

# The impact of virtual platforms learning on students' academic progress with special reference to Faculty at UTAS (University of Technology and Applied Sciences) Muscat Branch, The Sultanate of OMAN

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## Abstract:

This research work was vital for the current scenario because during the period of pandemic and post-pandemic period the education institution adopted the virtual or online platform mode. During the period of pandemic the teaching methodology wholly changed face-to-face to online teaching method (Amira El-Soussi 2022). The current research discussed the pros and cons of virtual platforms and how it can affect student academic progress in UTAS (University of Technology and Applied Sciences - Sultanate of OMAN). Researchers took the research work and samples from UTAS -Muscat branch CEBA (College of Economics and Business Administration) faculty to know the impact of virtual platform learning on student's academic progress. From this research work, the researcher did these are focus points findings of virtual platform learning progress, these are some of the important elements advantages and disadvantages of Online mode, students academic progress, faculty teaching effectiveness progress and common problems faced by Online teaching mode. Based on this research work, it's the ice-breaking concept for future researchers.

**Key words:** Virtual learning, online mode, UTAS, CEBA, Students progress and COVID -19

## Introduction:

This research study discovered that during the period of Pandemic Period or COVID -19, the virtual platform teaching was mandatory to all institutions in the global scenario. During the period of Covid -19, face-to-face teachings were suspended and institutions adopted the virtual teaching mode. The current research is to explore the pros and cons of a virtual platform on student academic progress in educational institutions. Thousands of college students were unexpectedly forced to change them in-person classes (face-to-face) to attend online classes due to the Covid-19 quarantine (Cucinotta D, Vanelli M 2020). Thousands of college students faced a challenge in their daily routines due to this sudden change, which required them to use a new strategy that helps them accommodate these changes. The speedy increase of the covid-19 pandemic situation required face-to-face teaching was cancelled, and all the institution and learning process was shifted into virtual platform mode of teaching (Hassan Motifi et al 2022). Based on these circumstances, the Virtual platform is very essential for the academic community. After the post pandemic period also most of the institutions are following the same. So, based on these circumstances this research work is very significant for this institution UTAS (University of Technology and Applied Sciences) and student community. After the post pandemic period also, this institution delivered some of the courses that are handled by virtual mode of teaching only and e-learning etc. Because of that, this research is very much essential for UTAS - College of Economics and Business Administration (CEBA) Muscat Branch. This research work reveals that to know the efficiency level of academic delivery of the faculty through online mode, student's academic progress and faculty academic program etc. The research defined and explores the strength and weaknesses of UTAS virtual platforms and their impact on student progress with special reference to Faculty of Department of Business Studies, the College of Economics and Business Administration (CEBA) Muscat branch. In Sultanate of Oman and the world scenario, online mode of teaching reviews and studies are very much lacking because this study give more impact to the future researchers.

Virtual learning means a form of discrete learning where the course material is conveyed through different strategies, such as management applications, mixed media assets and video conferencing, and where students and teachers communicate through these technologies (Bucharest University of Economic Studies, 2015). During the period of pandemic, some of the colleges and medical institutions in the Kingdom of Saudi Arabia (KSA) have incorporated some aspects of the virtual learning component into their syllabus. The short and final exams were also transferred to the electronic platform (Hassan M., 2022). This research work is very important for all over the educational institution, to explore the pros and cons of a virtual platform on student academic progress in learning institutions. The purpose of the research is to know the pros and cons of virtual platforms and their impact on students' academic progress. There are few studies on (the pros and cons of virtual platforms and their impact on students' academic progress) in Oman. Virtual teaching started in March 2020 due to the spread of COVID-19 (Jose Andres Areiza-Padilla and Tatiana Galindo- Becerra 2022) so the guarantee social distancing face-to-face courses were cancelled and universities were instructed to switch to virtual learning and stop this pandemic's spreading. Classes were conducted electronically. Because of this, the research is important for institutions and lecturers, especially in CEBA-Muscat. It will be helpful to solve the upcoming problems raised by the virtual platforms that are used in the college.

### Review of Literatures:

Regarding the research topic, it's very new for the educational researcher, researcher found some of the difficult to collect the past information, because of the new concept, slightly few reviews are there. Additionally, since the worldwide widespread start of Covid-19, online learning devices have been obviously fundamental to education (Edward T.-H Chu and Chi-Wei Fang, 2015). Virtual learning describes education in a setting where teachers and students are divided by time or distance or both, in which the teachers deliver course material using tools like classroom systems, media, the Internet, videoconferencing, etc. (Asemani and Tabatabai, S.2020). The advancement of the Internet and its applications led to an expansion in the use of computer-based learning tools. Also, the need for virtual learning environments (VLE), an electronic learning platform that supports the traditional education process, is growing in educational institutions (Popat. K, MacLean, H, Heppell, S., 2007). The use of virtual platforms as classrooms to deliver open online courses has improved many people's access to educational opportunities (Jacqueline Wong et al., 2013). However, the argument that there is a gap in enrollment and completion rates in online courses persists, indicating that online learning poses obstacles for those who may need special help to succeed (Jacqueline Wong et al., 2013). The effectiveness of teaching and learning in traditional classes has improved because of the usage of technology (Ozkan, B 2017). Because face-to-face classroom sessions are time-constrained, e-learning platforms might be a helpful tool for improving English language proficiency (Soliman, 2014). Also on the bright side, virtual classrooms offer an educational atmosphere where instructors and students may communicate while off-campus (Kalayci, S., & Humiston 2015). Due to the varying national circumstances and cultures of different countries, we shouldn't duplicate their online education systems, but we can cite their inspiring thoughts. Through virtual learning, the platform thinks enhancing student-teacher communication through topic dialogues and virtual roles Positive reinforcement, in addition to other methods, can increase visiting online learning platforms, engaging in role-playing online, and enhancing their learning outcomes by integrating online study with offline communication. Due to the varying national circumstances and cultures of different countries, we shouldn't duplicate their online education systems, but we can cite their inspiring thoughts. Eccles, 1993; Maehr, 1984; Sivan, 1986) says if students' ambitions align with the classroom's cultural and motivating aims, they are most likely to contribute to their academic performance. According to Lin, Wen-Chuan and Yang, Shu Ching (2011) Students believe that virtual class approaches are helpful when the learning experience enables them to accomplish their own individual objectives, which were founded on their academic purpose. Rovai and Barnum (2003) asserted that passive online learning through "listening" without participation does not result in a measurably higher level of knowledge because they could predict perceived learning by looking at the volume of messages posted. Others have reported that failed students interacted less frequently and that students who participated in lively discussions had superior course completion rates (Davies & Graff, 2005; Karen Swan, 2002). Glenda Cox et al 2004; Prammanee, 2003 the integrating shy students and fostering higher- quality involvement, well-facilitated online deliberations can be more inclusive than classroom discussions and the usage of implemented techniques for better results and higher levels of students may not always be suitable or good enough to be implemented through online courses.

### Research Methodology:

The aim of this research is to discover the benefits and drawbacks of virtual platforms and how they affect students' academic development in the College of Economics and Business Administration Faculty-Muscat. As a result of the goals established to undertake this research, the researchers utilized a quantitative approach to this research work as a result of the objectives set forth to discuss this research work. Researchers used descriptive research design. Descriptive research design seeks to investigate and clarify by offering more details on the topic.

### Research Objectives:

- To assess the process of knowledge obtained by students and evaluate the impact of virtual platforms by highlighting E-learning's effects on student's academic progress in CEBA– UTAS - Muscat.
- To explore how virtual platforms are considered as a merit or an advantage to both students and lecturers.
- To determine the demerits of virtual platforms that affects the lecturers and students' academic progress.
- To evaluate the impact of the virtual platform learning on students' academic progress.

The total population is 95 Faculty Members in the CEBA department. The researcher has chosen the Non- Probability Sampling involves non-random selection based on Convenience sampling method for easily collecting the data. The UTAS – CEBA faculty members are working timing is 8:00am to 8:00pm based on their different timing schedule and busy workload of the faculty members, unfortunately researchers cannot meet one-by-one respondent / faculty, so researchers have chosen convenience sampling. Based on Sample Size Formula (Slovin's) researcher derived the sample Size: The total number of respondents' / faculty members from the population is 95 members from the UTAS; CEBA faculty. According to Slovin's formula, the sample size is 95 which is  $n = \frac{N}{(Ne^2 + 1)}$  where n represents the sample size, N represents the size of the population and e represents the error margin which is to be decided by the researcher. As per the Slovin's Formula: the sample size is 76.7676. Researchers have taken 77 as the sample size for this current study.

### Result and Discussion:

As per the data analysis and discussion, the Demographic Variables of the Study the following table exhibitsshow the demographic data relating to the sample respondents of the survey.

**Table 1 Demographic Profile**

Sl.NO	Variables	Frequency	Percent	Comments
1	Gender	43	53.75%	Female
2	Experiences	32	40%	11 to 15 years
3	Qualifications	20	25%	PhD in Accounting

The table 2 variables are discussed the impact of virtual platforms learning on students' academic progress with special reference to faculty at CEBA- UTAS.

Sl.NO	Variables	Frequency	Percentage	Comments
1.	Satisfied your teaching methodology through online platform	35	43.75%	Satisfied
2.	Knowledge gain by the students through online teaching	26	32.5%	Neutral
3.	Through Online students gain more Informative and clarity	29	36.25%	Agree
4.	Online platform is Ineffective Teaching Mode	31	38.75%	Agree
5.	Online teaching has created adverse effects to the students	26	32.5%	Agree
6.	Through online mode student's skills are diminish	27	33.75%	Agree
7.	More cheating practice are happened through virtual platform	37	46.25%	Agree
8.	Student's academic progress improvement due to usage of virtual learning	37	46.25%	Neutral
9.	Overall students' academic improvement by the Online Mode	21	26.25%	Disagree
10.	Student's CGPA improved at the time of online Classes	26	32.5%	Strongly disagree

**Chi-square analysis– Test**

**Table 1: Analysis the years of experience and faculty satisfied with their teaching methodology through online teaching platform?**

Sl.No	Options: Experiences	1-5	6-10	11-15	Above 15	Total
1	Strongly satisfying	5	6	7	8	26
2	Satisfying	10	11	8	6	35
3	Neutral	3	2	1	1	7
4	Dissatisfying	2	2	1	1	6
5	Strongly Dissatisfying	1	3	1	1	6
Total		21	24	18	17	80

Significant level= 0.05

Table value= 21.03

Calculated value =14.0526

Since the **table value (21.03) is greater than the calculated value (14.0526)** the null hypothesis (H0) is accepted.

There is **no significant relationship** between Years of experience and Faculty satisfied with their teaching methodology through online teaching platforms.

Chi-square analysis– Test

**Table 2: Analysis the years of experience and the advantages of virtual platform on the student academic progress**

Sl. No	Options: Experiences	1-5	6-10	11-15	Above 15	Total
1	Strongly satisfying	4	2	2	2	10
2	Satisfying	16	5	6	4	31
3	Neutral	5	6	3	3	17
4	Dissatisfying	7	2	3	1	13
5	Strongly Dissatisfying	3	2	2	2	9
	Total	35	17	16	12	80

Significant level= 0.05

Table value= 21.03 Calculated value = 30.948

Since the table value (21.03) is less than calculated value (30.94) the null hypothesis (H0) is rejected.

There is a significant relationship between Years of experience and virtual platform on the students' academic progress.

**Correlations results:**

As per the researcher did some of the correlation analysis for the better understanding and know the relationship between the various factors of impacts in virtual platforms learning on students' academic progress with special reference to faculty at UTAS institutions. Herewith some of the important correlation findings mentioned below.

**Correlations Interpretations:**

Sl.NO	Variables	Table Value	Comments
1.	Relationship between the process of students receiving knowledge through virtual platforms and the impact of virtual platforms on students' academic progress.	r = 0.6493	Moderate positive correlation
2.	Correlation between: advantage of receiving more knowledge through the use of virtual educational platforms and the improvement of the CGPA of students in virtual education.	r = 0.9647	Strong positive correlation
3.	Relationship between the virtual educational platforms has created negative impact on the student's academic and through virtual education has increased students' knowledge.	r = 0.8147	Strong positive correlation
4.	Correlations between the variables are process of students receiving knowledge through virtual platforms and the impact of virtual platforms on students' academic progress.	r = 0.6493	Moderate positive correlation
5.	Relationship between: the extent of the lecturers' satisfaction with their teaching methods through the virtual platforms and the academic progress of the students during their use of the virtual platforms.	r = -0.3335	Negative Correlation

### Multiple Regression Analysis

Analysis the impact of Overall students’ academic progress via online mode (dependent variable) and online effective lecture mode, more level of knowledge gains by the students through online (Independent variable).

**Summary Output**

Regression Statistics	
Multiple R	0.922167049
<b>R Square</b>	<b>0.850392065</b>
Adjusted R Square	0.700784131
Standard Error	5.510935558
Observations	5

ANOVA				
	Df	SS	MS	Significance F
Regression	2	345.2592	172.6296	0.149608
Residual	2	60.7408	30.3704	
Total	4	406		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.184073764	5.62614	0.388201	0.735292	-22.0233	26.3914	-22.0233	26.39140081
X Variable 1	0.625649623	0.311102	2.011566	0.181939	-0.71255	1.963887	-0.71255	1.96388715
X Variable 2	0.237845767	0.440580	0.539847	0.643371	-1.65782	2.13351	-1.65782	2.133509625

### Interpretation:

Regression Statistics	
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As per the above table the R Square value (R Square: 0.850392) is reveals that the factors are goodness of fit. It means the dependent (Overall students’ academic progress via online mode) and independent variables (online effective lecture mode, more level of knowledge gain by the students through online) are have more impact and better-fitted the regression line. Herewith, the value of R square is representing an excellent fit with factors (0.850392).

### Weightage Average Analysis (WAA) Interpretations:

Researcher has decided to know the various factors values used in this research work. So the researcher has used the weighted average analysis (WAA) to know the various criteria values. Regarding this research work, the important element of this research criterion was the advantage of virtual platforms on students’ progress, under this heading eleven (11) variables are comes under so researcher has to know the values of each factor, which factors are given more impact for this research work.

As per the interpretation of WAA- table, Advantage of virtual platform on students progress, this is a very significant criteria, from this heading there are 11 (eleven) sub-factors that comes under based on Weightage average analysis, herewith researcher has mentioned three (3) highest score values. The WAA (Weightage average analysis) illustrates that the advantages of virtual platforms on students’ progress, the 11<sup>th</sup> sub-factor was Connected with thousands of students (Score  $W*11 = 350$  point, ranked number 1). The 9<sup>th</sup> Sub- factor was Easy share the PPT’s (Score  $W*9 = 334$  point, ranked number 2). The 10<sup>th</sup> sub-factor was Quick information sharing (Score  $W*10 = 314$  point, ranked number 3).

As per the analysis of WAA- table, Disadvantages of virtual platforms on students' progress, this is a very noteworthy criteria, from this title there are 10 (ten) sub-factors that comes under based on WAA, herewith researcher has mentioned three (3) highest score values. From the WAA demonstrating the disadvantages of virtual platforms on students' progress, the 10<sup>th</sup> sub-factor were Problems in connectivity with online classes (Score  $W*10 = 301$  point, ranked number 1). The 9<sup>th</sup> Sub- factor were More cheating habit increases (Score  $W*9 = 285$  point, ranked number 2). The 04<sup>th</sup> sub-factor is Not aware of the student's presence (Score  $W*4 = 280$  points, ranked number 3).

As per the study of WAA- table, Impact of virtual platforms on students' progress, this is very worth mentioning criteria, from this heading there are 13 (thirteen) sub-factors which comes under, herewith researcher has mentioned three (3) highest score values. From the analysis, the 12<sup>th</sup> sub-factor was the Paperless environment executed (Score  $W*12 = 323$  point, ranked number 1). Sub- factor 04<sup>th</sup> were Faster communication (Score  $W*4 = 317$  point, ranked number 2). The 07<sup>th</sup> sub-factor is Easy to collect the materials from the E-learning (Score  $W*7 = 308$  point, ranked number 3).

As per the research work of WAA- table, Common problems of CEBA (College of Economics and Business Administration) students faced by virtual platforms, this is very significant criteria, from this heading there are 10 (ten) sub-factors are comes under, herewith researcher has mentioned three (3) highest score values. From the investigation, the 10<sup>th</sup> sub-factor where Faculty cannot monitor the students who attended the classes or compare to regular classes teacher should be monitored to all the students but Online platform it's completely ignored, (Score  $W*10 = 326$  point, ranked number 1). Sub- factor 02<sup>th</sup> were poor internet connection from the students side (Score  $W*2 = 325$  point, ranked number 2). The 05<sup>th</sup> sub-factor is Rural places students have more connectivity issues (Score  $W*5 = 322$  points, ranked number 3).

### Conclusions:

Overall, this research study discovered that during the period of Pandemic Period or COVID -19, the virtual platform teaching was mandatory to all institutions in the global scenario. During the period of Covid -19, face-to-face teachings were suspended and institutions adopted the virtual teaching mode. Based on this research learning, researchers revealed that many changes happened during the couple of years. The general findings were that both the criteria (faculty and students) are not satisfied by the virtual mode, it based on too many reasons, students are not able to enrich the wide knowledge of the subject because of online and faculty also accept the same things because of no physical conduct. Reasons are the subject knowledge was diminishing, these are the various problems encountered; lacked in academic profile, decline in students CGPA (academic moving level also affected) and it will affect their employment and employability. From the other end, Faculty also faced tricky problems during the virtual mode, they are happenstance with number of issues; delivered the subjects on the classes (problems papers and diagram illustration etc.) could not be monitor by the students, their teaching satisfaction level is decline and difficult to monitor and conduct the examinations. At the esteemed end, researchers observed some of the prime merits also; huge level of connectivity by the students, wide spread of materials, easy to evaluate the annual exam, easy way to communicate etc. At the time of Pandemic, we never had any option to conduct the regular classes, we should implement Virtual only. After the COVID-19, we returned to normal situations, generally most of the reviews of literature described face-to-face teaching methodology as more effective than virtual platform learning and most of the academicians also thoughts the same. In order to involve and motivate students in virtual learning, the faculty should increase their engagement and motivation with the course material and activities.

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