



***An Investigation of the Factor that Influence Teacher’s Intention  
to Use Online Classroom at Primary and Secondary Schools in  
Mogadishu – Somalia during COVID-19***

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**Abstract**

The study's purpose is at examining insights into teacher’s intention to use online classrooms during Corona Virus Pandemic. The theory of reasoned action was used as a basis to develop and confirm a research model. Using systematic random sampling one-hundred-fifty questionnaires were distributed to the primary and secondary teachers in Mogadishu – Somalia. Data were analyzed using a descriptive analysis and multivariate analysis special structural equation modeling (SEM) with AMOS – SPSS. The study implications indicate that the internet connection problem is the reason why teachers do not like to teach students online. Furthermore, the research proposes that internet

availability, perceived training, attitude toward online, and perceived value teaching are significant to the teacher's intention to use online classrooms. The suggestions of these effects and researcher limitations are discussed.

**Keywords:** Internet Availability, Perceived of Training, Attitude, Perceived of Value and Teacher's Intention.

## **1. Introduction**

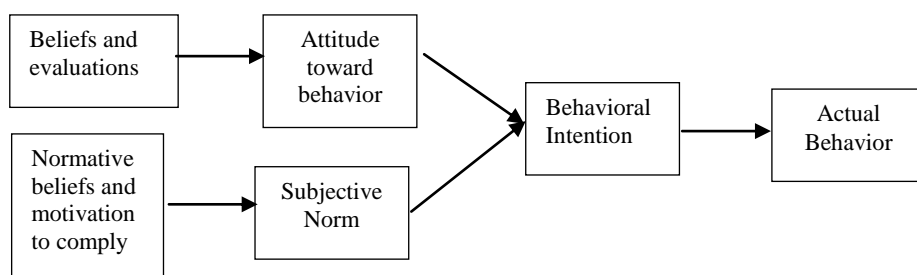
COVID -19 has been noted in effects all areas of the human activity but special strongly impacted in teaching and learning. At the middle April 2020, approximately 1.723 billion learners have been affected due to school closures in response to the pandemic(Mustafa, 2020). 191 countries have implemented the closure of schools, universities and other education institution has affected 990 million students worldwide and over 3 million of students in Somalia(UNESCO, 2020). In March 3, 2021 all face-to-face education activities were suspended in an online teaching mode in Mogadishu – Somalia. This suspension occurred after two months in the second half of school term. Somalia has several challenges like security issue, socio-economic an instability policy to handle than countries worldwide. During the country-wide lockdown, the Somali government had to resort to online classroom for education. Teachers in Somalia have been using traditional methods for teaching like chalk-talk method for a long time. The majority of the universities have compelled shift to the online mode for education but primary and secondary schools in Somalia have been difficult to shift online for many reasons like there was not much planning on how to take classroom online, internet

availability to the secondary students, . Shea & Bidjerano (2009) “Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, and blended learning, m-learning, for ex.) have in common the ability to use a computer connected to a network that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means”. The process of educating others via the internet. Several platforms are exist some are Google products: Gmail, (b) Google Forms, (c) Calendars, (d) G-Drive, (e) Google Hangouts, (f) Google Jam board and Drawings, (g) Google Classroom and other platforms Zoom, Webex, Microsoft teams. In Somalia, WhatsApp becomes of the most of social platform for communication between students, teachers, and parents. With that comes the need to have a smart device and reliable internet connection (Menon & Unni, 2020). The research verifies the theory of reasoned action (TRA). Further, the researcher seeks empirical evidence for the confirmation of theoretical models and constructs under the less-developed country like Somalia. Thus the research questions are: (1) to what extent does internet availability and perceived training effects teacher’s intention to use online classrooms? (2) To what extent does perception of value and attitude affects teacher’s intention to use online classrooms? Theoretical framework and hypotheses

### ***Theory of Reasoned Action***

Fishbein & Ajzen (1981) developed the Theory of Reasoned Action (TRA), which posited that behavioral intentions drive individual behavior, which in turn is affected by individuals’ attitudes toward the

behavior and the subjective norms surrounding the performance of the behavior. According to Fishbein and Ajzen, the factors that affect an individual's behavior include: behavioral beliefs, attitude toward the behavior, normative beliefs, subjective norm, behavioral intentions, and actual behavioral control. Figure 2 illustrates the relationships between the factors.



*Figure 1. Theory of reasoned action (TRA)*

**The factors displayed in Figure 1 can be elaborated as follows:**

- Behavioral beliefs link the behavior of interest to predicted outcomes. These beliefs and the subjective values of the expected outcomes govern the main attitude toward the behavior.
- Attitude toward a behavior is the degree to which the exhibition of the behavior is valued (positively or negatively).
- Normative beliefs are the perceived behavioral expectations of significant individuals or groups - family or coworkers. The assumptions are that these beliefs, combined with the motivation to comply with the significant individuals or groups, will determine the prevailing subjective norm.

- Subjective norm is the perceived group pressure to be involved or not to be involved in behavior and includes the strength of each normative belief.
- Intentions are indications of a people's readiness to perform behaviors. Intentions are immediate predictors of behaviors and are accredited to attitudes toward the behavior, subjective norms, and perceived behavioral controls. The predictors are valued as significant to the behavior and population of interest.
- Behaviors are the visible responses in situations targets. Theoretically, strong perceived behavioral controls restrain the effect of intention on behavior producing favorable intentions produces the behavior.

Yoon and Kim (2013), propose that the actual behavior is affected by behavioral intention, which is affected by behavioral attitude and subjective norm. The structural equation modeling results revealed that the models performed well in terms of their ability to predict intention.

### **Internet Availability**

From 2002 in Somalia especially Mogadishu, people started using the internet for general purposes such as research and send emails with their counterparts. In 2003 people started using instant messaging like MSN. Eventually, the need for the internet increase in Somalia according to several services such as finance, education, and other main services. The internet connection problem still existing in many cities in Somalia. Therefore, this research proposes internet availability plays an important role in the possibility of the online classroom.

### **Perceived of Training**

Training is an effort initiated by an organization to foster learning among its workers, and development is the effort that is oriented more towards broadening an individual's skills for future responsibility (Engetou, 2017). In the context of the online classroom, training is the degree to which the individuals needed to study the features of the online classroom meeting applications (Zoom, Google Meeting, Team, etc.). Perceived training plays an important role to enhance the teacher's skills related to these platforms. Hence, this research proposed that perceived training has positively related to the teacher's intention to use online classrooms.

### **Attitude towards Using Online Classroom**

In the context of technology usage, attitude is the extent to which an individual is interested in using a system (Cheung & Vogel, 2013). In a study to explain factors affecting their intentions to use technology. Other research identified students' attitudes toward using technology as having a strong effect on their behavioral intentions to use technology (Little, 2017). Therefore, the research posits that attitude plays an important role in the teacher's intention to use online classrooms.

### **Perceived of Value**

Individuals' perceptions of value affect their use of e-learning system (Chang, 2013), the low perceived value of e-learning is one of the obstacles to educators' use of e-learning system (Allen

&Seaman.2013) and educators' perceptions can influence learners' perceptions (Marrs, 2013). Therefore, the study proposes that perceived value effect the teacher's intention to use online classroom.

### **Intention to Use Online Classroom**

According to the Cambridge Advanced learner's dictionary, the word intention is defined as something that you want and plan to do. The intention in an attitude-behavior relationship is influenced by the level of effort required to exercise the behavior (Bagozzi, Yi, & Baumgartner, 1990). Posit that beliefs about outcomes of behaviors, beliefs about resources, and perceived beliefs of referent individuals are antecedents of attitudes and intentions of behavior (Burak et al., 2013). Hence, the research proposes online classroom presentations depend on the teacher's intention to use these platforms.

**Based upon the above discussion the researcher formulated the following hypotheses:**

- H1:** There should be a positive effect of internet availability and teacher's intention to use online classrooms at secondary school.
- H2:** There should be a positive effect of having training and teacher's intention to use the online classroom at secondary school.
- H3:** There should be a positive effect of perceived attitude and teacher's intention to use online classrooms at secondary school.
- H4:** There should be a positive effect of perceived value and teacher's intention to use online classrooms at secondary school.

## **2. Methods**

### **Research Design**

This is a quantitative study to understand the type of online teaching application use by primary and secondary teachers and their experience taking online classrooms. The researcher followed an explanatory approach to determine the relationship between internet availability, perceived training, perceived value, and attitude to teacher's intention to use online classrooms. An explanatory approach is a method to make people understand something by describing or illustrating. The name itself states that it intends merely to explore the research questions and does not offer final and conclusive solutions to existing problems.

### **Participant and Sample**

The population of the study is 800 of the primary and secondary teachers in Mogadishu – Somalia. but the hundred and fifty teachers were randomly selected. The researcher used kobo toolbox forms to design the questionnaire and administered it via social media platforms to get the responses from the target group. The researcher, therefore, used a simple random sampling technique to administer the study questionnaire to selected individuals after the purpose of the study was explained to them and confidentiality assured. Additionally, the survey software was to restrict the participant's response to a single option and required all questions to be answered before submission, eliminating the issue of double answers and missing data.



## **Data analysis**

The data were collected using a 38 – items survey instrument except 4- items for participant’s profile data included such as teacher’s gender, age, level of education, and method of teachers use when representing online classroom to confirm that the sample represented the population. The items or questionnaire developed using previously validated measurable items. The items included four independent constructs like internet availability, perceived training, attitude, and perceived value which were assessed as indicators of teacher’s intention to use online classrooms. According to Polit, D.F., and Beck (2010), the most common descriptive statistics that are analyzed to describe and summarize data are averages and percentages. The weightings of the responses from research questions computed using means values intervals as options of; Very high (VH) = 4.20-5.00 points; High (H) = 3.40-4.19 points; Moderate (M) = 2.60-3.39 points; Low (L) = 1.80-2.59 points and Very low (VL)=1.00-1.79

. Furthermore, a multivariate analysis was conducted using structural equation modeling (SEM) to explain the effect of the independent variables on the dependent variable.

## **3. Results and Discussion**

### **Background of Respondents**

Table 1 indicates the background of the respondents. The purpose of the background information about the respondents was to verify that the sample was illustrative of the population. Male respondents made up

93.3% of the sample while female made up 6.7%. This indicates that male teachers are more than female teachers at primary and secondary schools in Somalia special in Mogadishu. The majority of the teachers aged between 25- 30 Years (66.0%), 20-25 Years (14.7%), 30-35 Years (28.0%), while the lowest percentage of the teachers aged (35-40 Years (6.0%). For the education level of the teachers , bachelor of education degree(64.7%); bachelor no education degree(23.3%); Diploma (7.3%) and master of education(4.7%). There are several methods for online learning like Zoom App, Google Teams, Microsoft Team and Recorded lessons posted in groups of the students so the majority of the teachers used recorded lessons method(92.7%); Zoom App(4.7%) and Google Team(2.0%).

**Table 1 Respondents' Profile (n = 150)**

Characteristics	Frequency (N)	Percentage (%)
<i>Gender</i>		
Male	140	93.3
Female	10	6.7
<i>Age(years old)</i>		
20 – 25	22	14.7
25 – 30	77	66.0
30 – 35	42	28.0
35 – 40	9	6.0

Characteristics	Frequency (N)	Percentage (%)
<i>Level of education</i>		
Bachelor No education degree	35	23.3
Bachelor of education degree	97	64.7
Diploma	11	7.3
Master of education	7	4.7
<i>Which method do you use for online teaching?</i>		
Zoom App	7	4.7
Google teams	3	2.0
Recorded lesson and post in the group	138	92.7

### Resources and Challenges for Online Classrooms

The two tables below show the results of participants' perception of resources for the online classrooms and challenges. Table 2 revealed that the teachers use the phone with a high level of mean  $M = (3.39)$ , while they use a laptop for teaching and mobile data and have two facilitators of the internet that can take over the classrooms with low level means  $M = (2.26, 1.83)$ . However, the grand mean explored that the teachers have resources for the online classrooms with very low levels (1.31).

Table 3 indicates that the teachers have high challenges for the online classrooms. All weighted means of the items except item 2 "Learning over the internet is very limited" WITH  $M = (2.11)$ , scored up high levels extending (3.66-4.96). The higher challenge facing teachers is "Learning is mainly slow and downwards" with a mean (4.96). while item 2

“Learning over the internet is very limited” is considered the lowest challenge with a mean(2.11). However, the grand mean demonstrates a high level of challenges for the online classrooms (3.8).

**Table 2 Resources for Online classrooms**

Resources for online classrooms	N	Mean	SD	Decision
I use my phone to take classrooms	150	3.93	1.48	H
I use my laptop for teaching and use mobile data	150	2.26	1.34	L
have two facilitators of internet that can take over the classrooms	150	1.83	0.99	L
<b>Grand Mean</b>		1.31		VL

*Very high (VH) = 4.20-5.00 points; High (H) = 3.40-4.19 points; Moderate (M) = 2.60-3.39 points; Low (L) = 1.80-2.59 points and Very low (VL)=1.00-1.79*

**Table 3 Challenges for Online Classrooms**

Resources for online classrooms	N	Mean	SD	Decision
Sometimes there are connection issues, most of students take time to join and we end up wasting time	150	4.02	0.95	H
Learning over the internet is very limited	150	2.11	1.10	L
Learning is mainly slow and downwards.	150	4.96	1.23	VH
I cannot see the expression of the student and I cannot observe them properly.	150	4.12	0.85	H
Students are not focusing the lesson when online classroom.	150	3.74	0.75	H
Unable to check their notes	150	4.02	0.67	H

Resources for online classrooms	N	Mean	SD	Decision
Absolutely terrible for online teaching	150	3.66	0.83	H
School management are cutting my salary	150	4.15	0.52	H
<b>Grand Mean</b>		3.8		H

*Very high (VH) = 4.20-5.00 points; High (H) = 3.40-4.19 points; Moderate (M) = 2.60-3.39 points; Low (L) = 1.80-2.59 points and Very low (VL)=1.00-1.79*

### **Structured Equation Modeling**

Structural equation modeling technique was applied to detect relationships among constructs. There are two main of modeling: Measurement model testing and structural model testing.

### **Measurement Model Testing**

Using AMOS- SPSS and Excel spreadsheet, the researcher first examined the data to assess the reliability and validity before testing the structural model. Reliability and validity are two important criteria used to assess the quality of a research study and are common methods used to measure research variables (Polit, D.F. and Beck, 2013) The result of the confirmatory factor analysis in table 3 indicated that most items loaded well on their corresponding constructs as suggested by Gefen and Straub (2004) none of the items were less than 0.60. To achieve convergent validity, it should be higher than the limit point suggested by (Kline, 2013). The reliability for this study was calculated using Composite reliability (CR) and Cronbach's alpha. According to Drost (2011), Composite reliability scores should be or higher in research on predictor tests of the construct to indicate internal consistency. The average

variance extracted (AVE) values for all of the constructs were above (Fornell & Larcker, 1981). The below table 3 represents the factor loading, composite reliability(CR), and average variance extracted(AVE) for each construct perceived value(PV), attitude towards using online(ATO), Internet availability(IA), perceived of training(PT), Teacher's intention to use online classroom(IUO). Table 3 Reliability and Validity of the data.

<b>Perceived of value</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
I use online classrooms to improve my performance	0.854	0.729	0.885	0.566
I use online classrooms to make my teaching easier	0.843	0.710		
I use online classrooms to enhance my effectiveness	0.659	0.434		
I use online classrooms to improve my quality	0.72	0.518		
I use online classrooms to perform my task efficiently	0.82	0.672		
I use online classrooms to meet teaching objectives without difficulty.	0.578	0.334		
<b>Attitude towards using online classroom</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
I like to use online classroom	0.824	0.678976		
Online classrooms provide an attractive teaching environment.	0.802	0.643204		
Using online classrooms is a good idea	0.769	0.591361		

<b>Perceived of value</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
Using online classrooms is beneficial	0.529	0.279841	0.894	0.551
Using online classrooms is pleasant	0.723	0.522729		
Using online classrooms is a positive step toward teaching	0.652	0.425104		
Taking online classrooms has helped me to learn new skills	0.850	0.7225		
<b>Internet Availability</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
I have a low –speed internet connection at home	0.952	0.906304	0.816	0.539
I suddenly lose my internet connection, it disturbs the classroom	0.744	0.553536		
Cost of the internet is cheap	0.652	0.425104		
My school management provides the teachers a laptop with connected internet	0.524	0.274576		
<b>Perceived Training</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
My school management organized training to deliver online classrooms	0.793	0.628849	0.862	0.515
I intend several workshops on how to teach using online classrooms	0.631	0.398161		
I am familiar with a great deal of the features online classrooms has to offer.	0.586	0.343396		
I have no attended any training on how to use online	0.756	0.571536		

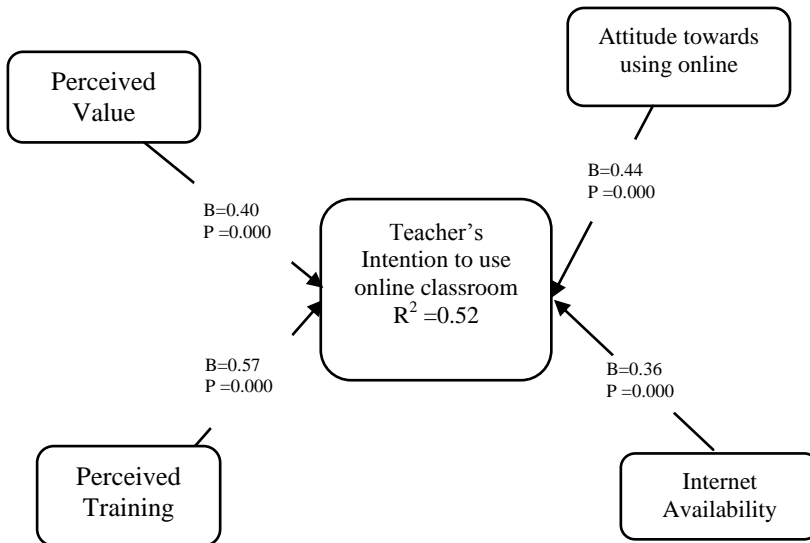
<b>Perceived of value</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
The School offers(gives) training to the teachers on how to better use online classrooms	0.653	0.426409		
Teachers do self – training to improve their skills of online classrooms.	0.853	0.727609		
<b>Teacher's intention to use online classrooms</b>	<b>Loadings</b>	<b>Square of loading</b>	<b>CR</b>	<b>AVE</b>
I plan to continue using online teaching whenever possible	0.924	0.853776	0.865	0.571
I intend to continue using to learn new software skills	0.739	0.546121		
If I could, I would like to continue my use of online teaching	0.562	0.315844		
I intend to use an online classroom whenever needed	0.65	0.4225		

The above table 3. Therefore, composite reliability tests and average variance extracted are used to verify the reliability and validity of the data. This study range in composite reliability between 0.816 and 0.894 which is highly reliable. Therefore, the results of this study are reliable and can be generalized.

### **Structural Model Testing**

Using AMOS – SPSS, the researcher tested the proposed model. The results in the figure 2 and summarized table 4. The figure 2 below shows the relations between study variables. Arrows are used to point the hypothesized relations between constructs.





**Figure 2 Research Model**

Results of structural equation modeling are indicating the positive effect of perceived value, internet availability, perceived training, and attitude towards using online classrooms on the teacher's intention to use online classrooms in secondary schools. Figure 2 shows the coefficient estimate values for study variables which are further explained in Table 4.

Table 4 explains the statistical results of structural model testing analyzed by using AMOS – SPSS software. Arrows in the table show the effect of one construct on another construct. Estimated number (B) is the estimate of the coefficient which shows the values of the effect of one variable on the other variable. Usually, the estimated value is multiplied by 100 to come up with a percentage value for example perceived value has 40% of the impact on the teacher's intention use of the online

classroom. S.E. means Standard Error which represents the average distance from which the observed values fall from the regression line. Smaller values are better because it indicates that the observations are closer to the fitted line. The larger the standard error of the coefficient estimate, the less precise is the measurement of the coefficient. In table 4 standard error values for all the correlations are quite lower which indicates that observations are much closer to the regression line or the average distance of the observed value from the regression is smaller compare to the others. All squared multiple correlations (R-square) must be at least 0.40 (Bollen, 1989). Regarding to the study, the R-square is 0.52 that indicates there is a strongly relationship between variables.

**Table 4 structural model testing**

			Estimate	S.E.	C.R.	P	Label
Intention	<---	Perceived Value	.404	.117	3.453	***	
Intention	<---	Availability	.362	.087	4.161	***	
Intention	<---	Training	.578	.091	6.351	***	
Intention	<---	Attitude	.436	.098	4.467	***	

C.R. means critical ratio which is measured with t-value or z-value based upon the sample size. C.R is determined by dividing the regression weight estimate and the estimate of its standard error. Intention and perceived value for example  $z = \frac{0.404}{0.110} = 3.453$  as well and the rest of the variables. Therefore, C.R. value is used to determine the significance of the results. Moreover, the probability value or P-value is also used for determining the significance of the results. C.R. value and P-value are used to explain the level of significance and to reject the null hypothesis

or to accept the alternate hypothesis. For statistical significance, the absolute value of the C.R is expected to be greater than 2 and the P-value to be less than 0.05 for rejecting the null hypothesis. Usually, the researcher explains the level of significance based upon choosing one value between C.R. and P-value. In Table 4, all the C.R. values are greater than 2 and P-values are less than 0.01. Therefore, by considering the P-value as a parameter, all the relationships are considered significant as P-value is below 0.01.

The following are major findings of the study: (1) perceived value and teacher's intention to use online classroom are positively related; (2) Internet availability is a significant predictor of teacher's intention to use online classroom; (3) perceived of training has a positive relationship to the teacher's intention to use online classroom; (4) Attitude towards using online classroom has strong relationship to the teacher's intention to use online classroom. To conclude, all the relations are significant with a P-value below 0.01. Based on these estimates, all the relationships are positive and significant effect as per hypothesized relations. Depending on the results of table 4, this study accepts all the alternate hypotheses.

**Table 5. Summary of support for hypotheses.**

Hypothesis	Findings
<b>H1:</b> There should be a positive effect of internet availability and teacher's intention to use online classrooms in secondary school.	Supported
<b>H2:</b> There should be a positive effect of having training and teacher's intention to use online classroom in secondary school.	Supported
<b>H3:</b> There should be a positive effect of perceived attitude and teacher's intention to use online classrooms in secondary school.	Supported

Hypothesis	Findings
<b>H4:</b> There should be a positive effect of perceived value and teacher's intention to use online classrooms in secondary school.	Supported

#### **4. Theoretical and practical contributions**

This study has several suggestions for both theory and practice. From the theoretical point of view, there are at least two contributions. First, it identifies two-dimensional elements in the online classroom context: perceived training and internet availability. The finding of the two dimensions provides an important role to teacher's intended use of the online classroom which is particularly important for the success of the online classroom. Second, the theoretical framework presented in this study successfully creates perceived value, attitude towards online use, internet availability, and perceived training through the theory of reasoned action (TRA). The finding of this study shows that the theory of reasoned action provides a theoretical framework of teacher's intention to use online classrooms. The practical implications for this study are that the school managers should build a strategy and models for the online classroom when comes a coronavirus or other emergencies.

#### **Limitation and future studies**

Like all other studies, this research has limitations. First, since this study mainly focuses on the effect of perceived training, internet availability, perceived value, attitude, and intention, there are some other factors such as perceived ease of use, usefulness, and enjoyments that influence teacher's intention to use online classrooms. Thus, future

studies can look for other factors affecting online classroom teaching. Second, the sample of this study is only secondary school teachers it needs to include other participants like the ministry of education, school managers, students, and parents. Future research may consider conducting qualitative research to obtain deeper insights into the perception of teacher's intention to use online classrooms.

## **Conclusion**

The study has two main goals. The first is to study the effect of internet availability and perceived training on the teacher's intention to use the online classroom. The second objective was to explore the impact of perceived value and attitude toward using online classrooms on teacher's intention to use the online classroom. Theoretical support of this research for predicting teacher's intention to use online classrooms was provided by the theory of reasoned action (TRA). The reliability, validity of the model, and the correlation among variables were tested using AMOS software and four important factors according to the teacher's intention to use the online classroom. Based on the statistical results, this research concludes that internet availability, perceived training, perceived value, and attitude significantly affect the teacher's intention to use the online classroom.

### **References**

- Bollen, K. A. (1989). A New Incremental Fit Index for General Structural Equation Models. *Sociological Methods & Research*.  
<https://doi.org/10.1177/0049124189017003004>
- Drost, E. A. (2011). (2011). *Validity and Reliability in Social Science Research. Education Research and Perspectives*. 38, 105–123.
- Engetou, E. (2017). *Enga Engetou THE IMPACT OF TRAINING AND DEVELOPMENT ON ORGANIZATIONAL PERFORMANCE. Case study: National Financial Credit Bank Kumba. Thesis CENTRIA UNIVERSITY OF APPLIED SCIENCES Business Management. May.*
- Fishbein, M., & Ajzen, I. (1981). Attitudes and voting behaviour: An application of the theory of reasoned action. In *Progress in Applied Social Psychology*.
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*.  
<https://doi.org/10.1177/002224378101800104>
- Kline, R. (2013). Exploratory and confirmatory factor analysis. In *Applied Quantitative Analysis in Education and the Social Sciences*.  
<https://doi.org/10.4324/9780203108550>
- Little, P. (2017). An investigation of factors that influence registered nurses' intentions to use e-learning systems in completing higher degrees in nursing. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 78(5-A(E)), No-Specified.  
[http://libproxy.library.wmich.edu/login?url=https://search.proquest.com/docview/1849021669?accountid=15099%0Ahttp://primo-pmtna01.hosted.exlibrisgroup.com/openurl/01WMU/01WMU\\_SERVICES??url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:dissertation&genr](http://libproxy.library.wmich.edu/login?url=https://search.proquest.com/docview/1849021669?accountid=15099%0Ahttp://primo-pmtna01.hosted.exlibrisgroup.com/openurl/01WMU/01WMU_SERVICES??url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&genr)

- Mustafa, N. (2020). Impact of the 2019-20 Coronavirus pandemic on education. *International Journal of Health Preferences Research*.
- Polit, D.F. and Beck, C. T. (2010). *Essentials of Nursing Research: Appraising Evidence for Nursing Practice*.
- Polit, D.F. and Beck, C. T. (2013). *Essentials of Nursing Research: Appraising Evidence for Nursing Practice*.
- Shea, P., & Bidjerano, T. (2009). Cognitive presence and online learner engagement: A cluster analysis of the community of inquiry framework. *Journal of Computing in Higher Education*. <https://doi.org/10.1007/s12528-009-9024-5>
- UNESCO. (2020). Global Education Monitoring Report 2020: Inclusion and education: All means all. In *Unesco*.