

Understanding the Determinants of User Continuance Intention on Indonesia's E-Government Web Portal

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Keywords

E-Government; Web Portal; User Continuance Intention; Citizen Satisfaction; Quality Perception; PLS-SEM; Indonesia

ABSTRACT

This current research seeks to explore various factors that can influence the sustainable use of SIPPN, as an Indonesian national public service information portal. The quantitative PLS-SEM approach was adopted for the research with 140 user respondents across Indonesia. This research uses Information Quality, Efficiency, Accessibility, Service, System performance, Design and Usability, Citizen Participation, Quality Perception, Citizen Satisfaction and User Intention as the factors. As per analysis results, Efficiency, System Performance and Citizen Participation have a significant influence on Quality Perception and Citizen Satisfaction. Quality Perception and Citizen Satisfaction have a high impact on user intention to continue the use of the SIPPN portal. Study findings confirm SIPPN as an established strategic national public information portal comparable to other similar portals at international level. To make the portal more efficient, inclusive and a global-standard one-stop national public service information portal, its interoperability and user feel must improve, as well as system performance.

INTRODUCTION

Digital transformation has become an agenda in various countries to improve the quality of governance and public services. Governments are required to provide higher-quality, more efficient, and more accountable services that meet public needs using information technology. (Malodia et al., 2021; Weigl et al., 2024). One way to facilitate access to government services through technology is through the development of e-government web portals. These web portals serve as a gateway for the public to access government services. (Henman et al., 2021a). Many countries already have national web sites that serve as the government's face in the internet, each with its own design. (Henman et al., 2021a). South Korea has a nationwide portal, Gov24 (gov.kr), which provides information and transaction services from both the central and local governments. (Nielsen & Jordanoski, 2023). In 2018, Gov24 provided access to approximately 90.000 government services and 5.000 community services. Gov24 also offers information services regarding government agency policies and activities (Korean Ministry of the Interior and Safety, 2018). In contrast to South Korea, the UK has a portal with an information repository approach called gov.uk (Henman et al., 2021a). Gov.uk integrates services from 23 ministries and 412 government agencies into one portal to avoid duplication on other website pages (Henman et al., 2021a). Aside from these countries, several other developed countries have established national portals, such as Australia with gov.au, Denmark with borger.dk for the public and virk.dk for enterprises, and the United States with USA.gov

(Henman et al., 2021b; Nielsen & Jordanoski, 2023). With the portal now launched, these countries now have a one-stop-shop that operates and serves their population (Nielsen & Jordanoski, 2023).

To implement an e-government, one of the preferred strategies for governments is portal mode of business model. Web portals allow the users a single window to access multiple government agencies, which simplifies the interaction of users with these agencies. According to Henman et al. (2021), there are two main designs in web portal development. The first is the information referral design, which is a small portal that acts as a referral. The second design is the information repository design, which is a large portal that acts as the main repository of information (Henman et al., 2021c).

The most basic difference between the two designs is that referral designs contain many external links, Examples of web portals of this type are the United States with usa.gov, New Zealand with govt.nz, France with www.service-public.fr, and the Netherlands with its portal at www.rijksoverheid.nl. Meanwhile, the information repository design features large, independent websites with few external links. Examples of web portals of this type are the United Kingdom with www.gov.uk, Finland with <https://www.suomi.fi/etusivu>, Canada with www.canada.ca/en, Singapore with www.gov.sg, and Australia with its web portal at www.australia.gov.au. (Henman et al., 2021c)

Indonesia has initiated a portal with an information repository like gov.uk, named the National Public Service Information System (SIPPN). SIPPN is a one-stop shop that provides public information from all ministries, institutions, regional governments, state-owned enterprises, and regions. (PermenPANRB No. 13 Tahun 2017, 2017). This portal is managed by the Ministry of Administrative and Bureaucratic Reform (Ministry of PANRB) as the national public service supervisor (PermenPANRB No. 13 Tahun 2017, 2017). The public can search for various public service information from various agencies, such as profiles of service providers, service implementer profiles, service standards (service products, requirements, mechanisms or procedures, service times, costs, and complaint management), service information, and performance assessments (PermenPANRB No. 13 Tahun 2017, 2017).

Based on the 2024 SIPPN report, 620 government agencies have been connected to the system, consisting of 34 ministries, 61 institutions, 34 provinces, 480 district/city governments, and 11 state-owned enterprises (BUMN/BUMD). By the end of 2024, SIPPN had published 268,935 public services, representing a 47% growth over the previous year. This system has been visited more than 130 million times since its launch. This success shows that SIPPN has become a huge national public service information portal that is the main place for people in Indonesia to get information about government services (Kementerian PANRB, 2024). SIPPN's large and growing amount of service data, as well as its high number of visitors, show how important it is as a digital infrastructure in the national electronic-based public service (SPBE) ecosystem.

In 2017, when SIPPN was launched, it received around 500,000 visits according to system logs. Fast forward to 2025, this number has increased many times over to 13,834,503 visits. However, this data is significantly lower when compared to 2024, which reached more than 70 million visits (Kementerian PANRB, 2024). In order to retain the increasing number of SIPPN users and encourage them to continue using this website, it is necessary to explore the factors that influence their decision. Many studies have examined the factors that cause users to return to e-government applications and even recommend them to relatives. One such factor is the quality of e-government websites, which play an important role in supporting their

continued use (Sigwejo & Pather, 2016). The quality of this website is influenced by many determinants such as clarity of information, relevance, accuracy, security, and interactivity (Sigwejo & Pather, 2016). In addition to quality, user satisfaction also bridges determining factors such as service reliability, security and privacy, clarity of information, ease of navigation, and system stability (Mamakou & Cohen, 2024).

SIPPN administrators need to know what makes a portal work well for the public so that it can be used all the time. This will help keep the portal's quality high and the public happy. Factors identified from previous research were identified to predict how these factors will influence the SIPPN portal's goal of sustainable use by its users. Specifically, this research aims to answer the following two questions: What factors influence the continued use of SIPPN as a national public service information portal? What recommendations can be implemented to improve the quality of the SIPPN portal?

The objectives of this research are to analyze the determinants of user continuance intention on the SIPPN portal as Indonesia's national public service information portal, to examine the influence of factors such as efficiency, system performance, and citizen participation on quality perception and citizen satisfaction, and to formulate strategic recommendations for improving the SIPPN portal to enhance sustainable user engagement. The benefits of this research are twofold. Theoretically, this study contributes to the e-government literature by extending the understanding of user continuance intention in the context of national public service information portals in developing countries, particularly by integrating factors such as efficiency, system performance, and citizen participation into a unified PLS-SEM model. Practically, this research benefits several parties. For the Ministry of PANRB as the portal manager, the findings provide empirical insights into which factors most significantly influence user satisfaction and continuance intention, enabling more targeted resource allocation for portal improvement. For policymakers, this study offers recommendations for designing more user-centric and sustainable e-government portals. For future researchers, this research serves as a foundation for comparative studies between national e-government portals across different countries and for investigating other potential determinants of citizen continuance intention.

RESEARCH METHOD

Research Model and Hypothesis

Based on the literature review, the factors that influence the effectiveness of e-Government websites can be seen in Table 1.

Tabel 1. Factors and Subfactors of E-Government Web Portal

Factors	Subfactors	Reference
Information Quality	information clarity & appropriateness	(Campmas et al., 2022; Huque & Ferdous, 2024; Tiika et al., 2024)
	relevance & usefulness	(Kumar et al., 2023; Tiika et al., 2024)
	up to date	(Špaček et al., 2020)
Effort Expectancy	organized	(Kumar et al., 2023; Salman & Almohsen, 2022)
	ease of use	(Campmas et al., 2022; Mamakou & Cohen, 2024; Singh et al., 2022)
	simplicity	(Huque & Ferdous, 2024)
Efficiency	time saving	(Huque & Ferdous, 2024; Sala et al., 2024)

Factors	Subfactors	Reference
	cost reduction	(Benaida, 2023; Sala et al., 2024)
	reduced bureaucracy	(Sala et al., 2024)
Accessibility	responsive design / mobile friendly	(Bar-Lev et al., 2025; Kim et al., 2023; Sala et al., 2024)
	inclusiveness	(Benaida, 2023; Ghareeb et al., 2020; Yoo & Kim, 2021)
	multilingual option	(Benaida, 2023)
	geographic reach	(Benaida, 2023)
	range of digitalized core services	(Bar-Lev et al., 2025; Campmas et al., 2022; Kumar et al., 2023; Singh et al., 2022; Tiika et al., 2024; Yıldırım & Bostancı, 2021)
Service	responsiveness	(Kumar et al., 2023; Tiika et al., 2024)
	interoperability / integration across agency	(Ghareeb et al., 2020; Tiika et al., 2024)
	page loading speed	(Yoo & Kim, 2021)
System Performance	24/7 online service	(Benaida, 2023; Yıldırım & Bostancı, 2021)
	error-free	(Ghareeb et al., 2020; Yoo, 2021; Yoo & Kim, 2021)
	consistent design	(Špaček et al., 2020; Yoo, 2021)
Design Usability	user-friendly design	(Singh et al., 2022)
	ease of navigation	(Singh et al., 2022)
	presence of search feature	(Abdalla et al., 2023; Almufti et al., 2024; Mamakou & Cohen, 2024; Singh et al., 2022)
Search Functionality	appropriate search result	(Abdalla et al., 2023; Almufti et al., 2024; Singh et al., 2022)
	e-participation	(Kumar et al., 2023)
Citizen Participation	online feedback	(Campmas et al., 2022; Mamakou & Cohen, 2024; Salman & Almohsen, 2022; Singh et al., 2022)
	overall perception of reliability	(Benaida, 2023; Sala et al., 2024)
Quality Perception	overall perception of safety	(Benaida, 2023; Sala et al., 2024)
	overall efficiency and effectiveness	(Sala et al., 2024)
Citizen Satisfaction	overall satisfaction	(Bar-Lev et al., 2025; Kim et al., 2023; Sala et al., 2024)
	citizen intention to use	(Ghareeb et al., 2020)
Users' Intention	continue to reuse	(Benaida, 2023; Ghareeb et al., 2020; Yoo & Kim, 2021)
	recommend the portal	(Benaida, 2023)
	Source: Compiled from literature review	

The model used in this study can be seen in Figure 1. The figure shows the factors that influence users' intentions to use the SIPPN portal as a national public service information portal. This study empirically investigates the impact of the factors in the research model. This

study also examines quality perception and citizen satisfaction as mediating factors to ultimately determine users' intentions toward the national public service information portal in Indonesia through the SIPPN website.

Previous studies show that user satisfaction is an important mediating factor linking e-government service quality to continued usage intention. Empirical findings reveal that improved service quality enhances satisfaction, which subsequently strengthens the intention to use digital public services (Indra Permana & Sugiarto, 2024). This aligns with the view that citizens shape their usage intentions based not only on technical features but on their overall experience.

Previous research also shows that higher service quality increases satisfaction, which in turn increases intention, suggesting that users form intentions through evaluative perceptions, rather than a direct response to system features (Li & Shang, 2020).

Public opinion of national public service information portals is greatly influenced by perceptions of quality, particularly in relation to the quality of information, accessibility, and system performance (Huque & Ferdous, 2024; Sala et al., 2024; Yoo & Kim, 2021). If the quality of information presented on the SIPPN is good, then public satisfaction levels will also be very good. Several studies confirm that this satisfaction is then reflected in a positive overall assessment of the portal (Mamakou & Cohen, 2024; Salman & Almohsen, 2022). High satisfaction is directly related to users' intention to continue using the portal, including the desire to reuse it and even recommend it to others (Abdalla et al., 2023; Almufti et al., 2024; Mamakou & Cohen, 2024; Singh et al., 2022). Thus, perceptions of quality, satisfaction levels, and reuse intentions are closely related and form a positive cycle that supports the sustainable use of e-government web portals.

The purpose of this study is to analyze the factors that determine the sustainability of SIPPN as a national public service information portal. The possible predictions depend on various factors which have been discussed in past literature.

The study outlines the following hypotheses. Hypothesis 1 is assuming the quality of information available in the SIPPN portal significantly and positively affects user perceptions of the information portal quality. Hypothesis 2 (H2) states that the quality of information on the SIPPN portal has a positive and significant impact on citizen satisfaction. Hypothesis 3 (H3) posits that the effort to use SIPPN portal affects the perception of the quality of SIPPN portal positively and significantly. Using the SIPPN portal requires effort to enhance citizen satisfaction, as claimed in Hypothesis 4 (H4). Hypothesis 5 (H5) states that the efficiency that comes from utilizing the SIPPN portal has an impactful and positive effect on the perceived quality of the information portal. According to Hypothesis 6 (H6), SIPPN Portal efficiency has a significantly positively effective on citizen satisfaction. The implication of Hypothesis 7 (H7) is that the accessibility of the SIPPN portal has a significant and positive influence on user perception of the information portal quality. Hypothesis 8 (H8) states that SIPPN portal accessibility significantly and positively impacts citizen satisfaction in utilizing the portal.

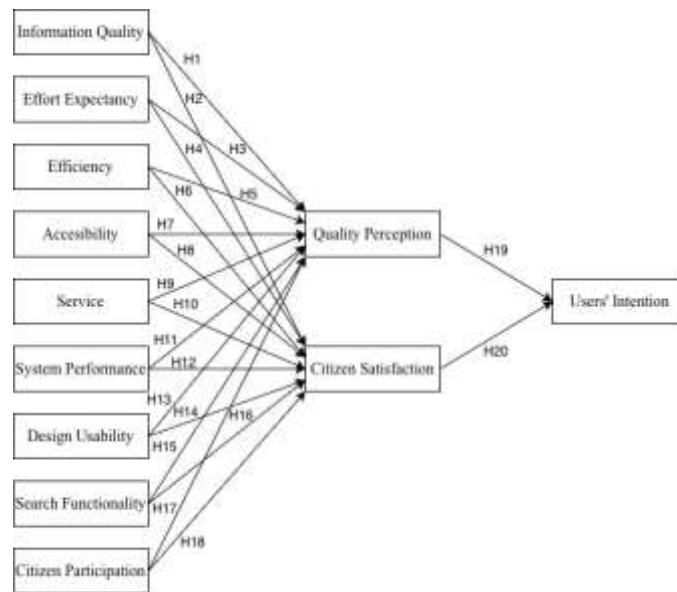


Figure 1. Research Model

Source: Author's own work, 2025 (based on synthesized literature review)

Hypothesis 9 (H9): The services provided on the SIPPN portal have a significant positive influence on the perception of the quality of the information portal. Hypothesis 10 (H10): The services of the SIPPN portal components significantly and positively influence citizen satisfaction. Hypothesis 11 (H11): The performance of the SIPPN itself will significantly and positively affect the portal SIPPN and subsequently affect the perception of quality significantly and positively. Hypothesis 12 (H12): Performance of SIPPN system have significant and positive effect on citizen satisfaction on the usage of the portal. The hypothesis 13 (H13) on the usability design on the SIPPN portal has a positive and significant effect on perceived quality. Hypothesis 14 (H14): There is a significant positive effect of usability of design on citizen satisfaction when using the SIPPN portal. Hypothesis 15 (H15): The search function of the SIPPN portal has a significant positive impact on the perceived quality of its information portal.

Hypothesis 16 (H16): The search function on the SIPPN portal has a significant and positive effect on citizen satisfaction in using the portal. Hypothesis 17 (H17): Citizen involvement in the development of the SIPPN portal has a positive and significant impact on the perception of the quality of the information portal. Hypothesis 18 (H18): Citizen participation in the advancement of the SIPPN portal significantly and positively affects citizen satisfaction in using the portal.

Hypothesis 19 (H19): Quality perception on the SIPPN portal has a significant positive effect on users' intention to reuse the web portal. Hypothesis 20 (H20): Citizen satisfaction has a significant positive effect on users' intention to reuse the web portal.

Methodology

This study used quantitative methods. The first stage of this study is to identify existing problems related to the national public service information portal, namely SIPPN. The SIPPN portal was developed by the Ministry of PANRB in 2017. Although it has been in existence for more than eight years, the use of this portal has not been maximized.

The next step in this study was to conduct a literature review to identify factors that influence the intention to reuse public service information portals in other countries around the

world. After identifying these factors, the next step was to develop a research instrument, namely a questionnaire using a 5-point Likert scale. The questionnaire developed by the researchers was then tested for readability by two SIPPN users.

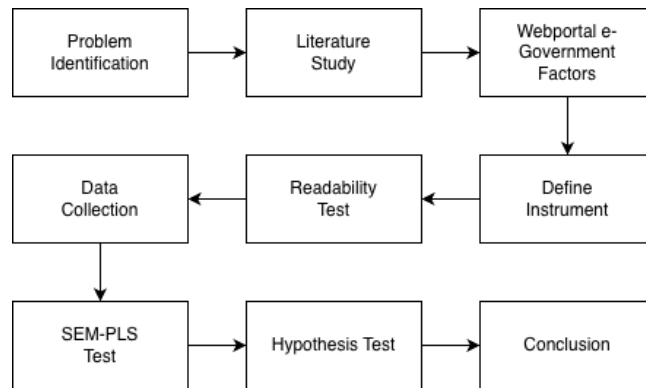


Figure 2. Research Methodology

Source: Author's own work, 2025

The questionnaire was then distributed to SIPPN users throughout Indonesia via the local government SIPPN admin portal, which covers all regions in Indonesia, using an online method. The amount of questionnaire data in this study used Hair's concept, where the minimum sample required is ten times the largest formative indicator for a construct (12 indicators), which gives a value of 120 (Hair et al., 2019). The number of valid respondents in this study was 140 responses.

From the data collected, SEM-PLS testing was then conducted using the SMART PLS 4 application to test the hypotheses from the previously established research model. From these results, conclusions were then drawn for this study. The flow of this study can be seen in Figure 2.

RESULT AND DISCUSSION

Demographic Analysis Result

Before doing the statistical analysis, the general profile of the people who answered was looked at. The data show a clear difference between men and women. There were 140 participants, 81 of whom were women (57.9%) and 59 of whom were men (42.1%). This shows that women are more likely to use SIPPN. Most of the users were over 45 years old (25.7%), followed by those between 40 and 45 (22.9%) and those between 31 and 35 (21.4%). The next groups were 36–40 years old (15.7%), 26–30 years old (11.4%), and 20–25 years old (2.9%). No one who answered was under 20. This composition suggests that most of the participants were of working age.

Undergraduate degrees were the most common educational background among respondents (87). This suggests that most respondents are already accustomed to using information technology as a tool in their daily lives. This was followed by those with a master's degree (25%), diploma (9.3%), elementary school (2.1%), and PhD (1.4%).

Geographically, respondents were primarily from Sumatra (66 respondents, 47.1%) and Java (53 respondents, 37.9%). Furthermore, responders were from Kalimantan (6.4%), Bali, East Nusa Tenggara (NTT) or West Nusa Tenggara (NTB) (5.7%), Sulawesi (1.4%), and Papua (0.7%). Table 2 contains complete details about the responder data.

Tabel 2. Respondent Data

Variable	Category	Frequency	Percentage
Gender	Male	81	57,9%
	Female	59	42,1%
Age	<20 years old	0	0%
	20-25 years old	4	2,9%
	26-30 years old	16	11,4%
	31-35 years old	30	21,4%
	36-40 years old	22	15,7%
	41-45 years old	32	22,9%
	>45 tahun	36	25,7%
Education	SD-SMA	3	2,1%
	Diploma	13	9,3%
	Bachelor	87	62,1%
	Master	35	25%
	Doctoral	2	1,4%
Domicile	Jawa Island	53	37,9%
	Sumatera Island	66	47,1%
	Kalimantan Island	9	6,4%
	Bali, NTB, r NTT Island	8	5,7%
	Sulawesi Island	2	1,4%
	Maluku Island	1	0,7%
	Papua Island	1	0,7%

Source: Author's field survey, 2025

Measurement Model Analysis Result

Tabel 3. Loading Factor Test Result

Code	Variable											
	AC	CP	CS	DU	EF	EE	IQ	QP	SE	SF	SP	UI
AC1	0.844											
AC2	0.873											
AC3	0.664											
AC4	0.846											
CP1		0.887										
CP2		0.911										
CS1			0.948									
CS2			0.939									
DU1				0.895								
DU2				0.948								
DU3				0.943								
EE1					0.903							
EE2					0.919							
EF1						0.928						
EF2						0.947						
EF3						0.894						
IQ1							0.758					
IQ2							0.759					
IQ3							0.814					
IQ4							0.885					
QP1								0.937				

QP2	0.936
SE1	0.902
SE2	0.880
SE3	0.921
SF1	0.945
SF2	0.959
SP1	0.883
SP2	0.894
SP3	0.873
UI1	0.943
UI2	0.957

Source: Author's data analysis using SmartPLS 4, 2025

In the measurement model analysis, individual item dependability was tested. This step looks at the loading factor values of indicators that are considered good. This number shows that the indicator is appropriate for measuring the construct or variable. In this examination, 32 of 33 indicators were found to be appropriate. Indicator AC3 was eliminated due to its value of 0.664 (Table 3).

Next, the Average Variance Extracted (AVE) test was applied to assess how strongly the indicators within each construct relate to one another. The results show that all constructs achieved AVE values above the 0.5 threshold, ranging from 0.649 to 0.906 (Table 4). This result demonstrates that the variables in the model meet the conditions for convergent validity, which means that each construct can explain more than half of the variance in its indicators.

Tabel 4. AVE (Composite Reliability) Result Test

Variable	AVE
Accessibility	0.757
Citizen Participation	0.808
Citizen Satisfaction	0.890
Design and Usability	0.863
Efficiency	0.853
Efort Expectancy	0.831
Information Quality	0.649
Quality Perception	0.877
Search Functionality	0.906
Service	0.812
System Performance	0.780
User Intention	0.890

Source: Author's data analysis using SmartPLS 4, 2025

The third test is the measurement of cross loading values to measure whether the loading values on an indicator of a construct are greater than the loading values on other constructs.

Tabel 5. Cross Loading Result Test

Code	Variable											
	AC	CP	CS	DU	EF	EE	IQ	QP	SE	SF	SP	UI
AC1	0,880	0,648	0,720	0,609	0,726	0,616	0,585	0,742	0,626	0,627	0,811	0,661
AC2	0,879	0,654	0,683	0,611	0,678	0,670	0,647	0,670	0,643	0,588	0,683	0,720
AC4	0,852	0,705	0,690	0,630	0,602	0,650	0,585	0,707	0,710	0,630	0,721	0,663
CP1	0,663	0,887	0,694	0,740	0,580	0,599	0,687	0,708	0,748	0,643	0,588	0,667
CP2	0,716	0,911	0,774	0,702	0,736	0,654	0,607	0,793	0,766	0,677	0,759	0,720
CS1	0,776	0,774	0,948	0,792	0,718	0,777	0,759	0,843	0,757	0,723	0,740	0,846
CS2	0,737	0,772	0,939	0,702	0,729	0,740	0,720	0,831	0,773	0,740	0,715	0,751
DU1	0,623	0,718	0,718	0,895	0,672	0,592	0,588	0,681	0,644	0,726	0,611	0,748
DU2	0,638	0,742	0,723	0,948	0,718	0,631	0,679	0,717	0,679	0,752	0,629	0,746
DU3	0,709	0,770	0,769	0,943	0,748	0,626	0,687	0,768	0,689	0,775	0,687	0,748
EE1	0,669	0,622	0,673	0,695	0,903	0,598	0,722	0,685	0,641	0,685	0,621	0,653
EE2	0,732	0,717	0,723	0,705	0,919	0,589	0,723	0,760	0,682	0,713	0,757	0,728
EF1	0,729	0,667	0,771	0,660	0,667	0,928	0,743	0,712	0,695	0,685	0,655	0,747
EF2	0,673	0,653	0,745	0,604	0,574	0,947	0,712	0,688	0,710	0,591	0,570	0,688
EF3	0,647	0,614	0,710	0,572	0,559	0,894	0,652	0,678	0,685	0,560	0,543	0,726
IQ1	0,404	0,401	0,483	0,531	0,584	0,461	0,758	0,391	0,412	0,533	0,350	0,510
IQ2	0,453	0,405	0,547	0,424	0,563	0,560	0,759	0,474	0,475	0,430	0,360	0,548
IQ3	0,626	0,699	0,690	0,625	0,685	0,684	0,814	0,697	0,731	0,581	0,655	0,691
IQ4	0,683	0,707	0,745	0,648	0,701	0,695	0,885	0,721	0,723	0,657	0,627	0,750
QP1	0,765	0,794	0,802	0,701	0,712	0,698	0,671	0,937	0,750	0,634	0,777	0,815
QP2	0,757	0,774	0,861	0,757	0,776	0,707	0,710	0,936	0,793	0,709	0,766	0,791
SE1	0,682	0,768	0,764	0,677	0,635	0,721	0,729	0,769	0,902	0,628	0,628	0,756
SE2	0,664	0,759	0,660	0,616	0,663	0,635	0,613	0,709	0,880	0,624	0,681	0,651
SE3	0,702	0,751	0,760	0,658	0,669	0,679	0,693	0,747	0,921	0,718	0,709	0,678
SF1	0,618	0,667	0,683	0,779	0,710	0,615	0,649	0,636	0,644	0,945	0,619	0,642
SF2	0,722	0,729	0,786	0,763	0,749	0,648	0,668	0,724	0,739	0,959	0,692	0,728
SP1	0,754	0,670	0,674	0,578	0,664	0,565	0,585	0,703	0,660	0,606	0,883	0,626
SP2	0,804	0,672	0,742	0,658	0,689	0,647	0,612	0,800	0,685	0,644	0,894	0,683
SP3	0,687	0,656	0,619	0,594	0,655	0,466	0,510	0,670	0,626	0,574	0,873	0,580
UI1	0,717	0,739	0,828	0,766	0,713	0,740	0,751	0,818	0,751	0,680	0,679	0,943
UI2	0,750	0,738	0,805	0,782	0,718	0,749	0,735	0,814	0,727	0,681	0,669	0,957
UI3	0,748	0,709	0,765	0,727	0,718	0,720	0,757	0,793	0,708	0,683	0,679	0,930

Source: Author's data analysis using SmartPLS 4, 2025

Tabel 6. Cross Loading Test Result (Fornell-Larckel Criterion)

Var	Variable											
	AC	CP	CS	DU	EF	EE	IQ	QP	SE	SF	SP	UI
AC	0.870											
CP	0.768	0.899										
CS	0.802	0.819	0.944									
DU	0.708	0.800	0.793	0.929								
EF	0.741	0.699	0.804	0.663	0.923							
EE	0.769	0.736	0.766	0.768	0.651	0.911						
IQ	0.695	0.717	0.784	0.702	0.761	0.793	0.806					
QP	0.813	0.837	0.887	0.778	0.750	0.794	0.737	0.936				
SF	0.707	0.735	0.775	0.809	0.664	0.767	0.692	0.717	0.952			
SE	0.758	0.842	0.810	0.723	0.754	0.727	0.755	0.824	0.730	0.901		
SP	0.851	0.754	0.772	0.693	0.639	0.759	0.647	0.824	0.691	0.745	0.883	
UI	0.782	0.773	0.848	0.804	0.780	0.759	0.793	0.857	0.722	0.772	0.716	0.943

Source: Author's data analysis using SmartPLS 4, 2025

The measurement results are shown in Table 5 and marked in blue. The Fornell-Larcker Criterion measurement results show that the AVE root value is higher than the correlation between constructs and other constructs (Table 6). Thus, based on the examination results, it is known that there are no problems in the discriminant validity test.

Internal reliability testing was conducted to assess the consistency between indicators within a single construct. The results show that all variables have Cronbach's Alpha values between 0.763 and 0.938 (Table 7), and Composite Reliability (CR) values between 0.881 and 0.960 (Table 7). Both values exceeded the minimum limit of 0.7, so the construct was declared reliable. This means that each indicator has high internal consistency in measuring the same latent construct.

Tabel 7. Cronbach's Alpha Result Test

Variable	Cronbach's Alpha
Accessibility	0.840
Citizen Participation	0.763
Citizen Satisfaction	0.877
Design and Usability	0.920
Efficiency	0.913
Efforts Expectancy	0.796
Information Quality	0.823
Quality Perception	0.860
Search Functionality	0.897
Service	0.884
System Performance	0.859
User Intention	0.938

Model Structural Analysis Result Source: Author's data analysis using SmartPLS 4, 2025

During the structural model analysis, the path coefficient (β), coefficient of determination (R^2), and T-statistic were examined. To check the consistency of relationships among variables, the Composite Reliability (CR) value was used with a minimum threshold of 0.7. The results (Table 8) show that all variables exceeded this value, confirming that the model met reliability standards and that the relationships among constructs are consistent.

Tabel 8. Composite Reliability Result Test

Variable	CR
Accessibility	0.904
Citizen Participation	0.894
Citizen Satisfaction	0.942
Design and Usability	0.950
Efficiency	0.946
Effort Expectancy	0.907
Information Quality	0.881
Quality Perception	0.934
Search Functionality	0.951
Service	0.928
System Performance	0.914
User Intention	0.960

Source: Author's data analysis using SmartPLS 4, 2025

The Path Coefficient analysis (Table 9) identified several significant relationships among the variables. Efficiency, system performance, and citizen participation positively affected both quality perception and satisfaction. A T-statistic greater than 1.96 and a P-value below 0.05 confirmed that these relationships were statistically significant. This means that system efficiency, application performance, and user participation are the key drivers shaping perceived quality and satisfaction with the SIPPN website.

Moreover, both citizen satisfaction and perceived quality had a strong effect on user intention. The Path Coefficient values of 0.411 and 0.493, with a P-value of 0.000, indicate a strong and meaningful influence. In short, the higher the users' satisfaction and perceived quality, the more likely they are to keep using and recommending SIPPN. These two variables form an essential bridge connecting system quality with actual user behavior.

Conversely, several variables such as Accessibility, Design and Usability, Effort Expectancy, Information Quality, Search Functionality, and Service have not shown a significant influence on perceived quality or user satisfaction. A P-value greater than 0.05 indicates that these factors are not yet the main determinants in the context of this study. The information quality factor did not show a significant influence on perceived quality or user satisfaction. This is because, in the context of public service portals, information accuracy and completeness are generally viewed as basic government obligations, rather than value-added attributes. Users tend to assume that government portals should already provide reliable and adequate information, so improvements in these areas do not substantially improve their evaluations once minimum standards are met. These results align with previous research that suggests information quality does not significantly correlate with intention to use.

Tabel 9. Path Coefficient Result Test

Variable	T-Statistics	P-Values
AC → CS	1.065	0.287
AC → QP	0.346	0.729
CP → CS	1.594	0.111
CP → QP	2.040	0.041
CS → UI	3.550	0.000
DU → CS	1.669	0.095
DU → QP	1.643	0.101
EF → CS	2.590	0.010
EF → QP	2.037	0.042
EE → CS	0.160	0.873
EE → QP	1.883	0.060
IQ → CS	1.538	0.124
IQ → QP	0.343	0.732
QP → UI	4.188	0.000
SF → CS	1.242	0.214
SF → QP	1.212	0.225
SE → CS	0.615	0.539
SE → QP	1.615	0.106
SP → CS	1.614	0.107
SP → QP	3.089	0.002

Source: Author's data analysis using SmartPLS 4, 2025

After obtaining the results of the Path Coefficient analysis that showed a direct relationship between variables, the next stage was to test the mediation effect (indirect effect) to see whether the influence of the independent variables on User Intention also occurs indirectly through Quality Perception or Citizen Satisfaction (Table 10). The results of the mediation effect test showed that only the System Performance → Quality Perception → User Intention path had a significant influence with a coefficient value of 0.131, T-statistic 2.714, and P-value 0.007. This means that system performance plays an important indirect role in increasing user intention through the perception of service quality. The better the system performance, the more positive the user's assessment of the application quality, which ultimately encourages the desire to continue using the service. Meanwhile, other mediation paths such as Efficiency → Quality Perception → User Intention and Efficiency → Citizen Satisfaction → User Intention showed results close to significant, thus still reflecting the potential for a positive influence even though it was not statistically strong. In contrast, other variables such as Accessibility, Design and Usability, Effort Expectancy, and Information Quality did not show a significant mediation effect on user intention.

Tabel 10. Specific Indirect Result Test

Variable	T-Statistics	P-Values
AC → QP → UI	0.338	0.735
CP → QP → UI	1.808	0.071
DU → QP → UI	1.445	0.149
EF → QP → UI	1.902	0.057

AC → CS → UI	1.007	0.314
EE → QP → UI	1.716	0.086
CP → CS → UI	1.451	0.147
IQ → QP → UI	0.335	0.738
DU → CS → UI	1.442	0.149
SF → QP → UI	1.166	0.244
EF → CS → UI	1.920	0.055
SE → QP → UI	1.430	0.153
EE → CS → UI	0.153	0.879
SP → QP → UI	2.714	0.007
IQ → CS → UI	1.289	0.198
SF → CS → UI	1.115	0.265
SE → CS → UI	0.586	0.558
SP → CS → UI	1.533	0.125

Source: Author's data analysis using SmartPLS 4, 2025

Hypotheses Result

The outcomes of hypothesis testing indicate that among the twenty proposed hypotheses (H1–H20), six direct hypotheses and one mediation path have been demonstrated to be significant. Hypotheses H5 and H6 are validated, demonstrating that Efficiency positively influences Quality Perception ($\beta = 0.166$; $P = 0.042$) and Citizen Satisfaction ($\beta = 0.245$; $P = 0.010$). The outcomes also validate multiple essential hypotheses. H11 is significant, which means that System Performance has a positive effect on Quality Perception ($\beta = 0.266$; $P = 0.002$). H17 is supported, which means that Citizen Participation has a positive effect on Quality Perception ($\beta = 0.206$; $P = 0.041$). Both H19 and H20 are accepted, and Quality Perception ($\beta = 0.493$; $P = 0.000$) and Citizen Satisfaction ($\beta = 0.411$; $P = 0.000$) have a big effect on User Intention to keep using the SIPPN portal.

The results show that the Quality Perception variable is strongly affected by factors like Efficiency (H5, H6), System Performance (H11), and Citizen Participation (H17). These results show that the users think the portal is better when the SIPPN system works better and is more reliable, and when more people are using it. In the end, this makes users happier and more likely to keep using SIPPN to get public information.

Most of the alternative hypotheses did not have any statistical significance. This suggests that these variables do not have a substantial impact on perceived quality or user satisfaction. The mediation analysis revealed a significant relationship between System Performance, Quality Perception, and User Intention ($\beta = 0.131$; $P = 0.007$). This shows that Quality Perception is the link between System Performance and continued use. So, the key to keeping users coming back to the portal and keeping it going is to make the system work better.

CONCLUSION

The SIPPN website has been analyzed on critical factor that makes the website as a national public service information portal by assembling a model of factor which was found in previous study. The factors that were highlighted comprised of Information Quality, Efficiency, Accessibility, Service, System Performance, Design and Usability, and Citizen Participation. These factors were then directed to address the quality perception in the Quality Perception variable, the user satisfaction with the portal in the Citizen Satisfaction variable and the intention to return to using SIPPN in the User Intention variable. The PLS-SEM method

was used to analyze the developed model for validity and reliability. The success of national public service information portals such as SIPPN depends on Efficiency, System Performance and Citizen Participation, the study shows. These three factors have been shown to influence Quality Perception, Citizen Satisfaction, and finally User Intention to use the portal continuously. Rephrase More Undo Stability of the system and the availability of public participation space are the main pillar of sustainability of the portal oriented to the user. All in all, the findings show that Quality Perception and Citizen Satisfaction play a major role in bridging the system performance and end-user behaviour. The government should keep on making good use of information technology. The user experience must be improved through user-friendly design. Additionally, a reliable system must always be created. Thus, SIPPN could function as a one-stop national public service information portal which can be competed with similar portals at the global level.

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