

# **EFFECT OF PERCEPTION OF EASE OF USE AND PERCEPTION BENEFITS WITH INTENTION TO USE THE SYSTEM HEALTH SURVEILLANCE MANAGEMENT INFORMATION MOTHER AND CHILD**

Abd Basid<sup>1</sup>, Candra Kusuma Negara<sup>2</sup>

---

## **ABSTRACT**

Since the beginning of 2017 the Department of Health, Population Control and Trenggalek Regency Family Planning developed a system information to facilitate recording and reporting in the MCH field called SIM Surveillance KIA. Based on the preliminary study obtained that 16% of 157 villages have not used MCH Surveillance SIM for recording and reporting so that until now it is still manual. Research purposes to analyze the effect of perceived ease of use and perception the usefulness of the intention to use the MCH Surveillance SIM. Type The research is descriptive analytic with a cross sectional study design. The population is all midwives who provide maternal and child health services in the work area of the Department of Health, Population Control and Family Planning There are 276 midwives in Trenggalek Regency. Sampling technique using purposive sampling with a sample of 75 people. Data analysis used are univariate analysis, bivariate analysis with Spearman rank test and multivariate analysis with multiple linear regression. The results of the univariate analysis showed the average age of the midwife is 37 years old, the last education is D3 (94.7%), the use of SIM KIA Surveillance is easy (56%), using a KIA Surveillance SIM bring benefits (58.7%), and midwives intend to use a Surveillance SIM MCH (61.3%). The results of the bivariate analysis show that there is a perception relationship ease of use ( $r_s = 0.364$ ) and perceived usefulness ( $r_s = 0.938$ ) with intention to use and there is an influence of perceived usefulness on intention to use ( $p\text{-value} = 0.0001$ ). It is recommended that an activity be held refreshing, regular supervision from the Health Office, Population Control and Family Planning in Trenggalek Regency, and simplification of facilities/features in recording.

*Keywords: influence, perceived ease of use, perceived usefulness, intention to use, TAM*

---

## **Pendahuluan**

Health Information System is a set of arrangements which interconnected and managed integrated consisting of data, information, indicators, procedures, devices, technologies and resources human power.<sup>1,2</sup> With implementation of regional autonomy then management and information system development Health is a responsibility each local government.<sup>3</sup> Therefore, since the beginning of 2017, Department of Health, Control Residents and Family Planning Trenggalek Regency develop an application that called SIM Surveillance KIA aims to make it easier MCH recording and reporting so that it can generate data KIA quickly and accordingly needs.

KIA Surveillance SIM developed based on the system health recording and reporting mother and child i.e. Monitoring Maternal and Local Areas Children (PWS KIA). PWS KIA is a management tool which is used to monitor the running of the MCH program in a work area so that it can be found problems related to mother and child and can be followed up with fast.<sup>4</sup> Own KIA Surveillance SIM has not been evaluated regarding how acceptance rate so necessary see

the effect of perceived ease use and perception benefit to intention to use.

One of the important factors in use of an information system is the level of user readiness to receive information systems.<sup>5</sup> User readiness level will be affect the success or whether or not the implementation of system information.<sup>5</sup> one information system will successful if accepted by user. One of the methods that explain how a user accept or reject an information system, namely the method TAM.

TAM predicts someone will accept or reject a information system based on two the key variable is perception ease of use and perception benefit.<sup>6</sup> Perception of convenience usage explains so far which the user believes that use of an information system easy and no effort required hard. While the perception usefulness is the degree to which the user believes that with use the system bring benefits. Advantages This method is able to explain why information systems fail applied, one of which is due to because of the user's intentions in using a system information.<sup>7</sup>

In system use information, most users will see the use and the convenience. The more someone feel that the system is easy and bring

benefits then the higher the intention someone to use. Thing This is in line with research that done Lee et al found that the perception of ease use has an effect directly to the intention to use.<sup>8</sup>

as well as research conducted by Kim and Qu, found that perception benefit is one important factors that influence users to intend use.<sup>9</sup>

Public Health Bidang DINKESDALDUK and district family planning Trenggalek as supervisor and in charge of SIM implementation KIA Surveillance has implemented training and mentoring twice to the midwife in the entire work area. At the end 2017, SIM Surveillance KIA already put into use at 22 Public health center. Based on studies preliminary as much as 19% of 157 the village has not done take advantage of the KIA Surveillance SIM as a recording tool and reporting so far still manual. So necessary conducted research on how the effect of perceived convenience use and perception benefit to intention to using a KIA Surveillance SIM.

## METHOD

This type of research is descriptive research crossanalytic approach sectional studies. Variable under study includes the variable perception of convenience usage as measured by 5 questions, perception variables benefit measured by 7 questions, and the intention variable for use the measured based on 5 questions. Population in this study were midwives who do a health check mother and child in the work area DINKESDALDUK and district family planning Trenggalek as many as 276 midwives. The sample is 75 people who selected by purposive sampling. Data analysis using multivariate analysis with regression test multiple linear to view the effect of perceived convenience use and perception the benefits to intention to use.

## RESULT

### Decription of research variables

Table 1. Variable frequency distribution

Variable	Mean	SD
Perceived ease of use	16	4,5
Perception of usefulness	27	5,9
Intention to use	19	3,9

Based on the table above, it can be concluded that the average score obtained by respondents on the perceived ease of use variable is 16, the

perceived usefulness variable is 27 and the intention to use variable is 19.

### Relationship between Perceived Ease of Use and Perceived Usefulness with Intention to Use MCH Surveillance SIM

Table 2. Relationship between Perceived Ease of Use and Intention to Use MCH Surveillance SIM

Variable	Intention to use SIM Surveillance KIA	
	$R_s$	p-value
Perceived ease of use	0,364	0,001
Perception of usefulness	0,938	0,0001

Based on table 2, the rank spearman correlation value ( $r_s$ ) is 0.364 with a p-value = 0.001 it can be concluded that there is a weak relationship between perceived ease of use and intention to use. A positive correlation coefficient means that the more midwives feel that the use of MCH Surveillance SIM is easy, the more the midwife's intention to use the MCH Surveillance will be.

According to Davis, perceived ease of use is the degree to which a person believes that using an information system is easy and does not require great effort. Midwives find it easy to understand the menu arrangement and easy to access during field visits. This is because midwives have been given training and mentoring twice. This training and mentoring activity aims to make midwives more familiar with and adapt to the new system. However, midwives still find it difficult to access when at home and still find it difficult to operate the facilities/features used. This is because midwives are not good at operating computers so that it affects the midwife's intention to use it. research conducted by Giga et al and Amijaya that indeed the perception of ease has a significant relationship with the intention to use.<sup>11,12</sup>

Based on table 2, the rank spearman correlation coefficient ( $r_s$ ) is 0.917 with p-value = 0.0001 so it can be concluded that there is a strong relationship between perceived usefulness and intention to use MCH Surveillance SIM. A positive correlation coefficient means that the more midwives feel that the use of MCH Surveillance SIM brings benefits, the more the midwife's intention to use it will increase.

Perceived usefulness can be defined as the extent to which users believe that using a system can improve their performance.<sup>10</sup> According to Davis, Matheson and Vankatesh perceived usefulness is a strong determinant of the

acceptance of the use of an information system. Based on the results of the study, not all midwives use MCH Surveillance SIM as a tool in recording and reporting so that until now it is still manual.

Midwives still feel that the use of MCH Surveillance SIM does not bring benefits in speed of completing tasks, eliminates a lot of previous records and the content contained in MCH Surveillance SIM will affect midwives to use it. According to Sanjaya, someone will use technology if it is useful or positive for the user.<sup>13</sup> Based on research conducted by Adiyanti, when users already consider the new system to be very useful, it will make users want to use the system even more.<sup>14</sup>

### The Influence of Perceived Ease of Use and Perceived Usefulness on Intention to Use MCH Surveillance SIM

Table 3. Effect of Perceived Usefulness and Perceived Ease of Intention to Use

Variable	B	Standard Error	t	P-value
Constant	1,684	0,859	1,950	0,002
Perception of usefulness	0,590	0,034	17,508	0,0001
Perceived ease of use	0,086	0,044	1,966	0,053

After being tested together, only one variable has an influence on the intention to use MCH Surveillance SIM, namely the perception of usefulness. Based on the table above, the value of  $b = 0.590$ , it can be concluded that the influence of the perceived usefulness variable on the intention to use MCH Surveillance SIM is 0.590. And obtained the value of  $R^2 = 0.84$ , which means that the contribution of perceived usefulness to the intention to use is 84%. while 16% is influenced by other factors.

Benefit advantages encourage users to use an application because the resulting functionality can help improve user performance. The benefits obtained by midwives are that it makes it easier to make reports, minimizes loss of information, and the resulting content can be a reference for future services. This is in line with research conducted by Wardana et al.<sup>15</sup> and Kurniawan.<sup>16</sup>

### Conclusion

Based on the results of the study, it was concluded that: there is a relationship between perceived ease of use ( $p\text{-value} = 0.001$ ) with the intention to use MCH Surveillance MIS, there is a

relationship between perceived usefulness ( $p\text{-value} = 0.0001$ ) with the intention to use MCH Surveillance MIS, there is an effect of perceived usefulness ( $p\text{-value} = 0.0001$ ) on the intention to use MCH Surveillance MIS and there is no effect of perceived ease of use on the intention to use MCH Surveillance MIS ( $p\text{-value} = 0.053$ ).

### References

1. Setyawan DA. Siknas dan Sikda. Mater Kuliah SIK. 2014;1-14.
2. Soemitro D. Tantangan eKesehatan di Indonesia. Bul Jendela Data dan Inf Kesehat. 2016;1-16.
3. Informasi P data dan. SIKDA Generik. Bul Jendela Data dan Inf Kesehat. 2011;1-8.
4. Kemenkes RI. Pedoman Pemantauan Wilayah Setempat Kesehatan Ibu dan Anak (PWSKIA). Kementrian Kesehat RI, Direktorat Jendral Bina Kesehat Masyarakat Direktorat Bina Kesehat Ibu. 2010;1 of 76
5. Saputra E, Misfariyan. Analisis Penerimaan Sistem Informasi Manajemen Rumah Sakit Umum Daerah Bangkinang Menggunakan Metode Technology Acceptance Model (Tam). J Sains dan Teknol Ind. 2013;10:1-7.
6. Sayekti F, Putarta P. Penerapan Technology Acceptance Model (TAM) Dalam Pengujian Model Penerimaan Sistem Informasi Keuangan Daerah. J Manaj Teor dan Terap. 2016;9:196-209.
7. Fatmawati E. Technology Acceptance Model (TAM) untuk Menganalisis Penerimaan Terasap Sistem Informasi Perpustakaan. J Iqra. 2015;09:1-13.
8. Lee H-H, Fiore AM, Kim J. The Role of The Technology Acceptance Model in Explaining Effects of Image Interactivity Technology on Consumer Responses. Int J Retail Distrib Manag. 2006;34:621-44.
9. Kim M, Qu H. Traveler's Behavioral Intention Toward Hotel Self-service Kiosks Usage. Int J Contemp Hosp Manag. 2014;26:225-45.
10. Pradana AW, Susilo H, Riyadi. Pengaruh Persepsi Kemudahan, Kemanfaatan dan Sikap Penggunaan Terhadap Minat Menggunakan IFS Software (Studi Pada Departemen Pengadaan Barang dan Jasa PT. Petrokimia Gresik). J Adm Bisnis. 2016;30:1-9.
11. Laksana GB, Astuti ES, Dewantara RY. Pengaruh Persepsi Kemanfaatan, Persepsi Kemudahan Penggunaan, Persepsi Resiko dan Persepsi Kesesuaian Terhadap Minat untuk Menggunakan Mobile Banking (Studi Pada Nasabah Bank Rakyat Indonesia (BRI) Kantor Cabang Rembang, Jawa Tengah). J Adm Bisnis. 2015;26:1-8.
12. Amijaya GR. Pengaruh Persepsi Teknologi Informasi, kemudahan, Resiko dan Fitur Layanan terhadap Minat Ulang Nasabah Bank dalam Menggunakan Internet Banking. Universitas Diponegoro; 2010.
13. Sanjaya IPS. Pengaruh Rasa Manfaat dan Kemudahan Terhadap Minat Berperilaku

---

(Behavioral Intention) Para Mahasiswa dan Mahasiswi Dalam Penggunaan Internet. *J Kinerja*. 2005;9:113–22.

14. Adiyanti AI. Pengaruh Pendapatan, Manfaat, Kemudahan Penggunaan, Daya Tarik Promosi, Dan Kepercayaan Terhadap Minat Menggunakan Layanan EMoney (Studi Kasus : Mahasiswa Universitas Brawijaya). *J Ilm*. 2015;2:4–6.
15. Aditya R, Wardana dan A. Pengaruh Perceived Usefulness dan Perceived Ease Of Use Terhadap Behavioral Intention Dengan Pendekatan Technology Acceptance Model (TAM) Pada Pengguna Instant Messaging LINE di Indonesia. *J Siasat Bisnis*. 2016;20:24–32.
16. Kurniawan G. Pengaruh FaktorFaktor dalam Technology
17. Acceptance Model (TAM) yang Mempengaruhi Niat Nasabah dalam Menggunakan Internet Banking pada Bank Mandiri di Surabaya. Surabaya: Mitra Sumber Rejeki; 2017. 20-21 p.