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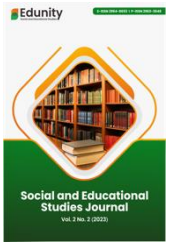

ANALYSIS OF FACTORS AFFECTING INTEREST AND BEHAVIOR IN THE USE OF ANIMAL HEALTH INFORMATION SYSTEMS IN CENTRAL JAVA PROVINCE

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ABSTRACT

Abstract: The National Animal Health Information System (iSIKHNAS) is an innovation from the Ministry of Agriculture that is used as a tool for collecting information in the field of animal husbandry and animal health. iSIKHNAS aims to provide services and benefits for all users, create efficiency and effectiveness in data and information management, iSIKHNAS can run well if accepted and utilized by officers in the field. This research was conducted to see what factors influence the interest and behavior of using iSIKHNAS by using the UTAUT acceptance method. The method used in this study is quantitative with analysis using SEM-PLS. The results of this study show that the three variables in UTAUT that influence interest in using iSIKHNAS are performance expectations, effort expectations, and social conditions, while usage behavior and utilization of information systems are influenced by facility conditions and usage interest. The hypotheses offered by UTAUT are empirically proven in this study.
Keywords: Affecting Interest; Animal Health; Information Systems

Introduction

Current governance has shifted to using information technology with the aim of realizing transparency, accountability, efficiency and effectiveness. There are two main things about the meaning of e-government, first is the use of internet technology as a tool in the implementation of government services, and second is the purpose of utilizing this technology, namely to increase efficiency and effectiveness in government processes and procedures in order to achieve goals properly. (Hardiyansyah, 2018).

Data and information related to animal diseases, deaths and births are needed by the government in determining livestock policies, especially those related to animal health. Improving animal health status will increase Indonesia's market competitiveness internationally. (Jogiyanto, 2007). Achieving these expectations in creating competitiveness requires controlling animal diseases in Indonesia. The problem that often arises is data validity. Animal disease data can be obtained properly if supported by reports from officers in the field. Every occurrence of animal disease, animal morbidity, traffic, death and its causes must be reported by field officers. (Albashrawi & Motiwalla, 2020). In an effort to improve efficiency and effectiveness in obtaining data and information related to animal health, the Ministry of Agriculture developed an

information system related to animal husbandry and animal health in 2013 under the name integrated National Animal Health Information System. (Wiki, 2014).

iSIKHNAS relies heavily on officers to report events in the field. The role of officers is the backbone for the sustainability of iSIKHNAS. The lack of understanding of the officers in the use of iSIKHNAS is a major obstacle. (Walidan & Slamet, 2023). Other problems are that the content of iSIKHNAS is not fully in accordance with the information needs of users, the accuracy of reports that often occur input errors by officers, users feel that the iSIKHNAS interface is less attractive and users do not know the functions of iSIKHNAS clearly and in detail. (Hamdi, 2020). Double data, unstable networks and down servers are also problems that iSIKHNAS users must face. The acceptance and utilization of officers in running or applying iSIKHNAS in reporting and processing data related to conditions in the field will be a source of information for both the public and policy makers in handling animal diseases.

The use of iSIKHNAS by officers has decreased due to a lack of understanding of the contents in iSIKHNAS reporting. (Bili, Neolaka, & Telupere, 2022). Assistance to officers needs to be done to increase understanding and motivation to be active in reporting activities. User satisfaction in operating iSIKHNAS has been studied by Walidan, et al. (Walidan & Slamet, 2023) with the EUCS model using content variables, timeliness variables, format variables, manager usability variables and time variables. On the other hand, it is necessary to evaluate the acceptance and behavior of using information systems to users. This acceptance and usage pattern is offered by Venkatesh et.al (2003) with an approach The Unified Theory of Acceptance and Use of Technology (UTAUT).

UTAUT built by Venkatesh, et al (Venkatesh et al., 2003) by combining models to explain user behavior towards information technology. UTAUT is a combination of Theory of Reason Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), Combined TAM and TPB (C-TAM-TPB), Innovation Diffusion Theory (IDT), Social Cognitive Theory (SCT), Motivated Model (MM), and Model of PC Utilization (MPCU)(Saragih & Septamia, 2019). The UTAUT model is formulated with 4 variables that have an important role as factors that influence interest in using information systems (behavioral intention) and user behavior (use behavior), namely, performance expectancy, effort expectancy, social influence and facilitating conditions.(Rahi, Mansour, Alghizzawi, & Alnaser, 2019).

This study aims to answer whether performance expectations, effort expectations and social conditions affect interest in use, and whether facilities affect behavior in using health information systems and interest in use affect the behavior of using animal health information systems in Central Java Province.

Research Method

This research is a type of explanatory research that explains the relationship and

influence between variables through hypothesis testing. The method used in this research is quantitative. The research location was in Central Java Province with a population of iSIKHNAS officers in each district and city. The analysis used is the Stuctural Equation Model (SEM) method with the SmartPLS 3.0 tool.

The hypotheses in this study are:
1. Performance expectations affect interest in using information systems (H1);
2. Effort expectations affect interest in using information systems (H2);
3. Social conditions affect interest in using information systems (H3);
4. Facilities affect information system usage behavior (H4);
5. Interest in use affects the behavior of using information systems (H5).

Result and Discussion

Validity and Reliability Test

To measure the influence between variables, several indicators are needed, each of which contains a question item, so it is necessary to test its validity and reliability.

Tabel 1. Validity Testing Results

Variabel/Item	Outer Loading	Kevalidan
X1.1	0.854	Valid
X1.2	0.864	Valid
X1.3	0.862	Valid
X1.4	0.854	Valid
X1.5	0.886	Valid
X1.6	0.885	Valid
X1.7	0.869	Valid
X1.8	0.793	Valid
X2.1	0.834	Valid
X2.2	0.888	Valid
X2.3	0.897	Valid
X2.4	0.906	Valid
X2.5	0.913	Valid
X2.6	0.837	Valid
X2.7	0.749	Valid
X2.8	0.733	Valid
X3.1	0.776	Valid
X3.2	0.735	Valid
X3.3	0.641	Tidak Valid
X3.4	0.651	Tidak Valid
X3.5	0.497	Tidak Valid
X4.1	0.682	Tidak Valid
X4.2	0.708	Valid

Variabel/Item	Outer Loading	Kevalidan
X4.3	0.621	Tidak Valid
X4.4	0.813	Valid
X4.5	0.553	Tidak Valid
X4.6	0.683	Tidak Valid
Y1.1	0.836	Valid
Y1.2	0.807	Valid
Y1.3	0.909	Valid
Y1.4	0.909	Valid
Y2.1	0.803	Valid
Y2.2	0.888	Valid
Y2.3	0.502	Tidak Valid
Y2.4	0.748	Valid
Y2.5	0.774	Valid

It can be seen in table 1 that those with an outer loading value> 0.7 can be said to be valid. Items that are worth less than 0.7 will be removed from the inner model test measurement.

The next test is to analyze the outer model by looking at the reliability of the indicator variables as measured by two criteria, namely composite reliability and Cronbach alpha of the indicator block that measures the variable. The variable is declared reliable if the composite reliability value and Cronbach alpha value are above 0.60. The following are the test results:

Table 2. Reliability Test

Variabel	Cronbach's Alpha	Composite Reliability	AVE
X1	0.949	0.957	0.738
X2	0.943	0.953	0.718
X3	0.689	0.863	0.760
X4	0.611	0.837	0.720
Y1	0.888	0.923	0.750
Y2	0.826	0.885	0.658

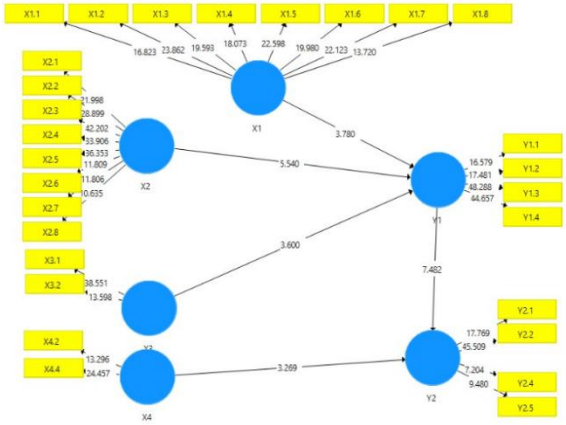
Source: Data processing with PLS, 2023

The AVE value for six variables is greater than 0.6 so it can be concluded that the measurement model has good discriminant validity. In addition to the variable validity test, a variable reliability test is also carried out which is measured by the criterion test, namely using the composite reliability value and Cronbach

alpha of the indicator block that measures the variable. The variable is declared reliable if the composite reliability and Cronbach alpha values are above 0.70. Because the research conducted is explanatory research, the threshold value of composite reliability and Cronbach alpha is 0.60. So based on table 2, it can be concluded that the variables in this study have good reliability.

Inner model testing or testing the relationship between variables using the significance value and R-square of the research model. The inner model is evaluated using the R-square for the dependent variable t test as well as the significance of the structural path parameter coefficients.

Figure 1. Inner Model Test Results



Source: Data processing, 2023

Hypothesis Test

The results of testing between variables based on the hypothesis can be seen as follows:

Table 3. Variable test results

Variabel	Original Sample	T Statistics	P Value	Keterangan
EK →MP	0.223	3.780	0.000	Diterima
EU → MP	0.506	5.540	0.000	Diterima
KS →MP	0.262	3.600	0.000	Dterima
FS→NP	0.299	3.269	0.001	Diterima
MP→NP	0.594	7.482	0.000	Diterima

Source: Analysis Results, 2023

The effect of performance expectations on interest in use

Variable X1 is performance expectations which has four indicators with eight question items. The four indicators in the performance expectation variable are increasing productivity, making work easier, having benefits and suitability for work (fit-job). (Sedarmayanti & Pd, 2001) (Venkatesh et al., 2003); Davis, 1989; Handayani, 2007; Bharata, et al., 2017; (Darmawan, 2019)dan Handika, et al.,

2018). The results of testing the hypothesis of the performance expectation variable on interest in use obtained a t-count of 3.780. Because t count is smaller than t table (1.960) or p value 0.001, H1 is accepted. So it can be said that performance expectations have an influence on interest in using information systems. (Sutabri, 2016).

Pengaruh ekspektasi usaha terhadap minat penggunaan

Variable X2 is business expectations which has four indicators with eight question items. The four indicators used in testing business expectations are easy to learn, ease of use, speed of becoming proficient in using the application and interactive clarity with the application. (Venkatesh et al., 2003); Bharata, et al., 2017; Apriyani, 2021; Darmawan, et al., 2019; Handayani, 2015). The results of testing the hypothesis of the business expectation variable on interest in using t count of 5.540. Because t count is greater than t table (1.960) and the value of the p-value is 0.000, H2 is accepted. So it can be said that business expectations affect the interest in using information systems.

The influence of social conditions on interest in use

Variable X3 is social conditions which has three indicators with five question items. Two indicators were omitted because they could not be tested for validity and reliability, so this study used indicators of policy influence (Apriyani & Pibriana, 2021). The results of testing the hypothesis of the social conditions variable on interest in use obtained a t-count of 3.600. Because the t-count is greater than the t-table (1.960) and the value of the p-value is less than 0.05, namely 0.001, H3 is accepted. So it can be said that social conditions have no effect on interest in using information systems.

The influence of facilities on usage behavior

Variable X4 is a facility condition that has three indicators with six question items. The indicators in this variable are resource support, availability of facilities and the level of fit. (Venkatesh et al., 2003); Handayani, 2007; Bharata, et al., 2017; Thompson, et al., 1991; Handayani, 2015; Apriyani, 2021;(Darmawan, 2019). The results of testing the hypothesis of the business expectation variable on interest in using the t-count of 3.269. Because t count is greater than t table (1.960) and the value of the p-value is 0.000, H4 is accepted. So it can be said that facilities affect the behavior of using information systems.

The effect of interest in use on usage behavior

Variable Y1 is a facility condition that has two indicators with four question items (Perera & Abeysekera, 2022). One indicator of the level of desire to use is declared invalid and reabel. Indicators used in testing future usage plans (Wati & Putranto, 2023). The results of testing the hypothesis of the user interest variable on usage behavior obtained t count of 7.482 Because t count is greater than t table (1.960) and the value of the p-value is smaller than 0.05, H4 is accepted. So it can be said that facilities affect the behavior of using information systems.

Table 4. Indirect Effect

	Original Sample	T Statistics	P Values
X1 -> Y1 -> Y2	0.132	3.225	0.001
X2 -> Y1 -> Y2	0.301	4.661	0.000
X3 -> Y1 -> Y2	0.156	3.019	0.003

Source: Data Processing, 2023

In the variable of interest in use as an interventing variable, it can be seen that interest in use can mediate the relationship between performance expectations, effort expectations and social conditions on usage behavior.

Conclusion

Based on the results of the discussion and analysis of the data obtained, it can be concluded that the factors that influence interest in using animal health information systems are performance expectations in the form of things that users get if they use information systems, effort expectations in the form of conveniences in running these applications, social conditions in the form of influence from policies, friends, family or colleagues around the user. Facility conditions in the form of facilities and infrastructure supporting the use of information systems also influence the behavior of using information systems. Interest in use has an influence on the behavior of information system utilization.

Interest and usage behavior in running iSIKHNAS in Central Java Province can be said to have gone well with the benefits for users, ease of use of iSIKHNAS in reporting animal disease data and information, social conditions, especially the influence of other regions in the use of iSIKHNAS greatly influences animal health officers to utilize iSIKHNAS. Facilities obtained by users in the form of manuals, training and other facilities also contribute to the utilization of iSIKHNAS..

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