

Factors Affecting the Quality of E-Learning During the COVID-19 Pandemic From the Perspective of Higher Education Students

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July 6-7, 2022

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Welcome



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Today's Overview

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Abstract

- Aim/Purpose
- Background
- Methodology
- Contribution
- Findings
- Recommendations for Practitioners
- Recommendations for Researchers
- Impact on Society
- Future Research



Introduction

- The purpose of the study is to bring out the importance of quality of e-learning in the higher educational instructions and its importance during the COVID-19 pandemic.
- The study aimed to reveal by using the technology to work in satisfying the needs of the quality of education and expectations of the students.
- The study is limited to the students and the Kingdom of Saudi Arabia.



Introduction (Cont.)

- There are studies related to the quality of e-learning based on the students' perspective. However, studies related to the Indian and Saudi Arabian students, specifically in the higher educational institutions during the COVID-19 pandemic, are rare. So, the study addresses the existing research gap.
- Various e-learning initiatives in educational institutions are grappling providing the quality education



Literature Review and Hypothesis

Construct

Authors

Administrative Support

(Aung & Khaing, 2016)

Course Content

(Makokha & Mutisya, 2016)

Course Design

(Makokha & Mutisya, 2016)

Social Support

(Queiros & de Villiers, 2016)

Technical Support

(Queiros & de Villiers, 2016)

Instructor Characteristics

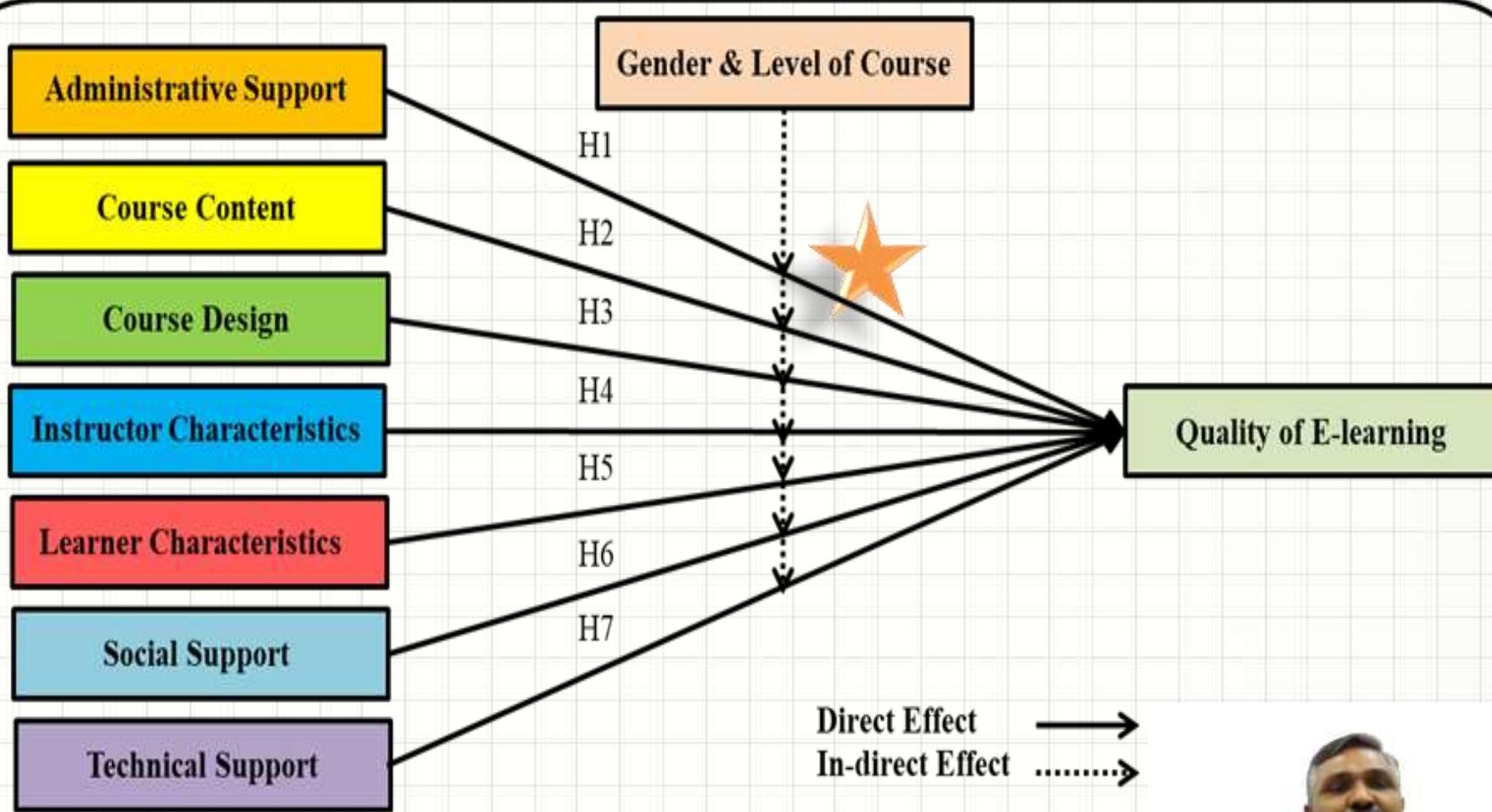
(Makokha & Mutisya, 2016)

Learner Characteristics

(Makokha & Mutisya, 2016)



Literature Review and Hypothesis (Cont.)



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Methodology

- Students attending online classes during the COVID-19 period in the education sector in India and the Kingdom of Saudi Arabia
- Questionnaire
 - Part 1 - The demographic details
 - Part 2 - Seven variables
 - Part 3 - Quality of e-learning
- Data collected through the Google
- A-Priori sample size calculator



Methodology (Cont.)

- The sample size of the study 784
- composite reliability
- discriminant validity 
- SmartPLS was adopted to test the goodness of model fit
- SmartPLS 3.3.2 - measurement model and structural model
- PLS-MGA tool was utilized to test hypothesis on moderating variables



Results

- **Goodness of Model Fit:** Less than 0.1 of SRMR value is a conservative view; the calculated result of 0.066 is a good fit for SRMR. d_G and $d_{ULS} < 95$ percent of bootstrap quantile considered as a conventional view; the computed result of 0.955 and 1.649 reflect the met criteria; therefore, the model attains a good fit.



Results (Cont.)

- **Indicator Reliability, Internal Consistency, Convergent Validity, and Fornell-Larcker Test of Discriminant Validity:** The average variance extracted AVE values  were above the minimum required level of 0.50, reflecting that the questionnaire represents the characteristics of the model and each research variable. The calculated values are less than 0.9, so the discriminant validity is accepted. The results proved measurement scales are reliable and



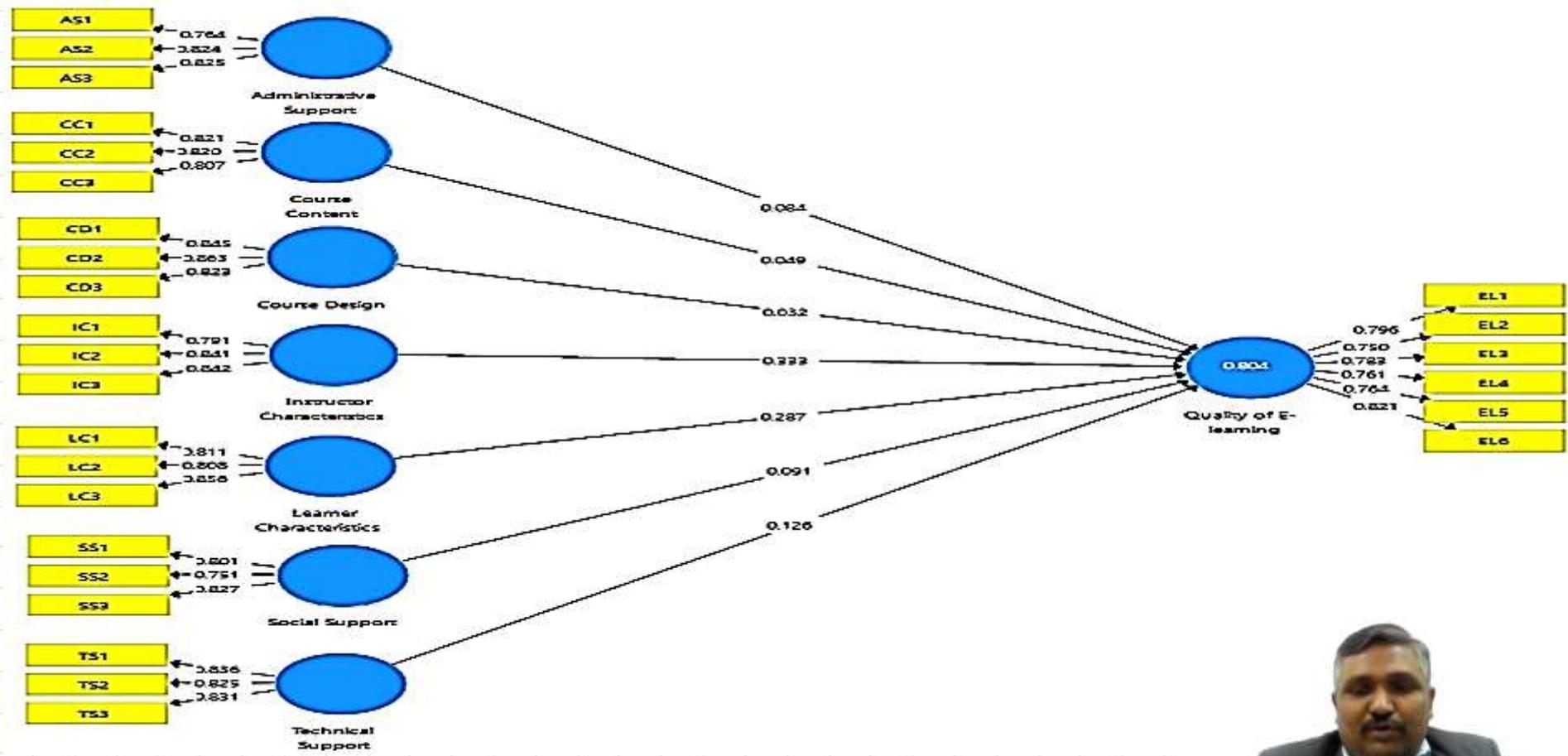
Results (Cont.)

- **Heterotrait-Monotrait Ratio of Correlations (HTMT)** criterion value less 0.90 proved that the measurement scales are reliable and valid.



Results (Cont.)

- **Structural Equation Model**



Results (Cont.)

- **Structural Hypothesis:** The Collinearity Statistics (outer VIF values) of administrative support 2.817, course content 2.005, course design 2.007, instructor characteristics 2.843, learner characteristics 2.808, social support 2.912, and technical support 2.084 were less than four represents that there is no multicollinearity effect among the variables.



Results (Cont.)

• Hypothesis Testing

	Beta	t-Statistics	P-Values	Decision
Administrative Support → Quality of E-learning	0.084	2.467	0.014	Supported
Course Content → Quality of E-learning	0.260	2.098	0.036	Supported
Course Design → Quality of E-learning	0.430	3.716	0.000	Supported
Instructor Characteristics → Quality of E-learning	0.333	11.338	0.000	Supported
Learner Characteristics → Quality of E-learning	0.287	9.786	0	
Social Support → Quality of E-learning	0.091	3.699	0	
Technical Support → Quality of E-learning	0.126	5.461	0	

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Results (Cont.)

- **Partial Least Squares - Multiple Group Analysis (PLS-MGA)** a percentage higher than 0.95 and smaller than  0.05 indicate the significant difference between the group in the specific PLS path coefficient



Discussion

- administrative support has a positive relationship on the quality of e-learning-5%
- course content has a positive relationship with the quality of e-learning -5%
- course design has a positive relationship with the quality of e-learning-1%
- instructor characteristics have a positive relationship with the quality of e-le



Discussion (Cont.)

- learner characteristics have a positive relationship with the quality of e-learning-1%
- social support has a positive relationship with the quality of e-learning-1%
- technical support has a positive relationship with the quality of e-learning-1%
- significant difference in the quality of e-learning between the male and female
- significant difference in the quality of e-learning between the levels of countries

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Conclusion

- different strategies for the students based on gender and level of course
- flexibility in the delivery of courses and instructions will enhance the quality of e-learning
- proper development tools (training path and e-learning portals)
- improved communication is ne technology-based system

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Conclusion (Cont.)

- opportunity for creating their style of teaching and communication
- proper management tools  will support the progression of the instructors in the quality of e-learning
- e-learning plays a vital role in continuing education during the COVID-19 pandemic



Elumalai, K. V., Sankar, J. P., R, K., John, J. A., Menon, N., Alqahtani, M. S. M., & Abumelha, M. A. (2020). Factors Affecting the Quality of E-Learning During the COVID-19 Pandemic From the Perspective of Higher Education Students. *Journal of Information Technology Education: Research*, 19(1), 731–753. <https://doi.org/https://doi.org/10.28945/4628>

QUESTIONS?

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