



Analysis Of the Effectiveness of Using the Siks-Ng Application on Community Services in the Citof Prabumulih Using the Pieces Method

Niken Rahmanti^{1*}, Nur Aini H², Yuntari Purbasari³

^{1, 2, 3}Universitas Prabumulih
nikenrahmanti0511@gmail.com^{1*}

Abstract

Technological developments can influence several aspects, including government, politics and the economy. Effectiveness is something important, because effectiveness can be studied from various points of view and depends on who assesses and interprets it. Prabumulih City is one of the cities in South Sumatra province that has implemented the Siks-Ng information system. This research uses a descriptive method with a quantitative approach. The quantitative data in this research is the result of an online questionnaire distributed to user respondents or sub-district and sub-district operators in the city of Prabumulih. This analysis uses the PIECES method with six variables, namely Performance, Information, Control, Efficiency, Service. The results of the PIECES analysis of the use of the Siks-Ng application are performance analysis 4.42, information analysis 4.45, economics analysis 4.5, control analysis 4.41, efficiency analysis 4.55, service analysis 4.59. From all the analysis results, it can be categorized as very satisfied, meaning that the Siks-Ng application can provide convenience, effectiveness and satisfaction for users.

Keywords: *Technology, Efektivitas, Siks-Ng, Metode PIECES*

1. Introduction

This document can be used as a template for Microsoft Word versions 6.0 or later. Do not submit papers written with other editors than MS Word, Effectiveness refers to success in achieving goals in an effective way, namely the ability to utilize existing resources optimally to match goals with results or targets. This includes achieving results with accuracy, speed, efficiency and safety [1]. According to [2] Applications are software that combine various specific features and can be accessed by users. According to [3] an application is a program on a computer or cellphone that is used to carry out certain functions according to the design that has been created. [4] The *SIKS-NG* application is a web-based platform designed to manage integrated data regarding social welfare.

This application includes information about 'social assistance, data on recipients of social welfare services (PPKS), as well as data regarding the potential and sources of social welfare. According to [5] the Social Welfare Information System-Next Generation, abbreviated as SIKS-NG, is an information system that includes various components for collecting and processing social welfare data. This system utilizes information and communication technology and is implemented in stages and continuously. Services are activities provided to consumers or customers, which are intangible and cannot be physically owned.

According to [6] Service can be defined as the process of providing assistance, providing and managing goods or services from one party to another. Research conducted [7] states that the SLRT Program provides positive benefits due to collaboration with various service provider institutions, which ensures that the services provided can meet the needs of the beneficiaries. To support the socialization of this program, the South Sulawesi Social Service has introduced an application that is used to collect data on social assistance for the poor and distribute it to government officials. Apart from that, the South Sulawesi Provincial Government has also carried out data collection involving village officials and local government, supported by the Village Community Empowerment Service, and utilized the SIKS-NG application to assist the data collection process.

Based on the background above, the author is interested in conducting research in analyzing the Next Generation Social Welfare Information System (Siks-Ng) application to then use as a basis for preparing a thesis with the title "Effectiveness of using the Siks-Ng application for public services in Prabumulih City using the PIECES method". It will not be accepted for review. Save the files to be compatible with many versions of MSWord (avoid other document extension than *.doc, *.docx or *.rtf). **Do not submit papers without performing a carefully spellcheck and English language grammar check.** The style from these instructions will adjust your fonts and line spacing. Please do not change the font sizes or line spacing to squeeze more text into a limited number of pages.

2. Theoretical Review

2.1. Understanding Analysis

According to [8] Analysis is a process that involves various activities, such as describing, distinguishing and sorting information to classify and group it based on certain criteria. Next, analysis includes searching for relationships between these elements and interpreting their meaning. According to [9] Analysis is an understanding process that shows ideas and relationships between various elements as well as problems and their solutions. From this opinion, it can be concluded that analysis is a thinking process that aims to divide or solve problems by breaking down larger units into smaller parts.

2.2. Understanding Effectiveness

According to [1] Effectiveness refers to success in achieving goals in an effective way, namely the ability to utilize existing resources optimally to match goals with results or targets. This includes achieving results with accuracy, speed, efficiency and safety.

2.3. Understanding Application

According to [2] an application is software that combines various specific features and can be accessed by users.

2.4. Understanding Siks-Ng

According to [4] The *SIKS-NG* application is a web-based platform designed to manage integrated data regarding social welfare. This application includes information about 'social assistance, data on recipients of social welfare services (PPKS), as well as data regarding the potential and sources of social welfare.

2.5. Definition of Service

Services are activities provided to consumers or customers, which are intangible and cannot be physically owned. According to [6] Service can be defined as the process of providing assistance, providing and managing goods or services from one party to another party.

2.6. Definition of PIECES

PIECES is an analysis method used to identify specific problems in a system. This analysis usually involves several aspects, such as performance, information, economics, application security, efficiency, and service. PIECES functions as a framework for classifying problems based on the categories represented by each letter, namely performance, information, economic, control, efficiency and service.

3. Research Methods

According to (Waruwu, 2023) Sample is a method used to select a number of elements from the population being studied as representatives. The population in this study was 76, using a margin of error of 5%. Based on the calculation results, the values are rounded to ensure suitability. The sample obtained based on calculations using the Slovin formula was 63.865 so that it could be rounded up to 64 samples used by respondents from sub-district and sub-district SIKS-NG operators in Prabumulih City. The methods used in this research are as follows.

3.1. Data Type

In this research, the author uses quantitative data, namely data in the form of numbers or numbers. Quantitative data in this research was obtained from an online questionnaire distributed to respondents, such as users or sub-district and sub-district operators in Prabumulih city.

3.2. Method of collecting data

In this research, the data used includes primary and secondary data. Primary data is obtained directly from the research object, while secondary data is collected through censuses and surveys. The data collection methods used by researchers are:

1. Observation
Observation is a data collection method carried out systematically and deliberately by the author through observing and recording ongoing activities.
2. Interview
The author communicates directly with the parties concerned to provide information regarding the information required by the author.
3. Questionnaire
Researchers will collect data by distributing written questionnaires to SIKS-NG operators in sub-districts and sub-districts in Prabumulih City. The questionnaire will be distributed online via the WhatsApp application.
4. Literature Study
This research involves collecting data, information and information by utilizing books and journals that are theoretically relevant to the problem being researched.

3.3. Data Testing

Validity involves a comparison between the calculated r value (Pearson Correlation) and the table r value. This calculated r value is used as a basis for assessing whether the question items in the research are considered valid or not, by comparing it to the r value table. To assess the suitability of an item, a correlation coefficient significance test is usually carried out at a significance level of 0.05. In other words, an item is considered valid if it shows a significant correlation with the total score. This validity test was carried out using the SPSS 24 program.

Reliability is a measure to assess the reliability of a questionnaire as a tool for measuring constructs or variables. A questionnaire is considered reliable or trustworthy if a person's answers to the questions remain consistent or stable over time. The higher the reliability of a measuring instrument, the more stable the instrument is. The level of reliability is empirically shown by a number called the reliability coefficient value. High reliability is indicated by an r_{xx} value close to 1. The criteria for the level of reliability are as follows:

Table 1: Reliable Criteria

Reliability	reliable criteria
0,81 – 1,00	very high
0,61 – 0,80	High
0,41 – 0,60	Currently
0,21 – 0,40	Low
0,00 – 0,20	Very Low

(Source : [10])

4. Research Result

After the questionnaire is distributed, validity and reliability testing is carried out to ensure that the questionnaire can measure research accurately. Therefore, as a data collection instrument, the questionnaire needs to be tested for validity and reliability.

A. Validity Test

The validity test is carried out by comparing the calculated r value with the r table. An item is considered valid if the calculated r value is greater than table r ; conversely, if the calculated r is smaller than the table r , the item is considered invalid. The calculated r value was obtained using SPSS software, while the r table was determined by looking at the r table based on degrees of freedom ($df = n - 2$) at a significance level of 5%, where n is the number of respondents. For example, if df is 62 (with $n = 64$), the table r value can be found by referring to the relevant table.

Table 2: Validity Test Results

Nu	Variable	Code	Validitas		Information
			R Table	R Count	
1	(Performance)	A1	0,246	0,649	Valid
		A2	0,246	0,636	Valid
		A3	0,246	0,764	Valid
		A4	0,246	0,725	Valid
		A5	0,246	0,640	Valid
2	(Information)	B1	0,246	0,733	Valid
		B2	0,246	0,573	Valid
		B3	0,246	0,635	Valid
		B4	0,246	0,676	Valid
		B5	0,246	0,631	Valid
3	(Economics)	C1	0,246	0,632	Valid
		C2	0,246	0,707	Valid
		C3	0,246	0,532	Valid
		C4	0,246	0,780	Valid
		C5	0,246	0,621	Valid
4	(Control and Security)	D1	0,246	0,701	Valid
		D2	0,246	0,787	Valid
		D3	0,246	0,683	Valid
		D4	0,246	0,628	Valid
		D5	0,246	0,646	Valid
5	(Efficiency)	E1	0,246	0,634	Valid
		E2	0,246	0,691	Valid
		E3	0,246	0,819	Valid
		E4	0,246	0,751	Valid
		E5	0,246	0,672	Valid
6	(Service)	F1	0,246	0,783	Valid
		F2	0,246	0,647	Valid
		F3	0,246	0,643	Valid
		F4	0,246	0,742	Valid
		F5	0,246	0,659	Valid

From table 2 it can be concluded that each indicator used is valid. With this, all items have a significant value of more than 0.05, which means that all questions are valid.

B. Reliability Test

The reliability value is calculated using the Statistical Product and Service Solution (SPSS 24) application via the Reliability Statistics table, which displays the Cronbach's Alpha value. Decisions regarding reliability tests are determined based on the

Cronbach's Alpha value: if the value is more than 0.60, then the questionnaire or questionnaire is considered reliable and consistent. However, if the Cronbach's Alpha value is less than 0.60, the questionnaire or questionnaire is considered unreliable.

Table 3. Reliability Test Results

Variable	Number Of Items	Cronbach's Alpha	Information
Performance	5	0,710	Reliable
Information	5	0,656	Reliable
Economics	5	0,660	Reliable
Control	5	0,722	Reliable
Efficiency	5	0,761	Reliable
Service	5	0,735	Reliable

The research results state that the reliability in table 3 has a Cronbach value of more than 0.60 or has a high reliability value.

The results of this research are in line with a study conducted by [11] entitled "Effectiveness of Integrated Social Welfare Data Management Based on the SIKS-NG Application in the Sampang Regency Social Service." The study concluded that integrated social welfare data management at the Sampang Regency Social Service has been implemented in accordance with Ministry of Social Affairs Regulation Number 3 of 2021 concerning Integrated Social Welfare Data Management. However, the results are not optimal. Some of the obstacles faced include a lot of community data that is not in sync with Disdukcapil data, a lot of data on social assistance recipients that has not been updated, and data set by the Ministry of Social Affairs that is not yet on target.

5. Conclusion

Based on the results of research that has been conducted regarding the analysis of the effectiveness of using the Siks-Ng application for community services in Prabumulih City using the PIECES method, by distributing questionnaires and calculating Statistical Product and Service Solutions (SPSS 24). So from the results of this analysis the researcher drew the following conclusions:

- A. From the PIECES method there are 6 (six) variables, namely performance, information, economics, control, efficiency and service, where each variable has 5 (five) question items, so that in total there are 30 question items with the highest answers being agree and strongly agree. can be said to be very satisfied or valid.
- B. The results of the PIECES analysis of the use of the Siks-Ng application in community services in Prabumulih City, namely (1) performance analysis produces a value of 4.42 (2) Information analysis produces a value of 4.45 (3) Economics analysis produces a value of 4.5 (4) Control analysis produces a value of 4.41 (5) Efficiency analysis produces a value of 4.55 (6) Service analysis produces a value of 4.59. From all the analysis results it can be categorized as very satisfied.
- C. Based on the results and discussion regarding the effectiveness of using the Next Generation Social Welfare Information System (Siks-Ng) application, it can be concluded that it is effective.

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