

Designing and validating the model of virtual education management in academic centers

Razieh Mohammadi¹

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Abstract

The current research was conducted to design and evaluate a model for virtual education management. The research method is applied research method, and it is exploratory in terms of the research family. In the qualitative part, using the foundation's data research method, first data were collected then items were determined. Then they were coded and analyzed.

The statistical population in the qualitative section were professors and specialists in educational management and virtual education at Tehran University and Mohagheh Ardabili University. In the quantitative phase, the questionnaire was compiled. The statistical population in the quantitative part includes 172 postgraduate students of Mohagheh Ardabili. Data were analyzed in the form of a structural model. The validation of the designed model was done in the quantitative part. In the quantitative stage, analysis was done based on SPSS and Lisrel software.

The results indicated that the variables of causal factors, contextual factors, interfering factors, strategic factors, and determined items are meaningful predictors for virtual education management. Also, the output of Lisrel software indicated that the model has a good fit. According to the results, causal factors, contextual factors, interfering factors, and strategic factors have a direct and significant effect on virtual education management. They can be considered effective factors for designing the virtual education management model.

Keywords: Education Management, Virtual, Modeling

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* Corresponding author: M.A in Educational Management, Department of Educational Sciences, Faculty of Educational Sciences, Mohagheh Ardabili University, Ardabil, Iran.

Introduction

The increasing need and demand for the implementation of continuous training regardless of the time and place limitations, as well as considering the lack of space, equipment, and facilities, has caused educational and social systems to look for new methods and approaches to provide more services to customers and appropriate and appropriate strategies. which is forming with the emergence of information and communication technology and its influence in educational systems at a faster pace, which leads to other forms of education with the names of virtual education, distance education, electronic education and education has been opened (Ebrahimzadeh, 2006). The purpose of this review and research is to collect the effective predictors and the items of these predictors to design the virtual education management model and evaluate the effectiveness and significance of these variables in this model. By examining the studies conducted in this field, considering the lack of a comprehensive system in the field of virtual education in virtual universities and the weaknesses and deficiencies that are observed in the field of educational and organizational issues in these centers, the role of planning and its importance and the need for educational restructuring more than It is felt in advance (Safaei et al., 2018).

In today's era, considering the importance of education, educational systems are looking for new tips that will help them deal with the changes and energy flows in the world and constant changes. To achieve development and application goals, it is very necessary to pay attention to new educational methods and implement programs of open, semi-attendance, distance, and virtual training (Hazarjaribi and Kopaei, 2016).

Methodology

In terms of purpose, the study is of an applied type and in the research family, it is a mixed exploratory one, in fact, both qualitative and quantitative methods have been used. In the qualitative part of the research, the field method (interview, questionnaire) was used to collect qualitative data. Interviews were conducted online, face-to-face, audio and through electronic correspondence. Factors were identified in the interviews with a number of experts and professors in the field of educational management and virtual education, these interviews were conducted based on a questionnaire (based on the sub-questions of the research) and then to list the components related to the factors, these factors summarized in It was given to them and in the last step of summarizing, the common components were separated and categorized in the form of independent items. Then it was compiled in the form of a questionnaire. In other words, the measurement tool was developed through qualitative research. Qualitative data was collected and analyzed and the main components were identified, and this was done using the foundation's data theory approach. Grounded theory was conducted in the quantitative part, and the questionnaire was given to the statistical sample, and the

design and validation of the model were done based on the data of this part. In the present study, the interviewed professors are the research sources. Specialists, experts, and professors in the field of educational management and virtual education from Tehran University and Mohaghegh Ardabili University form the statistical population in the qualitative dimension. Next, some research is done by graduate students of Mohaghegh Ardabili University who have management or executive experience in the field of virtual education and have direct experience using virtual educational methods or are active and involved in the virtual education system. The selection of people and items that have up-to-date information and useful data about the research topic is the goal so that they can guide the researcher in the way of forming the theoretical model. Of the respondents, if they have not had any experience with the virtual education class, their answers are excluded from the analysis process.

Cronbach's alpha	indicator
0/940	causal factors
0/932	contextual factors
0/922	interfering factors
0/933	strategic factors
0/977	virtual education management

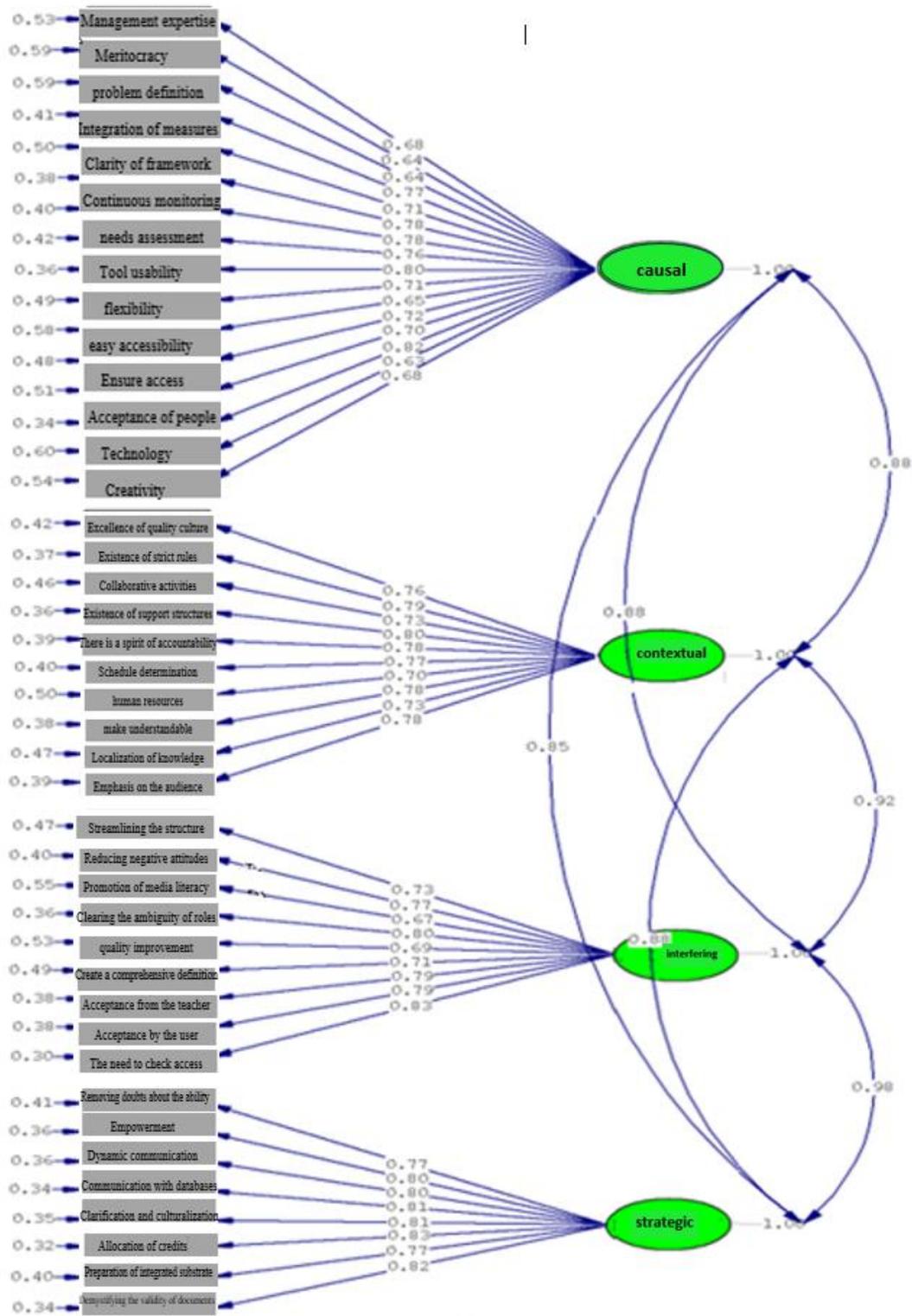
Results

In the analysis of information, it is tried to create a scientific, logical and proportional relationship between the data collected in the study and the results and discussion of the research through correct analysis and the application of standard statistical tools. By using spss and lisrel software and its statistical tests and using the data related to the sample population and the relationships seen in them, the obtained results and model can be generalized to the statistical population mentioned in the study.

In general, there is a range of criteria and indices to evaluate the fitness of the model that can be used to measure and evaluate the fitness of the entire model. Each index works differently according to the conditions (sample size, determination method, model complexity). The report of some of these indicators is based on the output of the model.

In the case of the root mean square index, the estimated variance of the approximation error is $RMSEA = 0.13$, which is close to 0.1, and this value shows the fit of the model. Considering the number ($RMR=0.05$) and the fact that this value is $RMR>0.1$, so the model is suitable in terms of mean squared error. Also, another one of these indices is the Softened Fit Index (NFI) or the Butler-Bonnet index. In this model, $NFI = 0.93$ has been calculated, which is greater than 0.9 and shows that the model has a good fit. because the closer its value is to 1, it indicates the appropriate fit of the model. Also, the RFI value is equal to 0.92, which is greater than 0.9 and shows the appropriateness of the model. The comparative fit

index or the CFI index is 0.95, and if it is greater than 0.9, it indicates the acceptability and suitability of the model. The reported indicators show the appropriate fit of the presented theoretical model and it can be generalized to the society.



Discussion and conclusion

The results obtained from the analysis and evaluation of the structural equation model, considering the value of the comparative fit index $CFI = 0.95$, which is greater than 0.9, is a sign of the acceptable value and appropriateness of the model fit. Also, referring to the RFI value equal to 0.92, which is greater than 0.9, it indicates that the model has a good fit. By summarizing about the index values, it can be said that the theoretical model presented in this study has a good fit and can be generalized to the society. In fact, the review of the reports regarding the values presented in the model and the analysis of the fit indices indicate that the presented model fits the real data.

Today, based on the roles involved in the policy-making process, policy-making processes are expected to be reviewed and implemented during several stages. Considering the scope of knowledge and access to information resources, one should not spend money and manpower on trial and error. Based on successful international experiences, he acted to create educational policies and educational reforms, taking into account the cultural and social foundations and infrastructures, as well as local, national and religious standards.

Supporting the establishment and use of virtual education in the field of education, including the areas of planning, designing and implementing new teaching and learning methods, especially in educational environments, designing courses and compiling practical contents, are among the most important and necessary factors in order to promote The level of education is based on modern changes, providing high-quality and continuous learning, increasing various skill levels, optimizing educational processes, which can ultimately lead to the improvement of the effectiveness and sustainability of the education system in wider dimensions (Ebrahimi, 2014).

Due to the wide dimensions of virtual education, the need to pay attention to other hidden and unexamined dimensions is felt more, and in this type of education, it is possible to objectify its advantages and shortcomings in the context of the experience of its implementation, and it is a good practical guide for its expansion with fewer shortcomings and rely on its advantages.

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