

Research Article

myITS Services Integrated Service Innovation in Higher Education

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ORCIDM. Husni Tamrin: <https://orcid.org/0000-0001-9131-9807>**Abstract.**

The demands of higher education today are increasingly various and complicated as they provide technology and information-based services to students, lecturers, education staff, and alumni who need services easily and quickly. One solution is to integrate through the Integrated Service Centre, Institut Teknologi Sepuluh Nopember (ISC-ITS), by developing digitalization services through the myITS Services platform. The stages of innovation begin with legalisation services, translate diplomas, and graduation certificates, while future innovation development plans to expand into human capital services, finance, and cooperation. The purpose of this research is to analyze integrated service innovation in the Integrated Service Centre. This research uses qualitative methods and Albrecht and Zemke's theory of public service innovation which examines technology-based services, human resources and service recipients. Data were obtained from observations, interviews, and documentation from service providers and recipients. The results of this study show that myITS Services can respond to the challenges of integrated service innovation needs at the Integrated Service Centre, as a university in realizing digital transformation and as an effort to implement Good University Governance (GUG), but that human resources teams must be supported and assistance provided for service recipients. As innovation continues to be carried out in public service, breakthroughs ISC-ITS come in the form of creative original ideas and adaptations and modifications to existing working methods to provide benefits, both directly and indirectly, to stakeholders.

Keywords: innovation, public service, myITS Services

1. Introduction

Service innovation should often be carried out by the public sector because the nature of the output produced by public sector organizations is generally not in the form of physical products but in the form of services [1]. Therefore, as Suwarno [2] says, "the quality of public services is a reflection of the quality of government bureaucracy" which is the result of a paradigm shift regarding public services, it requires innovation in public service delivery so that innovation in the public sector can best be maximized in terms of services [2–4]. For example, public service innovations that are currently being developed in the public sector in any part of the world are in terms of information and

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technology communities (ICT) [2]. The 21st century has witnessed tremendous advances in technology that have led to extensive developments in administrative systems. Cost-effective technology combined with flexibility in learning and administrative activities is essential to improve the efficiency of an institution's performance. The demand for ease of service in the digital era is a priority for technology-based universities. Especially in the COVID-19 era where previously services were carried out conventionally, it is required to provide online services so that services can still run well. Service improvements are carried out in various fields so that service recipients, namely students, lecturers, education staff and alumni, are satisfied as expected.

The existence of service recipients, especially alumni spread throughout Indonesia, makes Integrated Services Center, Institut Teknologi Sepuluh Nopember (ISC-ITS) provide online service facilities that are easily accessible without the need to come directly to campus. Growth in international student numbers has coincided with other forms of educational mobility, including internationally mobile staff. Although there is limited systematic data about international staff numbers worldwide, they may represent up to 25-50% of academic staff in some countries [5]. The use of technology in higher education governance and administration will enable individuals to carry out their job duties in a way that can be managed more easily.

The number of service recipients at Institut Teknologi Sepuluh Nopember (ITS) has increased every year and the human resources at ISC-ITS are only 4 staff. Starting the establishment of ISC-ITS in early 2020-2022 to the statistical results there were 21,000 who had applied for services at ISC-ITS. With limited human resources, the development of an integrated service system is an alternative to simplify the service process and cut the service estimation time in realizing excellent service in ITS. The number of service requests (2020-2022) can be seen in Figure 1.

The service process before service integration still depends on the presence of leaders on campus for document approval so service recipients need time and energy to retrieve the required documents. In addition, the service completion time takes about 3 days more because the process is still conventional.

With the various problems above, a service innovation is needed to support excellent service and efforts to implement Good University Governance (GUG) in the university environment.

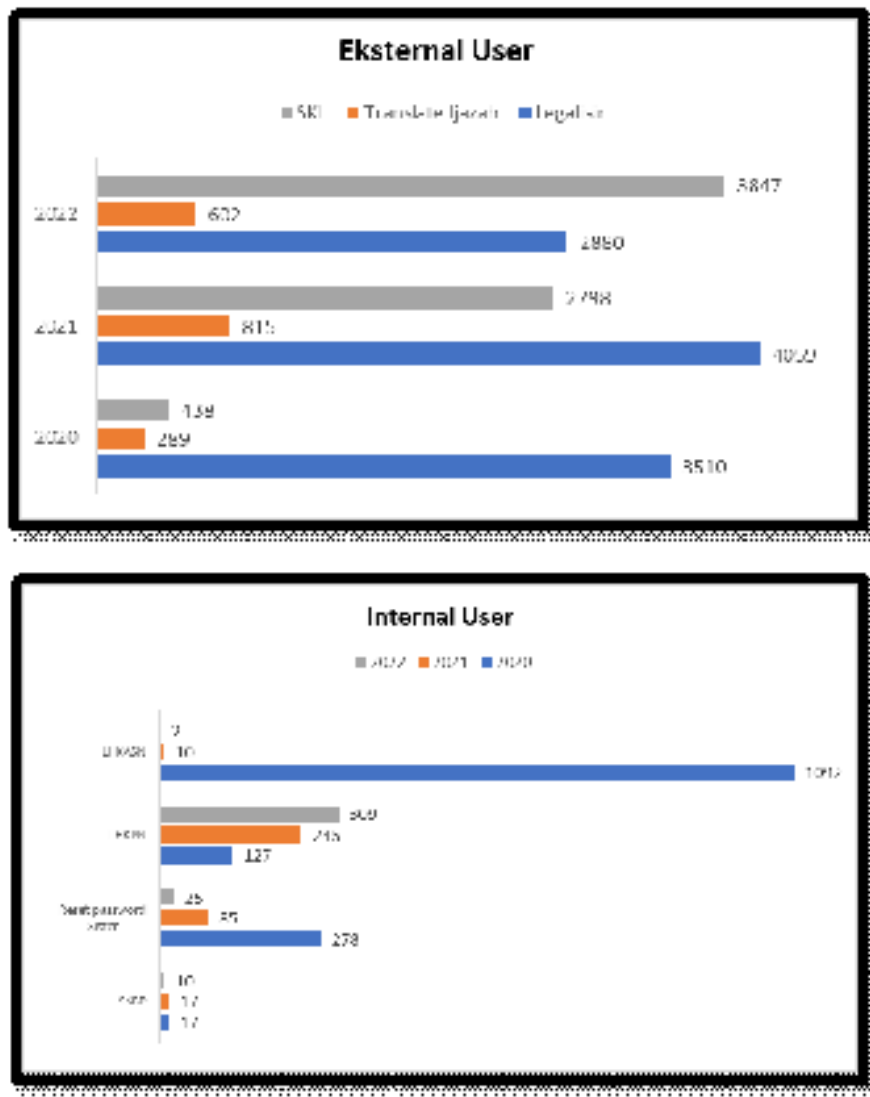


Figure 1: Number of service requests (2020-2022).

2. Literature Review

Lerrick B [6] briefly defines innovation as “novelty in action”, then Irwan Noor [7] also defines innovation briefly as “new ideas that work”. Meanwhile, Asare S & Wright A [8] said that the key importance of innovation is the extent to which it provides solutions to important problems. Meanwhile, according to UNDESA [3] regarding innovation, the public sector currently faces three main challenges, namely: (1) First, the public sector must be able to operate and provide higher quality services by reducing limited resources and capacity. This means that governments must use their resources and build capacity not only more effectively but also more creatively, by, for example,

enlisting the support of the private sector and civil society in service delivery, (2) Second, they must make public institutions more accountable, responsive and effective, (3) Third, and most importantly, they must respond more adequately to the increasing demands of the public to participate more in public policy making [9].

Process innovation is divided into two categories: technological innovation and organizational innovation. Technological process innovation changes the way products are produced by introducing technological changes (physical equipment, techniques and systems) while organizational innovation is innovation in organizational structure, strategy and administrative processes [10].

According to Albrecht and Zemke, the quality of public services is the result of the interaction of various aspects, namely technology-based services, human resources and service providers. A good public service system will produce good service quality as well. A good system has and implements clear and definite service procedures and control mechanisms within itself (built-in control) so that any form of deviation that occurs can be easily identified. In this theory, public services view that service quality can be achieved if there is interaction between these three aspects. These three aspects are required to create customer-oriented services and must work together to realize good service quality [11].

A system is a set of elements that are joined or integrated which are intended to achieve a goal. In running a service program, a service system is needed, where the system will regulate the flow and running of the service process. With the system, the objectives of the service program can be achieved appropriately. The system run in a program is also part of a strategy designed to achieve the objectives of the service program. A system will not be able to run without the role of other elements such as human resources (HR) to be able to implement the system. For example, a service system that is on time by using an uncomplicated and efficient service flow [12].

Human resources are the integrated ability of mind power and physical power owned by individuals. Actors and their nature are carried out by their heredity and environment, while their work performance is motivated by the desire to fulfill their satisfaction. Human resources are the main factor in the existence of a service. Services can be carried out if there are parties who need help and there are other parties who are willing to help fulfill these needs. The level of human resources will affect the quality of service, if human resources in a service institution have high standards and there are experts in it,

the service institution will tend to be able to provide better service. The level of human resources is influenced by the level of education, morale and expertise possessed [13].

Service recipients according to James F. are actions that are directly involved in obtaining, consuming, and spending products and services, including the decision process that precedes and follows this action. Service recipients or consumers are the object of a service program, so critical consumers are needed who have high standards, high levels of participation and are willing to cooperate to realize quality public services. The role of consumers in a service is very important because the response given by consumers will be able to see the extent to which the level of service has been carried out. And with consumers eating will be able to create innovations that are made to be able to fulfill consumer desires [11].

3. Methods

This research method uses a qualitative method by analyzing an integrated service innovation from Albrecht and Zemke's theory of public service innovation which is studied from technology-based services, human resources and service recipients. Researchers use this method because researchers want to present the results of research by describing the actual situation after the development of integrated service innovations implemented at ISC-ITS.

Qualitative research is research in which the researcher makes an effort to understand a certain organizational reality and phenomena that occur from the perspective of all parties involved. This research data uses secondary data including journals, scientific papers, previous research results and other internet sources. In addition, researchers use data from observations, interviews, and documentation with informants who organize and receive services at ISC-ITS.

The population and sample used are leaders who hold the authority of service integration, the service innovation development team, and service recipients in this case users who have filled out a service satisfaction survey.

4. Results and Discussion

4.1. Technology-based services

Departing from problems in service, ISC-ITS continues to innovate with the aim of providing maximum benefits for service users. The service integration development team is carried out by the Directorate of Technology Development and Information Systems in synergy with ISC-ITS to create a myITS Services platform that is accessed through SSO ITS. ISC-ITS online service innovation is currently still focusing on external users (alumni) where with a significant number of applications up to abroad, requests consisting of legalization services, diploma translations, graduation certificates and academic services related to alumni can be processed through myITS Services.

The alumni application process through myITS Services is by means of the alumni registering after successfully continuing by filling in the required data on the system and making payments through a Virtual Account. The data verification process for security is carried out in two stages where the initial stage of verification is carried out by the ISC-ITS admin and then forwarded to the Faculty admin. The approval process is carried out by the dean and the packing process by the ISC-ITS admin. The advantages of the service process through myITSServices are that alumni can monitor the process of documents submitted and with this innovation alumni from all over the world can get services from ISC-ITS from home, because the results of service products will be sent by the sender service. In the future, myITSServices will continue to be developed with new innovations to answer problems and increase user expectations. The following is a display of service innovation in ISC-ITS (Figure 2 and Figure 3).

4.2. Service provider human resources

In relation to service provider human resources, service employees will be needed who are able to understand and operate a good service system. For example, the document legalization service system already uses myITS Services, so it requires employees who have the competence to run computer technology and are able to understand the needs and interests of customers.

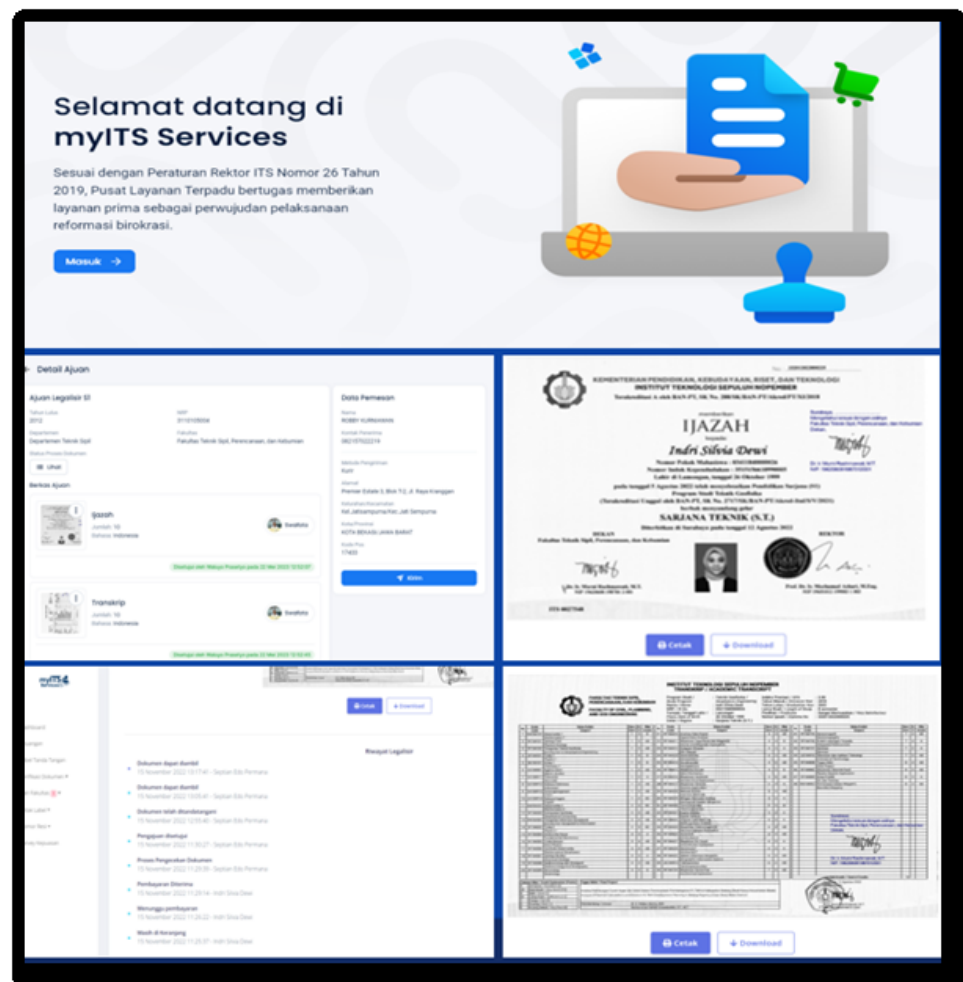


Figure 2: Alumni application process.

4.2.1. Human resources competence

To improve the competence of staff in providing services, training is programmed for officers involved in services both in ISC-ITS, and those in related units. Increasing competence can be in the form of improving soft skills by polishing so that these employees can display their work in an excellent manner, while increasing hard skills, through training programmes to make employees more expert in their work. The competencies of integrated service human resources can be seen in Table 1.

4.2.2. Service culture

To provide a work environment that supports excellent service, in addition to the fulfillment of comfortable infrastructure, it is also important to continuously instill norms and behaviors to be able to prioritize the needs of others over themselves and provide

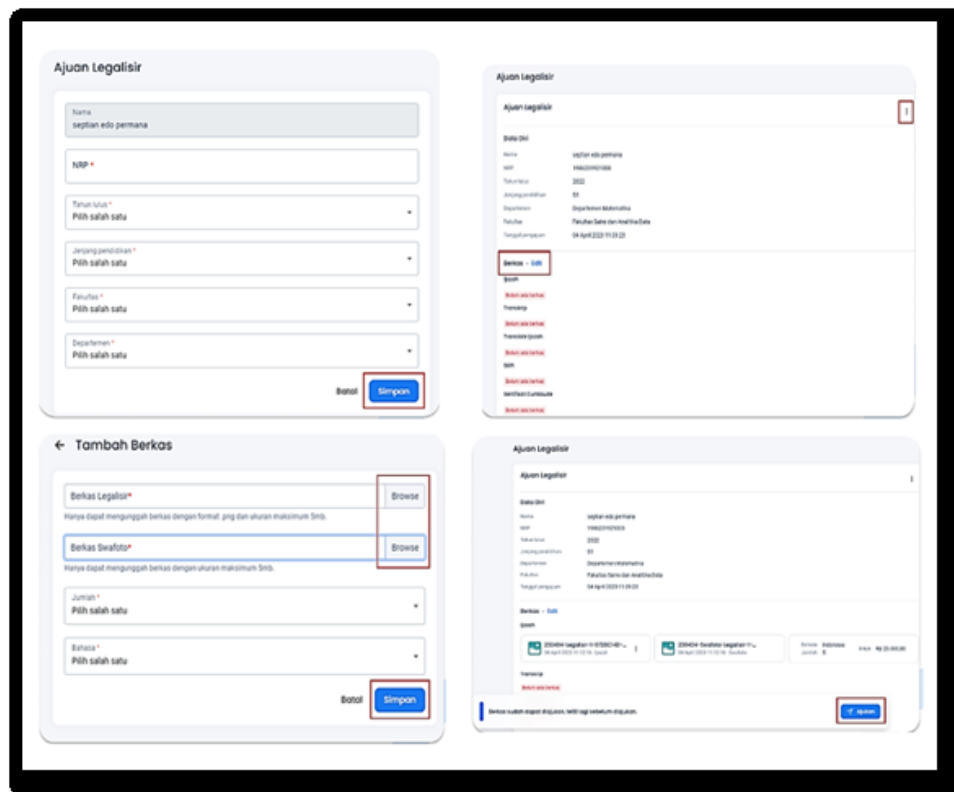


Figure 3: View of the application process through myITS Services.

TABLE 1: Competencies of integrated service human resources.

| No. | Management Unit | Number of service admins | Education Level |
|-----|-----------------------------|--------------------------|-------------------------------------|
| 1 | ISC-ITS | 4 admin | Bachelor = 3 Vocational School = 1 |
| 2 | Faculty Admin | 8 admin | Bachelor = 3 Senior High School = 5 |
| 3 | Education Directorate Admin | 5 admin | Bachelor = 4 Diploma = 1 |
| | TOTAL | admin | |

assistance and support for others, both colleagues and service recipients. Changes in work culture are not easy to do because several obstacles are faced when implementing integrated services through ISC-ITS. Some units still apply the old bureaucratic service process in the sense that it is necessary to have a common perception between ISC-ITS and related units so that the spirit of easy and fast service improvement can be carried out synergistically.

4.2.3. Reward and punishment

In order to improve and improve the quality of service, ISC-ITS has implemented Reward (appreciation) and Punishment (sanctions) for service officers in ISC-ITS, even also applied to service users. Reward and Punishment are two forms of methods in motivating service officers in ISC-ITS to provide excellent service and improve their achievements, while for users the opposite goal is to be able to maintain the level of trust and loyalty to ISC-ITS.

The form of reward for ISC-ITS officers can be in the form of better performance scores which will be linked to monthly or annual salaries, because ITS has implemented a single salary that does not allow giving rewards in cash. For punishment through mechanisms in the field of staffing in the form of coaching and sanctions to employees who are negligent or violate the provisions, ranging from mild to severe sanctions.

Rewards for customers who do not obtain services according to service standards can be given in the form of souvenirs or exemptions from fees, or other rewards. As for punishment for service users, it is usually due to not being able to fulfill the requirements so that the form of punishment for service users does not get the service as specified, especially regarding service completion time.

4.3. Service recipients

In addition, the service system must also be in accordance with the needs and desires of users by providing the right service system and strategy. The varied nature and type of customers require different service strategies and this must be known by service managers. Therefore, the service manager is able to recognize service users well before he provides services. The user recognition strategy is applied to universities to gain trust by changing the service paradigm that the service recipient is “King” while the service manager is a “ Servant of the King “.

4.3.1. User satisfaction survey

To find out whether the services provided by ISC-ITS can fulfill user satisfaction or customer satisfaction, ISC-ITS conducts surveys either periodically or direct surveys to users. This survey is very important because customer satisfaction is a priority. If the customer is not satisfied and does not get value for the services provided,

then it will affect the image of ITS. By conducting a survey, it is hoped that ISC-ITS will better understand customer needs, be able to identify and analyze customer expectations, and get feedback for evaluation, which will be used for improvements both from infrastructure, human resources and also the systems implemented. In addition to surveys, to determine the level of user satisfaction ISC-ITS also monitors input and complaints from customers submitted either through social media such as WhatsApp, Instagram, telephone, email or other media. The number of applications and satisfaction index users can be seen in Figure 4.

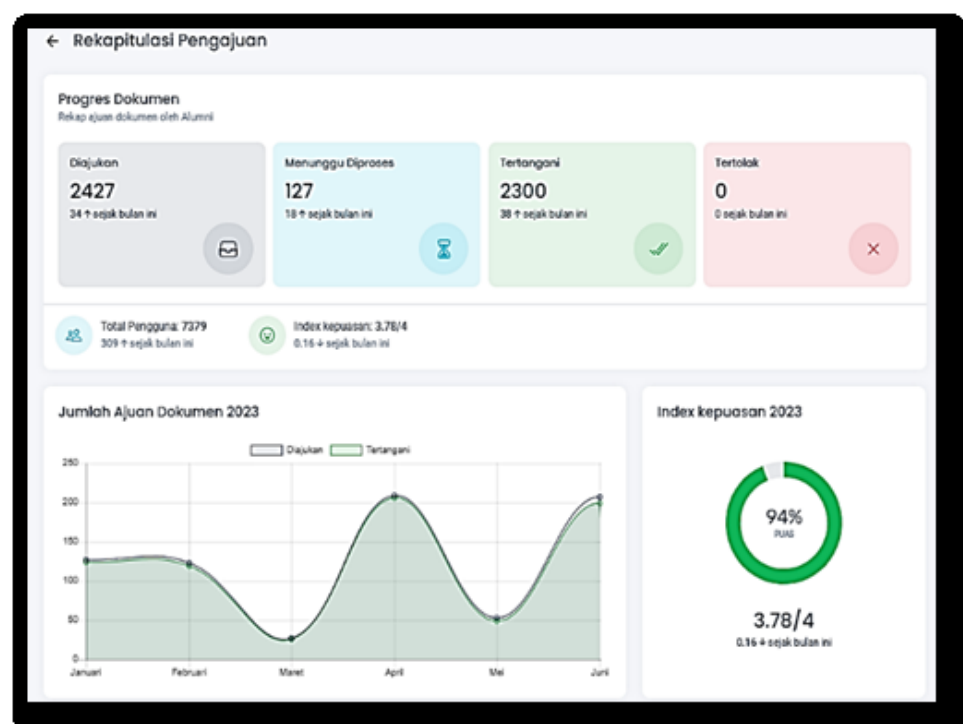


Figure 4: Number of applications and satisfaction index users.

The ISC-ITS user satisfaction index in the myITS Services system in June 2023 reached 3.78 / 4 from a scale of 1-4, this proves that integrated service users feel SATISFIED - VERY SATISFIED with the myITS Services innovation service.

4.3.2. Consultation

ISC-ITS always provides consultation and assistance to users who have difficulty in obtaining services, both related to the use of myITS Services applications, requirements, and other difficulties.

4.3.3. Complaints

ISC-ITS prepares media to receive complaints from service users who are dissatisfied with the services provided. Online complaints can be through the service desk, email, mobile phone, PABX, Whistle Blowing System (WBS) channel, and Contact personnel from ISC-ITS employees. For offline complaints, ISC-ITS provides a special room that is personalized.

The above efforts are cultural changes, ethics or behavior and norms in providing excellent service to ISC-ITS ITS so that it has a positive impact on improving the image of the institution. Changes in service culture carried out by ISC-ITS are not easy but with a shared commitment between leaders and subordinates as well as the intensity of coordination and equation of perceptions of service managers that are carried out continuously every month or certain periods so that the impact on service business processes to ITS stakeholders (students, lecturers, education personnel, alumni and the general public) can run well as expected.

5. Conclusion

One of the important organizational components that will be able to drive an organization is the aspect of HR and Information Systems Technology. The Human Resources Management and Technology Information Systems is carried out in line with organizational needs in order to support the effectiveness of the core business, namely Tri Dharma and the achievement of the vision and mission of ITS. In addition, in accordance with the leadership commitment and the ITS Strategic Plan 2021-2025, ICT Infrastructure is one of the keys to success formulated in the ITS RENIP. The digital transformation strategy is expected to be used for the preparation of a solid infrastructure towards Good University Governance (GUG) and become the main supporting tool in providing excellent services in the fields of information management, finance, and superior administration.

Digital transformation to improve efficiency, productivity and service quality in ITS has touched most of the existing service processes. The management of most information systems in ITS has been centralized in DPTSI as a unit where technology and information systems are developed. This is very helpful in coordinating, developing and managing technology and information systems. ISC-ITS has an important role in integrating all services in ITS so that the annual work program has an IKU (Unit Performance Index),

namely the number of services that use information systems/applications which every year are expected to increase service information systems in providing services in human capital, finance, cooperation and other fields.

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