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# Mediating Role of Attitude and Impact of Social Support, Technical Support, And Perceived Ease of Use in Adoption of Technology During COVID-19

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**ABSTRACT**

**Purpose:** The main aim of this paper was to investigate the effect of social support, technical support, perceived ease of use and attitude to adopt technology by teachers in Indonesia. This study also aimed to examine the mediating role of attitude. **Design/ Methodology/ Approach:** This framework used technology acceptance model as the underpinning theory. This study was quantitative and cross sectional. The questionnaire of the study was distributed among 384 teachers of Indonesia. The usable response rate was 69.23%. The received questionnaire was assessed through smart PLS 3.3.9 for the validation of proposed model. **Findings:** The findings of the study showed that there is a direct effect of perceived ease of use, social influence and technical support on attitude to use technology. The attitude of teachers also showed a direct influence on technology adoption. In the end, results also confirm the mediating role of attitude between social influence, technical support, perceived ease of use and technological adoption. **Implications for Research and Practice:** This research provides insight to the policy makers of the education sector of Indonesia and of global level to use technology more often so the user can get familiar to the technology and this technology can be used in difficult times like in Pandemic. Moreover, this research is among very few studies that have attempted to examine the attitude of teachers to adopt technology. Moreover, this is study also bridges the gap of using attitude as mediator in education context of Indonesia.



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## 1. Introduction

Every country around the globe was affected by the COVID 19 when it broke out globally. This virus had the tendency to spread rapidly with very deadly consequences. A number of countries around the world seriously worked on the policies to mitigate the effect of COVID-19, including Indonesia. A large number of policies were developed by Indonesians regarding the social restriction to prevent its citizens from this pandemic. These major changes effected a number of different sectors including education, health and economic sector of the country (Butcher et al., 2021). In the context of education in Indonesia, a number of different ways were introduced by Ministry of Education and Culture (Kemendikbud), enabling students to continue their education in the country. The Ministry of Education and Culture (Kemendikbud) mandated work from home so that students can continue their studies from home (Widiyanto et al., 2016). In this stance, online learning was recognized as the acceptable learning and teaching process. This action is also in line with a circular on the Prevention of Coronavirus Disease (COVID19) that was issued by Education Unit of the Ministry of Education and Culture of the Republic of Indonesia in 2020 (Blaschke & Marin, 2020).

The concept of online learning derives its importance from the role of technology. Technology has the tendency to fulfill all the needs of the teaching process. Thus, it can help in continuation of the process of learning. It is a key to note that, the basic purpose of digital technology is learning activities are to support the process of learning. Technology is evolved a lot with the passage of time. Therefore, it is possible to implement the concept online learning. A number of different platforms are available for the implementation of this concept. These concepts include learning houses, Moodle, Edmodo, Google classroom, e-learning and many others (Bahtilla, Hui, & Oben, 2022). Technological innovation has made it possible to come up with so many different innovative ideas to continue online learning. In the process of online learning, the role of teachers is very important that cannot be neglected. The role of teachers is critical because they have to conduct classes in the classrooms and online as well for the students. Therefore, it is very important that teachers must find ways by which they can develop interests of the students in online learning process (Kopcha, Rieber, & Walker, 2016).

The topic of teacher's attitude towards usage of technology is very broad. The desire to accept as well as use the new technology is largely impacted by the attitude of the people who has to use a certain technology. Studies have reported that barrier of attitude creates lack of interest among people. On the other hand, it is largely believed by the scholars that beliefs and attitude plays an important role in the technology adoption by the teachers. On the other hand, different intrinsic factors like perceived ease of use of technology play a critical role in adoption of new technologies in different settings including educational sector. In the context of educational sector, there are very few studies that have focused on the role of teachers attitude towards adoption of new technology (Eickelmann & Vennemann, 2017).

In the context as well as studies regarding adoption of acceptance of technology, perceived ease of use plays very important role and is a very critical factor. This factor is also used as a mean to examine the quality of system and their role in the success of the information system. Individuals will have more intention to learn the

features of any system that is easy to use. Ease of understanding the system shows that there is needed to learn the e-learning. The process of e-learning should be readable as well as appealing. In order to assist successful integration of classroom technology, attitude of teachers plays an important role. According to scholars, there are a number of different factors that are considered by the individuals when any technology is presented to be used. One of the key factors in usage of new technology is perceived ease of use (Elkaseh, Wong, & Fung, 2016).

The support from technical staff is very important to run the overall operations of an educational institute. It is responsibility of the technical support to make the things correct if something goes wrong in the educational institute and students or faculty members are having difficulty in the usage of technology. Presently, the new as well as experienced faculty member face stress to use the new technology and fail to develop attitude that can help in the learning process of students. Past literature has pointed out that competency of the teacher to use new technology plays a very important role in adoption of new technology. In this regard, the training process and programs play an important role. If the program of training is of high quality, the time period of training is longer, new learning and technology is being offered, teachers are eager to be involved in learning process to use technology, it will be easy for the teachers to adopt new technology. Therefore, the training proves by the technical staff of the educational institute plays very important role in the adoption of new technology (Buabeng-Andoh & Yidana, 2015).

Literature has discussed the concept of social influence with different terms namely social norms, subjective norms and social factors in a number of different studies. One of the basic objectives of studies related to social science to provide insight regarding role of society on the individual's decision. The process of social learning plays a very important role to learning the new technology especially in the context of education. There are a number of different studies that have focused on the factors that plays role in adoption of new technology. A number of different studies have pointed and noticed that social influence is very important construct to adopt new technology and its usage (Qiu et al., 2018).

In the education sector with the prospective of teachers, social influence plays key role in the innovation and usage of technology. Social influence is comprised of different ways by which the attitude and behavior of the individual is effected and altered to meet the social needs. There are many different forms of different social needs including marketing, sales, persuasion, leadership, obedience, peer pressure, socialization and conformity (Ley et al., 2022).

It is evident from above discussion that there are different factors that may play important role in adoption of new technology in the context of education sector of Indonesia. Therefore, current study intended to assess the effect of perceived ease of use, social influence, technical support and attitude on technological adoption. This research also explored the mediating effect of teacher's attitude to adopt new technology. This proposed framework was underpinned by Technology Acceptance Model (TAM) proposed by Davis (1986).

## 2. Literature Review and Hypotheses Building

In the context of school, a teacher is a person who is responsible to convey knowledge to students. S/he is also responsible to advise students so that they can adapt their behavior. Furthermore, a teacher is also responsible to provide different facilities to students so that they can transfer knowledge to students. The main task of a professional teacher is to provide education to students. Other main tasks include evaluation of students, assessment of students, training of students, provide direction to the students, provide guidance to the students and most importantly, to be a role model. Thus, it is easy to conclude that a teacher is a person who has the ability to evaluate, assess, guide, teach as well as educate the student (Sarbunan, 2020).There are many different roles of the teacher in the learning process of the students. One of the key roles of the teachers is to educate the students. It is responsibility of the teachers to make the student to want to learn. On the other hand, it is role of teacher to participate in education and teaching process so student can achieve learning goals. These roles of teachers can also be referred as the main responsibilities of the teacher. Scientists have mentioned different other roles of teachers including mentor, encouraging person, inspirational personality, motivators and the one who can advise (Weisberger, Grinshtain, & Blau, 2021).

- ***Technology Adoption***

The term adoption of technology is referred to as usage and acquisition of new technology. The adoption is defined by Rogers (2003) as an individual's decision to use the innovation in best manner and actions that are available. It is argued by the scholars that adoption process first began with adoption of only the final technology. Discussing about the global level, a number of stakeholders have supported, utilized and appreciated the usage of technology in the education sector. It is believed that teachers will be free from rigid method to transfer the knowledge by the adoption of new technology. Among the important factors that influence the adoption of new technology involves belief and attitude of the teacher. If there is positive attitude of teacher toward adoption of new technology, the teacher will certainly involve technology in the process of learning (Granić & Marangunić, 2019).

- ***Understanding of Attitude***

Attitude in literature is referred to as attitude regarding a certain object that is accompanied through the tendency so it can remain consistent through the attitude regarding the object. In other words, attitude is the willingness to react regarding something. Attitude is referred to as the judgement of someone regarding something to be negative or positive. In terms of technology, technology is referred as dislike, like or feeling about the technology (Njiku, Maniraho, & Mutarutinya, 2019). The usage of technology is mainly dependent upon the usage of technology by the people. It is widely accepted by the teachers that attitude of the teachers must be considered and this attitude must be festered towards adoption of new technology in the system (Zhang & Chen, 2022).

- ***Perceived ease of use (PEOU)***

The perception regarding easiness to access and use technology is referred as perceived ease of use. This concept is based on the Technology Acceptance Model that

was proposed by Davis (1986). It is considered as one of very important and critical factor to adopt new technology by a person. Ease of use is defined by researchers as the level to which it is believed by the users that it is effort free to use a system. In other words, the interest rate of using a system will be high if the system is easy to use (He, Chen, & Kitkuakul, 2018). According to different authors, PEOU is considered as belief of the person regarding easiness to use any system. It is the level in which it is believed that system of technology can easily be used without any hesitation and problems. The frequency of interaction and usage among system users also impacts the ease of use of the system. If any technology or system is commonly used, it shows that the system is easy to be used and easier to be operated by the users. Additionally, acceptance to system by the consumers is largely dependent upon perceived ease of use. There are different factors to measure perceived ease of use. These factors include easy to use, easy to be skillful, understandable, and clear, controllable and easy to learn (Iriani & Andjarwati, 2020).

- ***Technical Support***

Technical support including support from the assistance in the form of technicians plays very important role to enhance technology usage. Past studies have found the importance of assistance to use new technology. Scholars considered resistance and support from the technical support to use new technology. One of the reasons in the failure of learning management system is support from technical staff (Zheng et al., 2018). The adoption of information system is also reported to be disrupted by lack of technical support. Moreover scholars argued that technical support from the trained staff, trained assistant and computer specialist is key to accept the technology by the users (Zheng et al., 2018).

- ***Social Influence***

The research has reported negative as well as positive effect of social influence on the performance of the individual. The staff that has used the innovative technology makes decision to use the technology keeping in view social status, reputation and improvement of their image. The plan of different users is affected by the social influence to use the information system, thus the adoption of technology is largely impacted by the social influence. The friends, family members and colleagues have the tendency to impact these kinds of decisions on the large scale. This effect can be negative as well as positive to use the technology (Othman, Nizah, & Nassar, 2019).

- ***Hypotheses Building***

### *1. Attitude and Technology Adoption*

Attitude is defined as negative or positive evaluation to perform certain behavior. It helps to understand whether a judgment regarding a certain behavior is bad or good. It is the general evaluation to decline or incline towards a certain behavior. Research regarding attitude has greatly discussed the effect of attitude towards adoption of new technology. It is considered as a strong predictor of adoption of new technology. Researchers have explained attitude as knowledge regarding a certain concept, reflection regarding the feeling, characteristics that can either be negative or positive. According to scholars, there are three factors of attitude. These include behavior, cognition and affect that refer the preference of people and its level in terms of knowledge regarding a certain object. Some of the studies have

affirmed that intention to use e- learning among teachers as well as students is largely affected by the attitude of the teachers (Hussein, 2017). The study conducted by Sharma and Chandel (2013) asset that PEOU and attitude of the user impacts the behavioral intention at the high level. Scholars also found that behavioral intention is largely impacted by PEOU by using TAM as underpinning theory in the model (Hussein, 2017).

Past studies have reported and discussed the role of technology adoption through attitudes and beliefs in the context of teaching. The attitude towards usage of computer was reported as one of the important factor to adopt technology in the education sector. Generally, the attitude and belief is found to impact the technology usage in the context of teaching. Thus, teachers must show positive attitude towards adoption of new technology (Luik & Taimalu, 2021).

### 2. *Perceived Ease of Use and Attitude towards Technology Use*

Literature has defined perceived ease of use as level to which an individual feel effort free to use a certain technology. It is the assessment of individual regarding the interaction of technology to be free from cognitive burden and shows facilitation to be engaged with technology usage. From the past literature review, it is evident that attitude of the user regarding technology is effected by perceived ease of use. Researchers argued that if technology is perceived to be user friendly and productive, then users will prefer to stay with the usage of that certain technology (Teo, 2019). PEOU is a situation or level where no effort is required to use any certain system related to information technology. This is referred to the definition of easiness and shows having less difficulty or effortless.

Attitude of the individual is significantly affected by the PEOU as it becomes easy to use a certain system. The level of intention to use a certain system is mainly impacted by attitude of the person towards a technology (Falode, 2018). The study conducted by Abramson, Dawson, and Stevens (2015) regarding impact of e-learning on behavioral intention under TAM found the relationship to significant and positive. Same results were reported by the study conducted by regarding attitude and usage of technology by the user (Buabeng-Andoh, 2018).

### 3. *Technical Support and Attitude towards Technology Use*

It is reported by large number of literature that support of technical staff impacts the adoption of technology by the user in the context of learning and education. In the context of education, technical support is referred as the support provided by the university, authorities, education and school in the maintenance and usage of technology. The institutional support shows the encouragement provided by the administration of educational institute to use the technology (Eickelmann & Vennemann, 2017).

The usage of computers and technology is largely impacted by the attitude of teachers in their teaching process. There is need of confidence to use the technology by the teachers in their teaching methodology. Other methods to adopt technology include negative attitude, resistance to change, lack of competence, lack of training and lack of support by the technical staff to use the technology (Al-Mamary, 2022). The study conducted in the Libyan educational institutes reported lack of facilities and support did not allow adoption of technology by the teachers of institute (Meerza & Beauchamp, 2017).

## 4. Social Influence and Attitude towards Technology Use

It is not possible for the individual to live without social network for a person. A person or human being is surrounded by the social network that includes the colleagues, family and friends. It is the society in which a person lives in the society of a person impacts the action of the individual on large scale. Every society has their own norms, perceptions, stereotype, opinions, beliefs, and values that impact the attitude of the person. In terms of technology, the beliefs, values and norms of the society impacts the attitude regarding usage of technology (Abima et al., 2021).

Past studies on usage of technology by a person shows it is impacted by the influence of society. For example, the support from manager plays a very important role to use and adopt the technology usage. The intentions are later developed from the attitude of the person. Thus, social influence affects the attitude as well as the intention of the users. The recommendations by the friends, family, media and colleagues largely shapes the attitude of the person to use a certain technology (Sitinjak et al., 2022). On the other hand, groups have ability as well to shape the behavioral intention and attitude of the person in the context of online settings. It helps in minimizing the desire of uncertainty and positively shaping the attitude (Thomas & Vinuales, 2017). Thus, social groups have tendency to shape the attitude of the user (Asiri, 2019).

## 5. Technology Acceptance Model

Davis (1986) introduced the concept of technology acceptance model also known as TAM. It is one of the first important models of acceptance that discuss the factors related to psychology and their impact on technology. This is consistent with Ajzen and Fishbein (1975), who asserted that the model of TAM also discussed the factors that have impact on the behavioral intention. The basic purpose of TAM is to provide and give details along with explanation to determine the acceptance of computer and capability and to explain the behavior of user throughout all of the users who are using the technology of computer.

In other words, the basic goal is 'to provide an explanation of the determinants of computer acceptance that is general [and] capable of explaining user behavior across a broad range of end-user computing technologies and user populations. According to the basic model of TAM, there are two important factors that have impact in the intentions of the individual. These factors include perceived usefulness and perceived ease of use. Literature has explained perceived ease of use as the level of belief of a person regarding the usage of a computer system or the software related to computer is not complicated to use. Perceived ease of use has a significant effect on perceived usefulness. There are a number of variables that are effect these both factors. These variables include, past use of technology system, subjective norms, professional development and gender.

On the other hand, this study used TAM as the underpinning theory because of its ability to assess the behavior of teachers. In the present study, it is hypothesized that intention to adopt technology is affected by attitude, perceived ease of use, technological support, and social influence. Moreover, the proposed model also proposes to examine the mediating effect of attitude towards technology usage (Sánchez-Prieto, Olmos-Migueláñez, & García-Peñalvo, 2017).

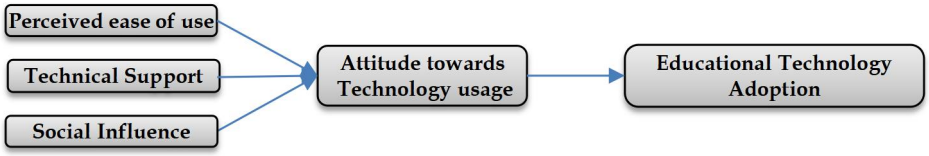


**Figure 1***: Theoretical framework*

The following hypotheses were developed from the previous review of literature:

**H1:** *Attitude towards technological usage is a significant predictor of technological adoption.*
**H2:** *Perceived Ease of Use is a significant predictor of attitude towards technology usage.*
**H3:** *Social influence is a significant predictor of attitude towards technology usage.*
**H4:** *Technical support is a significant predictor of attitude towards technology usage.*
**H5:** *Attitude towards technology usage mediates between technical support and technological adoption.*
**H6:** *Attitude towards technology usage mediates between perceived Ease of Use and technological adoption.*
**H7:** *Attitude towards technology usage mediates social influence and technological adoption.*

## 3. Methodology

- ***Research design***

This study used quantitative research methods for the collection of data by the respondents. A 5-point Likert scale was used to measure the items where 5 represented strongly agree and 1 represents strongly disagree.

- ***Data collection instrument and research procedure***

A self-administered survey was adopted to collect the data from the respondents. In this approach, the data is collected personally by the researchers. The questionnaire distributed among the respondents was based on two different sections. First section was related to the demographic information of the respondents. The second part had the items regarding the variables of the study. These items were adapted from the literature review of past studies. The items of PEOU were adapted from Davis (1986), items of social influence were adapted from Dasgupta and Gupta (2019); the items of technological adoption were adapted from Dasgupta and Gupta (2015); items of attitude were adapted from Kaushik, Agrawal, and Rahman (2015); items of technical support were adapted from Zheng et al. (2018).

- ***Sampling***

The data was collected from the teachers of Indonesia randomly through a convenience sampling method. This study also utilized the Krejcie and Morgan (1970) approach to determine sample size. Keeping in view this approach, researchers distributed questionnaires among 384 teachers. The usable questionnaires received back were 267. So, the usable response rate of the study was 69.53%.

- ***Data analysis***

The gathered data was assessed using Smart PLS 3.3.9 and SPSS 26. This study used SPSS 26 in the beginning of analysis to examine the demographic information of

respondents. Later, Smart PLS 3.3.9 was applied for further analysis. There are two steps to using Smart PLS 3.3.9 software. The first step is called measurement model and second step is called structural model. Based on the recommendation of Ringle, Da Silva, and Bido (2015) this study applied measurement model at the beginning of analysis through smart PLS. Whereas, structural model was used to test the hypothesis proposed earlier as recommended by F. Hair Jr et al. (2014).

## 4. Findings

As mentioned earlier, this study used SPSS for initial demographic analysis of the respondents. It was revealed that 44.2% of the respondents were male and 55.8% of the respondents were female. In terms of age, 74% of the respondents were aged between 20 to 35 years, 13% between 36 to 45 years, whereas remaining respondents were more than 45 years old. In the end, majority of the respondents were married i.e. 57%, whereas, 39% were not married and remaining did not prefer to answer the question.

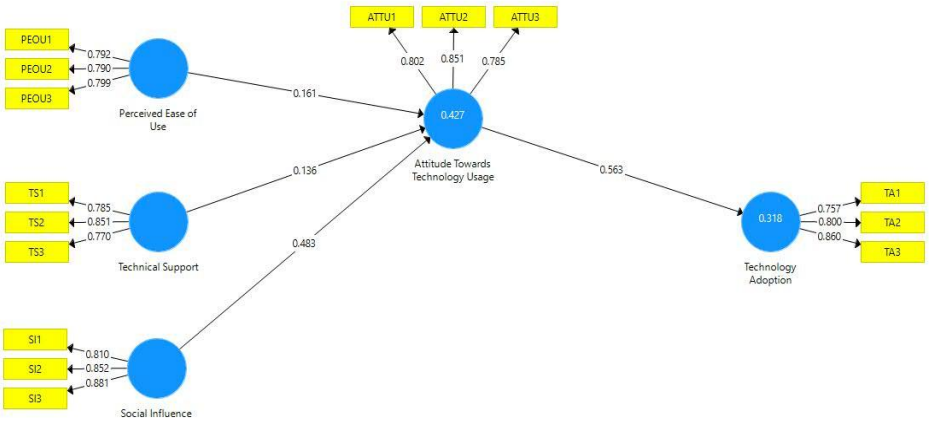


**Figure 2:** *Measurement model*

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

### *Measurement model*

Later we used Smart PLS for further analysis. This analysis began with measurement model. This step is a calculation of discriminant validity and convergent validity. There are three tests that are conducted under convergent validity namely average variance extracted (AVE), examination of factor loading and reliability and validity analysis. The first test conducted to establish convergent validity is called factor loading. Ghadi et al. (2012) recommended the value of factor loading to be more than 0.70. The values of factor loading in Table 1 and Figure 2 show the criteria was fulfilled. Moreover, Hair et al. (2017) proposed the values of CR and Cronbach Alpha to be more than 0.70. The values of CR and Cronbach Alpha as mentioned in Table 2 also fulfill this criterion. Moreover, the recommended value for AVE should be more than 0.50; the values of AVE as provided in Table 2 are more than 0.50. After successfully meeting the criteria of factor loading, AVE and reliability, this study thus fulfilled the criteria of convergent validity in the present study.

**Table 1**

*Factor Loading*

| | ATTU | PEOU | SI | TA | TS |
|---|---|---|---|---|---|
| **ATTU1** | 0.802 | | | | |
| **ATTU2** | 0.851 | | | | |
| **ATTU3** | 0.785 | | | | |
| **PEOU1** | | 0.792 | | | |
| **PEOU2** | | 0.790 | | | |
| **PEOU3** | | 0.799 | | | |
| **SI1** | | | 0.810 | | |
| **SI2** | | | 0.852 | | |
| **SI3** | | | 0.881 | | |
| **TA1** | | | | 0.757 | |
| **TA2** | | | | 0.800 | |
| **TA3** | | | | 0.860 | |
| **TS1** | | | | | 0.785 |
| **TS2** | | | | | 0.851 |
| **TS3** | | | | | 0.770 |

**Note:** PEOU= Perceived Ease of USE; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

**Table 2**

*Reliability and validity*

| | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|---|---|---|---|
| **ATTU** | 0.743 | 0.854 | 0.661 |
| **PEOU** | 0.707 | 0.836 | 0.630 |
| **SI** | 0.804 | 0.885 | 0.719 |
| **TA** | 0.732 | 0.848 | 0.651 |
| **TS** | 0.726 | 0.845 | 0.645 |

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

Later, discriminant validity was established as recommended by Henseler, Ringle, and Sarstedt (2015) using HTMT approach and Fornell and Larcker (1980) approach. Keeping in view the recommendation of Henseler et al. (2015), the discriminant validity is established under HTMT if all values of matrix are less than 0.90 (Garson, 2016). It is revealed from the values of HTMT in Table 3 that the matrix values are less than 0.90. On the other hand, under Fornell and Larcker (1980) criteria, the values at diagonal should have higher values than the remaining values. It is revealed from Table 4 that values at diagonal (highlighted) are higher than the remaining values. Thus, discriminant validity was also established through HTMT and discriminant validity.

**Table 3**

*HTMT*

| | ATTU | PEOU | SI | TA | TS |
|---|---|---|---|---|---|
| **ATTU** | | | | | |
| **PEOU** | 0.673 | | | | |
| **SI** | 0.791 | 0.729 | | | |
| **TA** | 0.756 | 0.802 | 0.754 | | |
| **TS** | 0.490 | 0.660 | 0.409 | 0.713 | |

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

**Table 4**

*Fornell and Larker*

| | ATTU | PEOU | SI | TA | TS |
|---|---|---|---|---|---|
| **ATTU** | **0.813** | | | | |
| **PEOU** | 0.493 | **0.794** | | | |
| **SI** | 0.616 | 0.554 | **0.848** | | |
| **TA** | 0.563 | 0.574 | 0.581 | **0.807** | |
| **TS** | 0.365 | 0.470 | 0.318 | 0.518 | **0.803** |

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

It is also very critical to analyze the collinearity of the data before examination of structural model. For this purpose, this study used VIF test. Kim (2019) recommended the values of VIF must be less than 3 to make sure that there is no issue of collinearity. It was revealed from Table 5 that this study does not have issue of collinearity as all values are less than 3.

**Table 5**

*VIF*

| | ATTU | TA |
|---|---|---|
| **ATTU** | | **1.000** |
| **PEOU** | **1.676** | |
| **SI** | **1.452** | |
| **TS** | **1.291** | |

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

After settling collinearity issues and assessment of measurement model, this study confirmed the structural model under the analysis of Smart PLS. Bootstrapping procedure was adopted with 500 resamples with purpose to generate Beta values and t-values. The t-values confirmed the relationship among the variables. The direct relationship among the variables is mentioned in table 6. The values of table 6 reveal that all proposed hypotheses are supported. Also, the indirect relationships are mentioned in table 7. The values if table 7 also shows that all mediating relationships are supported as well.

**Table 6**

*Direct results*

| | | Beta | SD | T values | P Values | Result |
|---|---|---|---|---|---|---|
| **H1** | **ATTU -> TA** | 0.563 | 0.049 | 11.406 | **0.000** | **Supported** |
| **H2** | **PEOU -> ATTU** | 0.161 | 0.069 | 2.328 | **0.010** | **Supported** |
| **H3** | **SI -> ATTU** | 0.483 | 0.064 | 7.529 | **0.000** | **Supported** |
| **H4** | **TS -> ATTU** | 0.136 | 0.056 | 2.408 | **0.008** | **Supported** |

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

**Table 7**

*Mediating results*

| | | Beta | SD | T Statistics | P Values | |
|---|---|---|---|---|---|---|
| **H5** | **TS -> ATTU -> TA** | 0.077 | 0.034 | 2.280 | **0.012** | **Supported** |
| **H6** | **PEOU -> ATTU -> TA** | 0.091 | 0.042 | 2.181 | **0.015** | **Supported** |
| **H7** | **SI -> ATTU -> TA** | 0.272 | 0.045 | 6.050 | **0.000** | **Supported** |

**Note:** PEOU= Perceived Ease of USse TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

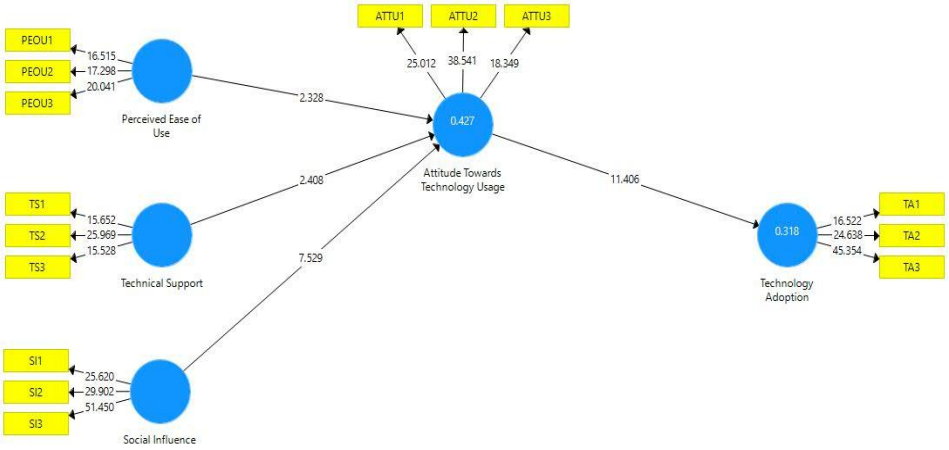


**Figure 3:** *Structural Model*

**Note:** PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

In the end of structural model, this study assessed predictive relevance (Q2) and coefficient of determination (R2). The values of coefficient of determination shows that ATTU is affected 42.7% and TA is affected 31.8% by the IVs of the present study. Also, predictive relevance is established if the values of Q square is non-zero Hair et al. (2012). It is shown in table 9 that Q square value is non-zero establishing predictive relevance of the study.

**Table 8**

*R square*

| | Original Sample (O) |
|---|---|
| **ATTU** | 0.427 |
| **TA** | 0.318 |

Note: ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

**Table 9**

*Q square*

| | $Q^2$ (=1-SSE/SSO) |
|---|---|
| **ATTU** | 0.267 |
| **TA** | 0.200 |

ATTU= Attitude Towards Technological Usage; TA= Technological Adoption

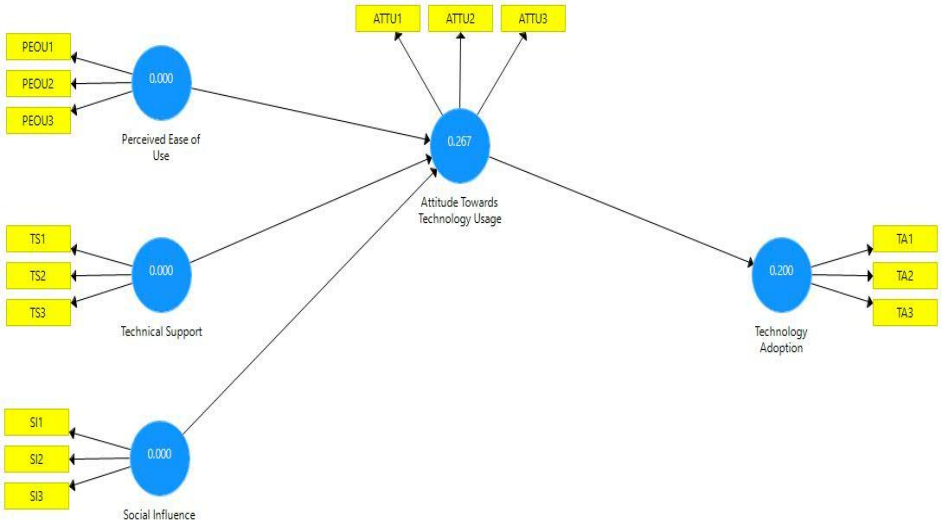


**Figure 4**: *Blindfolding*
**Note:** *PEOU= Perceived Ease of Use; TS= Technical Support; SI= Social Influence; ATTU=Attitude Towards Technological Usage; TA= Technological Adoption*

## 5. Discussion and Conclusion

The world has faced a very difficult time of COVID-19. Therefore, it is very important for the researchers to gauge the ways by which educational activities can remain continued by using different factors. Therefore, this research was designed to examine the relationship among social influence, technical support, PEOU and attitude towards technological adoption. The findings of the study revealed that teachers prefer to use the technology if it easy for them to use it and learn its functionality. These results are in line with the findings of Buabeng-Andoh and Yidana (2015).

Moreover, it is not possible for a person to live alone. The society in which he or she is living plays a very important role to shape the attitude of the individual. This is also supported by the statistical findings of the present study. These findings are similar to the results of Asiri (2019). The statistical findings of the study also support that technical staff support is also required to shape the attitude towards technological adoption. These results are consistent with the findings of Meerza and Beauchamp (2017). In the end of the direct results, it is also revealed that attitude of the teachers is key to adopt new technology by the teachers Luik and Taimalu (2021).

This study bridges the gap of limited studies that have examined the role of teacher's attitude towards technological adoption. This study has few limitations similar to other empirical researches. This study only assessed mediating role of technology, whereas future studies can assess moderating role of attitude as well. Moreover, future studies can use this model in different geographical settings as well. The findings of this study can be used by the policy makers to develop policies by which technology can be adopted in education sector. Making educational reforms, this research might be helpful for the planning department to consider the factors that affect the adoption of technology. The management of educational institutes may seek help to determine the attitude of teachers at the time of adopting technology. This is also useful to improve the quality of teaching output.

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