

# Perceived Usefulness and Technology Readiness Mediate Perceived Ease of Use and Digital Competence on Technology Adoption of Artificial Intelligence

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**Abstract.** Artificial Intelligence is added to the accounting curriculum in higher education. There are factors that influence users in accepting AI, this study aims to examine the influence of variable factors on AI acceptance. This research is quantitative in nature using primary data through questionnaires to a research sample of 98 students at 4 state universities in Surabaya with a research population of 4,074 students. The results of the study are digital competence affects perceived usefulness. Digital competence has no effect on technology readiness and technology adoption of AI. Perceived ease of use affects technology readiness and has no effect on technology adoption of AI. Perceived usefulness affects technology adoption of AI and Technology readiness affects technology adoption of AI. Perceived usefulness mediates the effect of digital competence on technology adoption of AI. Technology readiness cannot mediate the effect between digital competence and perceived ease of use on technology adoption of AI.

**Keywords:** Accounting, Artificial Intelligence, Education

## I. Introduction

The development of technology to date continues to be developed. This goes hand in hand with the increasing number of internet users in Indonesia. According to data obtained from the Indonesian Internet Penetration Survey by the Indonesian Internet Service Providers Association (2023), there is an increase every year until the 2022-2023 period reaches 215.63 million. These users will continue to grow considering that all fields are now in the middle of transforming into the digital world to facilitate work and save time. New technology continues to be innovated to produce technology that is more useful than previous technology. The technology that is currently widely used is Artificial Intelligence. Artificial Intelligence is a technology that has a high level of similarity with human intelligence, which is intended so that this technology is able to complete human work in accordance with the program that has been set. Education is one of the fields that has adopted artificial intelligence by adding curriculum related to artificial intelligence learning, especially in the field of accounting (Elo et al., 2023). Accounting is one of the fields that is now moving from conventional to digital. One of the activities of accounting is to do bookkeeping with the output in the form of financial statements consisting of income statements, balance sheets, statements of changes in capital, cash flow statements and notes to financial statements. Accounting students must be equipped with technology related to accounting work so that later when they enter the world of work, they can adapt well (Damerji & Salimi, 2021). Until now, there are many various accounting applications that have adopted Artificial Intelligence systems such as Odoo, zahir, Oracle, SAP, and others.

Through the technology that has been learned, students believe that technology can facilitate and increase their productivity. This situation is known as Perceived Usefulness. Perceived usefulness is a probability of user perception when using an application system that can improve performance (Fahmy & Azhari, 2020). This condition also goes hand in hand with Perceived ease of use which can be interpreted as a system designed to make it easier for users when operating the system (Arta & Azizah, 2020). The perceived conveniences are able to influence users in the use of technology, which is called technology readiness. Not only that, another driving factor is the existence of digital competence so that users feel capable of operating technology, this is called digital competence. Through these driving factors, there is acceptance from users in implementing artificial intelligence technology, which is called technology adoption of artificial intelligence. Through artificial intelligence technology, it is able to facilitate human activities in various fields, especially in accounting. Students are equipped with artificial intelligence from universities to be able to solve problems and facilitate activities through technology.

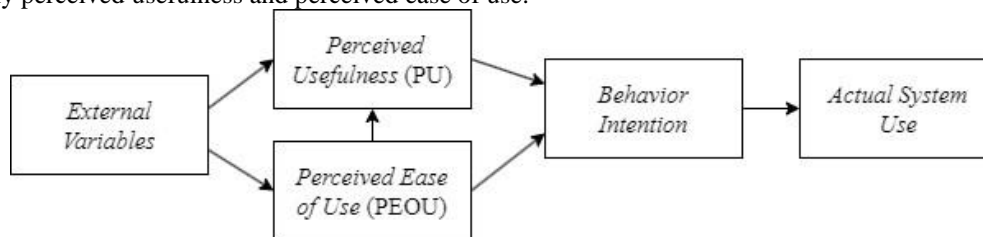
Surabaya state universities are the target universities for all students in Indonesia considering the city of Surabaya to be one of the metropolitan cities and the ease of all access to both education, transportation and others. Education in Surabaya state universities has its own appeal for higher education (Putra & Harianto, 2022). Thus, Surabaya state universities are the location of research on artificial intelligence. The universities are UPN "Veteran" East Java, Airlangga University, Surabaya State University, and Sunan Ampel Surabaya State Islamic University with various backgrounds and all four universities have Accounting study programs. A preliminary survey has been conducted and stated that

most of the students in the Surabaya state universities have adopted artificial intelligence and have been provided with material on artificial intelligence in lectures. Through the artificial intelligence technology used, they think that this artificial intelligence technology is able to facilitate accounting activities carried out in universities.

## II. Literature Review

### Technology Acceptance Model (TAM)

TAM theory or Technology Acceptance Model theory was first developed by Davis (1989). This theory is a development of the theory of reasoned action (TRA) which is used to model a user's acceptance of technology. This theory is a modeling that explains the causal relationship between a perception or attitude of technology users. This theory explains that there are two main factors that influence an individual (behavioral intention) in the use of technology (Determinant of system use), namely perceived usefulness and perceived ease of use.



Picture 1 : Original Model of Technology Acceptance Model (TAM) Theory

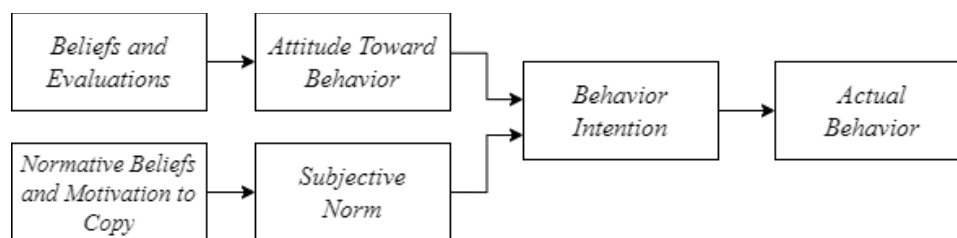
There are 3 main factors that influence the acceptance of technology use, namely perceived usefulness, Perceived Ease of Use and Intention to Use, while the driving factors in the acceptance of technology adoption are behavior beliefs and normative beliefs (Venkatesh & Davis, 2000).

### Diffusion of Innovation Theory

The theory of innovation diffusion is a process when an innovation is communicated across several media channels in a social system over a period of time (Rogers, 1995). The theory of innovation diffusion was first developed in an article entitled "The people's choice: How the voter makes up his mind in a presidential campaign" by Lazarsfeld et al. (1944). The theory described in the article is about the channel of getting messages through mass media. The user as a communicator who gets the message through the mass media becomes a strong factor or channel in influencing people, so that innovations or inventions are disseminated (diffusion) through the mass media so that people are able to follow these messages. At the beginning of its development, this theory states that leaders are able to influence people's attitudes or actions. The theory develops and adapts to modern life if the mass media is able to become a strong driving factor in influencing society. Thus, mass media can be used by leaders in influencing people's attitudes or behavior in accordance with the theory of diffusion of innovation. The purpose of this theory is to find out how a new innovation is accepted or rejected by the community.

### Theory of Reasoned Action

The theory of reasoned action was first developed by Fishbein & Ajzen (1975). This theory is aimed at conveying the purpose of the explicit behavior being carried out. Theory of Reasoned Action is a theory that is used to find out or analyze the basic reasons or motivations related to what a person's motives are for doing this behavior. This theory was originally called the theory of reasoned action in 1967 and continues to be expanded and developed (Fishbein & Ajzen, 1975). In the 1980s this theory was used to study human behavior and develop interventions, until in 1988, the addition of the reasoned action model was renamed the Theory of Planned Behavior (TPB). This aims to complement and minimize the shortcomings that exist in the TRA theory. Theory of Planned Behavior (TPB) is a theory of the development of the theory of reasoned action. In the theory of reasoned action, there is a main assumption, namely a rational individual who considers the actions and implications of the actions that have been taken. The rationality of decision making assumes that decisions are made in the presence of uncertainty (Fishbein & Ajzen, 1975). This theory is influenced by intention, the intention that users have is influenced by attitudes and subjective norms. So it can be simplified if someone will be encouraged to do a behavior if he thinks that the action leads to positive things and believes that someone else is also doing the same (Fishbein & Ajzen, 1975).



Picture 2 : Theory of Reasoned Action Model

### Digital Competence

Digital competence is the competence in using technology to streamline daily work (Zhao et al., 2021). Meanwhile, according to Perifanou & Economides (2019), Digital competence is an individual's knowledge and skills to use and take advantage of digitalization in communication, collaboration, and others to achieve goals and efficiency. Through this definition, it can be concluded that digital competence is all the competence of a person in using technology as best as possible to increase productivity, simplify work and optimize performance. Sudaryanto et al. (2023) explained that there are two kinds of digital competence indicators, namely as follows: 1) Digital literacy, the ability to operationalize technology and 2) Information literacy, the ability to use information.

### Perceived Ease of Use

Perceived ease of use is a level where a person believes that if through the technology used, there are no difficulties faced and technology is able to minimize more effort to get it (Davis, 1989). According to Arta & Azizah (2020), Perceived Ease of Use is a system designed to make it easier for users when operating the system. So, it can be concluded that perceived ease of use is a perception of the extent to which users believe that the technology created can facilitate their activities. According to Venkatesh & Davis (2000), there are several indicators in Perceived Ease of Use, namely: 1). The interaction between individuals and the system is clear and easy to understand, 2). Does not require effort to interact with the system, 3). Easy to use system, 4). Operation of the system in accordance with individual desires and ease of use.

### Perceived Usefulness

Perceived usefulness is an individual perception if the technology system is proven to be able to facilitate human activities, the higher the consumer interest and many will access these services (Arta & Azizah, 2020). According to Fahmy & Azhari (2020), perceived usefulness is a probability of user perception when using an application system that can improve performance. So, it can be concluded that perceived usefulness is the user's perception of a system that can facilitate activities and increase productivity. According to Venkatesh & Davis (2000), there are several indicators in Perceived usefulness, namely: 1) Use of a system that can improve the performance of each individual, 2) The use of a system that is able to increase the productivity of each individual, 3) The use of a system that is able to increase the effectiveness of each individual's performance, and 4) Use of a system that is beneficial to each individual.

### Technology Readiness

According to Damerji (2019), technology readiness is the tendency of users to accept or use new technology that can be applied in everyday life. Technology Readiness can also be defined as a level of user perception about the extent to which people are likely to accept new technology (Sudaryanto et al., 2023). So it can be concluded that technology readiness (TR) is the level of possibility that people are able to accept in using technology to be implemented in their daily lives. According to Parasuraman (2000), there are several indicators in technology readiness, namely: 1) Optimism, a positive attitude towards technology that is able to facilitate and streamline human work, 2) Innovativeness, the desire to create new inventions compared to previous inventions, 3) Discomfort, a sense of discomfort over concerns about technology, 4) Insecurity, a lack of confidence in the ability of technology to maintain data security along with the privacy of users.

### Technology Adoption of Artificial Intelligence

Technology adoption of artificial intelligence is the process of a technological innovation being adopted or accepted by certain users or communities (Damerji, 2019). Meanwhile, according to Sani et al. (2020), technology adoption of AI is the acceptance of new technology so that, it can be concluded that technology adoption of artificial intelligence is an acceptance of new technology related to artificial intelligence in everyday life.

### III. Research Method

This research is included in quantitative research using primary data obtained through distributing questionnaires. The distribution of questionnaires was carried out from February 2024 to March 2024 through google forms that were distributed. This study also uses secondary data obtained through literature, books, articles, papers and so on in order to obtain information and deepen existing theories. The object of this research is accounting students at 4 universities in Surabaya, namely the National Development University "Veteran" East Java, Airlangga University, Surabaya State University and Sunan Ampel State Islamic University with a total population of 4,074 students and a sample of 98 students. The variables used in this study are perceived ease of use, perceived usefulness, digital competence, technology readiness and technology adoption of artificial intelligence. This study uses the Partial Least Square (PLS) data test tool with SmartPLS software version 3.0. This data analysis test uses 2 tests, namely the inner model and outer model. Outer model consists of convergent validity, loading factors value, AVE (Average Variance Extracted) value, cross loading and fornell-lacker criterion.

### IV. Results and Discussion

#### Validity Test

#### Convergent Validity Test

Convergent validity test is a type of validity used to determine the level of alignment of construct measures with others (Ghozali & Latan, 2020: 77). This test occurs if the score obtained between two different construct instruments is the same construct size. The convergent validity value is obtained from the loading factors value, which is the level of correlation between the constructs. An indicator is considered reliable if the loading factors value is > 0.6 (Ghozali & Latan, 2020: 77).

**Table 1. Variable Loading Factor Value**

Indicators	Loading Value
DC1	0.817
DC2	0.725
DC3	0,793
DC4	0,851
DC5	0,866
DC6	0,843
DC7	0,831
DC8	0,844
DC9	0,819
DC10	0,882
DC11	0,907
DC12	0,876
DC13	0,904
DC14	0,918
PEOU1	0,815
PEOU2	0,810
PEOU3	0,852
PEOU5	0,749
PEOU6	0,839
PU1	0,883
PU2	0,909
PU3	0,797
PU4	0,883
PU5	0,925
PU6	0,870
TR5	0,814
TR6	0,715
TR8	0,878
TA1	0,896
TA2	0,857

Source: Data Processed, 2024

Testing the loading value is carried out in two stages, the first stage has been carried out. This aims to eliminate indicators that have a loading value <0.6 while the second test is a test that obtains a loading value > 0.6 or which has been said to be valid. The loading factors value in table 1 is declared valid because all indicators have a value > 0.6 (Ghozali & Latan, 2020: 78).

#### AVE Value

**Table 2. AVE (Average Variance Extracted) Value**

	Average Variance Extracted (AVE)
Digital Competence (X1)	0,722
Perceived Ease of Use (X2)	0,663
Technology Adoption of AI (Y)	0,869
Perceived Usefulness (Z1)	0,773
Technology Readiness (Z2)	0,648

Source: Data Processed, 2024

AVE (Average Variance Extracted) testing aims to evaluate the discriminant validity value which has a recommended value of > 0.5 or which has been said to be valid. This test is said to have a good convergent value if it has a value > 0.5, while a construct that has an AVE value <0.5 is stated that the construct does not have good convergent validity (Ghozali & Latan, 2020: 78). The AVE value in the construct above shows the Average Variance Extracted (AVE) value which has exceeded the provisions, namely > 0.5, so that this construct has good convergent validity. This means that each variable has been able to explain some of its indicators.

#### Discriminant Validity Test Cross Loading

**Table 3. Cross Loading Value**

	Digital Competence (X1)	Perceived Ease of Use (X2)	Technology Adoption of AI (Y)	Perceived Usefulness (Z1)	Technology Readiness (Z2)	Hasil
DC1	0,817	0,492	0,422	0,297	0,424	Valid
DC2	0,725	0,406	0,251	0,162	0,301	Valid
DC3	0,793	0,493	0,238	0,219	0,418	Valid
DC4	0,851	0,525	0,343	0,279	0,320	Valid
DC5	0,866	0,481	0,338	0,376	0,286	Valid
DC6	0,843	0,494	0,311	0,267	0,329	Valid
DC7	0,831	0,491	0,319	0,304	0,336	Valid
DC8	0,844	0,462	0,365	0,417	0,277	Valid
DC9	0,819	0,532	0,375	0,460	0,278	Valid
DC10	0,882	0,431	0,310	0,413	0,344	Valid
DC11	0,907	0,425	0,350	0,363	0,427	Valid
DC12	0,876	0,501	0,317	0,291	0,441	Valid
DC13	0,904	0,507	0,371	0,349	0,494	Valid
DC14	0,918	0,552	0,392	0,294	0,463	Valid
PEOU1	0,427	0,815	0,308	0,404	0,294	Valid
PEOU2	0,448	0,810	0,255	0,307	0,436	Valid
PEOU3	0,459	0,852	0,385	0,412	0,379	Valid
PEOU5	0,525	0,749	0,311	0,304	0,356	Valid
PEOU6	0,462	0,839	0,333	0,438	0,316	Valid
PU1	0,401	0,342	0,898	0,422	0,441	Valid
PU2	0,292	0,462	0,854	0,304	0,431	Valid

<b>PU3</b>	0,216	0,379	0,330	0,796	0,180	Valid
<b>PU4</b>	0,309	0,379	0,243	0,743	0,134	Valid
<b>PU5</b>	0,384	0,414	0,411	0,874	0,326	Valid
<b>PU6</b>	0,326	0,419	0,377	0,230	0,883	Valid
<b>TR5</b>	0,459	0,343	0,482	0,291	0,909	Valid
<b>TR6</b>	0,375	0,166	0,403	0,254	0,797	Valid
<b>TR8</b>	0,378	0,478	0,408	0,172	0,882	Valid
<b>TA1</b>	0,415	0,346	0,448	0,301	0,926	Valid
<b>TA2</b>	0,315	0,344	0,486	0,232	0,870	Valid

Source: Data Processed, 2024

Discriminant validity is one of the tests conducted to determine the relationship between latent variables. Discriminant validity can be seen through the cross loading value and through the Fornell-Larcker criterion approach which must have a value greater than other constructs (Ghozali & Latan, 2020: 77). The table above shows the cross loading value for each construct, where each indicator has been declared valid. This is because each variable has a cross loading value greater than the variable cross loading value. Thus, each of these indicators has a greater value than other variables.

#### Fornell Larcker Criterion Approach

**Table 4. Fornell-Larcker Criterion Approach**

	Digital Competence (X1)	Perceived Ease of Use (X2)	Technology Adoption of AI (Y)	Perceived Usefulness (Z1)	Technology Readiness (Z2)	Results
<b>Digital Competence (X1)</b>	0.850	0.571	0.400	0.434	0.381	Valid
<b>Perceived Ease of Use (X2)</b>	0.571	0.814	0.393	0.457	0.441	Valid
<b>Technology Adoption of AI (Y)</b>	0.400	0.393	0.877	0.497	0.422	Valid
<b>Perceived Usefulness (Z1)</b>	0.434	0.457	0.497	0.879	0.285	Valid
<b>Technology Readiness (Z2)</b>	0.381	0.441	0.422	0.285	0.805	Valid

Source: Data Processed, 2024

Fornell-Lacker Criterion is an approach that is done through the AVE root. The root AVE value of digital competence is 0.850, perceived ease of use is 0.814, technology adoption of artificial intelligence is 0.877, perceived usefulness is 0.879 and technology readiness is 0.805. So, in this study, each variable has a root AVE value that is greater than other constructs so that it is declared valid.

#### Reliability Test Composite Reliability and Cronbach's Alpha

**Table 5. Composite Reliability and Cronbach's Value**

	Cronbach's Alpha	Composite Reliability
Digital Competence (X1)	0,970	0,973
Perceived Ease of Use (X2)	0,872	0,907
Technology Adoption of AI (Y)	0,700	0,869
Perceived Usefulness (Z1)	0,941	0,953
Technology Readiness (Z2)	0,736	0,846

Source: Data Processed, 2024

The reliability test is carried out to measure consistency in accuracy which has two approaches, namely through composite reliability and Cronbach's alpha value. The recommended value to achieve a high level of reliability is that the composite reliability and Cronbach's alpha value must be > 0.7 and if the value is < 0.7, it is stated that the variable has a low level of reliability. The test shows the value of

composite reliability and Cronbach's alpha which has a value > 0.7, so it can be said that each variable has a high level of reliability.

**R-Square Value**

**Table 6. Coefficient of Determination (R<sup>2</sup>)**

	R Square	R Square Adjusted
Technology Adoption of AI (Y)	0,219	0,203
Perceived Usefulness (Z1)	0,188	0,180
Technology Readiness (Z2)	0,349	0,321

Source: Data Processed, 2024

The coefficient of determination R<sup>2</sup> is intended to determine how far the latent variable can be explained by the variable under study. The coefficient of determination R<sup>2</sup> on technology adoption of AI is 0.203. This means that digital competence and perceived ease of use are able to influence the technology adoption of AI by 20.3%. while the remaining 79.7% is influenced by other variables not examined in this study. The R<sup>2</sup> value on perceived usefulness is 0.180 which indicates that 19% of the digital competence and perceived ease of use variables are able to influence the perceived usefulness variable while the remaining 81% is influenced by other variables not examined in this study, while the R<sup>2</sup> value on technology readiness is 0.321 which indicates that 32.1% of the digital competence and perceived ease of use variables are able to influence the technology readiness variable while the remaining 67.9% is influenced by other variables not examined in this study.

**Q-Square Value**

**Table 7. Predictive Relevance (Q<sup>2</sup>)**

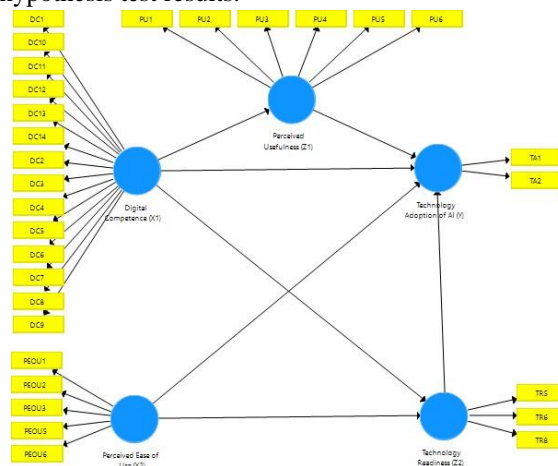
	Q <sup>2</sup> Square
Perceived Usefulness (Z1)	0,138
Technology Readiness (Z2)	0,122
Technology Adoption of AI (Y)	0,229

Source: Data Processed, 2024

The Q Square value aims to determine how good the observation is on the Q<sup>2</sup> value through the blindfolding procedure. This test is said to be good if the Q Square value has a value > 0, while if the value is < 0, it is stated that the observation value is not good. The table regarding the Q-Square value shows the Q Square value of the three variables, namely perceived usefulness, technology readiness, and technology adoption of AI, which are 0.138; 0.122 and 0.229 respectively. This shows that the observation value of the variable is > 0 so that it is declared to have a good observation value.

**Path Coefficient Test**

The path coefficient value has a standard value between -1 to +1, while the p-values adjust to the alpha value. This study uses an alpha level of 5% so that it has a recommended value of <0.05 to be accepted and if it has a value > 0.05 then the hypothesis is rejected (Hair et al., 2021). The following figure and analysis of the hypothesis test results.



Picture 3. Research Model

**Table 8. Hypothesis Test Path Coefficient**

	<b>T Statistics</b>	<b>P Values</b>	<b>Description</b>
X1 -> Z1	5.054	0,000	Accepted
X1 -> Z2	1,244	0,214	Rejected
X1 -> Y	1.395	0,164	Rejected
X2 -> Y	0,951	0,342	Rejected
X2-> Z2	2,172	0,030	Accepted
Z1 -> Y	2.671	0,008	Accepted
Z2 -> Y	2.281	0,023	Accepted

Source: Data Processed, 2024

Digital competence on perceived usefulness has a p-value of 0.000, this proves that digital competence has an effect on perceived usefulness. The second test, namely digital competence on technology readiness has a p-value of 0.214 so that digital competence has no effect on technology readiness. The third result is that digital competence has no effect on technology adoption of artificial intelligence, this is evidenced by the p-values of 0.164. Perceived ease of use is considered to have no effect on technology adoption of artificial intelligence because it has a p-value of 0.342. Perceived ease of use is considered to have an effect on technology readiness because it has p-values of 0.030. The next test is the effect between perceived usefulness on technology adoption of artificial intelligence which has p-values of 0.008 so that it is declared influential and technology readiness is declared influential because it has a p-value of 0.023.

**Indirect Effect Test**

**Table 9. Indirect Effect Test**

	<b>T Statistics</b>	<b>P Values</b>	<b>Description</b>	<b>Mediation Status</b>
X1 -> Z1 -> Y	2.259	0.024	Accepted	Full Mediation
X1 -> Z2 -> Y	1.126	0.261	Rejected	No Mediation
X2 -> Z2 -> Y	0.063	1,320	Rejected	No Mediation

Source: Data Processed, 2024

The test shows that digital competence affects technology adoption of artificial intelligence through perceived usefulness as a mediating variable because it has a p-value of 0.024 so that perceived usefulness is able to mediate between digital competence and technology adoption of artificial intelligence. The second test provides results that digital competence has no effect on technology adoption of AI through technology readiness because it has a p-value of 0.261, so technology readiness is unable to mediate between digital competence and technology adoption of AI. The third result is that perceived ease of use has no effect on technology adoption of artificial intelligence through technology readiness because it has a p-value of 1.320 so that technology readiness is unable to mediate between perceived ease of use and technology adoption of artificial intelligence.

**Discussion**

Digital competence affects perceived usefulness. This is reflected in the p-values of 0.000, so this proves that digital competence affects perceived usefulness. When users are competent in the digital world, users will find it easy to use AI technology. The results of this test are in accordance with research conducted by Damerji & Salimi (2021). Martzoukou et al. (2020) and Damerji (2019), that digital competence affects perceived usefulness. This is because the higher a person's digital skills, the more users know the benefits in perceived usefulness. Digital competence testing on technology readiness has a p-value of 0.214 so that digital competence has no effect on technology readiness. Digital competence possessed by users does not make users ready to operate AI systems. This is because the digital competence is not used in his field so he will not use his abilities in artificial intelligence.

Digital competence is not one of the factors behind acceptance or rejection in using artificial intelligence systems. This is in accordance with research conducted by Sudaryanto et al. (Referring to the test conducted, the p-values of 0.164 indicate that digital competence has no effect on technology readiness. This is because digital competence is not the only factor considered in accepting or rejecting artificial intelligence technology and digital competence does not guarantee someone to adopt AI technology. Perceived ease of use is considered to have no effect on technology adoption of artificial intelligence because it has p-values of 0.342. This is because the ease felt by users does not make users



accept and adopt artificial intelligence systems in their daily lives because these users feel they do not need the system because one of the factors is that the field of their work does not use AI systems. Meanwhile, perceived ease of use affects technology readiness because it has a p-value of 0.030. This is in line with research conducted by Damerji (2019), Sudaryanto et al. (2023) and Sharma et al. (2021) that perceived ease of use affects technology readiness. This is because the more users feel that AI technology is useful in their lives, it is one of the factors to be ready to accept and adopt AI systems in their fields.

Perceived usefulness affects the technology adoption of artificial intelligence. This is because it has a p-value of 0.008 so that it is stated that perceived usefulness is able to influence the technology adoption of artificial intelligence. This is because when users feel the ease of use achieved, users have a high desire to accept or adopt artificial intelligence technology in their lives. Technology readiness affects the technology adoption of artificial intelligence. This is reflected in the p-values of 0.023, so that technology readiness affects the technology adoption of artificial intelligence. This is because knowledge and skills and users make a sense of readiness to operate technology, it will increase the desire and willingness to accept and implement artificial intelligence technology systems in their lives.

Digital competence affects technology adoption of artificial intelligence through perceived usefulness as a mediating variable because it has a p-value of 0.024 so that perceived usefulness is able to mediate between digital competence and technology adoption of artificial intelligence. Digital competence is one of the factors that users are ready to use technology because users will find it easy when using artificial intelligence technology. This encourages users to accept and apply AI technology in their lives. Digital competence has no effect on technology adoption of AI through technology readiness because it has p-values of 0.261, so technology readiness is not able to mediate between digital competence and technology adoption of AI. The digital competence possessed by a person does not make users ready and willing to accept or adopt an AI system. This is based on various factors, both the fields they do not use AI systems, lack of AI technology support, the costs required in AI systems and so on. Perceived Ease of Use has no effect on technology adoption of artificial intelligence through technology readiness. This is reflected in the p-values of 1.320, so that technology readiness is not able to mediate between perceived ease of use on technology adoption of artificial intelligence.

## V. Conclusion

The ability of artificial intelligence can facilitate human activities if used optimally. This will certainly be influenced by various driving factors. The ability in artificial intelligence can be used if it has digital competence. Digital competence is reflected in the knowledge or skills possessed by users in running artificial intelligence technology systems. If users already have digital capabilities and start using artificial intelligence, they will certainly feel the convenience and usefulness presented by artificial intelligence technology, which is commonly referred to as perceived ease of use and perceived usefulness. Technology adoption of artificial intelligence occurs when users accept AI technology systems in carrying out activities to support productivity and efficiency. Acceptance of AI will certainly start from the readiness of technology or what is commonly referred to as technology readiness. However, there are various other factors that can encourage users to be ready to accept AI systems, namely perceived convenience, Behavioral Intention to Use and satisfaction.

The limitations in this study relate to data collection. Data collection carried out through questionnaires has the challenge that not all respondents are willing and quick to respond to the questionnaire distributed so that it takes time to collect data. Suggestions for further research are to use other data collection methods such as interview or observation methods that allow for research data collection.

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