

# Factors Determinant Behavior Masters Student in Adopt OJS Website

Titik Kusmantini<sup>a\*</sup>, Heru Tri Sutiono<sup>b</sup>, R. Hendri Gusaptono<sup>c</sup>,  
Yekti Utami<sup>d</sup>

<sup>a\*, b, c, d</sup> Management Study Program, Faculty of Economics and Business, Universitas Pembangunan Nasional  
"Veteran" Yogyakarta, Indonesia. [titik.kusmantini@upnyk.ac.id](mailto:titik.kusmantini@upnyk.ac.id)

Article History	Submitted	Revised	Accepted
	2023-11-06	2023-11-09	2023-11-21

## Abstract

Study this aim for confirmation factors determinant master student in adoption of the Online Journal System (OJS) website. To compose a skeleton conceptual about behavior adoption technology information, researcher use two theory base i.e. acceptance model technology (TAM) and theory acceptance and use technology integrated (UTAUT). Sample in study this is Master of Management students at University X amounted to 105 students. Structural model testing techniques using LISREL for verify structural model and validation hypothesis research. Research results identify that there is correlation between 8 factors determinant behavior student in OJS website adoption, factor the is (1) facilitating conditions; (2) perceived usefulness; (3) perceived easy to use; (4) social approval; (5) result demonstrability; (6) innovation awareness and (8) voluntariness of use. Ability factor determinant the by simultaneously capable shape behavior adoption by 73%. Test results hypothesis reported that four factor like condition facilitating condition, perceived usefulness, perceived easy to use and social approval have significant influence to adoption of OJS websites, and social approval have most significant influence to adoption of OJS website. Implication practical on results study this is important for OJS manager for designing convenient OJS features and templates user to submit articles, as well as important for to do maintenance application.

**Keywords:** Adoption of OJS Website, TAM, UTAUT, Factor Analysis, LISREL



## INTRODUCTION

Progress and development technology have information impact on governance organization more fast and efficient. Essence results on implementation technology information reported amount researcher capable increase performance operational and excellence competitive (Khurshid et al., 2022; Salam & Ali, 2020). Utilization technology information conducted organization in skeleton respond change and development of the times. current era this is the era of open data, where organization sued for publish non- personal data to web portals.

Development of research setting adoption technology web -based is very diverse , one of which is in the field education. Implementation technology information conducted College (PT) for support the learning process, access source knowledge, data and information by open by the academic community. Development Journal System online application is done for managing the publication and dissemination process article scientific on results study or idea thinking lecturer along with student. A lot of research has researching behavior adoption service web based from perspective customers (O'Doherty et al., 2015; Ranger, 2018), or use perspective provider services (Hossain et al., 2021; Khurshid et al., 2022; Zuiderwijk et al., 2020). Research studies behavior adoption technology a lot of information in Indonesia use perspective user, because disuse development service based technology information more many triggered by intention adoption less users. The study designed for support the development process OJS app with study factors determinant master's student at a universities in Yogyakarta in intention adoption OJS services developed by the study program.

## LITERATURE REVIEW

### Adoption Technology

Adoption technology interpreted as a behavior acceptance and use technology new. Some research adoption focused on the process for identify, predict and determine factors that can influence adoption technology new, good on unit of analysis organization or individual. There are 5 theories system popular information and many used researcher in effort learn intention individual or organization for adoption system technology innovative information (Khurshid et al., 2022).

#### *Theory of Reasoned Action or TRA, developed by Fishbein and Ajzen (1977)*

TRA was proposed by Fishbein & Ajzen (1975), which focuses on individual intentions to behave. Intentions are considered to be able to see the motivational factors that influence behavior. Intention is an indication of how hard people are willing to try and how much effort a person expends to perform a behavior (Ajzen, 1985).

#### *Theory of Planned Behavior*

TPB stated that willingness somebody for to do something, will influenced by attitude they on action and control perceived behavior and norms subjective, then the TPB model emphasizes the psychological in study behavior. Ajzen (1985) explains by general every individual in behave will

increase control over more habits a little effort than demanding activities effort more a lot. Control behavior interpreted as metaphor how much difficult or easy for to do one activity.

### ***Technology Acceptance Model***

Is one model developed for analyze and understand influencing factors \_ received use technology new and introduced first time in use computer technology by (Davis, 1989). Tam is actually development from TRA, TAM more emphasize on relationship because consequence Among belief (benefit) a system information and convenience usage ) with behavior , goals and actual use by users system information . It means reactions and perceptions use technology information will influence attitude user in acceptance to technology that. So in TAM 's theory of positioning two beliefs (beliefs), namely perceived usefulness and perceived easy of use as factor main behavior computer reception.

### ***Unified Theory of acceptance and Use of Technology***

UTAUT, developed by Venkatesh et al., (2003), is one of the the most popular theory, because combining the TRA model with Tam or Tam with DOI. Wang & Lo (2020) identified 8 factors influencing determinant \_ organization government government data adoption open, i.e perception benefit; convenience use, push social, comfort, results displayed, awareness to innovate influence intention for use . Next two variable like willingness for use and intention use will influence behavior adoption system government data information open.

### ***Diffusion Innovation (DOI)***

Rogers (2003) explain that the diffusion model innovation that emphasizes the importance of the diffusion process innovation that is largely determined by quality innovation. A number of observed concept \_ related quality innovation is ability observation, complexity compatibility, convenience for tried and relative advantage over use technology new .

### ***Relationship Between Variable***

From explanation theory behavior adoption technology, research this use UTAUT theory which combines TAM and TRA. 5 factors determinant individual for intend use technology that will researched is covers perception benefit, convenience use, push social, convenience, results displayed and awareness to innovate user technology new will push intention user for adoption. Besides, that willingness use and intention use technology new will influence success adoption technology specifically behavior master students for adoption of the Online Journal system or OJS. Three factor like perception usefulness, perception convenience for use and push social proven take effect positive and significant to intention for use ICT.

### ***Facilitating Conditions***

Condition infrastructure and facilities service electronic identified as factor determinant user adoption technology information (Gupta et al., 2013). Evaluation infrastructure technical system developed information \_ will motivate user for OJS adoption, setup infrastructure technical in development service publication article online require \_ amount requirements technical like development full features and templates. Suppose there is a template for driving users submit

papers, download journal templates and so on. Oliveira et al., (2014) explain that facilitating conditions user's motivated adoption system innovation new will determine success and effectiveness development system information . because of that hypothesis 1 proposed in study this is condition facility OJS service impact significant to behavior user use service publication of papers online.

### *Perceived Usefulness*

Evaluation positive on use technology information new will influence intention use technology information, especially when the user seeing existence benefit practical on technology Khurshid et al., (2022). theory \_ perceived utilization \_ will determine trend individual user for use technology new, thing this consistent with the TAM theoretical model, then hypothesis 2 is proposed that there is influence positive and significant perception usefulness to intention for using OJS.

### *Perceived Easy to Use*

Later use refers to the level trusted effort's user, used base for trend they use technology new (Khurshid et al., 2022). If a application believed useful by actual users, and vice versa application believed difficult for used as well as acquisition benefit no comparable with work done, so intention for use technology new will small. So hypothesis 3 is proposed is convenience use OJS app for master's students will influence intention for use application that .

### *Social Approval*

Agreement social often refers to the extent to which members system social agree for use product, system or service certain without reward or profit financially Khurshid et al., (2022). But when someone \_ listen loss social or economy, because adoption innovation so will influence intention use for other members in a system social . For that hypothesis 4 is proposed is encouragement social influence intention masters students for use OJS application.

### *Result Demonstration*

Result Demonstrability conceptualized as results real on innovation that will done. If the results obtained will the more clear, then user will the more clear adoption innovation (Zuiderwijk et al., 2020). User decision OJS adoption is influenced by perception they for the publication process easy article and for tracked the process as well as chance for cited by researcher another. For OJS manager, perception user the will make it easy manager for document source knowledge specifically results study lecturers and students. So could submitted hypothesis 5 that results shown \_ as factor booster user for adoption OJS application.

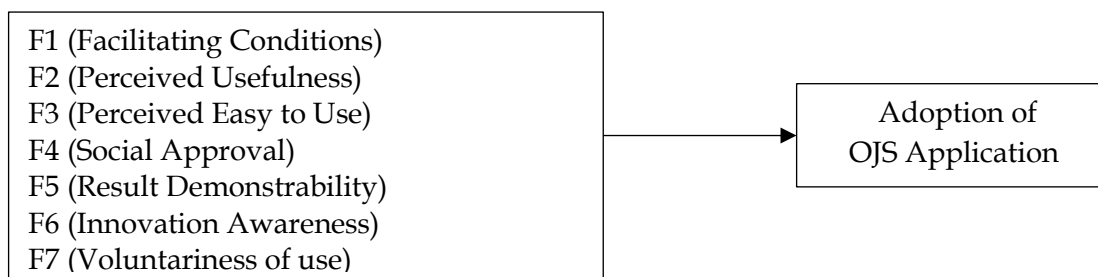
### *Innovation Awareness*

Draft awareness in context behavior adoption innovation is thinking subjective user about intention they in adoption innovation. High awareness will push behavior search high information and according to Khurshid et al., (2022) measurement draft awareness use two dimensions that is awareness student about utility use innovation and awareness will encouraging regulations user use innovation. In context adoption OJS app awareness user

pushed through activity training skills student in access journals and the other sources knowledge online. Whereas awareness regulation related condition publication will increase intention user for adoption OJS application. So hypothesis 6 proposed is awareness innovation take effect significant to intention adoption OJS application.

### *Voluntariness of Use*

Construct volunteering in TAM model no researched, however in the UTAUT model has developed as variable moderation encouragement social with intention adoption innovation. According to Zuiderwijk et al., (2020) volunteering is the extent of use adoption innovation conducted by volunteer or without coercion or called as will free. Idea behind draft volunteering use capable take effect direct to intention adoption innovation. For that hypothesis 7 proposed is volunteer to use take effect direct to intention use OJS application.



**Picture 2.** Framework Research

## **METHOD**

Initiation development OJS applications and students in magister program at university “X “as population, selected for validate the theoretical model that has been developed. Driven by regulations in the Ministry of Higher Education and related university policies condition publication article scientific before graduating, have encourage study programs to develop OJS application. Population in study this is whole master students who are still active in Study Program X, with use technique taking sample census.

Data collected with use questionnaires and techniques data collection with use google forms application. Before questionnaire used for testing hypothesis, have conducted testing validity and reliability with technique product moment correlation . The results of the validity test on the variable intention OJS adoption and variables factor determinant behavior adopt everyone \_ valid indicator. Cronbach Alpha value for 7 variable independent and 1 independent variable, produce Cronbach's alpha value is more than 0.6, second variable turned on reliable. As for test to 7 factors determinant behavior user OJS application using technique analysis multiple.

## **ANALYSIS AND DISCUSSION**

According to Table 1 is the research results, the table is showing that variable Facilitating Conditions (Perceived Usefulness; Perceived Easy to Use; Social Approval; Result Demonstration; Innovation Awareness and Voluntariness) of use are proven significant as factor determinant intention master students for adoption OJS application that is by 73 percent. This

thing give meaning that level readiness student in adoption more OJS application ready. According to Oliveira et al., (2014) and Potishuk & Kratzer, (2017) perception benefits and convenience is factor determinant capability user in adoption technology new. Condition facilities also matter to intention user for adoption OJS application, this reflect feature application already complete and capable driving students when they submit articles. Social drive also has an effect significant against intention user for adoption OJS application, meaning user have perception that encouragement regulation good leveled Center (Ministry of Higher Education), so the study program has push behavior for adoption OJS application. Activities that have been carried out by the Study Program, among others, socialization journal, training access reputable journal for master's student.

**Table 1.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.289a	.083	.067	2.60023	.072	4.733	5	303	.000

1. Predictors: (Constant), F7, F6, F5, F2, F4, F3, F1

Source : Results research (2022)

**Table 2.** ANOVA

	Model	Sum of Square	df	mean Square	F	Sig.
1	Regression	172.555	5	34,511	4.733	.000b
	Residual	2209,238	303	7.291		
	Total	2381,793	308			

- Dependent Variables: Adoption of OJS Application
- Predictors: (Constant), F7, F6, F5, F2, F4, F3, F2, F1

Source : Results research (2022)

**Table 3.** Coefficients a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.452	1,748		6.552	.000
	F1	.074	.064	.074	1.158	.004
	F2	.411	.100	.236	4.128	.000
	F3	.040	.115	.022	.346	.003
	F4	.517	.056	.406	.107	.000
	F5	.010	.111	.006	.002	.018
	F6	.008	.093	.016	.004	.013
	F7	.000	.004	.008	.001	.016

Dependent Variables : Adoption of OJS Application

Source : Results study (2022)



Test results hypothesis reported that four factor like condition facilitating, perceived usefulness, perceived easy to use and social approval have significant influence to adoption of OJS websites, and social approval have most significant influence to adoption of OJS website. Referring to Table 3, the results of testing the facilitating factor conditions are proven to be significant on the adoption of OJS applications consistent with the results of research by Oliveira et al., (2014) and Gupta et al., (2013) although ICT adoption is different, if in previous studies using an electronic-based government service application platform. The factors of perceived usefulness and perceived ease of use have been shown to be significant determinants of OJS application adoption behavior, this is consistent with the results of research by Igbaria et al., (1995) and Almaiah et al., (2020).

Implication practical on results study this is important for OJS manager for designing convenient OJS features and templates user to submit articles, as well as important for to do maintenance application. Test results three other variables that are not proven significant take effect to intention adoption OJS application is the result of demonstrability, innovation awareness and volunteerism of use. Test results this in line with study Khurshid et al., (2022), namely when the development process innovation new conducted so report on results obtained user not yet so significant give benefits.

## CONCLUSION

Studies this study through modification two models for determine factor adoption technology information for service based web in Magister Program. Findings disclose condition facilitation, benefit which felt, convenience use which felt, encouragement social as factor determinant behavior student for use OJS application developed by Magister Program in University "X". Meanwhile the result demonstrability factor, innovation awareness and volunteers of use are not proven significant as booster master student in use OJS application. Though by together 7 factors determinant behavior adoption innovation proven. Research results give input for Magister Program for keep going to do socialization and training writing articles and publications article, as effort increase quality results study thesis.

## REFERENCES

- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. *Action Control*, 11–39. [https://doi.org/10.1007/978-3-642-69746-3\\_2](https://doi.org/10.1007/978-3-642-69746-3_2)
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, 25(6), 5261–5280. <https://doi.org/10.1007/S10639-020-10219-Y/FIGURES/3>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. <https://doi.org/10.2307/249008>
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. MA: Addison-Wesley.

- Gupta, A., Sharma, S., Reichenbach, P., Marjavaara, L., Nilsson, A. K., Lingner, J., Chabes, A., Rothstein, R., & Chang, M. (2013). Telomere length homeostasis responds to changes in intracellular dNTP pools. *Genetics*, 193(4), 1095–1105. <https://doi.org/10.1534/genetics.112.149120>
- Hossain, M. A., Rahman, S., Quaddus, M., Hooi, E., & Olanrewaju, A. S. (2021). Factors Affecting Performance of Open Government Data Initiatives: A Multi-Method Approach Using Sem and FSQCA. *Journal of Organizational Computing and Electronic Commerce*, 31(4), 300–319. <https://doi.org/10.1080/10919392.2021.2018258>
- Igbaria, M., Iivari, J., & Maragahh, H. (1995). Why do individuals use computer technology? A Finnish case study. *Information & Management*, 29(5), 227–238. [https://doi.org/10.1016/0378-7206\(95\)00031-0](https://doi.org/10.1016/0378-7206(95)00031-0)
- Khurshid, M. M., Zakaria, N. H., Arfeen, M. I., Rashid, A., Nasir, S. U., & Shehzad, H. M. F. (2022). Factors Influencing Citizens' Intention to Use Open Government Data – A Case Study of Pakistan. *Big Data and Cognitive Computing*, 6(1). <https://doi.org/10.3390/bdcc6010031>
- O'Doherty, D. C. M., Chitty, K. M., Saddiqui, S., Bennett, M. R., & Lagopoulos, J. (2015). A systematic review and meta-analysis of magnetic resonance imaging measurement of structural volumes in posttraumatic stress disorder. *Psychiatry Research - Neuroimaging*, 232(1), 1–33. <https://doi.org/10.1016/j.psychresns.2015.01.002>
- Oliveira, T., Thomas, M., & Espadanal, M. (2014). Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors. *Information & Management*, 51(5), 497–510. <https://doi.org/10.1016/J.IM.2014.03.006>
- Potishuk, V., & Kratzer, J. (2017). Factors affecting entrepreneurial intentions and entrepreneurial attitudes in higher education. *Journal of Entrepreneurship Education*, 20(1), 25–44. [https://www.researchgate.net/publication/319478767\\_Factors\\_affecting\\_entrepreneurial\\_intentions\\_and\\_entrepreneurial\\_attitudes\\_in\\_higher\\_education](https://www.researchgate.net/publication/319478767_Factors_affecting_entrepreneurial_intentions_and_entrepreneurial_attitudes_in_higher_education)
- Ranger, S. (2018). *What is cloud computing? Everything you need to know about the cloud explained*. <https://www.zdnet.com/article/what-is-cloud-computing-everything-you-need-to-know-about-the-cloud/>
- Rogers, E. M. (2003). *Diffusion of innovations, 5th edition*. The Free Press.
- Salam, N. R. A., & Ali, S. (2020). Determining Factors of Cloud Computing Adoption: A Study of Indonesian Local Government Employees. *Journal of Accounting and Investment*, 21(2). <https://doi.org/10.18196/jai.2102151>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Wang, H. J., & Lo, J. (2020). Factors Influencing the Adoption of Open Government Data at the Firm Level. *IEEE Transactions on Engineering Management*, 67(3), 670–682. <https://doi.org/10.1109/TEM.2019.2898107>
- Zuiderwijk, A., Shinde, R., & Jeng, W. (2020). What drives and inhibits researchers to share and use open research data? A systematic literature review to analyze factors influencing open



research data adoption. *PLOS ONE*, 15(9), e0239283.  
<https://doi.org/10.1371/JOURNAL.PONE.0239283>