

Technology Acceptance Model: Intention Implementation E-Government System

¹Abd. Rohman Taufiq, Accounting Department, Faculty of Economic, Universitas PGRI Madiun, Indonesia

²M. Iswahyudi Accounting Department, Faculty of Economic, Universitas 17 Agustus 1945 Banyuwangi, Indonesia,

Email: rohmantauфик@unipma.ac.id^{1*}; m.iswahyudi@untag-banyuwangi.ac.id²
(tanda * menunjukkan koresponden author)

Abstrak

Penelitian ini bertujuan untuk menguji pengaruh persepsi manfaat, kemudahan penggunaan terhadap sikap dan minat mahasiswa akuntansi dalam menggunakan sistem pembelajaran online (e-learning) dengan penambahan jenis kelamin sebagai variabel moderasi. E-learning merupakan sistem yang digunakan oleh lembaga pendidikan di Banyuwangi untuk melakukan pembelajaran jarak jauh yang awalnya diterapkan karena adanya pandemi COVID-19, sehingga pembelajaran harus dilakukan secara online mau tidak mau. Pembelajaran online merupakan sesuatu yang baru, yang tentunya bagi mahasiswa akuntansi akan sangat sulit mengingat dalam akuntansi membutuhkan banyak pemahaman tentang perhitungan. Sampel penelitian ini adalah pengguna e-learning mahasiswa akuntansi pada perguruan tinggi di Banyuwangi. Analisis data menggunakan Partial Least Square dengan software warpPLS versi 3.0. Hasil penelitian menunjukkan bahwa persepsi manfaat merupakan penentu sikap dan minat mahasiswa akuntansi dalam menggunakan e-learning, yang selanjutnya sikap pengguna akan menentukan minat mahasiswa dalam menggunakan e-learning. Penelitian ini juga membuktikan bahwa persepsi kemudahan penggunaan tidak mempengaruhi sikap mahasiswa akuntansi dalam menggunakan e-learning. Selain itu, penelitian ini juga menemukan bahwa jenis kelamin tidak memoderasi hubungan antara persepsi kemudahan penggunaan dan kegunaan sikap siswa dalam menggunakan e-learning.

Kata kunci: E-Learning, Intention, Attitude, Perceived

Abstract

This study aimed to examine the effect of perceived usefulness, ease of use on the attitudes and interests of accounting students in using the online learning system (e-learning) with the addition of gender as a moderating variable. E-learning is a system used by educational institutions in Banyuwangi to conduct distance learning, which was initially implemented due to the COVID-19 pandemic, so learning must be done online inevitably. Online learning is something new, which of course for accounting students will be very difficult considering that in accounting requires a lot of understanding of calculations. The research sample was users of e-learning accounting students at universities in Banyuwangi. Data analysis used Partial Least Square with warpPLS version 3.0 software. The results showed that perceived usefulness was a determinant of the attitudes and interests of accounting students in using e-learning, which in turn, the attitudes of users would determine students' interest in using e-learning. This study also

proves that perceived ease of use does not affect accounting students' attitudes in using e-learning. In addition, this study also found that gender did not moderate the relationship between perceived ease of use and usefulness of student attitudes in using e-learning.

Keywords: *e-learning, intention, attitude, perceived*

Introduction

The industrial revolution has changed the face of the world. He transformed a completely manual world into a world with 'all' technology [1]. The world of education, government, offices have all followed the implementation of digitalization [2]. So that the use of information technology (IT) is mandatory for every organization, be it public or private organizations. This is because organizations or agencies that implement IT are believed to be able to operate more efficiently and effectively to carry out their functions [3]. If we look at private companies, IT-based Go-jek can beat the 'blue bird' Taxi which already existed. For companies / public organizations, especially agencies engaged in education, the use of technology (e-learning) will speed up and simplify services, increase efficiency and eliminate distance.

E-learning is a general application that is widely used in the field of education [4]. E-learning can be defined as distance learning that is carried out via electronic devices using technology as a medium for online interactions [5]. The e-learning system is defined as an information system that integrates various kinds of teaching materials, such as audio, video or text media, through chat sessions, online discussions, email, quizzes and assignments [6]. E-learning makes the learning process more flexible [7]. So the use of e-learning makes the teaching and learning process can be done anywhere and anytime. This is certainly very beneficial for educational institutions that carry out distance learning. Students do not need to come to campus, the campus does not need to bother preparing classrooms.

Since 2018, several educational institutions have tried to utilize and develop e-learning [8]. The main purpose of using e-learning in the learning process is to reduce time and location constraints in the context of higher education [9]. Another purpose of this utilization and development is of course to provide or open classes for students who are far away or working class. However, these efforts often did not produce results, due to the unpreparedness of the presenters, campus infrastructure and the recipients of the materials. This hampered the development of e-learning.

Early in 2020, when the COVID-19 pandemic hit, public facilities were closed, malls, places of worship and even educational institutions were closed. This then creates a new breakthrough, a new idea, a new idea to not only fight the COVID-19 pandemic, but must make peace with it. Factories, offices and even educational institutions must make adjustments to deal with COVID-19. Students who are usually busy, with boisterous discussions in the classroom, have to move the discussion place in an application. Accounting students who usually learn to count in class, now have to learn to count from their homes. Quoting what the Minister of Education and Culture said when commemorating education day in 2020, the COVID-19 pandemic meant that learning did not have to be limited by classrooms, but it could be anytime and anywhere. From this statement, readiness is needed, whether they like it or not, like it or not, all educators, students in Indonesia must carry out the learning process online or online.

The existence of the COVID-19 pandemic, as well as the recommendation from the Minister of Education and Culture regarding the use of technology in teaching, have

made every educational institution integrate technology in terms of teaching and learning. With most students being generation Y and generation Z known as digital nativ, it is hoped that the use of technology in teaching is the right and wise decision to be applied in terms of university online learning [10]

This paradigm shift in education is so significant [5]. From teacher-centered education to student-centered education during the COVID-19 Pandemic era. Then the introduction of e-learning raises several problems, this is because e-learning is something new. So that it requires adjustments to be able to implement it. Coupled with the use of e-learning applications which are also not free from several risks, such as security and privacy risks.

The government and related agencies have prepared large funds for the implementation of e-learning, but several agencies still fail to achieve the benefits of e-learning projects [11]. The e-learning system relies heavily on the digital media used and the telecommunications network, so deficiencies can have a negative impact on user satisfaction [9]. This requires a follow-up in the form of research, so that the implementation of e-learning can identify the causes of failure.

This study aims to determine the interest in implementing e-learning by students majoring in accounting. The accounting major was chosen because accounting is closely related to calculations which allow difficulties when learning is done online. Theory Planned Behavior (TPB) is used to predict interest in e-learning implementation by accounting students. Several studies regarding the acceptance of e-learning have been widely conducted with Theory Accpetance Modeling (TAM) being used to predict the use of technology [9][12][13][14]. The purpose of using TAM is to explain individual behavior towards the acceptance of learning technology using a new system. This research tries to approach it with a different theory from TAM, namely TPB. It is hoped that the use of TPB can be used to complement the technology acceptance literature which is mostly described by TAM.

Method

This research is a quantitative research. Quantitative research has the advantage of clarity in determining samples and research instruments. This research was conducted with the aim of knowing the interest of e-learning users by students at several universities in Banyuwangi, especially the e-learning used by accounting students. Accounting students were chosen because the implementation of e-learning might make it difficult for them to study, because accounting students usually learn directly about computation and addition.

The data used in this study are primary data obtained by survey methods. The data were obtained by sending a questionnaire to accounting lecturers at each university in Banyuwangi. There are no provisions regarding what application, any learning carried out online is considered appropriate as a research sample. Sampling was carried out using the snawball sampling technique at educational institutions in Banyuwangi. Data analysis in this study using warpPLS 3.0 software.

Results And Discussion

Effect Perceived Usefulness of Student Attitudes Toward the Use of e-learning

The results of the analysis show that there is an influence between perceived usefulness on student attitudes in using e-learning, so that the first hypothesis in this study is accepted. This shows that when students are introduced to or use a new system (e-learning) and they feel that the new system is very useful and helpful for the learning process, they will automatically have a positive attitude towards the system. From the results of this study, it is hoped that educational institutions will be able to provide learning applications that provide useful value and provide benefits to users of the e-learning system. Because the more the e-learning system is made more useful, users will have a positive attitude to use it.

The results of this study support the research conducted [18][19][21][23] and [22] who found that perceived usefulness is one of the determinants of individual attitudes in using certain systems. This is of course a common thing due to the industrial revolution which resulted in whether or not agencies have to implement digitization. They feel that by using e-learning civilization's demands for digitization have been fulfilled, so that the implementation of e-learning has received a positive response from users.

So it can be said that with the inherent benefits of the e-learning system used, each institution or individual as a user will certainly use the e-learning system even though the system used is quite difficult because it is not used to it. However, individuals here believe that by using e-learning, there will be benefits, for example faster in the learning process, tidier in doing and filing assignments, more accessible and so on. Of course this will make their attitude a positive one.

Effect Perceived Usefulness Of Interest Students for Using e-learning

The results of the analysis show that there is a significant influence between perceived usefulness and student interest in using e-learning. This means that the second hypothesis of this study is accepted. So when students feel that using e-learning can improve learning and help them complete their assignments, they become interested (willing) to use e-learning because they feel that e-learning can help them.

The results of this study support the research conducted by [19]; [24] and [23] who found that when the system used provides benefits (the benefits can be felt by users) then their interest in using the system is getting better. This is of course also relevant to the use of e-learning, when students use e-learning, their work, their assignments can be completed quickly, easily and with few errors. So that the implementation of e-learning makes users better in the learning process.

If it is concluded in this second hypothesis, students or e-learning users will be interested or have the intention to continue using e-learning when they feel the benefits of using e-learning. coupled with the mandatory nature of the use of e-learning by educational institutions where students study, it makes students who may still be a little interested in using e-learning become more interested in using it.

So to get around students' interest in using mandatory e-learning, universities as policy makers need to provide or create e-learning that provides benefits such as being able to do assignments faster, the learning process is fun, better and has minimal risk. So even though the nature of the implementation of e-learning is compelling, it can still be accepted by users because of the various benefits brought by the system being implemented.

Effect of Perceived Ease Of Use Student Attitudes Toward the Use of e-Learning

The results of the analysis show that perceived ease of use does not affect student attitudes in using e-learning, so the research hypothesis is rejected. This indicates that perceived ease of use does not determine whether individuals use e-learning or not. So individuals feel that the e-learning that is applied is not easy, so they have to learn again when using E-e-learning. Because e-learning is not easy, his attitude towards E-e-learning implementation is not very good. For an accounting student, of course this learning is the same as being hit. According to interviews from several accounting students, stated that the use of e-learning made their learning harder, because they had to struggle to understand what was being learned indirectly. At the time of direct learning, the understanding process was very difficult, especially learning was done online. So whether or not the application used in online learning is easy or not does not affect their attitude in using e-learning.

The results of this study contradict the results of research conducted [18][19][22][20]. This study shows that perceived convenience does not affect individual attitudes in using e-learning, this is because perceived convenience is a threshold variable [28]. That is, once a certain level of evaluation is reached, perceived ease of use no longer contributes to attitudes. Therefore, perceived ease of use affects attitudes only at low evaluation levels (when respondents rate themselves as weak or incapable of using e-learning).

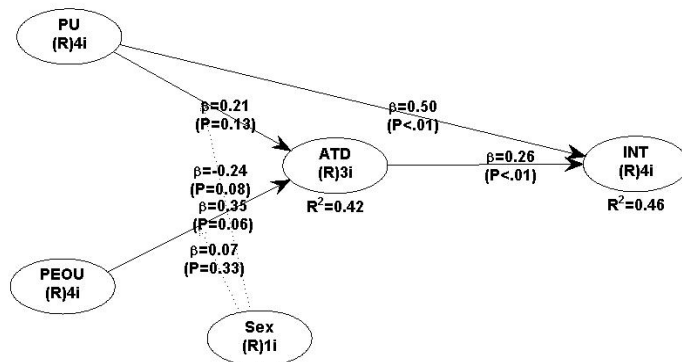
Although logically, when the system used is easy to use, easy to operate, the attitude of students as users will be better. However, the results of this study provide interesting results. Where the variable regarding the perceived ease of connection with the user's attitude is rejected. So in this study, to make respondents like the system they are using, it doesn't need an easy system. Because of the ease of the system which makes students have a positive attitude towards a system, only for those who find it difficult or in this case for those who are clueless [28].

Effect of Accounting Students Attitudes Toward Individual Interests to use e-Learning

The results showed that the attitude of students in using e-learning did not affect the interest of accounting students in using e-learning, so the fourth hypothesis in this study was rejected. This means that students consider that the implementation of e-learning is not in accordance with their attitudes so that their desire to use e-learning is low. In addition, because previously educational institutions in Banyuwangi were carried out directly, when they implemented e-learning (online) they felt that e-learning was out of the ordinary so they did not want to use e-learning.

This study produced different results from previous studies regarding the effect of attitudes on student interest in using e-learning [29][22][26][27]. [22] who conducted research on the use of digital systems in educational planning showed that individuals would be interested in using an educational planning system when they felt that they liked the system. In this study, with the e-learning system, student attitudes were no longer a predictor of student interest in using e-learning. This is because students are still not accustomed to doing online learning, plus the difficulty of accounting students when learning is done online, so that their interest in using e-learning is low.

In addition, this study also found that gender did not affect the relationship between perceived convenience and perceived usefulness towards accounting students' attitudes in using e-learning. This is certainly contrary to research conducted by [24] which states that gender affects a person's acceptance of using the system. This is certainly interesting, when someone is used to manual systems for a long time, it will stick and become a habit. When the implementation of the new system goes into effect for all operators of the system they will have the same resistance to both men and women.



CONCLUSION

The results showed that the interest of accounting students in using e-learning was determined by their attitudes and perceptions of the usefulness of the students towards the systems or applications they used in the learning process. There is a feeling that the e-learning he uses provides benefits in doing assignments, the learning process and is able to increase his enthusiasm for learning will be able to generate interest in accounting students to continue using e-learning. In addition, the attitude of accounting students, the feeling of pleasure in accounting students towards e-learning also determines students' interest in using e-learning. This study also shows that perceived ease of use does not determine the attitude of accounting students in using e-learning. Besides that, gender also does not determine or differentiate technology acceptance between students and female students.

This study does not include the type of system used in predicting system acceptance. So that for the next research it is expected to include the type of system used as a moderator of the relationship in predicting the level of student acceptance in implementing the system used.

Daftar Pustaka (Times New Roman 11)

- [1] G. Tokdemir, Y. Paçın, M. Kurfal, and A. Arifo, "Computers in Human Behavior Adoption of e-government services in Turkey," vol. 66, pp. 168–178, 2017.
- [2] A. Rokhman, "E-Government Adoption in Developing Countries ; the Case of Indonesia," vol. 2, no. 5, 2011.
- [3] M. P. Gupta, S. Kanungo, R. Kumar, and G. P. Sahu, "A Study of Information Technology Effectiveness in Select Government Organizations in India.," Vikalpa J. Decis. Makers, vol. 32, no. 2, pp. 7–21, 2007.
- [4] A. . Islam, "E-learning system use and its outcomes: Moderating role of perceived compatibility," Telemat. Informatics, vol. 33, no. 1, pp. 48–55, 2016.

- [5] Z. Hussein, "Leading to Intention: The Role of Attitude in Relation to Technology Acceptance Model in E-Learning," *Procedia Comput. Sci.*, vol. 105, 2017.
- [6] Y. Lee, Y. Hsieh, and Y. Chen, "An Investigation of Employeess Use of E-Learning Systems, applying the technology acceptance model. Behaviour and Information Technology," *Behav. Inf. Technol.*, vol. 32, no. 2, pp. 173–189, 2013.
- [7] S. Anilkumar and S. L. Ramdas, "LIS e-learning programs : a study of Student," *Libr. Hi Tech News*, vol. 31, no. 6, pp. 16–20, 2014.
- [8] S. Sudirman, "Mengapa Harus Menggunakan E-Learning dalam Kegiatan Pembelajaran?," *J. Teknodik*, vol. 12, no. 1, 2018.
- [9] C. Ching-ter, C. Su, and J. Hajiyevev, "Examining the students' behavioral intention to use e-learning in Azerbaijan? The General Extended Technology Acceptance Model for E-learning approach," *Comput. Educ.*, 2017.
- [10] Z. Hussein, "Explicating Students' Behaviours of E-Learning: A Viewpoint of the Extended Technology Acceptance," *Int. J. Manag. Appl. Sci.*, vol. 1, no. 10, pp. 159–164, 2015.
- [11] C. Crawford and C. Persaud, "Community Colleges Online," *J. Coll. Teach. Learn.*, vol. 10, no. 1, pp. 75–82, 2013.
- [12] F. Abdullah and R. Ward, "Developing a general extended technology acceptance model for E-learning (GETAMEL) by analysing commonly used external factors," *Comput. Human Behav.*, vol. 56, pp. 238–256, 2016.
- [13] V. Lefievre, "Gender differences in acceptance by students of training software for office tools. In Athens," in *ATINER'S Conference Paper Series*, 2012.
- [14] R. Martin, "Factors affecting the usefulness of social networking in e-Learning at German University of Technology in Oman," *Int. J. e-ducation, e-business, e-managemen e-learning*, vol. 2, no. 6, pp. 498–502, 2012.
- [15] Romindo, Muttaqin, H. Didin, W. Deddy, and M. Iswahyudi, *e-commerce Implementasi, Strategi dan Inovasinya*, 1st ed. Medan: Yayasan Kita Menulis, 2019.
- [16] M. Fishbein and I. Ajzen, *Belief, Attitude adan Behavior : An Introduction to Theory and Research*. Wesley: Addison, 1975.
- [17] I. Ajzen, "The theory of planned behavior," *Orgnizational Behav. Hum. Decis. Process.*, vol. 50, pp. 179–211, 1991.
- [18] F. D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of," *MIS Q.*, vol. 13, no. 3, pp. pp. 319–340., 1989.
- [19] G. Agag and A. A. El-Masry, "Understanding consumer intention to participate in online travel community and effects on consumer intention to purchase travel online and WOM: An integration of innovation diffusion theory and TAM with trust," *Comput. Human Behav.*, vol. 60, pp. 97–111, 2016.
- [20] M. C. Lee, "Predicting and explaining the adoption of online trading: An empirical study in Taiwan," *Decis. Support Syst.*, vol. 47, no. 2, pp. 133–142, 2009.
- [21] B. Alsajjan and C. Dennis, "Internet banking acceptance model: Cross-market examination," *J. Bus. Res.*, vol. 63, no. 9–10, pp. 957–963, 2010.
- [22] J. K. Ayeh, N. Au, and R. Law, "Predicting the intention to use consumer-generated media for travel planning," *Tour. Manag.*, vol. 35, pp. 132–143, 2013.
- [23] A. U. Jan and V. Contreras, "Technology acceptance model for the use of

- information technology in universities,” *Comput. Human Behav.*, vol. 27, no. 2, pp. 845–851, 2011.
- [24] Q. Wang and X. Sun, “Investigating gameplay intention of the elderly using an Extended Technology Acceptance Model (ETAM),” *Technol. Forecast. Soc. Change*, vol. 107, pp. 59–68, 2016.
- [25] H. Mohammadi, “A study of mobile banking loyalty in Iran,” *Comput. Human Behav.*, vol. 44, pp. 35–47, 2015.
- [26] S. Amaro and P. Duarte, “An integrative model of consumers’ intentions to purchase travel online,” *Tour. Manag.*, vol. 46, pp. 64–79, 2015.
- [27] A. A. Adesina and C. K. Ayo, “An empirical investigation of the level of users’ acceptance of e-banking in Nigeria,” *J. Internet Bank. Commer.*, vol. 15, no. 1, pp. 1–13, 2010.
- [28] V. Der Heijden, Hans, V. Tibert, and M. Creemers, “Understanding online purchase intentions: contributions from technology and trust perspectives,” *Eur. J. Inf. Syst.*, vol. 12, no. October 2002, pp. 41–48, 2003.
- [29] J. Lee, H. Joon, and M. J. Ahn, “The willingness of e-Government service adoption by business users : The role of of fl ine service quality and trust in technology,” *Gov. Inf. Q.*, vol. 28, no. 2, pp. 222–230, 2011.