

Research Article

Digital-Based Public Service and Its Influence on the Work Environment at the Investment and One-Stop Integrated Services Office (DPMPTSP) of Rokan Hulu Regency

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Abstract : This study aims to analyze the influence of digital-based public services on the work environment at the Investment and One-Stop Integrated Services Office (DPMPTSP) of Rokan Hulu Regency. In the digital era, the transformation of public service delivery has become a strategic necessity to improve efficiency, transparency, and responsiveness in government institutions. The implementation of digital systems is expected not only to enhance service quality for the community but also to significantly affect the internal work dynamics of public institutions. This research employs a qualitative descriptive approach, using interviews, observations, and documentation as data collection techniques. The findings indicate that the adoption of digital public service systems has led to improvements in work efficiency, communication, and employee motivation. However, challenges such as limited digital literacy, inadequate infrastructure, and resistance to change remain critical barriers. The study concludes that while digitalization presents numerous benefits, its success depends on comprehensive strategies including training, infrastructure development, and change management to foster a supportive and adaptive work environment.

Keywords : digital public service, DPMPTSP, public administration, Rokan Hulu, work environment..

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1. Introduction

Riau is a province in Indonesia located in the central part of Sumatra Island. The province of Riau consists of several regencies and cities, one of which is Rokan Hulu Regency. From birth to death, it can be said that people's lives are inseparable from various matters related to public services, such as education, civil registration, health care, and many other affairs. Speaking of public services, public service refers to activities or a series of activities aimed at fulfilling service needs in accordance with the laws and regulations for every citizen and resident concerning goods, services, and administrative services provided by public service providers. This definition is stated in Law Number 25 of 2009 concerning Public Services.

Public service is an activity carried out by the government for a group of people who are engaged in beneficial activities within a community or entity, and it offers satisfaction even though the outcome is not tied to a tangible product (Sinambela, 2016). In delivering public services, the government offers a product in the form of the service itself. Based on

this definition, it is clear that the responsibility for providing public services lies with the government, which must serve all members of society in fulfilling their needs and rights. As is well known, the procedures for public service delivery previously carried out by government agencies were often considered ineffective and inefficient, with some employees displaying unfriendly attitudes, leading to public discomfort and dissatisfaction. Quality public service is one that can professionally meet the needs of the community by providing the best service. Therefore, in order to improve the quality of services to the public, several innovations in public service delivery are necessary.

Public service refers to all activities carried out by public service providers as an effort to meet public needs and implement the provisions of laws and regulations (Monoarfa, 2012:3). The current condition of public service delivery is still faced with a governmental system that is not yet effective and efficient, as well as suboptimal quality of human resources among government officials in delivering services. This is evidenced by the numerous complaints or grievances from the public, both directly and indirectly through social media. The low quality of public services remains a major concern directed at the government bureaucracy in its efforts to serve the public (Abdul Mahsyar, 2022).

In line with digital developments in the current era of Industry 4.0, society is required to adapt to the use of information technology. Therefore, it is necessary for the state to have the capacity to create innovations that can provide public services more quickly and efficiently. The widespread use of online-based information technology by the public has encouraged good governance practices by government officials at both the central and regional levels to utilize such technology in delivering public services. Essentially, public service encompasses all service activities carried out by public service providers as an effort to meet the needs of service recipients and to implement applicable regulations (Simangunsong, 2010).

The digitalization of public services, or e-government, is the government's effort to enhance the efficiency, effectiveness, transparency, and accountability of governance through the utilization of information and communication technology (ICT) in governmental processes. To implement the digitalization of public services, several steps can be taken, including: planning and socialization, developing user-friendly digital platforms, involving the public in the planning and implementation process, securing government support, and providing training and capacity building for government officials and the community.

In the context of public service digitalization, it is essential to consider the needs and expectations of the public, as well as to build trust and a better understanding of digitalization efforts. Law of the Republic of Indonesia Number 14 of 2008 concerning Public Information Disclosure defines "Information" as statements, declarations, ideas, and signs that contain value, meaning, and messages, whether in the form of data, facts, or explanations that can be seen, heard, and read in various forms and formats, in accordance with the development of information and communication technology, whether electronic or non-electronic. E-government was first introduced in Indonesia in 2001 through Presidential Instruction of the Republic of Indonesia Number 6 of 2001 as an initial step toward realizing good governance through digitalization efforts by the government. Furthermore, Presidential Instruction Number 3 of 2003 explains that the use of information and communication technology in governmental processes (e-government) is expected to enhance the efficiency, effectiveness, transparency, and accountability of government administration. It also emphasizes the need for policies and strategies for e-government development to support good governance and improve effective and efficient public service delivery (Indah Mawarni, 2023).

Efficiency can be achieved when the desired output is attained with minimal input. An efficient public service can be defined as one that is easily accessible to all levels of society, low in cost, completed within a relatively short time, fast, and requires minimal effort one way to achieve this is through the utilization of digital technology in the delivery of public services. This aligns with the government's efforts as stipulated in Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System (SPBE). The SPBE is a continuation of the government's initiative to establish governance that is efficient, effective, transparent, and accountable, thereby enabling the creation of high-quality and reliable public services.

Considering the advancement of information technology and the emergence of socio-economic disparities, governments are required to provide sustainable public services, and

public service innovation has become a crucial aspect in countries around the world (Bertot et al., 2016). Public service innovation refers to institutional service changes that can transform people's lives by improving the facilities and solutions needed by the community (Baimenov et al., 2019). According to Susanto (as cited in Mochammad Rizki Dwi Satrio Sutrisno, *Journal of Public Administration*, Vol. 3, No. 11: 1814–1820), innovation is not limited to building and renewing, but can also be broadly defined as using new ideas to create products, processes, and services.

In the government sector, the utilization of information and communication technology can also be applied as an effort to improve the quality of public services in line with increasing demands from the community. These demands refer to the need for speed and accuracy along with standardization. The government, as a service provider to the public, must also consider the effectiveness and efficiency in delivering services, such as paying attention to space, time, and fees that may become burdens for service users. The administration of public services includes service implementation, management of public complaints, information management, internal supervision, public outreach, and consultation services. These services range from the central government, ministries/agencies, provincial governments, district/city governments, to sub-district and village/urban village levels.

One of the missions and objectives of establishing government bureaucracy is to provide the best possible service to the general public. However, until now, the quality of public service delivery by government bureaucracy remains a prominent issue. The demands made by the public for the bureaucracy to provide quality public services have arisen alongside the increasing public awareness, as well as the growth of a more democratic climate in current public administration management. These demands are quite understandable given that the performance of government bureaucracy in public services has so far fallen short of expectations. This is evident from the many complaints and grievances from the public, both directly and through mass media, such as complicated procedures, lack of certainty regarding completion time, ongoing costs, non-transparent requirements, unresponsive staff attitudes, and others. As a result, this has created a negative image of the government.

As we know, a common problem encountered by the public in licensing administration is the slow licensing service system, which means that employees do not work earnestly and the service procedures do not comply with the regulations. Employees are not focused on the service system for the community, meaning they prioritize personal interests over those of the public. The rules that have been made are not consistently implemented by employees, which means employees do not follow the applicable regulations. There is also no certainty regarding the time and date for completing the licensing process, meaning the stated completion time for licensing does not match the reality experienced by the public, often taking longer than it should.

The behavior exhibited by government officials in every institution is not merely a personal conviction as Civil Servants, but rather becomes a norm in carrying out their main duties and functions as public servants. The quality of service must serve as a reference and guideline for their actions. Norms and regulations that govern government behavior are aligned with the rules outlined in the Standard Operating Procedures (SOP). The actions taken by the government in performing their main duties and functions in public service must be based on regulations that reflect a positive attitude towards the community. The quality of public services provided by the government is a moral responsibility for both civil and private employees to ensure transparency and equal rights for all members of society.

The regional autonomy policy in Law Number 23 of 2014 concerning Regional Government explicitly grants broad autonomy to regional governments to manage and administer various interests and the welfare of their communities. The principles of regional government administration, as stated in Law Number 23 of 2014 on Regional Government, consist of the principles of decentralization, deconcentration, and task delegation. As a consequence of one of these principles, namely decentralization, regional autonomy is established. With regional autonomy, autonomous regions are formed, both at the provincial and regency levels. An autonomous region itself refers to a legal community unit with certain territorial boundaries authorized and obliged to regulate and manage its own household affairs within the framework of the Unitary State of the Republic of Indonesia, in accordance with the applicable laws and regulations.

Government Regulation (PP) Number 38 of 2017 concerning Regional Innovation explains that every region is required to carry out innovations in order to administer its government affairs. The regional innovations referred to are divided into three types: (a) governance innovation; (b) public service innovation; (c) other regional innovations in accordance with government affairs. These three types of innovations must adhere to the following principles: 1) increased efficiency; 2) improved effectiveness; 3) improved quality of service; 4) no conflict of interest; 5) oriented towards the public interest; 6) transparency; 7) compliance with regulations; 8) accountability for results and not for personal gain.

One type of service provided by the government is licensing and non-licensing services at the Investment and One-Stop Integrated Service Office. The one-stop integrated service is an activity that organizes the licensing and non-licensing process, starting from the application stage to the issuance of the permit document, conducted in an integrated manner at a single location. Optimizing licensing and non-licensing services has become a main agenda for the government, because since the demands of reform and the wave of globalization, it has presented both opportunities and challenges for improving community life, encouraging the government to understand the importance of improving service quality.

Every year, the Investment and One-Stop Integrated Service Office of Rokan Hulu Regency implements innovations to improve licensing and non-licensing services in order to achieve the quality of public service expected by the community. With these innovations, which previously required manual processes and visits to the office, services can now be accessed online, saving the community time in obtaining permits. The use of innovative technology can directly support good governance through greater reach, transparency, and effectiveness in service delivery. Such innovations can arise from enhancing the government's capacity to enable technology within a framework of good governance and public institutions that are efficient, effective, transparent, accountable, inclusive, and participatory (Meyerhoff, 2017).

The use of a digital-based system at DPMPPTSP Rokan Hulu faces several significant challenges. Although the implementation of the Online Single Submission (OSS) for issuing micro and small business licenses (IUMK) has been running and has facilitated services, there are still main obstacles such as the lack of public understanding of digital technology, causing many business actors to still prefer the manual method by coming directly to the office for assistance from staff. Additionally, the lack of socialization and education to the community regarding the use of OSS is also a factor hindering the optimization of digital services. Furthermore, unstable internet network issues disrupt the data queue process, slowing down the completion of licensing. This shows that despite the digitalization of services being implemented, infrastructure challenges and digital literacy remain the main barriers at DPMPPTSP Rokan Hulu.

Therefore, digital-based public services are highly necessary to improve the effectiveness of the available services. For this reason, a change is needed in how services communicate with their users, and the presence of the internet becomes an important aspect in realizing effective communication patterns (Kosasih, 2016). Moreover, today the community is familiar with using mobile devices connected to the internet, so it is expected that the DPMPPTSP Office can develop applications that are easily accessible via mobile devices. This will enable the public to use the services easily without making the process complicated, thus saving time. Good public services also play a role in realizing this goal. Therefore, the Investment and One-Stop Integrated Service Office (DPMPPTSP) of Rokan Hulu Regency can leverage the development of information technology, especially in the digital field.

Some of the innovations carried out by the DPMPPTSP of Rokan Hulu Regency include conducting socialization activities in every sub-district within Rokan Hulu related to licensing through the Online Single Submission (OSS) and Sicantik Cloud applications. These activities aim to provide knowledge to all sub-district officials as well as the community, thereby improving compliance in licensing administration in the future. Another innovation is the implementation of the Quick Action for Investment Activity Reports (Gercep LKPM) for companies still operating in Rokan Hulu Regency outside of official working days and hours, specifically on Saturdays. This activity aims to periodically increase the value of investment realization and to strengthen cooperation and communication between government officials and investors.

Another innovation by the DPMPSTSP of Rokan Hulu Regency is that licensing services are still provided during office break hours, from 12:00 to 14:00 WIB. Licensing officers have systematic and periodic duty schedules, allowing this innovation to give business actors more time to manage their licensing needs. This innovation has been positively received by business actors as it has proven very helpful, especially for those living quite far from the regency center. Another online service innovation is through WhatsApp and Jelita On Call, which provide business actors the opportunity to ask questions and receive direct information about licensing and complaint services outside of official working hours. This innovation is expected to address the questions and challenges faced by business actors when managing licensing without being limited by distance and time.

2. LITERATURE REVIEW

Digitalization

According to Asaniyah (2017), digitalization is “a process of changing media from printed form to electronic form.” This aligns with Marilyn Deegan’s definition in Miladiyah et al. (2018), which states that “digitalization is the process of converting all forms of printed or other document presentations into digital formats.” In this context, all documents, including audio, video, and others, are converted into digital form to minimize risks. According to Siregar (2019), “digitalization is the process of changing the nature of something that was originally physical and analog into a virtual and digital form.” For example, in recent years, many things such as music, films, and even songs are now available in digital format. Digitalization does not mean replacing the original document, but rather adapting to technological advances. Furthermore, the authenticity of the original documents as archives is still preserved and maintained.

According to Sukmana, digitalization is the process of transferring media originally in printed form, such as video or audio, into digital form. This is done to create digital document archives that require supporting tools for processing, such as computer hardware, scanners, and other supporting software. Similarly, Lasa defines digitalization as “the process of managing printed documents to become electronic documents.” Meanwhile, according to Brennen and Kreiss, “digitalization is the increase in the availability of digital data due to technological advances in creating, transferring, storing, and analyzing digital data, with the potential to organize, shape, and influence the contemporary world.”

Based on the definitions of digitalization described above, it can be concluded that digitalization is the transformation of conventional media into digital form, involving the processing of documents to become digital data by first scanning the documents and then storing them in designated folders on a PC/computer. It is clear that digitalization has a significant impact on various aspects. One such impact is the convenience it brings, particularly in administrative fields. With the advent of digitalization, the administrative sector has adopted technology such as e-office systems to store employee data and facilitate administrative tasks in electronic form. Thus, by utilizing electronic media, benefits such as convenience and effectiveness can be achieved. Although every advantage comes with its own set of disadvantages, the drawbacks or negative impacts of digitalization can serve as valuable lessons for improvement in facing the current digital era. It is expected that individuals and institutions will be more selective and wise in navigating this technology-driven digital age.

Service

Service (customer service) in general refers to any activity performed or intended to provide customer satisfaction; through this service, the desires and needs of customers can be fulfilled. In the Indonesian dictionary, service is defined as an effort to meet the needs of others, while “to serve” means to help prepare or assist with what someone requires. Essentially, service is a series of activities that constitute a process. As a process, service occurs routinely and continuously, encompassing all aspects of people's lives in society a process of fulfilling needs through the actions of others.

According to Suprono (2007), service is an activity organized by an organization concerning the needs of consumers, which will leave a particular impression. With good service,

consumers will feel satisfied; therefore, service is a very important factor in attracting consumers to use the products or services offered. Another definition states that service is any activity or benefit provided by one party to another, which is essentially intangible and does not result in the ownership of anything, and its production may or may not be tied to a physical product.

Furthermore, Munir also stated that public service is an activity carried out by an individual (or a group of people) based on material factors through systems, procedures, and methods as an effort to fulfill the interests of others in accordance with their rights. Munir found that the implementation of services can be measured, and therefore, standards can be established both in terms of the time required and the outcomes achieved. With these standards, management can plan, implement, monitor, and evaluate service activities to ensure satisfactory results for those receiving the services.

Public Service

Public service is an activity or series of activities carried out to fulfill service needs in accordance with laws and regulations for every citizen and resident regarding goods, services, and/or administrative services provided by public service providers (Sampsa, 2017). Every state institution, corporation, independent agency established by law for public service activities, and other legal entities established solely for public service purposes are considered public service providers (Nasco et al., 2009). These activities are carried out by officials, employees, personnel, and any individual working within the service provider organization who is responsible for performing actions or a series of actions related to public services (John, 2015).

In the implementation of public services, service standards must be used as benchmarks that serve as guidelines for service delivery and as a reference for evaluating service quality. These standards represent the obligations and commitments of service providers to the public in delivering services that are high-quality, fast, easy, accessible, and measurable. Public service is regulated by Law No. 25 of 2009 on Public Services. This regulation aims to provide legal certainty in the relationship between the public and service providers in the delivery of public services. In addition, the regulation of public services also aims to establish clear boundaries and relationships regarding the rights, responsibilities, obligations, and authorities of all parties involved in the provision of public services (Sawitri et al., 2018).

The scope of public services includes the provision of public goods and public services as well as administrative services as regulated by law (Durumeric et al., 2014). To ensure the smooth implementation of public service delivery, supervisors and persons in charge are required. Supervisors consist of the heads of state institutions, heads of ministries, heads of non-ministerial government agencies, heads of national commissions or similar bodies, and other institutional leaders (Hidayat, 2023), including governors at the provincial level, regents at the district level, and mayors at the city level. These supervisors are responsible for guidance, oversight, and evaluation of the performance of the persons in charge (Sawitri et al., 2018). Meanwhile, the person in charge is the head of the secretariat of the institution or an official appointed by the supervisor. The person in charge is tasked with coordinating the smooth operation of public service delivery in accordance with service standards at each work unit; evaluating the implementation of public services; and reporting to the supervisor on the implementation of public services across all units of the public service organization (Mulyono et al., 2018).

Quality of Public Service

According to Yunaningsih (2021), service quality refers to the provision of government service performance based on the capabilities and qualities possessed, which in turn impacts the overall performance delivered. Meanwhile, Zubaidah (2021) states that service quality is a fundamental factor to ensure that the services provided can be truly experienced by service users, consumers, or the public. Service quality is essential, as it serves as a guideline for service providers to deliver the best possible services to the community. Quality of service can also serve as a means of communication between the government and the public. Therefore, efforts to improve service quality must be optimized. Providing services that are easy, fast, accurate, and transparent to the public is one of the ways to enhance the delivery of high-quality services.

Improving the quality of public services can be achieved by enhancing service quality management. This is one approach to improving public service delivery by adopting a user-centered approach, meaning that the needs and interests of service users must be the primary

consideration throughout the entire public service process. However, efforts by local governments to enhance service quality still face significant challenges, as public service demands are becoming increasingly complex with diverse types of services and growing expectations for higher service quality from the community.

Service quality is the accuracy of efforts in meeting the needs and desires of consumers to match or exceed their expectations. According to Indrasari (as cited in Anggraini et al., 2019), "Service quality is a dynamic condition that is closely related to products, services, human resources, as well as processes and environments that can meet or even exceed the expected quality of service." Meanwhile, Tjiptono (as cited in Mardikawanty, 2021) states that "Service quality is an effort to meet consumer expectations, which involves fulfilling needs both in services and products and delivering them in a timely manner."

3. METHODS

This study uses a qualitative approach. The purpose of this research is to understand how services are provided at the Investment and One-Stop Integrated Service Office. The research location is the place where the researcher will conduct the study, especially to capture the actual phenomena or events occurring in the object of study, in order to obtain accurate research data. This research is conducted at the Investment and One-Stop Integrated Service Office of Rokan Hulu Regency, Riau Province. The following are several informants who have and understand the essential information needed for the implementation of Digital-Based Public Services at the Investment and One-Stop Integrated Service Office of Rokan Hulu Regency: Head of Public Service Division, Data and Information Control Staff, Service and Licensing Division Staff, and members of the public who receive services.

The primary data in this study were obtained from interviews with officials at the Investment and One-Stop Integrated Service Office (DPMPTSP) as well as the related community, along with direct observations conducted at the DPMPTSP of Rokan Hulu Regency. The secondary data sources for this research include regional innovation regulations, journals, and articles related to the research topic on digital-based public services at the DPMPTSP of Rokan Hulu Regency. The data collection techniques used in this study are interviews, observation, and documentation. Meanwhile, the data analysis techniques employed include source triangulation, technique triangulation, and time triangulation.

4. RESULTS

The implementation of digital-based public services at the Investment and One-Stop Integrated Service Office (DPMPTSP) of Rokan Hulu Regency has significantly influenced the work environment within the institution. The digital transformation has brought about substantial improvements in operational efficiency, communication flow, and employee satisfaction. By automating many administrative tasks, digital services have reduced the time-consuming manual processes that previously burdened employees, thereby allowing them to allocate more time and focus on higher-value tasks and complex problem-solving. This automation also minimizes human errors and redundancies, which in turn improves the overall service quality provided to the public.

Furthermore, the integration of digital platforms has enhanced internal communication and coordination among staff members. The availability of real-time data and instant messaging systems facilitates quicker decision-making and reduces the delays commonly experienced in conventional paper-based workflows. This streamlined communication network fosters a collaborative work culture, which encourages knowledge sharing and collective problem resolution, thus improving the institutional climate.

Employee morale and job satisfaction have also improved as a result of digitalization. The availability of user-friendly digital tools enables employees to perform their duties with greater ease and precision, reducing stress associated with outdated and cumbersome manual systems. Moreover, digital platforms provide opportunities for continuous learning and skill

development, which empower employees and contribute positively to their motivation and professional growth.

Despite these positive outcomes, several challenges remain. The need for ongoing training to enhance digital literacy among staff is critical, especially for those less familiar with technology. Infrastructure issues, such as unstable internet connectivity, occasionally disrupt service delivery and workflow continuity. Nevertheless, these challenges are seen as transitional hurdles that can be overcome through strategic planning and investment in capacity building.

In conclusion, the digitalization of public services at DPMPSTSP Rokan Hulu has not only optimized service delivery but has also fostered a more effective, communicative, and conducive work environment. This transformation supports the institution's mission to provide quality, accessible, and efficient services to the community, reflecting the broader trend of digital governance in public administration.

Discussion

The findings of this study highlight the transformative impact of digital-based public services on the work environment at DPMPSTSP Rokan Hulu. The digitalization efforts have clearly enhanced operational efficiency by automating routine administrative tasks, which aligns with existing literature emphasizing the role of technology in reducing manual workloads and human errors (Brennen & Kreiss, 2016). This reduction in routine tasks allows employees to redirect their focus towards more strategic and complex responsibilities, contributing to improved overall productivity and service quality.

Moreover, the improvement in internal communication and coordination observed in this study reflects the benefits of integrated digital platforms as noted in prior research (Asaniyah, 2017; Miladiyah et al., 2018). Real-time data access and instant communication channels foster a collaborative culture that is crucial for dynamic problem-solving and responsive public service delivery. This transformation also positively impacts employee morale, which is consistent with Yunaningsih's (2021) assertion that technological facilitation improves job satisfaction by making work easier and more effective.

However, the study also reveals challenges, particularly regarding digital literacy and infrastructure limitations. These obstacles underscore the importance of continuous capacity building and investment in reliable technological infrastructure, as emphasized by various scholars (Zubaidah, 2021; Mulyono et al., 2018). Addressing these challenges is essential to sustain the benefits of digitalization and ensure equitable access to public services.

In the context of public administration, the findings affirm that digital transformation is not merely about technology adoption but about enhancing human-centered service delivery and organizational culture. The experience of DPMPSTSP Rokan Hulu serves as a practical example of how digital public services can create more efficient, transparent, and responsive governance, ultimately fostering greater public trust and satisfaction. Future research could explore the long-term impact of digital public services on citizen engagement and service equity, as well as comparative analyses with other regional public service offices to generalize findings across different contexts.

5. CONCLUSION

This study concludes that the implementation of digital-based public services at DPMPSTSP Kabupaten Rokan Hulu has significantly transformed the work environment by improving operational efficiency, communication, and employee productivity. Digitalization facilitates easier access to information and streamlines administrative processes, thereby enhancing service quality and responsiveness. However, challenges such as digital literacy gaps and infrastructural limitations remain obstacles that need to be addressed to maximize the benefits of digital transformation. Overall, the shift towards digital public services not only modernizes administrative functions but also fosters a more collaborative, transparent, and effective organizational culture. Continued investment in technology and human resource development is essential to sustain and further improve public service delivery in the digital era.

6. LIMITATION

This study has several limitations that should be acknowledged. Firstly, the research is limited to a single institution, namely DPMPPTSP Kabupaten Rokan Hulu, which may affect the generalizability of the findings to other regions or organizations with different contexts. Secondly, the data collection relied heavily on interviews and observations, which may introduce subjective bias from both the respondents and the researcher. Thirdly, the study focused primarily on the internal organizational environment and did not extensively explore the perspectives of service users outside the institution. Lastly, the rapid pace of technological advancements means that the findings may become outdated if not continuously updated, requiring ongoing research to track the evolution of digital public services and their impact on work environments.

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