

# *Analysis of Acceptance and Success Implementation of Academic Information System (SIak) Based on Technology*

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*Abstract—The research objective is to predict and explain the acceptance and success of the implementation Academic Information System (SIak) based on technology by Undiksha academic society. Data collection methods used pick up survey for sixth and seventh semester students undergraduate program, academic staff and lecturers at Undiksha where data are processed using Partial Least Squares (PLS). The results showed, all constructs had a positive effect on the construct of behavioral intentions except the construct of system quality and construct of perceived usefulness became the main determinant. All constructs also influence the construct of use behavior where the construct of information quality becomes the main determinant. All of constructs in the acceptance and success models can predict and explain the implementation of it used by Undiksha academic community. Finally, it is need to be improvement and development to adapt user needed, especially the user responses for implementation of it.*

*Keywords—acceptance and success; SIak; behavioural intention; use of behaviour*

## I. INTRODUCTION

Organizations manage its system always wants to be structured, organized and integrated which aims to produce information. However, organizations must also be effective and efficient managing it because it is a characteristic of success in managing governance [1]. Therefore, it need for modernization of organizational governance so that system can produces information to face future challenge. Implementation of technology in governance systems is one solution for organizations to produce information real time, useful, relevant, reliable, efficient and effective. Technology make system run systematically and integrated [2] and [3] produces information effective and efficient [2] Although based on technology such as computers, developing technology must also follow the current technology such as using an internet-based information system network (on-line).

One organization that has used technology in its governance to produce real time, useful, relevant, reliable, efficient and effective information is Universitas Pendidikan Ganesha (Undiksha). Undiksha continuing and developing its information system, where the basis for developing its technology using internet (on-line). All Undiksha activities managed in one information system called e-Ganesha for financial, academic, student, performance and other activities. Its impact for academic society of Undiksha can access it anytime and anywhere efficiently and effectively so that they can work and make decisions in real time. In addition, information system has implemented very integrated between one and other information systems. It can provide benefits to support decision making [4] and [5]

In academic activities, Undiksha has implemented and developed the Academic Information System (*Sistem Informasi Akademik-SIAk*) based on technology and online support because it's part of e-Ganesha. By academic information system not only integrate lecturers, students and academic departments or academic related parts, but it can be integrated other systems such as remuneration systems, employee management information systems and other systems in e-Ganesha. By it is too, Undiksha leader can carried out, supervised and evaluated lecturers' academic activities towards students.

Undiksha academic information system is designed, developed and maintained by the Technical Implementation Unit-Communication and Information Technology (*Unit Pelaksana Teknis-Teknologi Informasi dan Komunikasi*) which is one of the technical units at Undiksha which is responsible for the design and development of e-Ganesha including the academic information system. All division related to academic function can use academic information system. Users of it's as students, lecturers, academic staff, Vice Dean I, and Vice Chancellor I. Each user uses academic

information system daily and they has a special menu but it is integrated where every part only can see, fill and validate. This is proof that implementation of academic information system has a structured, organized and integrated.

Students as one of the users of academic information system. Students from becoming prospective students to going to graduation are always uses it. When re-registering, students have started to introduce it, where they will check their data and make corrections if there is wrong data. After officially becoming a student, students begin to conduct a study plan card. After a semester they can look for study result card to see the achievements from their academic activities. It's done until the student completes his education at Undiksha. Besides filing study plan card and know result from academic activities, students can give suggestions and criticisms to lecturers so that they can improve or maintain their teaching performance or procedures.

All of lecturer academic activities are carried out by academic information system such as inputting teaching agenda, presence students in class, academic documents, student grades and coaching of students. The lecturer uploaded their academic activities also as a proof of performance that has been done for one semester, which will be rewarded through remuneration because it is integrated with the remuneration system. Lecturers can only see criticism and suggestions from students where student data will be kept confidential. This is a way for interaction between students and lecturers through information systems. The academic staff when offering courses to students from faculty, it result will be integrated with lecturer academic information system and student by their academic information system can plans their course. Academic information system will also be the basis for Vice Dean I to plan, monitor and make decisions on academic activities in each faculty and Vice Chancellor I whole of Undiksha and coordination with UPT-TIK.

[6] and [7] states that the use of information systems based on is technology determined by behavioral intentions and use of behavior. This means that the implementation of the academic information system in Undiksha, can be used by users because of the desire and real action. Users are students, lecturers, academic staff and parties related to academics. Therefore, even though the implementation of the academic information system in Undiksha has been very structured, organized and integrated between parts, researchers are interested research academic information system based on technology is designed, developed, and implemented in Undiksha, use by users is not only mandatory activities but also it is successful in its implementation when used by users.

Therefore researchers not only examine the acceptance of academic information system based on technology, but also examine the success of it implementation in Undiksha. Based on the initial consultation with UPT-TIK, the researcher found the phenomenon that users will use information system in Undiksha if it useful, if there are any problems available teams ready to support, if it have good quality and if it produce information according with user. Even though any else, but the majority of users give that answers like explained by UPT-TIK.

Focus of this research is to predict and explain the behavioral intentions and use of behavior acceptance and success of implementation academic information system based on technology by the academic society at Universitas Pendidikan Ganesha. The constructs used in this study are based on theory of acceptance information systems and theory of success information system. However, the constructs are based on results from initial communication with the UPT-TIK, and these constructs have a correlation with behavioral intention and use of behavior.

To predict and explain implementation of academic information system in Undiksha, researchers used 6th semester students to 7th semester, lecturers, academic staff or parties related to academic activities. The student was chosen because the student had used it on over than five times. Based on it, student know the benefits used of academic information system that provide information in their academic activities, they know the resources that can help them when they implemented it, and they know the quality of system and quality of information result from it.

Besides being related to remuneration payments, academic information system will also provide benefits in academic activities, for example related to uploading lecture administration documents or providing facilities to assessing class conditions. Therefore, lecturers and the academic staff system must be good so that can provide good information quality. But, of course, it must be supported by good resources equipment and good system quality when user is using academic information system.

Therefore, this research really needs to do because to find out whether the designed and developed academic information system by UPT-TIK can really useful with a good quality system and good information quality. This study also looks BAKPSI and UPT-TIK provide resources and equipment when users use it. It is important, that applications in social media and applications in commercial business are always updating according of needs form user, conditions and to attract users in using the system. This is base from [7] research results that the system can be useful and user use it if it is useful and implemented by users.

This research is replication from research of [8] which examines the acceptance of academic information system by Undiksha new students. The results of their research that the academic information system is a good idea, useful and ease of use so that the construct of attitude becomes the main determinant their study. This study has similarities with their studies where the object of research is a academic information system with the construct used also is the construct of perceived usefulness, and the subject is students. Their study's results o also give results that the constructs in the TAM model are very good constructs in predicting and explaining the behavior of acceptance information system based on technology.

However, there are some differences from the previous research. *First*, this research not only examines acceptance but also the success of the implementation of academic information system. *Second*, based on the initial communication, needed resources are infrastructure and

professional that can help users when using it. Therefore the researchers added the construct of the facilitating conditions from UTAUT model. *Third*, the researcher also added the construct of system quality and information quality to predict and explain the successful implementation of academic information system developed by Undiksha. *Fourth*, the research subjects are different even though the object of research is the same. The subject continued to use students but for sixth to seventh semester. In addition to this study, researchers also used lecturers and academic departments or parties involved in academic activities. This is due to predict and explain the acceptance and success academic information system implemented by Undiksha academic society.

## II. LITERATURE REVIEW

The researcher uses the concept of perceived usefulness (PU) as a construct from Technology Acceptance Model (TAM). Perceived usefulness as the level of one's belief that using a system will improve performance. This construct is a fundamental determinant in technology acceptance [9]. In this study, perceived usefulness is defined as how far the level of Undiksha academic society confidence in using the academic information system based on technology implemented in Undiksha. This study uses indicators and items of construct questions of perceived usefulness taken from research by [10]; [11] and [12]. Indicators of perceived usefulness constructs used are (1) fast administration, (2) academic achievement; (3) increase productivity, (4) increase effectiveness, (5) make work easier, (6) useful of system

H1: Construct Perceived Usefulness has a positive effect on construct Behavioral Intention of using academic information system based on technology by academic society.

H2: Construct Perceived Usefulness has a positive effect on construct Use of Behavior of using academic information system based on technology by academic society.

Facilitating conditions (FC) are a trust person's level that the organization and technical infrastructure exist, to support the user when use a system [13]. Reference [14] states that the facilitating condition is an objective factor of an environment in which observers can agree to make an action that is easy to do. This study uses indicators and statement of construct conditions that facilitate research by [15] and [16]. Indicators of the construct conditions that facilitate being used are (1) resources needed; (2) required knowledge; (3) UPT-TIK leaders are ready to help in the event of difficulties; (4) A person or group is ready to help when there are any difficulties.

H3: Construct Facilitating Conditions has a positive effect on construct Behavioral Intention of using academic information system based on technology by academic society

H4: Construct Facilitating Conditions has a positive effect on construct Use of Behavior of using academic information system based on technology by academic society

System quality (SQ) measures the information process through the system used interrelationships between characteristics of system [17];[18]. Reference [17] state that the system quality is a determinant factor for the individual in

using the system. Quality system in this study is used to measure the quality system of academic information systems based on technology used by Undiksha academic society. Indicators items is used in this research from [19]. System quality indicators are (1) system flexibility; (2) system integrity; (3) speed response; (4) correcting mistakes; (5) ease and convenience of access, and (6) language

H5: Construct System Quality has a positive effect on construct Behavior Intention of using academic information system based on technology by academic society

H6: Construct System Quality has a positive effect on construct Use of Behavior of using academic information system based on technology by academic society

Information quality (IQ) is something that concerns about the value of outputs produced by information system based on technology [17]; [18]. Information quality to measure the quality of output from information system based on technology [5]. In this study, information quality measures the quality of output from academic information system based on technology. Indicators and statement items used by researchers in this construct are those used by [19] Indicators of information quality are (1) amount of information; (2) completeness; (3) accuracy; (4) accurate; (5) consistency; (6) presentation, and (7) output/information format.

H7: Construct Information Quality has a positive effect on construct Behavior Intention of using academic information system based on technology by academic society

H8: Construct Information Quality has a positive effect on construct Use of Behavior of using academic information system based on technology by academic society

Behavior intention (BI) is a desire of persons to perform a certain behavior [20] Behavioral intention is assumed as a motivational factor that influences a behavior, through an indication how hard a person is willing to try and how much effort has been planned to carry out a behavior [21]. Behavioral intention in this study is a desire of academic society in Undiksha want to use academic information system based on technology which is implemented at Undiksha. Indicators and question items construct behavioral intention from the research of [10]; [11] and [19] are (1) continuing to use the system; (2) expectations in using the system; (3) recommending the system.

Use of behavior (UB) is an actual action or activity carried out [20]. Reference [20] also mentions that behavior in the use of technology is actual use. The usage behavior in this research is a real action from academic society in Undiksha use academic information system based on technology which is implemented at Undiksha. Indicators and items of construct questions of use behavior from [15] and [19] research, are (1) frequency of using; (2) time to use.

H9: Construct Behavior Intention has a positive effect on construct Use of Behavior of using academic information system based on technology by academic society

### III. METHOD

This research is a quantitative study. The research began with preliminary observations at UPT-TIK Universitas Pendidikan Ganesha to find the phenomenon of how problems in the use of Academic Information Systems (SIAk) by students, lecturers and academic staff in Undiksha. This is intended whether the academic information system is designed by UPT-TIK is currently well implemented and beneficial for its users. This is the first step. At this step, it will be decided how the research design and advanced planning especially for student demographic mapping, communication with lecturers and academic department to be a respondent, data collection techniques, analysis tools used, pilot test and actual test design, results of analysis and discussion, as well as results that can be utilized by interested parties.

Researchers decided for data collection used survey methods by pick up survey to obtain certain data, especially to obtain individual opinion data [20] and suitable data collection methods used for a large number of respondents [22]. According to [20] this study used pick up survey because (1) the researcher already knew the location of the respondent; (2) respondents will feel more valued; (3) the researcher can provide an explanation directly to the respondent if there are questions that are not understood.

Although researchers know the total population, data collection techniques using purposive sampling techniques used to determine sample with certain considerations or criteria [22]. It was decided by the researchers the criteria in this study were (1) respondents were students of at least the third generation or 6th and 7th semester students, lecturers who were actively teaching, and academic staff who used the academic information system directly; (2) Student has Identification Number (NIM), User Name, and a Password and always uses academic information system; (3) Students, lecturers and academic staff who have used and received information from academic information system based on technology implemented by Undiksha.

Researcher also decided that the analysis tool used was Partial Least Square (PLS). Researchers use PLS in this study because the purpose of this study is to predict and explain [23] and hypotheses in this study also designed to determine the validity of the constructs of the acceptance model and the successful in implementation of academic information system based on technology, where the results of PLS can be used to interpret it [23] Therefore researchers need 300 respondents so that the research results will better represent the acceptance and successful implementation of academic information system based on technology in Undiksha.

The second step, researchers conducted a theoretical study by adjusting the theory of acceptance technology and theory of success use technology for respondents using academic information technology based on technology. The researcher combines several constructs of acceptance theory were perceived usefulness and construct of facilitating conditions and two constructs of the theory of success technology, were construct system quality and construct information quality to predict and explain implementation academic information system based on technology in Undiksha by academic society.

To answer the problems found in the third step, researchers submitted a permit and letter requested data at Bureau of Academic, Student Affairs, Planning and Information Systems. The fourth step is data collection. But before collecting data on actual respondents, researchers did pilot test. It was conducted by the researcher because, *first*, the researcher used a questionnaire from previous studies, the editorial of the questionnaire was adjusted by the researcher, for students, lecturers and academic staff who used academic information system based on technology; *second*, researchers want to test the validity and reliability of the construct before it is distributed to real respondents [24]

Fifth, researcher sent and collected questionnaires to actual respondent by distributed 305 questionnaires with the aim of increasing the generalization of research results and anticipating the response rate. Six, researchers will process research data using PLS. The results of the study will be described and then a conclusion about behavioral intention and use of behavior academic information system based on technology by Undiksha academic society that implemented in Undiksha.

### IV. RESULTS AND DISCUSSION

#### A. Model Testing

The researcher evaluates the model by testing the validity and reliability of the construct before testing the hypothesis. The test results in the table show that the value of AVE and Communality of each construct is greater than 0.5 that means each indicator in each construct, is a measure of each construct and the measuring indicator of each construct for different constructs do not correlate with each other or constructs already have convergent validity and discriminant validity. Composite Reliability and Cronbach Alpha values are more than 0.6 that means that the indicators of the constructs has used in this study have accuracy, error free and consistency.

$R^2$  values indicate the Goodness of Fit (GOF) formulation to measure the inner model and it can be concluded that the relationship between constructs in the model is able to predict behavioral intentions and use of behavior. Then the researchers test of hypotheses (H) 1, 2, 3, 4, 5, 6, 7, 8 and 9 which based on the bootstrapping process t-statistic values above 1,645 with a significance level of five percent (5%) and all the coefficient values were positive then all hypotheses are accepted, except for the construct of the quality of the system against the construct of behavioral intention (H5) where the result is negative and the t-statistic is below 1.645.

In this study, researchers deleted indicator X3.4 or indicators correcting mistake. Because this indicator has a validity test value below 0.5 and below 0.7 for its reliability value. Its means that system quality at Undiksha is generally good, but when users want to correct data or information errors submitted to the academic information system based on technology by Undiksha academic society that implemented in Undiksha, users must pass through a lot of bureaucracy that waits a long time. For example when mistakes for inputting score after the date line time. If this happens, the lecturer must submit a written letter to the Deputy Dean 1 knowing the

Coordinator of Major and the Department Chair. The letter must be backed up by a letter from the head of the faculty then conveyed to the Vice Chancellor 1. The letter from the Vice Chancellor 1 is the basis for opening this system by the UPT-TIK. Of course this requires time. This is the reasoned respondents to give a low score on this indicator so researchers decide to delete this indicator.

TABLE I. RESULT OUTPUT QUALITY CRITERIA OVERVIEW ALGORITHM

	Cronbach's Alpha	rho_A	Composite Reliability	AVE	R Square
BI	0.784	0.794	0.875	0.702	
FC	0.817	0.816	0.880	0.647	
IQ	0.899	0.900	0.921	0.625	
PU	0.836	0.840	0.880	0.550	
SQ	0.868	0.880	0.905	0.658	0.599
UB	0.719	0.726	0.842	0.641	0.601

*B. Discussion*

*1) Perceived Usefulness, Behavioural Intention and Use of Behaviour*

Based on the results of testing construct perceived usefulness, has a positive significant effect on the construct of behavioral intention, construct use of behavior and more influences to construct behavioral intention. It means that academic society using academic information based on technology believed that using it can complete tasks faster. This can be seen from lecturers being able to provide academic information faster to students, employees can quickly process the academic information to students and students can get that information quickly too.

Based on that lecturer information, students can evaluate themselves so that they are encouraged to improve their academic achievement and productivity and the academic staff can increase speed of process. This system also increases effectiveness and ease to work because the system is web-based so that lecturers, academic staff and students can access the system it means can reduce costs in academic implementation. This system is also very useful because with online information, academic staff where can effectively manage lecturer and student activities. For Undiksha academic society, of course this is can increases their intention to use this academic information system, it means high frequency of use because they used it because they have intentions. Therefore, the results of this study indicate the construct of perceived usefulness is the main determinant that influences the construct of behavioral intention. Their intention cause actual use so that construct perceived usefulness has positive significant effect of construct behavioral intention.

The results of this study are consistent with the study of [25] ; [26];[10]; [11]; [27]; and [28]; [19]; [12] and [8] that

perceived usefulness has a positive effect on behavioral intention. However, in this study the perceived usefulness becomes the main determinant of behavioral intention [13]. The results of this study are different from the research of [8] because students who had studied more than two years in Undiksha, academic staff and lecturers always uses academic information system always want to use academic information system, in completing their academic activities because their performance is mostly sourced from academic activities, so the actual use was sourced from their intention.

*2) Facilitating Conditions, Behavioural Intention and Use of Behaviour*

The results showed that the construct facilitating conditions has positive significant effect on the construct of behavioral intentions and the construct of use of behavior and proven have a direct effect on construct use of behavior. Undiksha academic society believes and trust when using academic information system because Undiksha has good organization, UPT-TIK, to managed organization, human resource and equipment when user used it. Its increases user confidence when using it. It can be seen from the resources can provide support for users when using system with a fast response and can communicate directly through a private network. Personnel who are placed in this organization are qualified personnel who have knowledge of computers, networks, systems and communications so that users feel confident where they can be helped them if they have difficulties using this system.

UPT-TIK has professional managerial system not only centralize but also to decentralize, it cause user always has confidence and clarity in using this system when user have difficulties or when get directions from which department has authority. In addition, lecturers, students and academic staff who come to the UPT-TIK team, they also prepares personnel and equipment that can support users if users have problems. This is what causes users to be confident in using this system. Therefore, constructs facilitating conditions has direct effect on the constructs of use of behavior in implementation academic information system in Undiksha. Indeed, this construct has positive significant too on constructs behavioral intentions, but the Undiksha academic society more confident if they use directly.

The results of this study are consistent with the research of [29] ; [7]; [30]; [31]; and [12] that facilitating conditions effect on construct use of behavior. However, the results of this study are not consistent with the research of [15]; [32] and [33]. Based on result study, researchers believe that in the context of the implementation of information systems based on technology by the Undiksha academic society, construct facilitating conditions has directly effect on construct of use of behavior.

*3) System Quality, Behavioral Intention and Use of Behavior*

Based on the test results, construct system quality has positive significant effect on construct of use of behavior. This is because respondents believe that academic information systems based on technology are have flexibility. This can be

seen from this system that can be accessed with the same user name and password from several hardware devices making it easier to input data and speed up the recipient receiving information. Data input by respondents, especially by lecturers and academic staff are automatically integrated with other systems, such as the remuneration system owned by Undiksha. Because the academic information system is based on technology, the recipient will immediately be able to respond the information conveyed by sender. For example, if a student did academic guidance. Students no need to meet with their academic supervisors. Students receive approval quickly from academic supervisors without waiting for their lecturers.

Lecturer as academic supervisors' academic supervisors can already see student academic history that they can act directly to approve courses arranged by students. Academic staff offered courses to lecturer and student, than they can responded directly. Besides that, this system already uses easy language so that understood by users easily. Not only the menu language, but also the notification. It is caused respondents to take real action using academic information systems based on technology implemented in Undiksha. The results of this study are consistent with the studies of [34] and [19]. However, the results of this study are not consistent with research from [35], because in developing a system needs to be an improvisation.

In this study, construct system quality has negative effect on the construct behavioral intentions. Because the respondents saw the connection academic information systems with other systems. With this connection, respondents choose to use it directly because of flexibility, integration, response speed, ease and convenience of access, and easy to understand the language. This is also due to the necessity and policy from Chancellor, so that all academic activities and other is integrated at information system in Undiksha. This is what causes respondents to take real action by directly using this system. The results of this study are consistent with the research of [36]; [5] and [35]. But the results of this study are not consistent with the research of [37] because there needs to be a system innovation appropriate with needs of users.

#### 4) *Information Quality Behavioral Intention and Use of Behavior*

The results showed that the construct information quality had a positive effect on the construct of behavioral intentions and use of behavior. This means that the information generated from the academic information system based on technology implemented in Undiksha useful for users because it has been supported by resources owned by Undiksha. Amount of information is in accordance with its purpose and the information has been adjusted by the user. The information is complete, if there are users who already use this system there will be attract intention of other users to use this system. This system has accurate outputs, so it can be precise if use for making decisions, for example approving the taking of courses of students, because lecturer get information from card for result study and card for plan study cards. All are clear and complete.

The information can be accessed any time where the information always consistent so that users can act in accordance with it. If there is newest information, system always gives a notification to the user so that users can carry out actions in accordance with newest information. For example, there is change from the old version academic information system to the new version (SIAk-NG). If user opens an old version, the system will redirect to a new version of it. In addition, the information has own format, although it is brief, but easy to understand and clear. If there are users never used it will have the intention to use it. If they have used it, they will always use it.

These results are consistent with research by [38] and [19] because information quality produced by a system must be valuable, complete and up-to-date. However, the results of this study are not consistent with the research of [35] because it is necessary to generate quality information need consider a high investment fund.

#### 5) *Behavioral Intention and Use of Behavior*

Undiksha academic society using academic information systems based on technology will always intention to use it. This can be seen from the opinions of respondents who always wish to use this system in a sustainable manner. The reason is, there are many benefits to using it. For example, respondents can process data based on an excel program provided by the system, then respondents can upload it back quickly into the system, so that recipients of information can receive it in real time. Respondents always hope that in each of their activities at Undiksha they are always supported by the system including academic activities. Lecturers, academic staff and students always suggest each other that activity is always system based. Cause of it, the frequency of using this system is very high, this can be seen from the answers of respondents where they used it once or twice a day.

The results of this study are consistent with [25];[19]; [12] and [8]. This means that the construct behavioral intention is a strong determinant on construct use of behavior and this construct has a strong correlation. This shows that in using academic information systems based on technology, actions taken by the Undiksha academic society are also influenced by their intention which are seen from the continuity of using it, hope for benefit of using it and they do not hesitate to recommend this system to other users in carrying out academic activities.

## V. CONCLUSION AND IMPLICATION

### A. *Conclusion*

First, all constructs have positive significant effect on constructs of behavioral intentions, except the constructs of system quality where the construct perceived usefulness becomes the main determinant construct. This means users have the intention to use academic information systems based on technology because it useful and can support user performance. Second, all constructs have positive significant effect construct of use of behavior where the construct of information quality is the main determinant construct. This

means that the user is sure to actual use of using it, because the support from Undiksha like of resources and equipment.

Third, the combination of constructs in technology acceptance models and constructs in success model of technology is able to predict and explain the implementation of academic information systems based on technology implemented by the Undiksha academic society. This means that all constructs can be correlated so that they can predict and explain behavioral intentions and use of behavior of using it. Fourth, in the implementation of a system designers need to consider to improvisation and the development of it appropriate with user requirement that is Undiksha academic society. Because users are the subjects who use it directly, have a direct impact from use it and indicators how it is implemented by the organization has received and successful.

### *B. Implication*

First, this research is able to predict and explain behavioral intentions and use of behavior in the context of the implementation of academic information systems based on technology by the Undiksha academic society by combining the constructs technology acceptance, perceived usefulness and facilitating conditions, and the constructs of the successful implementation of technology name system quality and information quality. However, it is necessary to retest this correlation because construct quality system does not have positive significant effect on construct behavioral intention. In addition, it is also necessary to add other constructs from acceptance theory, such as the construct of subjective norms, because there are roles of other parties that can influence users in using academic information system based on technology.

Second, the UPT-TIK needs to create an effective and efficient mechanism if the user makes a mistake in inputting information. Currently, academic information systems based on technology have implemented notification for users before user actually validating information. This is an implementation of warning step. However, if there is an error and after passing the time limit, often requires long time bureaucracy. It is necessary to make a letter, but sending the letter can be done through a scan of the letter and validation by sent notification to authorized official. This can reduce the time of sending a letter and the authorized official will immediately get a notification and immediately respond to the notification. In addition, this increases the accuracy of internal control to the parties involved. This process will also reduce costs, such as reducing cost for delivery and ad incoming mail labor. Therefore for further research, investment or funds for development of information system based on technology design needs to be considered.

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## **References**

- [1] T. Sutabri, *Analisis Sistem Informasi*. Yogyakarta: Andi, 2012.
- [2] R. C. Beatty, J. P. Shim, and M. C. Jones, "Factors influencing corporate web site adoption: A time-based assessment," *Inf. Manag.*, 2001.
- [3] W. S. Bodnar, G.H., dan Hopwood, "Accounting Information Systems Ninth Edition.Saputra, Julianto Agung dan Setiawati, Lilis, T. (Penerjemah) Sistem Informasi Akuntansi," 2006.
- [4] P. McLeod, R. dan Schell, G., *Sistem Informasi Manajemen*. Jakarta: Salemba Empat, 2007.
- [5] Z. Baridwan, "Analisis Keperilakuan Individu Terhadap Implementasi Sistem Informasi Akuntansi: Model Penerimaan dan Kesuksesan Sistem Informasi Berbasis Teknologi," Universitas Brawijaya, 2012.
- [6] T. Lam, V. Cho, and H. Qu, "A study of hotel employee behavioral intentions towards adoption of information technology," *Int. J. Hosp. Manag.*, vol. 26 (1), pp. 49–65, 2007.
- [7] I. Im, S. Hong, and M. S. Kang, "An international comparison of technology adoption: Testing the UTAUT model," *Inf. Manag.*, vol. 48 (1), pp. 1–8, 2011.
- [8] I. G. A. P. S. N. L. G. E. . and Y. G. A. Yudiantara, "Analysis Use of Academics Information System by Undiksha New Student," in *In International Conference on Tourism, Economics, Accounting, Management, and Social Science (TEAMS 2018)*. Atlantis Press., 2019.
- [9] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Manage. Sci.*, vol. Volume 35, pp. 982–1003, 1989.
- [10] H. Y. Lee, Y. K. Lee, and D. Kwon, "The intention to use computerized reservation systems: The moderating effects of organizational support and supplier incentive," *J. Bus. Res.*, vol. 58 (11), pp. 1552–1561, 2005.
- [11] C. Windarta, I., W., D., "Determinan Minat Keperilakuan Untuk Menggunakan Sistem Informasi Akuntansi Berbasis Teknologi Informasi," Universitas Brawijaya, 2011.
- [12] I. G. A. P. Yudiantara, G. Irianto, and N. Nurkholis, "Determinants Use of Behaviour Accounting Information Systems Based on Technology," in *International Journal of Applied Business and Economic Research (IJABER)*, 2017, vol. Volume 15, pp. 27–37.
- [13] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," *MIS Q. Manag. Inf. Syst.*, vol. Vol 27 (3), pp. 425–478, 2003.
- [14] J. M. Thompson, R. L., Higgins, C. A., and Howell, "Influence of Experience on Personal Computer Utilization: Testing a Conceptual Model," *MIS Q.*, vol. Vol 15(1), pp. 125–143, 1991.
- [15] S. S. Al-Gahtani, G. S. Hubona, and J. Wang, "Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT," *Inf. Manag.*, vol. Vol 44 (8), pp. 681–691, 2007.
- [16] L. Abdulwahab and Z. M. Dahalin, "A Conceptual Model of Unified Theory of Acceptance and Use of Technology ( UTAUT ) Modification with Management Effectiveness and Program Effectiveness in Context of Telecentre," *African Sci.*, vol. Vol 11 (4), pp. 267–275, 2010.
- [17] W. H. DeLone and E. R. McLean, "The DeLone and McLean model of information systems success: A ten-year update," *J. Manag. Inf. Syst.*, vol. Vol 19 (3), pp. 9–30, 2003.
- [18] S. Negash, T. Ryan, and M. Igbaria, "Quality and effectiveness in Web-based customer support systems," *Inf. Manag.*, vol. Vol 40 (8), pp. 757–768, 2003.
- [19] H. Mohammadi, "Factors affecting the e-learning outcomes: An integration of TAM and IS success model," *Telemat. Informatics*, vol. Vol 32 (4), pp. 701–719, 2015.
- [20] J. Hartono, *Sistem Informasi Keperilakuan*. Yogyakarta: Andi, 2007.
- [21] I. Ajzen, "The Theory of Planned Behavior Organizational Behavior and Human Decision Processes," *Organ. Behav. Hum. Decis. Process.*, vol. Vol 50 (2), pp. 179–211, 1991.
- [22] Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta, 2010.

- [23] J. Hartono and W. Abdillah, *Konsep dan Aplikasi PLS (Partial Least Square) Untuk Penelitian Empiris*. Yogyakarta: BPFE, 2009.
- [24] J. Hartono, *Pedoman Survei Kuisioner: Mengembangkan Kuisioner, Mengatasi Bias, dan Meningkatkan Respon. Edisi Ke-dua*. Yogyakarta: BPFE, 2013.
- [25] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Q. Manag. Inf. Syst.*, p. 319, 1989.
- [26] V. Venkatesh and F. D. Davis, "Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies," *Manage. Sci.*, vol. Vol. 46 (2), pp. 186–204, 2000.
- [27] P. J. H. Hu, H. Chen, H. F. Hu, C. Larson, and C. Butierez, "Law enforcement officers' acceptance of advanced e-government technology: A survey study of COPLINK Mobile," *Electron. Commer. Res. Appl.*, vol. Volume 10(, pp. 6–16, 2011.
- [28] W. D. Neill and J. E. Richard, "Intranet portals: Marketing and managing individuals' acceptance and use," *Australas. Mark. J.*, vol. Vol 20 (2), pp. 147–157, 2012.
- [29] Y. S. Wang and Y. W. Shih, "Why do people use information kiosks? A validation of the Unified Theory of Acceptance and Use of Technology," *Gov. Inf. Q.*, vol. Vol 26 (1), pp. 158–165, 2009.
- [30] J. C. Pai and F. M. Tu, "The acceptance and use of customer relationship management (CRM) systems: An empirical study of distribution service industry in Taiwan," *Expert Syst. Appl.*, vol. Vol 38 (1), pp. 579–584, 2011.
- [31] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology," *MIS Q. Manag. Inf. Syst.*, vol. Vol 36 (1), pp. 157–178, 2012.
- [32] L. S. Chen, "What Drives Cyber Shop Brand Equity? An Empirical Evaluation of Online Shopping System Benefit with Brand Experience," *Int. J. Bus. Inf.*, vol. Vol 7 (1), pp. 81–104, 2012.
- [33] A. Rahi, S., Ghani, M., Alnaser, F., and Ngah, "Investigating the role of unified theory of acceptance and use of technology (UTAUT) in internet banking adoption context," *Manag. Sci. Lett.*, vol. Vol 8(3), pp. 173–186, 2018.
- [34] T. Sharkey, U., Scott, M., and Acton, "The influence of quality on e-commerce success: an empirical application of the DeLone and Mclean IS success model," *Int. J. E-bus. Res.*, vol. Vol 6 (1), pp. 68–84, 2010.
- [35] H. Roky and Y. Al Meriouh, "Evaluation by Users of an Industrial Information System (XPPS) Based on the DeLone and McLean Model for IS Success," *Procedia Econ. Financ.*, vol. Vol 26, pp. 903–913, 2015.
- [36] T. Ramayah, N. H. Ahmad, and M. C. Lo, "The role of quality factors in intention to continue using an e-learning system in Malaysia," *Procedia - Soc. Behav. Sci.*, vol. Vol 2 (2), pp. 5422–5426, 2010.
- [37] A. I. Alzahrani, I. Mahmud, T. Ramayah, O. Alfarraj, and N. Alalwan, "Modelling digital library success using the DeLone and McLean information system success model," *J. Librariansh. Inf. Sci.*, vol. Vol 51 (2), pp. 291–306, 2019.
- [38] M. N. Samadi, I., and Masrek, "Assessing digital library effectiveness of selected Iranian universities," *J. Inf. Knowl. Manag.*, vol. Vol 5(2), pp. 31–45, 2015.