JAAIE : Journal of Applied Artificial Intelligence in Education

Journal of Applied Artificial Intelligence in Education
E-ISSN: XXXX-XXXX; P-ISSN: XXXX-XXXX
https://journal.lontaradigitech.com/JAAIE

Exploring Factors Influencing MOOCs Usage Behavior and Technology Acceptance in Higher Education: An Analysis Using the UTAUT Model

Kiki Awaliyah Asrullah[1], Arum Putri Rahayu [2*], Putri Olivia[3], Muh Ma'ruf Asya Perdana[4]
[1,3,4] Department of Informatics Engineering and Computer Science, State University of Makassar, Indonesia
[2] STAI Ma'arif Magetan, Indonesia*

Corresponding e-mail : hayurahayu9284@gmail.com

ARTICLE INFO

Keywords:

Factors of student acceptance of MOOCs;
MOOCs;
Technology Acceptance in Higher Education;
UTAUT.

Article History

Received: November 21, 2023
Revised : November 28. 2023
Accepted : June 8, 2025

ABSTRACT

This study aims to analyze the acceptance of Massive Open Online Courses (MOOCs) by students at Makassar State University using the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. This research uses a descriptive quantitative approach with data collection methods through online questionnaires. The research instrument was developed to measure eight dimensions of UTAUT: performance expectancy, effort expectancy, social influence, facilitating conditions, computer self-efficacy, attitude towards technology, behavioral intention, and actual use. The results showed that students have a fairly positive perception of the use of MOOCs as a digital learning medium. They considered MOOCs useful in increasing learning productivity, supporting online group discussions, and facilitating access to learning materials. However, some obstacles are still felt, especially limited technical knowledge, usage experience, and social support from the surrounding environment. These findings indicate the importance of strengthening digital literacy, technical training, and sustainable supporting policies to optimize the utilization of MOOCs in the learning process. This research is expected to contribute to the development of digital learning strategies in higher education, especially in integrating technology effectively into the teaching and learning process in the digital era.

To cite this article : Author. (20xx). Title. Journal of Applied Artificial Intelligence in Education, X(X), XX-XX. Doi. xxxx

INTRODUCTION

The teaching and learning process is an interactive activity between students and lecturers to acquire skills, positive values, and knowledge [1], [2]. Transformation of education technology triggers a paradigm shift in learning through flexible online platforms for students [3], [4], [5]. MOOCs are an online learning innovation that offers open access and global reach. MOOCs enable effective collection of student behavioral data without geographical restrictions [6]. In Indonesia itself, MOOCs platforms such as Dicoding, IndonesiaX, and Open University have been widely present, but there is no quality standard that measures these platforms. In addition, the low course completion rate is still a challenge [7], [8], [9]. Wu and Chen [10] emphasizes the low level of technology acceptance by students. Malewar and Bajaj [11] also highlighted the importance of factors such as performance expectations, price value, and content availability in technology adoption. Thus, although MOOCs have great potential in supporting educational transformation, the level of UNM students' acceptance of MOOCs is still a challenge that needs to be studied more deeply. Therefore, it is important to discuss various relevant technology acceptance models, particularly in the context of higher education.

Technology acceptance models have been widely used to analyze the adoption of new technologies in higher education, including the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Unified Theory of Acceptance and Use of Technology (UTAUT) [12]. The UTAUT model is particularly relevant in the context of higher education because it integrates the factors of performance expectation, effort expectation, social influence, and supporting conditions as the main determinants of technology acceptance. Previous research, such as by Khoirunnisak [13], shows that UTAUT is effective in identifying factors that influence lecturers' acceptance of e-learning, especially on platforms such as SHARE-ITS at ITS (Institut Teknologi Sepuluh Nopember). Research by Kurnia [14] also revealed that supporting conditions, hedonic motivation, and user habits are important factors in the acceptance of e-learning among students in Tasikmalaya. Thus, the application of the UTAUT model in this study is important to analyze the factors that influence UNM students' acceptance of MOOCs, in order to provide appropriate recommendations for the optimization of online learning in the university environment.

The use of MOOCs has a significant positive impact in improving access to learning for students in higher education. Previous research also shows that MOOCs can expand learning opportunities and support the flexibility of online learning [15]. However, there are still weaknesses identified, such as low completion rates, lack of interaction between participants, problems in the assessment system, and limited feedback from students [16], [17]. Research by Malewar and Bajaj [11] confirmed that perceived ease of use and perceived usefulness as measured by TAM can affect students' intention to use MOOCs. In addition, other studies have shown that the application of technology that suits user needs through the TTF approach can increase student satisfaction in online learning [18]. Therefore, it is important to further examine the positive and negative impacts of using MOOCs in order to provide appropriate recommendations for universities in utilizing this platform. This research will focus on how technology acceptance models, specifically UTAUT, can help identify factors that influence UNM students' acceptance of MOOCs.

Previous research by Isma et al. [19] has explored the use of TAM and TTF models to measure the intention to continue using MOOCs by UNM students, with the results showing that most students have a positive view of the platform. However, this study focuses more on the aspect of the intention to continue using MOOCs and has not examined in depth how the acceptance of the technology itself, specifically through the UTAUT model which includes performance expectation, effort expectation, social influence, and supporting conditions. Other research in Indonesia also shows that UTAUT is relevant for analyzing technology acceptance factors, such as research on e-learning implementation among lecturers and students in Tasikmalaya [13], [14]. Meanwhile, research in higher education in Asia, such as at Universiti Kebangsaan Malaysia, shows that UTAUT is effective for measuring the adoption of MOOCs in the context of higher education [20]. However, not many studies have specifically focused on analyzing UNM students' acceptance of MOOCs using the UTAUT model comprehensively. Therefore, this study aims to fill the gap by analyzing the factors of UNM students' acceptance of MOOCs through the UTAUT model framework.

This study aims to identify and analyze the main factors that influence UNM students' acceptance of the use of MOOCs using the UTAUT model. In addition, this study aims to determine the extent to which performance expectations, effort expectations, social influence, and supporting conditions affect student acceptance of MOOCs. This study also wants to test the relevance of the UTAUT model in the context of higher education in Indonesia, especially at Makassar State University. Thus, the results of this study can be the basis for increasing

technology acceptance among UNM students. Another goal is to provide an understanding to the campus regarding the factors that must be considered in the development and implementation of MOOCs. With this understanding, it is expected that the implementation of MOOCs at UNM can run more effectively. Therefore, this research is important as an effort to optimize the use of technology in higher education.

This research is expected to contribute to the development of technology acceptance models in the context of higher education, especially the use of MOOCs in Indonesia. Theoretically, this research can enrich the literature on technology acceptance by applying the UTAUT model in the context of UNM students. Practically, the results of this study can help the campus and platform developers in formulating the right strategy to increase student acceptance of MOOCs. This research can also provide policy recommendations for the university in supporting the effective implementation of MOOCs. In addition, this research is expected to help students in understanding the importance of using MOOCs as a learning tool. With this research, it is expected that the quality and effectiveness of online learning at UNM can increase. Therefore, this research has strategic value to support the transformation of higher education through the utilization of technology.

METHOD

This study used a descriptive quantitative research design with a cross-sectional design [21] to systematically describe students' perceptions of the acceptance of Massive Open Online Courses (MOOCs) in higher education. This design was chosen because it allows data collection at a single point in time so as to measure the technology acceptance variables numerically and analyze them statistically, in order to gain an objective understanding of the factors that influence the adoption of MOOCs [21].

This study focuses on the eight main dimensions in the UTAUT model, namely: (1) performance expectancy, (2) effort expectancy, (3) social influence, (4) facilitating conditions, (5) computer self-efficacy, (6) attitude toward technology, (7) behavioral intention, and (8) actual use. Dimensions 1 to 6 act as independent variables that influence students' acceptance of MOOCs technology, while dimensions 7 and 8 act as dependent variables that reflect students' intention to use MOOCs and their actual usage behavior. Within the framework of the UTAUT model, the dimensions of performance expectancy, effort expectancy, social influence, and facilitating conditions directly affect students' behavioral intentions, which in turn affect actual use. The variables of computer self-efficacy and attitude towards technology also act as factors that support technology adoption, either directly or through strengthening other independent variables. Each dimension is measured through several statement items in the questionnaire, which is designed to comprehensively capture students' perceptions related to the acceptance of MOOCs in the college environment.

This study collected data from 60 respondents. Data collection was carried out through distributing online questionnaires using the Google Form platform. The research instrument was developed based on the theoretical constructs of the Unified Theory of Acceptance and Use of Technology (UTAUT) model and the results of relevant literature studies. This instrument consists of 34 statement items measured using a five-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The use of the Likert scale was chosen because it can represent the intensity of respondents' attitudes and perceptions of the object of research quantitatively and has high reliability in social research [21], [22].

Table 1. Likert Scale

Category	Scale
Sangat Setuju	5,0
Setuju	4,40
Kurang Setuju	3,20
Tidak Setuju	2,60
Sangat Tidak Setuju	1,80

RESULTS AND DISCUSSION

RESULT

Descriptive Statistics

The number of respondents in this study was 33 students with various characteristics. Table 3.1 presents the frequency distribution and percentage of several characteristics of respondents, namely gender, age, semester, and study program. This data provides an overview of the composition of respondents in the study, which includes the proportion of gender (male and female), age range of 19 to 20 years, semester level, and field of study (TEKOM and PTIK).

Table 2. Demographic Distribution

Categories	Subcategories	Frequency	Percentage
Gender	Female	17	51.5%
	Male	16	48.5%
Age	19	16	48.5%
	20	17	51.5%
Semester	3	33	100%
Major	Computer Engineering	90,4	90.4%
	Informatics and Computer Engineering Education	5,5	5.5%

Descriptive analysis

Descriptive analysis in this study was conducted to determine the average respondent's response to each indicator measured using a Likert scale of 1-5. These indicators represent the eight main dimensions in the UTAUT model which include performance expectations, effort expectations, social influence, facilitating conditions, computer self-efficacy, attitudes towards technology, behavioral intentions, and actual use. The results of this analysis aim to provide an overview of student perceptions of the use of MOOCs in higher education learning.

In this study, there are a total of 32 indicators covering the eight main dimensions in the UTAUT model. However, at the stage of presenting the results of this descriptive analysis, only 17 indicators were selectively selected based on considerations of representativeness, clarity of data, and relevance to the research focus. This selection aims to maintain readability and focus of analysis, so as to provide a clearer and more concise picture of the distribution pattern of respondents' responses. The percentage distribution on each indicator shows how respondents

interpret each statement related to the acceptance of MOOCs in higher education. The following table displays the percentage distribution of respondents in each Likert scale category for each indicator studied. This data forms the basis for further analysis in interpreting the level of student acceptance of the use of MOOCs.

Table 3. Score Distribution Table of Student Perceptions of MOOCs

No	Indicator	STS	TS	KS	S	SS
1	I believe MOOCs are useful in my learning.	3%	0%	48,5%	39,4%	9,1%
4	If I use MOOCs, I increase my chances of getting better.	0%	3%	51,5%	33,3%	12,1%
5	It is easy for me to become skilled in using MOOCs.	0%	3%	54,5%	30,3%	12,1%
7	MOOCs provide a suitable approach for both educators and learners.	3%	6,1%	45,5%	30,3%	15,2%
8	My teacher thinks that I should use MOOCs to study.	3%	9,1%	48,5%	33,3%	6,1%
9	My friends think I should use MOOCs to study.	3%	12,1%	48,5%	30,3%	6,1%
13	I have the necessary knowledge to use MOOCs.	0%	12,1%	57,6%	21,2%	9,1%
15	MOOCs are compatible in collaborating with other systems.	0%	3%	51,5%	30,3%	15,2%
16	I believe in using MOOCs.	0%	3%	54,5%	33,3%	9,1%
20	MOOCs provide features to download or upload files in MOOCs from personal computers, smart phones, or tablets.	0%	6,1%	57,6%	24,2%	12,1%
21	MOOCs provide features for participating in online group discussions.	0%	3%	48,5%	36,4%	12,1%
24	I believe that using MOOCs is a good idea.	0%	3%	48,5%	42,4%	6,1%
26	I am satisfied with the use of MOOCs.	0%	3%	60,6%	24,2%	12,1%
29	I plan to use MOOCs for future learning.	0%	0%	60,6%	24,2%	15,2%
30	I will insist on using MOOCs to study the courses I registered for.	0%	6,1%	60,6%	27,3%	6,1%
31	I often use MOOCs to manage my assignments.	0%	9,1%	57,6%	24,2%	9,1%
32	I usually use MOOCs.	3%	9,1%	60,6%	18,2%	9,1%

The table below shows the results of descriptive analysis of 34 indicators of MOOCs acceptance measured in this study. Each indicator is analyzed using a Likert scale of 1-5, with the results of mean, median, mode, minimum, and maximum values. Based on the analysis results, most indicators have a mean value between 3.18 to 3.61. This indicates that respondents tend to have positive to neutral perceptions of each aspect of MOOCs acceptance measured, including performance expectations, effort expectations, social influence, facilitating conditions, computer self-efficacy, attitude towards technology, behavioral intention, and actual use.

Table 4. Descriptive Analysis Results

Construct	No	Indicator	Mean	Median	Modus	Min	Max
	1	I believe MOOCs are useful in my learning.	3.52	3	3	1	5

Aspects of Performance Expectation	2	Using MOOCs allows me to complete learning activities faster.	3.61	3	3	2	5
	3	Using MOOCs increases my learning productivity.	3.45	3	3	3	5
	4	If I use MOOCs, I increase my chances of getting better.	3.55	3	3	3	5
	5	It was easy for me to become skilled in using MOOCs.	3.51	3	3	2	5
Aspect Expectations Efforts	6	I find MOOCs easy to use.	3.39	3	3	3	5
	7	MOOCs provide a suitable approach for both educators and learners.	3.48	3	3	1	5
	8	My teacher thinks that I should use MOOCs to study.	3.30	3	3	1	5
	9	My friends think I should use MOOCs to study.	3.24	3	3	1	5
Social influence aspect	10	My family thinks that I should use MOOCs to study.	3.24	3	3	1	5
	11	In general, my university supports the use of MOOCs for learning.	3.18	3	3	1	5
	12	I have the necessary resources to use MOOCs.	3.45	3	3	2	5
	13	I have the necessary knowledge to use MOOCs.	3.27	3	3	2	5
Facilitating conditions	14	There are certain people or groups who are ready to accept the help of MOOCs.	3.33	3	3	2	5
	15	MOOCs are compatible in collaborating with other systems.	3.58	3	3	2	5
	16	I am confident in using MOOCs.	3.48	3	3	2	5
	17	Even if there's no one around to show you how to do it.	3.56	3	3	3	5
Aspects of Computer Self-Efficacy	18	Although I only have the online instructions for reference	3.55	3	3	3	5
	19	Although I have never used such a system before.	3.58	3	3	3	5
	20	To download or upload files in MOOCs from a personal computer, smart phone, or tablet.	3.42	3	3	2	5

	21	To participate in online group discussions.	3.58	3	3	2	5
	22	To complete quizzes in MOOCs from a personal computer, or smart phone, or tablet.	3.51	3	3	2	5
	23	To discuss with the teachers.	3.60	4	3	2	5
	24	I believe that using MOOCs is a good idea.	3.51	3	3	2	5
Aspects of Attitude Toward Technology	25	I believe that using MOOCs is advisable.	3.55	3	3	2	5
	26	I am satisfied with the use of MOOCs.	3.45	3	3	2	5
	27	Learn more interestingly with MOOCs.	3.48	3	3	2	5
	28	I plan to use MOOCs for future learning.	3.48	3	3	2	5
Aspects of Behavioral Intention	29	I plan to use MOOCs for future learning.	3.55	3	3	3	5
	30	I will insist on using MOOCs to study the course registered.	3.33	3	3	2	5
	31	I often use MOOCs to manage my assignments.	3.33	3	3	2	5
Aspects of Actual Use	32	I usually use MOOCs.	3.21	3	3	1	5
	33	I regularly use MOOCs.	3.30	3	3	2	5
	34	I often complete courses from MOOCs sites.	3.27	3	3	2	5

DISCUSSION

The results of this study indicate that student perceptions of the use of Massive Open Online Courses (MOOCs) are generally in a fairly positive category. This is reflected in most of the mean values that are in the range of 3.18 to 3.61, which indicates that respondents tend to agree with the majority of indicators measured. This finding is in line with previous research which found that students have a positive attitude towards the use of technology in online learning, including in the context of MOOCs in higher education [23], [24]. In addition, MOOCs are considered to provide opportunities for students to gain more flexible access to learning and support the transformation of education in the digital era [20].

On the aspect of performance expectancy, indicators such as "I believe MOOCs are useful in my learning" (mean = 3.52) and "If I use MOOCs, I increase my chances of getting better" (mean = 3.55) indicate that students have a fairly high belief in the contribution of MOOCs in supporting their learning. Previous research also confirms that performance expectancy is a key predictor in the use of MOOCs in higher education environments [25], [26]. This finding supports that students' trust in the usefulness of technology is an important factor in the adoption of learning innovations.

On the aspect of effort expectancy, the indicators "It is easy for me to become skilled in using MOOCs" (mean = 3.51) and "MOOCs provide a suitable approach for educators and learners"

(mean = 3.48) indicate that students find MOOCs relatively easy to use. Previous research emphasizes that ease of use (effort expectancy) has a significant influence on students' intention to adopt MOOCs [27]. These results reinforce the importance of providing an intuitive and accessible platform in order to increase the use of MOOCs among students.

On the aspect of social influence, the indicators "My teacher thinks that I should use MOOCs to study" (mean = 3.30) and "My friends think I should use MOOCs to study" (mean = 3.24) show that students feel support, although not very high, from their social environment. The study by Haron et al. [20] and Altalhi [23] shows that social influence from lecturers, friends, and significant others plays an important role in influencing students' acceptance of MOOCs. This is an important consideration in designing strategies to increase the use of MOOCs that involve the active role of lecturers and peers.

In the aspect of facilitating conditions, the indicator "MOOCs are compatible in collaborating with other systems" (mean = 3.58) occupies the highest position among other indicators. This indicates that students see the readiness of technological infrastructure that supports the integration of MOOCs in learning. However, the indicator "I have the necessary knowledge to use MOOCs" (mean = 3.27) is relatively lower, indicating that students still need increased technical competence in the use of MOOCs. This finding is consistent with the study by Li & Zhao [26] which emphasizes the importance of supporting conditions, including the availability of training and infrastructure, in optimizing the adoption of MOOCs.

Furthermore, on the aspect of computer self-efficacy, the relatively consistent mean values between 3.42 to 3.60 indicate that students have a good level of confidence in using MOOCs, either in situations with or without direct guidance. Indicators such as "Even though there is no one around to show me how to do it" (mean = 3.56) and "Even though I have never used such a system before" (mean = 3.58) indicate students' readiness to use technology independently. This result reinforces the findings of by Wan et al. [25] which asserts that self-efficacy plays an important role in supporting students' intention to adopt MOOCs.

On the aspect of attitude towards technology, the indicators "I believe that using MOOCs is a good idea" (mean = 3.51) and "I am satisfied with the use of MOOCs" (mean = 3.45) indicate students' positive attitude towards utilizing MOOCs as part of their learning. This positive attitude is an important factor in encouraging sustainable technology adoption [28].

In the aspect of behavioral intention, the indicator "I plan to use MOOCs for future learning" (mean = 3.55) indicates that students have a tendency to continue using MOOCs. However, the indicator "I will insist on using MOOCs to study the courses I am enrolled in" (mean = 3.33) is slightly lower, which can be noted to increase students' commitment to the utilization of MOOCs intensively [26].

Finally, in the aspect of actual use, the indicators show relatively lower mean values than other dimensions, with values between 3.21 to 3.33. This shows that although students have a positive perception of MOOCs, their actual usage is still moderate. This condition may be influenced by infrastructure limitations, campus policies, or the readiness of the students themselves [24], [28].

Overall, the results of this study confirm that students have a positive perception of the use of MOOCs as a learning tool. However, in the implementation in the field, there are still significant challenges, such as low actual usage, limited technological infrastructure, lack of student skills in operating the platform, and campus policies that have not fully supported the optimal utilization of MOOCs. Therefore, strategic efforts are needed that include improving student competencies

through technical training, strengthening technological infrastructure in the campus environment, and developing campus policies that support the integration of MOOCs into the curriculum. Thus, the utilization of MOOCs in higher education can run more effectively and support 21st century learning that is more innovative and inclusive.

CONCLUSIONS

Based on the results of this study, it can be concluded that the perceptions of Makassar State University (UNM) students towards the use of Massive Open Online Courses (MOOCs) are generally in a fairly positive category. The dimensions of performance expectations and effort expectations show that students find MOOCs useful and relatively easy to use in supporting the learning process. Moderate social influence from the surrounding environment, such as lecturers and friends, indicates the importance of external support in motivating students to use MOOCs. Facilitating conditions, such as the readiness of technological infrastructure, are considered quite good although there is still a need to improve students' technical competence. Students' level of self-efficacy in using MOOCs is also relatively good, which supports their confidence in operating this technology. Students' attitudes towards MOOCs were identified as positive, but the actual level of use is still not optimal. Therefore, to maximize the utilization of MOOCs, increased technical training, campus policy support, and integration of MOOCs in learning strategies in higher education are needed.

REFERENCES

[1] M. A. Qader, "The Role Of Interactive Whiteboards For Enhancing Teaching And Learning In Higher Education," *Indonesian Journal Of Curriculum And Educational Technology Studies*, P., 2021, Doi: 10.15294/Ijcets.V9i1.48453.

[2] M. Alisalman, "Pembelajaran Partisipatif Sebagai Metode Dalam Meningkatkan Hasil Belajar Mahasiswa," *Diklus: Jurnal Pendidikan Luar Sekolah*, P., 2022, Doi: 10.21831/Diklus.V6i1.48572.

[3] G. Gumono, Y. A. Chandra, And A. Suzana, "Pembelajaran Daring Pada Program Studi Pendidikan Bahasa Indonesia Fkip Universitas Bengkulu Pada Masa Pandemi Covid-19," *Fon: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, P., 2022, Doi: 10.25134/Fon.V18i2.5262.

[4] M. T. Brillian, "Peran Ketersediaan Teknologi Dan Kualitas Video Pembelajaran Dalam Meningkatkan Self-Efficacy, Intensi, Dan Motivasi Belajar Mahasiswa," *Konstelasi: Konvergensi Teknologi Dan Sistem Informasi*, P., 2024, Doi: 10.24002/Konstelasi.V4i1.9184.

[5] D. Rhamadani, M. Maesaroh, And R. Putri, "Proses Pembelajaran Secara Daring Selama Pandemi," *International Proceeding On Entrepreneurship*, P., 2021, Doi: 10.32493/Ipe.V1i1.9686.

[6] N. K. Windrati, I. D. Fiani, A. Bintarti, And I. W. Asih, "Pengembangan Rancangan Pembelajaran Massive Open And Online Courses (Moocs) Public Speaking," *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, P., 2023, Doi: 10.33830/Ptjj.V24i1.3987.2023.

[7] S. Aisyah, D. Novita, And D. Jovanka, "Digital World: Case Study From Universitas Terbuka's Moocs Parenting Course," P., 2018, Doi: 10.2991/Secret-18.2018.20.

[8] A. R. Adriyanto, I. Santosa, A. Syarief, And I. Irfansyah, "Design And Multimedia Learning Principles On Mooc Indonesiax," Vol. 40, Pp. 92–106, 2021, Doi: 10.21831/Cp.V40i1.34699.

[9] N. K. Windrati, I. D. Fiani, A. Bintarti, And I. W. Asih, "Pengembangan Rancangan Pembelajaran Massive Open And Online Courses (Moocs) Public Speaking," *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, P., 2023, Doi: 10.33830/Ptjj.V24i1.3987.2023.

[10] W. Wu And S. Chen, "Factors Affecting Technology Acceptance Among University Students: A Case Study," *Journal Of Educational Technology*, Vol. 23, No. 4, Pp. 112–124, 2017.

[11] S. Malewar And S. Bajaj, "Analyzing The Factors Influencing Technology Adoption In Education: A Study On Higher Education Institutions," *International Journal Of Educational Management*, Vol. 34, No. 3, Pp. 215–230, 2020.

[12] D.-A. Sitar-Tăut And D. Mican, "Mobile Learning Acceptance And Use In Higher Education During Social Distancing Circumstances: An Expansion And Customization Of Utaut2," *Online Inf. Rev.*, Vol. 45, Pp. 1000–1019, 2021, Doi: 10.1108/Oir-01-2021-0017.

[13] W. Khoirunnisak, "Implementasi Model Penerimaan Unified Theory Of Acceptance And User Of Technology (Utaut) Untuk Menganalisis Faktor-Faktor Penerimaan Dosen Terhadap Penggunaan E-Learning Share-Its," P., 2016, [Online]. Available: Https://Consensus.App/Papers/Implementasi-Model-Penerimaan-Unified-Theory-Of-Khoirunnisak/Bc220220709459999b47c544aa71dd79/

[14] D. Kurnia, "Penerimaan Dan Penggunaan E-Learning Pada Masa Pandemi Covid-19: Aplikasi Model Utaut2," *Jktp: Jurnal Kajian Teknologi Pendidikan*, P., 2020, Doi: 10.17977/Um038v3i42020p435.

[15] V. Mandailina, S. Syaharuddin, D. Pramita, I. Ibrahim, And H. Haifaturrahmah, "Pembelajaran Daring Dalam Meningkatkan Motivasi Dan Hasil Belajar Peserta Didik Selama Pandemi Covid-19: Sebuah Meta-Analisis," *Indonesian Journal Of Educational Science (Ijes)*, P., 2021, Doi: 10.31605/Ijes.V3i2.955.

[16] R. F. Kizilcec, C. Piech, And E. Schneider, "Deconstructing Disengagement: Analyzing Learner Subpopulations In Massive Open Online Courses (Moocs)," *Comput Educ*, Vol. 68, Pp. 170–182, 2013, Doi: 10.1016/J.Compedu.2013.04.003.

[17] K. F. Hew, "Learner Experiences Of Moocs And The Need For A Learner-Centred Approach," *Educational Technology Research And Development*, Vol. 64, Pp. 1003–1021, 2016, Doi: 10.1007/S11423-016-9444-9.

[18] M. Muttaqien, "Analisis Penggunaan Perangkat Ict Laboratorium Kampus Pada Kinerja Mahasiswa Menggunakan Model Task Technology Fit (Studi Empiris Pada Mahasiswa Telkom University)," Vol. 6, P., 2019, [Online]. Available: Https://Consensus.App/Papers/Analisis-Penggunaan-Perangkat-Ict-Laboratorium-Kampus-Muttaqien/85a6a6290b5759b2a269b98dd6712526/

[19] A. Isma, P. Asoka Syukur, A. Ismail, And M. Gilang Ramadhan, "Analisis Tingkat Niat Keberlanjutan Penggunaan Moocs Pada Mahasiswa Unm: Gabungan Model Tam Dan Ttf," Vol. 7, No. 1, 2024.

[20] H. Haron, S. Hussin, A. R. M. Yusof, H. Samad, And H. Yusof, "Implementation Of The Utaut Model To Understand The Technology Adoption Of Mooc At Public Universities," *Iop Conf Ser Mater Sci Eng*, Vol. 1062, P., 2021, Doi: 10.1088/1757-899x/1062/1/012025.

[21] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Bandung: Alfabeta, 2018.

[22] J. W. Creswell, *Research Design: Qualitative, Quantitative, And Mixed Method Approaches*. 2014.

[23] M. Altalhi, "Toward A Model For Acceptance Of Massive Open Online Courses (Moocs) In Higher Education: The Role Of Perceived Effectiveness, Computer Self-Efficacy, And Social Influence," *Educ Inf Technol (Dordr)*, Vol. 25, Pp. 4215–4235, 2020, [Online]. Available: Https://Link.Springer.Com/Article/10.1007/S10639-020-10158-8

[24] A. Amid And R. Din, "Factors Influencing The Behavioral Intention Of University Students To Use Moocs: An Extended Utaut Model," *International Journal Of Emerging Technologies In Learning*, Vol. 15, No. 20, Pp. 141–153, 2020, [Online]. Available: Https://Online-Journals.Org/Index.Php/I-Jet/Article/View/16671

[25] A. T. Wan, M. Ahmad, And R. Ismail, "Factors Affecting Intention To Use Moocs: A Utaut Perspective," *Asian Journal Of University Education*, Vol. 16, No. 3, Pp. 128–139, 2020, [Online]. Available: Https://Ajue.Uitm.Edu.My/Index.Php/Ajue/Article/View/1148

[26] J. Li And X. Zhao, "Exploring Determinants Of Students' Adoption And Usage Of Mooc Platforms In Higher Education: Utaut Perspective," *Educ Inf Technol (Dordr)*, Vol. 26, Pp. 6373–6394, 2021, [Online]. Available: Https://Link.Springer.Com/Article/10.1007/S10639-021-10593-0

[27] G. J. Otitoju And W. Nwagwu, "Adoption And Use Of Moocs By Undergraduates In Selected Universities In Ibadan, Nigeria," *Educational Technology Quarterly*, P., 2024, Doi: 10.55056/Etq.706.

[28] Z. Zaremohzzabieh, S. Ahrari, S. E. Krauss, A. H. Samah, And L. K. Meng, "Applying The Utaut2 Model To Understand Students' Behavioral Intention To Adopt Moocs: A Multi-Group Analysis," *Educ Inf Technol (Dordr)*, Vol. 27, Pp. 4217–4239, 2022, [Online]. Available: Https://Link.Springer.Com/Article/10.1007/S10639-021-10741-4