are organization, culture and people. The study found that Samsat Online provides benefits, namely the benefits derived from both taxpayers and employees. The advantage of having Samsat Online is that taxpayers are made easier when paying motor vehicle taxes. In addition there was an enhancement in the performance of Samsat employees, but the benefits of the existence of Samsat Online have not been felt by the wider community, there are still many people who still do not know of the existence of Samsat Online innovations at the Tegal City Samsat Office, for this reason it is necessary to conduct socialization to the wider community.

Governance innovation is a new concept in public administration which has become one of the approaches to improve the performance of the public sector, which has so far been considered far from ideal conditions. (in Samodra Wibawa, 2009: 38). Udin Syafudin Sa'ud in his book on educational innovation (2010: 3) revealed that innovation is an idea, item, event, method that is felt or observed as something new for someone or a group of people (community), whether in the form of invention or results be covered. Innovations are held to achieve certain goals or to solve a particular problem. This definition put forward by Udin Syafudin Sa'ud emphasizes something new for a person or group of good originating from a completely new discovery that is the creation of a person or an invention that actually already exists but is not yet known by people. The concept put forward by Udin Syafudin Sa'ud is in line with the concept expressed by Roger & Shoemaker in Dwiyanto (2010: 98) that innovation can also be interpreted as a new discovery. Innovation is an idea, practice, or material artifact or first advertising practice in the latest computer processors. Rogers (in Suwarno 2008: 17-18), concluded that innovation has the following attributes: (1) Advantage (relative advantage), an innovation must have advantages and more value compared to previous innovations. There is always a value of truth inherent in innovation that is a characteristic that distinguishes it from the others. The level of profit or usefulness of an innovation could be measured based on its economic value, or from factors of social status, pleasure, satisfaction, or because it has a very important component. The more beneficial it to the recipient the faster the spread of innovation. (2) Compatibility (innovation), innovation also has a competitive nature or suitability with the innovation it replaces. Compatible is the level of suitability of innovation with the values, past experience, and needs of the recipient. This is intended so that the old innovations are not necessarily thrown away, in addition to reasons that are not insignificant, but also the old innovations become part of the process of transition to the latest innovation. It also can facilitate the process of adaptation with the learning process of innovation more quickly. (3) Complexity, with its new nature, innovation has a level of complexity that may be higher than the previous innovation. However, because an innovation offers a newer and better way, this level of complexity is generally not an important issue. (4) Triability (possibility of being tried), innovation can be accepted if it has been tested and proven to have advantages or more value compared to old innovation. So an innovation product must pass a "public test" phase where every person or party has the opportunity to test the quality of an innovation. (5) Observability (ease of being observed), an innovation must also be observed in terms of how it works and produce something better. According to Everett M. Rogers (2003) in the Dayang Erawati Djamrut journal about Public Service Innovation in Sungai Kokong Subdistrict, Samarinda City, an innovation can be supported by several supporting factors such as: (1) There is a desire to change themselves, from not being able to being able or not know become know, (2) There is freedom of expression, (3) There is a broad-minded and creative mentor, (4) availability of facilities and infrastructure, and (5) harmonious environmental conditions, both the social family and school environment. Meanwhile, according to Albury (in Larasati, 2015: 22-23), there are several factors that have been identified as

obstacles to an innovation in public services: (1) Risk aversion culture, which is a culture that does not like risk or does not want to take risks from any changes, (2) Reluctance to close programs that fail, (3) Excessive dependence on high performers, (4) Technology exists but is hampered by organizational culture and structuring, (5) There are no rewards or incentives so people are reluctant to innovate, (6) Inability to taking risks and changes, (7) Short-term budgeting and planning, and (8) Administrative pressures and constraints.

## 4. Discussion

Implementation of an innovation aims to improve the quality of services provided from the government to the community. One of the delivery of public services that make an innovation is the Office of Investment and Integrated Services One Door (DPM-PTSP) Semarang. DPM-PTSP Semarang City made an innovation in providing health licensing services in the form of an Online Health Workforce Information System (SINAKES). SINAKES Online is an innovation from the previous system related to the management of work permits for health workers. Before the existence of this SINAKES online to take care of the licensing of community health workers the applicant have go to all three instances. First, the applicant brings the requirements file to the health professional organization to get a recommendation letter, after getting a recommendation letter from the health professional organization, the applicant brings the permit requirements file back to the Semarang City Health Office to get a recommendation letter from the Health Office. After getting a recommendation letter, the applicant must go to DPM-PTSP Semarang by bringing the permit file back for the publishing process. The required documents brought by the applicant will be input manually by Semarang City DPM-PTSP. With this long process, the process of the licensing of health workers takes a long time. The existence of SINAKES Online innovation aims to provide facilities and benefits that are not only felt by the community as health workers but also the government or the Semarang City DPM-PTSP as the provider of public services related to health personnel licensing services. An innovation should have advantages and more value compared to previous innovations. There is always a value of truth inherent in innovation that is a characteristic that distinguishes it from the others. The level of profit or benefit of an innovation could be measured based on its economic value, or from factors of social status, pleasure, satisfaction, or because it has a very important component. The more profitable the recipient the faster the spread of innovation. The level of profit or usefulness of an innovation can be measured based on economic value, social status, pleasure or satisfaction and important components possessed by an innovation. From these measurements, it can be assessed the high or low level of profits obtained in the implementation of this innovation and can be seen whether it has more value than the previous service.

The city of Semarang made an innovation called SINAKES Online. SINAKES Online or Online Health Workers Information System is a breakthrough from the Semarang City DPM-PTSP in the process of issuing a Practice License (SIP) and Work Permit (SIK) for health workers. With the existence of SINAKES Online, the process of licensing health workers has switched to using an online-based system so that it is faster, easier, and cheaper. The innovation of public services in the form of SINAKES Online can be seen from the implementation of some of the attributes of an innovation, namely the relative profitability, suitability, complexity, the possibility of being tried, and the ease of being observed. However, in this paper we will only focus on the relative advantage attributes.

According to Suwarno (2008: 17) relative advantage (relative advantage) is the level of an innovation that has advantages and more value compared to the ideas they replace. The new method resulting from an innovation aims to overcome the problems that occurred before the innovation and as an effort to improve public services organized by DPM-PTSP Semarang in providing health personnel licensing services. The relative advantage of an innovation can be measured from: economic value, social status, pleasure / satisfaction, and important components. Economic Value, Implementation of public service innovations in the form of SINAKES Online can provide economic benefits. Economic benefits can be felt for the delivery of services namely Semarang City DPM-PTSP and service recipients, namely the community or health workers in the city of Semarang. The results showed that the costs incurred by the Semarang City DPM-PTSP after the existence of the SINAKES online innovation were greater than the previous system or the manual system.

While the licensing of health workers was still using the manual system, the Semarang City DPM-PTSP have to pay for printing the licensing form while while using SINAKES online the costs incurred are also far more because to make the system a large amount of funds is needed. Beginning of making SINAKES Online, DPM-PTSP Semarang City have to prepare approximately 50 million for the procurement of the online system using a third party service,

namely CV. Solusi Bumi Persada as an early system maker. In addition to maintenance and development of the system itself also costs are not small. At present SINAKES Online does not have its own operational budget but is still incorporated in the Semarang City DPM-PTSP operating budget which is budgeted annually using APBD so the budget for development and maintenance must be shared with other important needs.

With the existence of SINAKES Online, although the Semarang City DPM-PTSP no longer incurs costs for printing licensing forms, the costs incurred for system maintenance and development require a sizable budget. Even though the costs incurred for the implementation of SINAKES Online is quite large, it does not mean that DPM-PTSP Semarang City suffers a loss because with the existence of SINAKES Online, licensing to the community is more optimal so that the benefits obtained are far greater. In terms of users of public service innovation in the form of SINAKES Online, this has provided an economic advantage compared to the previous manual system. When still using the manual system, people who want to process the licensing of health workers must go to the three agencies namely the Professional Organization, the City Health Office, and the City of Semarang DPM-PTSP so that the transportation costs because they do not need to deliver the documents of the three agencies but through the online system, other than that the public who wants to know the licensing process does not need to go to DPM-PTSP because it can be tracked through the application using a tracking number.

Thus, the implementation of the SINAKES online innovation provides economic benefits for the community applying for health personnel licensing. Social Status, The relative advantage of an innovation seen from the innovation can provide benefits and more value compared to previous innovations or services. The relative advantage of an innovation can also be measured by social status or changing views. There is a change of view from before innovation to after innovation. The results showed that the existence of SINAKES Online has changed the community's view of Semarang City's DPM-PTSP. Before the innovation of SINAKES online, which was still used a manual system of people who want to take care of licensing, they have to go three agencies the Health Professional Organization, the City Health Office and the Semarang City DPM-PTSP to get a letter of recommendation, of course, with the procedure taking quite a long time. With such a manual system, the community considers that licensing in the Semarang City DPM-PTSP was complicated because the procedures itself were complicated and time-consuming. The public's view changed after the SINAKES Online innovation, the process of licensing health workers became easier, cheaper and faster, which made DPM-PTSP Semarang get appreciation from the community. The community appreciated the way Semarang City DPM-PTSP improved its services innovatively, through SINAKES Online. The community is currently assessing it easier to take care of licensing at DPM-PTSP Semarang because it i already used an online system so that it is quite practical and straightforward. Changes in views not only from the community but from other local governments as well. The implementation of SINAKES Online received appreciation from the Investment Coordinating Board (BKPM) to the Semarang City DPM-PTSP as a role model for SINAKES Online in Indonesia. The success of SINAKES Online made Semarang City DPM-PTSP often get visits from other municipalities in the context of comparative studies related to SINAKES Online. So that SINAKES Online has raised the social status of the Semarang City DPM-PTSP. SINAKES online innovation has changed the view of the community to Semarang City DPM-PTSP. After the existence of SINAKES online, Semarang City DPM-PTSP was assessed in providing services to be faster and not convoluted, especially in providing health personnel licensing services. In addition to the community, other local governments also recognize the success of SINAKES online, so other local governments likely conduct comparative studies related to SINAKES online innovations to DPM-PTSP Semarang City. Pleasure / Satisfaction, An innovation may be said to be of more value if the recipient feels happy and satisfied when using given innovation. Fun and satisfaction is a condition when someone gets something in accordance with their expectations. Implementation of public service innovations that are running well and provide benefits will provide a sense of pleasure and satisfaction for the community as the recipient of the service. The results of the research show that the community and service providers DPM-PTSP Semarang feel satisfied with the existence of this SINAKES Online. The implementation of SINAKES Online provides the following benefits: a) Efficient time in the process of licensing health workers, the existence of this SINAKES Online cuts the licensing time which was previously 20 working days so with the existence of SINAKES Online the process becomes faster namely 10 days only processing work permit for health workers can be done immediately. b) By using the online system in the form of SINAKES Online, the administration is more organized, transparent, and accountable. c) The implementation of SINAKES Online able to reduce the use of paper because it no longer uses the request form sheet for those who want to make a permit by simply filling out an online form. The files in the applicant are no longer piled up. D)

Eliminating the practice of brokering because the procedures for licensing health workers are clear and easy, the queue is reduced because the applicant can fill out online forms anywhere and anytime. e) By implementing SINAKES Online, it can save costs for the community because the community is sufficient to professional organizations to upload data, the applicant no longer needs to go to the health office to request a recommendation letter because the health department will verify the file and provide a recommendation letter through the online system to the DPM- Semarang City PTSP. Through an online system in the form of SINAKES Online the applicant's data will be integrated into the three agencies. e) Through SINAKES Online, the applicant also does not need to go to DPM-PTSP Semarang because the publishing process can be tracked using the tracking number through the website / application.f) Increasing the existence of professional organizations, with the existence of SINAKES Online, this professional organization has an important role because it is an early stage from the process of issuing permits for health workers which is data uploading before the existence of SINAKES Online, professional organizations only provide recommendation letters to be continued to the health department. The benefits that are gained from the online SINAKES innovation, the community as the recipient of the service feels happy because it is facilitated in managing health personnel licensing. Pleasure and satisfaction of the community could be seen from the reduction in public complaints related to health personnel licensing services and the increasing value of the field of community satisfaction survey which is always recap every six months.

Complaints given by the majority of the people on the website are sometimes inaccessible and down server. Important components are needed in the implementation of an innovation so that the innovation could make benefit the recipient of the service. These components can affect the sustainability of the implementation of the innovation. The results showed that the implementation of SINAKES Online has important components in supporting the success of the innovation. The first important component is a partner, in the implementation of SINAKES Online, it involves 3 agencies are professional organizations, health offices and DPM-PTSP Semarang. The three agencies have their respective roles, namely professional organizations are places where applicants upload files and fill in data, the health office verifies files and checks letters of recommendation, and DPM-PTSP Semarang has the role to publish work permits for health workers. The three agencies are integrated with each other. Coordination between the three agencies is always done so that the licensing process using SINAKES Online can run smoothly. The second component is technology, the technology in this online SINAKES innovation is the internet system and network. The system becomes an important component in the implementation of SINAKES Online. Providing a good system will affect the success of the implementation of public service innovations, SINAKES Online. DPM-PTSP Semarang City provides an online system in the form of applications and websites besides DPM-PTSP also frequently updates the system such as tightening the security of the system by using tokens so that not everyone can access. The security of a tightened system will avoid data leakage to the wider community. The third component is human resources, it is known that the number of DPM-PTSP Semarang City employees is not proportional to the number of licensing applicants every day but with the limited number of employees the DPM-PTSP Semarang City utilizes existing technology by making an innovation and the employees are also given training and assistance so that the ability of employees to run the system can facilitate the development of this SINAKES Online. Second is the internet. The internet is one of the important factors in supporting the implementation of this SINAKES Online innovation. The importance of the internet because the procedure has changed from a manual to an online system, all processes require an internet network, both the DPM-PTSP as the organizer to verify files from the Health Office and Professional Organizations and the community as users also need to upload their data and files into the system. The publishing process will be smoother and faster when the internet network is stable and good. The third component is human resources, the emergence of online SINAKES innovations does not just come naturally from the ideas of DPM-PTSP Semarang City employees. The course of an innovation also depends on its human resources. How employees operate the system and provide creative ideas for the development of SINAKES online innovations. Human resources also have an important role when a system is experiencing error problems. If an error occurs, of course, expertise from humans is needed to fix it. So even though all services have used technological advancements now, if without the ability of their own human resources technology-based services will not run optimally. Before the innovation SINAKES online also still has an important component in the health workforce licensing services, such as work partners, technology, and human resources.

The difference in components from the manual system and after the innovation of SINAKES online is the level of usability in terms of technology, while still using a manual technology system such as a computer and printer used when printing permits on DPM-PTSP Semarang only, after the existence of SINAKES online technologies such as

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the online system is used from the start of inputting data in Professional Organizations, the issuance of recommendations in the Department of Health to the time of publication in Semarang City DPM-PTSP. Technology becomes a very important component in the implementation of SINAKES online if there is no technology such as systems and internet network licensing services will be hampered.

Supporting Factors for the Implementation of SINAKES Online Health Workforce Licensing Services at DPM-PTSP Semarang City are: a) there is a desire to change for the better from DPM-PTSP Semarang by changing the health personnel licensing system that used to be a manual, faster, faster online and cheap. b) availability of facilities and infrastructure to support the innovation of health personnel licensing services in the form of SINAKES Online.c) Supporting environmental conditions, there is support from the internal and external environment, are the commitment of the Semarang City DPM-PTSP in providing good services by strengthening the vision and mission and employees must always adhere to the service notice that has been approved since the beginning of the Semarang City DPM-PTSP. In addition there is support from external parties, namely Professional Organizations and Health Offices that support the implementation of this online SINAKES. d) There is an award or incentive. The Semarang City DPM-PTSP does not give material awards to employees who have good performance. The award was given in the form of excelent of the month, the award was given to employees who have good performance by attaching their photo and stick their name on the wall. With such an award might to encourage employees to compete and to improve their performance and create creative ideas of the employees. In addition to supporting factors there are also inhibiting factors: 1) Limited budget that is prioritized in other main programs has resulted in the procurement of facilities and infrastructure to support the development of innovation to be hampered. There is no specific allocation for SINAKES Online, so the development of SINAKES Online innovation is hampered due to budget constraints. 2) Excessive dependence on high performers where the Semarang City DPM-PTSP always depend on a third party or CV. Bumi Persada Solutions both in terms of repair, maintenance and system development from SINAKES Online.

### 5. Recommendation

The advice given by the authors as a form of recommendation in the health services licensing service in the form of SINAKES Online in DPM-PTSP Semarang is the need to allocate specifically a budget to support the development of SINAKES Online so that when it needs to fix an error server and update the system will not be constrained by the budget and the need for training for SINAKES Online technical staff regarding system maintenance such as holding workshops so that if some problems occur such as system errors and damage can be dealt with quickly and no longer depend on third parties or CV. Bumi Persada Solutions.

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