# USER'S PERCEPTIONS AND ONLINE EDUCATION ACCEPTANCE IN THE NEW NORMAL AT IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY (IMSIU), SAUDI ARABIA

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## ABSTRACT

Research on Information Technology has demonstrated that IT is an indispensable tool for achieving better and effective education among others, as it provides both educators and learners with easy-to-access information, accelerated learning, and makes people to gain 21st-century technical skills necessary for future occupations etc. however, research on IT is still ongoing, giving room for more contributions. One aspect of IT cutting the attention of researchers in the recent times is online education. It is in-thing in this present era particularly with the current situation of Covid-19 pandemic which brought about some changes in the way education is being conducted in terms of teaching and learning among teachers and students. Although, online education is gaining more popularity day by day, however, its acceptance among different categories of users is a major issue of concerned which has resulted to several divergent views and findings. Unfortunately, majority of the effort is concentrated on one user particularly between the teachers and the students. It is critical to know that both academic staff and students are indispensable when you talk about online education and therefore should be included in any research of this nature for better insight. This deficiency provided the present study the opportunity to investigate the user's perceptions and online education acceptance. Thus, the study investigates user's perceptions and online education acceptance in the new normal at Imam Mohammad Ibn Saud Islamic University (IMSIU), Saudi Arabia. It adopted a survey research design while the population covered all the lecturers and teachers in Imam Mohammad Ibn Saud Islamic University (IMSIU), Saudi Arabia. Of all the copies of questionnaires sent out to the respondents, only 218 returned filled. The returned questionnaires were analysed using STATA version 13 statistical tool. The finding revealed that User's perception is generally a significant predictor of Online Education Acceptance with $F(1,214)=94.40$, $p>0.001$; Prob. $> F =0.0000$. Additionally, it revealed that user's perception also affect Perceived Usefulness (PU), Perceived Ease-of-Use (PEOU) and Attitudes towards Usage (ATU). The conclusion based on the finding is that user's perception significantly affects how users accept or reject online education among the respondents. The study offered several implications.

**Keywords:** *Users, Perception, Online, Education, Teaching, Learning, Acceptance*

## 1. INTRODUCTION

Educating and instructing people has always be conducted in a confined environment, but recently, education providers are making a paradigm shift towards the transformation of teaching and learning methods from the conventional methods to technological approaches for better and effective results where both teachers and students participate and engage in the entire teaching and learning process [1]. Evidence from studies have indicated that technological advancements is playing a crucial role in the way educational content is now being taught, bringing about changes in the roles of student and teachers in the classrooms [2], and making learning more meaningful [3]. In fact, it is been an enabler that provides educators with flexibility and creativity, and its rapid growth has become a driving force for educators to innovate and enhance their teaching and learning methodologies, and, consequently, progress

towards higher engagement levels of their students [4-8]. However, the use of computer technologies and its acceptance among the users has been slow since the mid-1980s in many institutions of higher learning including the universities even with the government efforts. This slow progress has been long attributed to the issue of acceptance among the users of the technologies in the education field.

Those who use education-based technologies before this time channeled it only towards distance learning that involved text-based correspondence courses, radio-based delivery of lessons etc. however, the emerging technologies have provided opportunity for online educational courses including online teaching and learning approach across the world [9, 10]. Meanwhile, it important to understand that online education and its acceptance generally has gone beyond distance learning. It is fast becoming normal especially in the new normal. Thus, it is gaining more acceptance and popularity in the education field. Thank God for the new normal. The new normal emphasises on online tools to facilitate connection and escape confinement (Oxford Lexico.com, 2020), meaning that teaching and learning may no longer be confined or limited to the classroom or a particular location. It also implies that the current prevailing situation that has emerged recently differs dramatically from the previous one and is expected to remain. The new normal coupled with the technological changes has widened the need for and importance of online education including its acceptance among its users across the world. With this development, many countries including institutions and organizations have been working on strategic plans to implement online education particularly online teaching. However, it has been observed that there are mixed opinions about online education (that is, online teaching and learning) acceptance among the users. For example, [11] noted that they are not surprise about the mixed opinions of benefits of online teaching and learning in higher education. These mixed opinions may suggest acceptance or rejection of online education. One of those factors responsible for this mixed is perception. Users of this technology tend to have different interpretations about it thereby affecting its acceptance.

Furthermore, before the new normal, online teaching or online education or called it e-learning has been in the center of many academic discussions particularly in terms of its acceptability, and its effective operation. For many it is not an effective way of teaching the students while others it is. However, the new normal caused by the outbreak of Covid-19 pandemic has retooled the importance of online teaching and has made it necessary if not compulsory for educational institutions including the universities across the world to but embrace online teaching as a means of reaching out to their students who are no longer in the campus but in different far and near locations of the world. In other words, universities all overall the world are searching for better, and more cost-effective ways to deliver instruction and training, even corporations have expanded their use of e-learning. The new normal suggests that the traditional or conventional means of education and instruction are no longer effective enough to achieve the universities' objectives of educating the students. According to [12], there are several studies suggesting that online education or blended instruction (a "blend" of online and traditional approaches) can be as effective as traditional classroom models. Unfortunately, only few studies have focused on learner satisfaction with online instruction, particularly in the transition to online learning from traditional approaches. Therefore, making the acceptance of this new normal of teaching an issue of concern among the students as well as among the academic staff in the university. For some it is not yielding the desired result while for others it is. These views no doubt produced different perceptions about online education and its acceptance among its users. [2] advocated for effective promotion of online programs based on the perception of the people. They argued that the promotion of faculty and student's acceptance of online education delivery methods is critical for all institutions particularly in the new normal. Management therefore needs to understand how users, lecturers including the students perceive online education and what factors shape their acceptance or rejection. In other words, online education should be linked with the user's perceptions. This is true because it is only when the users have a positive perception about something that they accept it, if not they would reject it. Thus, a positive perception may likely lead to acceptance while a negative perception may imply rejection.

Accordingly, it is having been observed that although technology acceptance research has made valuable inroads into the complexities of how and why humans choose to accept or reject technology including the pace at which that acceptance or rejection occurs, however, there is need for more research of this nature particularly in the new normal where traditional and conventional means of doing things appear to be altered. In line with this, [13] pointed out that despite the move towards online education, there is still little research on the acceptance of such systems and how they affect the quality of education among the users in the education process [4, 6, 14-17]. For example, the study noted that beneficiaries of online education are still not confidence about the new method. Also, many of the studies using TAM appear to be centred on the technology acceptance dynamics with nonspecific user populations. In another dimension, TAM has been used by researchers to address the question of technology acceptance as it relates to several variables such as user's perception. These attempts have therefore produced several divergent views and findings. For example, the study by [12] reported that researcher such as [18] used TAM in their study and concluded that women and men differ in their perceptions, but not use, of e-mail [19] identified gender differences with regard to the relative impact of perceived usefulness and perceived ease of use in predicting technology acceptance. User inexperience has also been found to play a role in the relative predictive power of the TAM's central constructs of ease of use and usefulness [20]. However, the categories of users such as academic staff and students are yet to be considered. Therefore, the studies on perception about online education appear to be deficient in terms of their focus and coverage on the studied population. This deficient is visible in [2] that only focused on the faculty members which covered the academic staff only while [13] only considered the students thereby ignoring the academic staff. So many other studies of this nature are equally like these. It is critical to know that both academic staff and students are indispensable when you talk about online education and therefore should be included in any research of this nature for better insight. [21] noted that university faculty in particular as well as the students are unusual individuals who are highly educated, accustomed to having considerable autonomy, and who frequently work in highly politicized environments. Apart from that, these people work using a wide spectrum of information technology solutions [22].

## 2. LITERATURE REVIEW

## 2.1 Related Past Research and Gaps

Attempts by [1] to examine technology acceptance lead to a comparative study between Korean and Malaysian Students' Perceptions Healthcare E-Learning Modules. They particularly focused on the healthcare sector with the objective of developing e-learning web module for the healthcare sector in both Korean and Malaysian. The study adopted the Technology Acceptance Model (TAM) theory including the survey which enabled measurement of the participant's perceptions of this e-learning website. The data obtained and analysed revealed that students were positive in the Perceived Usefulness (PU) and Perceived Ease-of-Use (PEOU) constructs which in turn resulted in positive Attitudes towards Usage (ATU) and Behavioral Intentions to Use (BIU) constructs in the application. Additionally, it was revealed that positive technology acceptance of the e-learning health room web module provides positive encouragement for educators to develop interactive healthcare modules for e-learning. Examining Technology Acceptance in the healthcare sector is remarkable and positive, however, there appears some methodological issues. For example, research design, population of the study, and the sampling technique used in selecting the 300 respondents who participated in the study were not justified. Also, how the sample size was determined is an issue to the present study. Research should be rigorous in terms of these ingredients a forementioned.

[23] looked-into the faculty perceptions of online teaching by several literature with Technology Acceptance Model as an organizing framework. The paper presented a theoretical perspective of the issue being investigated through the synthesis of the research literature regarding faculty perceptions about teaching online. The constructs in TAM2 as reported by [24] were used to direct the paper as an organizing framework. As important as this paper appears to be, its scope and coverage appears very limited as it only focused on faculty members thereby neglecting other

stakeholders such as the students. Apart from that, the paper is only theoretical in nature without any empirical background. A mere literature review from other sources may not provide clear evidence and position of technology acceptance among people. Also, judgment based on theoretical perspective may not hold water. Unlike [24] [24], [25] focused on student teachers' acceptance of computer technology thereby giving a broader perspective of technology acceptance. Thus, study investigates student teachers' perceptions of computer technology in relation to their intention to use computers. It argued that the use of computer technology in schools has made slow progress since the mid-1980s even though governments have been generous in funding. However, the study found that student teachers' perceived usefulness of computer technology, perceived ease of use and subjective norm had direct, indirect and no direct or indirect relationship with intention to use computer respectively. From the above descriptions, it is clear that there are still some gaps that require attention, among them is the scope and coverage of the past studies, and this is the concern of this study.

**2.3 Factors affecting the acceptance of technology (Online Education Acceptance)**

Research has identified several factors that affect the acceptance of technology including computer technology's use among people [23, 26, 27]. These factors have been related to one theoretical background or the other. Thus, several intention-based acceptance/ adoption theories have been developed and empirically examined. For example, the theory of reasoned action (TRA), e.g., [28, 29]; the Theory of Planned Behaviour (TPB), e.g., [30, 31]; the technology acceptance model (TAM), [24, 29]; and diffusion of innovations (DOI), e.g., [32-34]. These factors range from attitude, subjective norm, computer technology experience, perceived computer technology competence, loyalty to perceived culture of organizations [26, 27]. Among all these theories, only TAM was specifically designed to explain individual technology acceptance / adoption decisions across a wide range of organizational contexts, computer technologies, and user populations, e.g., [24, 29].

Furthermore, research has shown that the variables in TAM which are: perceived usefulness, perceived ease of use etc. have received remarkable considerable attention in many past studies on computer technology acceptance/adoption studies with positive results in both direct effects on intention to computer technology use (e.g.,) [35]. Although there have been some reservations about TAM being applicable in educational context, however, TAM has proven to provide a richer model to predict and to explain computer technology acceptance/adoption [23]. Even now, TAM has always been the dominant theory associated with understanding this phenomenon and remains an important and viable tool for researchers in this arena. In the organisation, [29] used the TAM to describe end users' willingness to utilize new technologies. The study was concerned for the perception of the users. The present study based its research model on the TAM not only because it is well-accepted, theoretically grounded but also it is a general model of user acceptance of new information technologies. Apart from that, it has been used in prior management education research [36, 37]. The relevancy of this model is justified by the presence of two key factors such as perceived usefulness and perceived ease of use. These are concerned with users' technical experiences with their perceptions about how using technology might affect their status in an organization [23]. There is evidence showing that TAM supports both perceived usefulness and perceived ease of use as the basic factors affecting user acceptance of a given new technology. In technology research, TAM is seen as a key model in explaining the predictors of human behaviour towards the tendency to accept or reject technology. According to [38], it is highly impossible in the present situation to manipulate information without the assistance of technology. In other words, high technical performance will be good for nothing if the user, for any reason, does not adopt and does not accept the available technology [29]. Thus, there is a need for people to understand why users do not adopt, accept, or reject technology particularly the online teaching in the new normal.

The conceptual model below depicts the variables under investigation. It clearly shows that two major variables are being investigated where user's perception forms the independent

variable and online teaching acceptance represents the dependent variable. Apart from that, the diagram also demonstrates the relationship between the two variables, showing that user's perception is a predictor of online teaching acceptance. For example, a positive perception by the user leads to acceptance of online teaching while a negative perception by the users equally would lead to rejection. In line with this, [29] states that technology is good when the people accept it, if not, of what use is such technology. Thus, it is believe that user's perception affects online teaching. It is their perception that determines the acceptance of such technology.
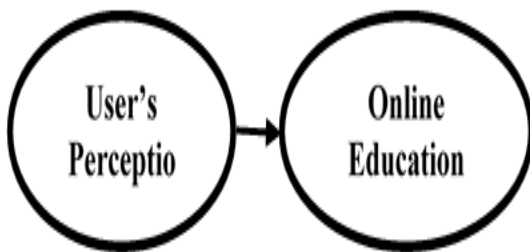


*Figure 1: User's Perception - Online Teaching Acceptance Model*

### 2.3 Hypotheses Formulation
H1: Users perception would generally affect his or her acceptance of online teaching.
H2: Users perception would directly affect his or her acceptance of Perceived ease of use (PEOU) of online education.
H3: Users perception would directly affect his or her perceived acceptance of Perceived usefulness (PU) of online education.

### 3. METHODS
It is a survey research design. The population of the study covers all the academic staff and students of Imam Mohammad Ibn Saud Islamic University (IMSIU). Specifically, there are 78,000 students in IMSIU with 3,500 academic staff. The questionnaire survey is distributed and retrieved through the email.

The variables were measured using the 5-point Likert scale of 1-5 where 1=strongly disagree to 5=strongly agree. Also, the variables were operationalised accordingly. For example, User's perception was operationally defined as interpretation, impression, believe etc. of the participants about the online education. On the other hand, Online Teaching Acceptance was operationalised as Perceived Usefulness, Perceived Ease of Use and Attitudes Towards Usage. Data was analysed using Stata version 15.

### 4. DATA ANALYSIS RESULTS

### 4.1 Descriptive Analysis Result
Table 4.1 summarises the descriptive analysis result of the particulars of the respondents in terms of the gender, age and marital status. For gender, it shows that 115 of the respondents are females accounting while the rest 103 are females representing 47.2% with a mean of 1.53 and standard deviation of 0.500. Also, age particular shows that 160 of the respondents are within 21-25 years, 30 of them are within less than 20 years, those who fall within 36 years and above are 18, while respondents who fall within both 31-35 years and 26-30 years are both 6 and 4 respondents respectively. Finally, the marital status shows that shows that majority of the respondents totaling 184 are singles accounting for accounting for 84.4% while the rest 34 of them are married representing 15.6% with a mean of 1.16 and standard deviation of 0.364.

*Table 4.1: Descriptive Analysis Result*

| Variables | Frequency | Percentage | Mean | Std. Deviation |
|---|---|---|---|---|
| **Gender:** | | | | |
| Male | 103 | 47.2 | | |
| Female | 115 | 52.8 | 1.53 | 0.500 |
| **Age:** | | | | |
| Less Than 20 Years | 30 | 13.8 | 2.18 | .990 |
| 21-25 | 160 | 73.4 | | |
| 26-30 | 4 | 1.8 | | |
| 31-35 | 6 | 2.8 | | |
| 36 Years and Above | 18 | 8.3 | | |
| **Marital Status:** | | | | |
| Single | 184 | 84.4 | | |
| Married | 34 | 15.6 | 1.16 | .364 |
| **Total** | **218** | **100.0** | | |

### 4.2 Hypothesis Testing
All hypotheses were tested using Ordinary Least Square (OLS) through the STATA statistical tool.

### 4.2.1 **Hypothesis One: Online Education Acceptance-User's Perception**

From the Table 4.2, it is shown that User's perception is a significant predictor of Online Education Acceptance with $F(1,214)=94.40$, $p>0.001$; Prob. $> F =0.0000$. Thus, when Online Education Acceptance was predicted by User's perception, it was found that user's perception affects Online Education Acceptance. The variability in the Online Education Acceptance as explained by User's perception is represented by the R square which is 0.3061, accounting for 30.6%.

*Table 4.2: Online Education Acceptance-User's Perception*

| Source | SS | df | MS |  |  |
|--------|-----|-----|-----|-----|-----|
|  |  |  |  | Number of obs = | 216 |
|  |  |  |  | F( 1, 214) = | 94.40 |
| Model | 26.2305687 | 1 | 26.2305687 | Prob > F = | 0.0000 |
| Residual | 59.4635272 | 214 | .277866949 | R-squared = | 0.3061 |
|  |  |  |  | Adj R-squared = | 0.3029 |
| Total | 85.6940958 | 215 | .39857719 | Root MSE = | .52713 |

| OnlineEducat~e | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. Interval] | |
|--------|-----|-----|-----|-----|-----|-----|
| USERPERCEPTION | .3033382 | .0312206 | 9.72 | 0.000 | .2417989 | .3648776 |
| _cons | 1.467664 | .1154929 | 12.71 | 0.000 | 1.240015 | 1.695314 |

### 4.2.2 Hypothesis Two: Perceived Ease of Use-User's Perception

The result in Table 4.3 shows that User's Perception is a significant predictor of Perceived Ease of Use with $F(1, 215)=68.14$, $p>0.001$; Prob. $> F =0.0000$. Thus, when Perceived Ease of Use was predicted by User's perception, it was found that user's perception significantly affects Perceived Ease of Use. The variability in the Perceived Ease of Use as explained by Perceived Ease of Use is represented by the R square which is 0.2407, accounting for 24%.

*Table 4.3: Perceived Ease of Use-User's Perception*

| Source | SS | df | MS |  |  |
|--------|-----|-----|-----|-----|-----|
|  |  |  |  | Number of obs = | 217 |
|  |  |  |  | F( 1, 215) = | 68.14 |
| Model | 61.9083622 | 1 | 61.9083622 | Prob > F = | 0.0000 |
| Residual | 195.338695 | 215 | .908552069 | R-squared = | 0.2407 |
|  |  |  |  | Adj R-squared = | 0.2371 |
| Total | 257.247057 | 216 | 1.1909586 | Root MSE = | .95318 |

| PERCEIVEDEAS~E | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. Interval] | |
|--------|-----|-----|-----|-----|-----|-----|
| USERPERCEPTION | .4656838 | .0564146 | 8.25 | 0.000 | .3544874 | .5768803 |
| _cons | 1.552433 | .2085021 | 7.45 | 0.000 | 1.141463 | 1.963403 |

### 4.2.3 **Hypothesis Three: Perceived Usefulness-User's Perception**

The result in Table 4.4 shows that Perceived Usefulness is a significant predictor of Perceived Usefulness with $F(1, 215)=213.43$, $p>0.001$; Prob. $> F =0.0000$. Thus, when Perceived Usefulness was predicted by User's perception, it was found that user's perception significantly affects Perceived Usefulness. The variability in the Perceived Usefulness as explained by User's Perception is represented by the R square which is 0.4982, accounting for 49.8%.

*Table 4.4: Perceived Usefulness-User's Perception*

| Source | SS | df | MS | | | |
|--------|-----|-----|-----|---|---|---|
| | | | | Number of obs = | | 217 |
| | | | | F( 1, 215) = | | 213.43 |
| Model | 143.091469 | 1 | 143.091469 | Prob > F | = | 0.0000 |
| Residual | 144.141119 | 215 | .670423807 | R-squared | = | 0.4982 |
| | | | | Adj R-squared | = | 0.4958 |
| Total | 287.232587 | 216 | 1.3297805 | Root MSE | = | .81879 |

| PERCEIVEDUSE~S | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] | |
|----------------|-------|-----------|-----|------|------|------|
| USERPERCEPTION | .7061953 | .0483384 | 14.61 | 0.000 | .6109173 | .8014733 |
| _cons | .8242732 | .1791206 | 4.60 | 0.000 | .4712158 | 1.177333 |

*Table 4.5: Attitudes Towards Usage -User's Perception*

| Source | SS | df | MS | | | |
|--------|-----|-----|-----|---|---|---|
| | | | | Number of obs = | | 218 |
| | | | | F( 1, 216) = | | 81.25 |
| Model | 71.1215471 | 1 | 71.1215471 | Prob > F | = | 0.0000 |
| Residual | 189.073574 | 216 | .87534062 | R-squared | = | 0.2733 |
| | | | | Adj R-squared | = | 0.2700 |
| Total | 260.195121 | 217 | 1.19905586 | Root MSE | = | .9356 |

| ATTITUDESTOW~E | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] | |
|----------------|-------|-----------|-----|------|------|------|
| USERPERCEPTION | -.4975167 | .0551945 | -9.01 | 0.000 | -.6063054 | -.388728 |
| _cons | 4.114035 | .2043402 | 20.13 | 0.000 | 3.711279 | 4.516791 |

**4.2.4 Hypothesis Four: Attitudes Towards Usage -User's Perception**

From the result depicted in Table 4.5, it is revealed that when Online Education Acceptance was predicted by User's perception, it was found that user's perception affects Attitudes Towards Usage. The variability in the Attitudes Towards Usage as explained by User's Perception is represented by the R square which is 0.2733, accounting for 27.3% with $F(1, 216)=213.43$, $p>0.001$; Prob. > F =0.0000.

## 5. DISCUSSION OF FINDING

From the study perspective of the users, this study investigated how user's perspective affects online education acceptance. On the basis of the analysis of data collected, the study presents the following findings according to the hypothesis tested. First, it was generally found that user's perception significantly ($p<0.01$) affects online education acceptance, suggesting that user's perception do positively predict online education acceptance. Thus, how the users perceive online education is of great importance on whether to accept it or not. Additionally, the finding demonstrates that both users (the lecturers and the students) are generally positive in the Perceived Usefulness (PU) and Perceived Ease-of-Use (PEOU) constructs which in turn resulted in positive Attitudes towards Usage (ATU). It equally showed a positive technology acceptance of the online education among the participants. The finding of the study is a great support to TAM which stressed that people acceptance of technology is based on Perceived Usefulness (PU), Perceived Ease-of-Use (PEOU), Attitudes towards Usage (ATU) among others.

This finding is in line with some past studies by [12]; [9]; [2] etc. which show that positive technology acceptance of the e-learning

health room web module provide positive encouragement for educators to develop interactive healthcare modules for e-learning. Also, it was reported by [13] that participants in the elective course rated the online modules marginally positive while those in the required course rated them marginally negative. But on the contrary, [9] reported that many faculty members believed that online courses should not be a replacement for face-to face in one's major field of study, suggesting a negative perception about online education. One good lesson drawn from this study is that the traditional face-to-face learning appears more superior that the online learning.

Further finding shows that user's perception is significantly ($p<0.01$) related to perceived ease of use. In other words, that user's perception significantly affects perceived ease of use, suggesting that users would accept online education when they perceived that it is easy to use. Accordingly, it is equally revealed that user's perception has a significant relationship with perceived usefulness. This implies that user's perception significantly affects perceived usefulness. Finally, attitudes towards usage was found to be significantly ($p<0.01$) related to user's perception. It shows that attitude of people towards using something is based on how such thing is be perceived by them.

## 6.    CONCLUSION AND IMPLICATION

According to [32], it is highly impossible in the present situation to manipulate information without the assistance of technology. In other words, high technical performance will be good for nothing if the user, for any reason, do not adopt and do not accept the available technology [29]. Thus, there is a need for people to understand why users do not adopt, accept, or reject technology particularly the online teaching in the new normal. The study therefore concludes that user's perception (students, lecturers, instructors etc.) significantly affects the acceptance of online education particularly in the new normal. Another conclusion as substantiated in this study is that user's perception is significant predictors of perceived ease of use, perceived usefulness and attitudes towards usage. It is crucial to understand that technology is good when the people accept it, if not, of what use is such technology [29].

The study offers several implications to students, lecturers, instructors and education providers including policy makers in education. For example, the study offered a direction to the all the stakeholders in education on how best online education can be applied and managed particularly during this new normal. This also includes how to achieve effectiveness and efficiency using online education. Accordingly, it contributes to knowledge on the paradigm shift towards the transformation of teaching and learning methods from the conventional methods to technological approaches for better and effective results where both teachers and students participate and engage in the entire teaching and learning process.

For online education to be meaningful and produced the desire outcomes among the stakeholders across the globe, more research should be conducted to enable the identifications teaching methods for different students at different levels of learning. As observed by [33], different teaching methods could produce different results as such teaching methods should be further investigated in a future study

## 7.    RESEARCH LIMITATION AND SUGGESTION FOR FUTURE RESEARCH

This study was unable to provide mean difference for both users (lecturers and students) which are possible by using ANOVA. The study is only interested in the relationship between the users and their acceptance of online education. Further may want to probe further on the mean difference between the lecturer and the student on how their different perceptions affect the acceptance of online education, and this warrants the use of ANOVA as the analysis technique.

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