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MODELING THE ANIMATION-BASED CORE COMPETENCY ASSESSMENT UTILIZATION IN HOSPITALITY AND TOURISM MANAGEMENT

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ABSTRACT

This study identifies valuable features and functionalities for animation-based assessment utilizing the course syllabus as extant variables on modeling core competency for the Bachelor of Science in Hospitality and Tourism Management program and how these framework models affected the perception of instructors and students' acceptance using the virtual simulation. Questionnaires gathered information from the 249 undergraduate students who used online learning for the core competency as external variables and the five program teachers to measure the construct. The results reveal that the external variable did not support TAM behavioral intention and exposed mediating effect on perceived ease of use to the behavioral intention. Perceived ease of use influences the program learning outcome in the behavioral intended/course outcomes. In contrast, behavioral choice affects the actual use of the system on prototype utilization. Further implies that virtual simulation using animation-based core competency assessment was highly agreed upon by the users in the academe of courses dealing with laboratory activity.

KEYWORDS: *TAM adaptation; core competencies; program learning outcomes; intended/course learning outcomes; prototype utilization*

INTRODUCTION

Rationale

Higher education institutions have increasingly embraced online learning pedagogy worldwide, and academic leaders continuously plan strategically to implement this type of flexible learning to facilitate information exchange and collaborative learning to improve the quality of the teaching and learning process. It also led to access to education and training, realizing flexibility for time and place, responding to labor market conditions, and innovation technology itself (Park, 2009). Moreover, it is in preparation for lifelong and self-paced learning while simultaneously reducing costs and improving the overall cost-effectiveness of educational services (Park, 2009). The Commission on Higher Education (CHED) adopts and promulgates Guidelines on Flexible Learning (FL) to be implemented by public and private higher education (HEIs) by Commission en Banc (CEB) Resolution No. 412-2020, series of 2020.

According to the CHED guidelines, flexible learning (FL) is a design and strategy for the ongoing provision of programs, courses, and learning interventions that cater to the individual needs of learners in terms of location, pace, process, and learning outcomes (CHED Memo 04 s. 2020). It commonly uses the delivery methods of distance education and facilities of education technology. Also, FL is a learner-centered strategy based on students' needs. As a result, the academic community undertook in-depth planning and research to adopt or implement the institutionalized online teaching-learning process.

Some schools, like secondary and elementary, formulated their Learning Continuity Plan (LCP). Likewise, tertiary levels establish mechanisms to deliver instruction by utilizing online resources like Google Classrooms, zoom platform, and other online applications: Adobe Photoshop. Many Universities spent a lot developing Learning Management System (LMS) platforms as universal means of teaching and learning. However, some instructors and students need help embracing different forms of online technologies as a vital part of the teaching-learning process. LMS needs to fully address the problems teachers have when it comes to online learning.

Online teaching and learning with specific pedagogical content attributes which students who deliberately choose ahead of time are oriented to know what to expect in the online classroom (Fortune, Spielman, & Pangelinan, 2011; Gopal, Singh, & Aggarwal, 2021; Muthuprasad et al., 2021). Nonetheless, given the unexpected unpreparedness of many higher educational institutions, many students were forced to adapt to this sudden change (Rapanta et al., 2020). The unexpected change from the traditional pedagogical approach to non-traditional approaches as a response to COVID-19 meant many students needed to learn what to expect (Chen et al., 2020). As a result, improving their satisfaction would require understanding their evaluation of experiences with the online learning platform. For the most part, since online learning environments characterize by a myriad of pedagogical practice that involves active student-centered techniques (Keengwe & Kidd, 2010), students' cognitive and affective experiences are critical to improving learning performance. Given the unprecedented nature of COVID-19 (Sigala, 2020), it is surprising that current research needs to give more attention to attributes that influence students' online learning satisfaction.

Recent online teaching and learning studies during the pandemic point to the growing research interest in instructional strategies of online teaching (Bao, 2020), teaching facilitation (Rapanta et al., 2020), educational resources, practices, and policies (Huang, Tlili, Chang, Zhang, Nascimbeni, et al., 2020; Zhang, Wang, Yang, & Wang, 2020) and COVID-19 lockdown impact on student learning (Kapasia et al., 2020). To evaluate the quality of an online learning experience and satisfaction, however, only a few studies (Dziuban et al., 2015; Mejia, 2020; Sciarini, Beck, & Seaman, 2012; Bao, 2020; Elshami et al., 2021; Elumalai et al., 2021; Ho, Cheong, & Weldon, 2021). For the most part, even fewer studies have attempted to identify the dimensions that contribute to hospitality and tourism students' satisfaction with online learning before COVID-19 (Andalecio et al., 2020; Goh & Wen, 2020; Hsu, Xiao, & Chen, 2017) and the failure to determine student online satisfaction among tourism and hospitality students during COVID-19 pandemic is omnipresent. Hence, they employed expectation confirmation theory and an extended task-technology fit to investigate the continuance intention to demonstrate that confirmation and perceived usefulness influenced satisfaction and continuous intention among students. Similarly, studies among agricultural students' preference and perception of online classes show a high preference for online learning to cope with the COVID-19 lockdown. While these studies tangentially address students' satisfaction, they do not explain what attributes matter to hospitality and tourism education students whose needs and experiences differ from those of general college students (Patiar et al., 2021; Hussien & La Lopa, 2018).

Meanwhile, Gopal et al. (2021) argue that scant research attention exists on students' satisfaction and online learning performance during COVID-19. This lack of attention extends to the current hospitality and tourism literature due to two plausible reasons. First, due to the "growth obsession" of the tourism and hospitality industry, there has been a lack of research interest in the educational sector in comparison to the business sector, which emphasizes financial losses and survival strategies during the COVID-19 pandemic (e.g., Chang, McAleer, & Wong, 2020; Nepal, 2020). Second, along with such business sector orientation, immense attention is given to the impact of COVID-19 on tourism and hospitality firms, customers, and the workforce (e.g., Alonso et al., 2020; Filimonau, Derqui & Matute, 2020; Hao, Xiao, & Chon, 2020; Huang, Makridis, Baker, Medeiros, & Guo, 2020). The bulk of thematic areas advertised for journal calls for papers and research give further evidence of the neglect of the education sector (see Travel &Tourism Transformed, 2020). A recent stream of limited studies during the pandemic period identifies the pros and cons of Massive Open Online Courses, Small Private Online Courses, and live broadcasting as responsive measures taken by Nankai University to address the negative impacts of the COVID-19 pandemic on hospitality and tourism education (Qiu, Li, & Li, 2020). Additional studies among hospitality and tourism management students enrolled in online studies in Hong Kong suggest that a lower level of learning and financial anxiety enhances students' perceived online learning and subsequently improves their satisfaction (Tavitiyaman et al., 2021). However, the specific attributes of e-learning that trigger satisfaction during an emotionally challenging time, such as COVID-19, remain unknown.

The COVID-19 outbreak has disrupted the global educational system, and hospitality and tourism education are no exception (Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2020; Tavitiyaman, Ren, & Fung, 2021). With the continuous rise of cases (Worldometer, 2020), its attendant impact of shutting down schools coupled with several quarantines and social distancing measures to slow down the outbreak, it became an urgent imperative to "move online."

Such movement has forced global higher education into "non-traditional" learning settings, including online teaching and learning, to respond to the pandemic. Higher education institutions in Macau, a Special Administrative Region of the People's Republic of China, moved online to ensure the continuation of their educational operations and

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to lessen the detrimental effects of closures (Muthuprasad, Aiswarya, Aditya, & Jha, 2021). Nonetheless, questions about the specific online attributes such as ease of use, attractiveness, practicality, and efficiency that have a significant impact on their learning satisfaction have received limited academic inquiry, particularly in hospitality and tourism education where theory and practice remain an essential component of student's learning experience and satisfaction (Chen, Peng, Yin, Rong, Yang, & Cong, 2020; Dhawan, 2020; Wang, Liu, & Su, 2021).

Implementing a technology not willingly accepted and used by users' exhausts resources and wastes time and money (Cowen, 2009). Users must be able to engage in an environment using devices that can significantly influence online interactive learners learning. The user acceptance of a new information system, such as online learning and the use of instructional delivery platforms, is considered an essential factor that determines the success or failure of this system (Davis, 1993). Thus, this study uses a technology acceptance model framework to analyze whether the introduced one would be accepted and effective by users.

The Technology Acceptance Model (TAM) conceptual framework would be viable for learners in the world of technology in online interactive learning methodology in ensuring the outcome-based performance assessment in core competencies. It has gained considerable support in understanding and managing the process of new technology adoption (Wingo et al., 2017). TAM was introduced by Davis (1989) to be used in predicting the user acceptance of any information technology system and to diagnose design problems before the users use this system through two factors: perceived usefulness (PU) and perceived ease of use (PEU) (Lin & Yeh, 2007).

The programs like BS in Hospitality Management and BS in Tourism are highly technical courses that produce graduates skilled enough in the different management processes in hotels, restaurants, and resorts with core competencies dealing with development, management operations, and skills in different areas. These programs provide students with technical skills in marketing, finance, budgeting, and entrepreneurial skills. In the time of flexible learning during the pandemic, instructors and students find difficulties in dealing with the courses with laboratories. Thus, the teachers and students practiced and used Microsoft applications with features and tools online to deliver the laboratory programs and assessments. There are many problems in using various online tools, particularly in the performance output and assessment, such as no uniformity of the processes and applications used.

THE RESEARCH METHODOLOGY

Research Design

This section presents the research design, flow of the study, research environment, research respondents, data gathering instrument, data gathering procedure, and data processing technique to be applied in the study.

This research will benefit from structural equation modeling (SEM). SEM can be used to analyze research models with several independent and dependent variables and moderating or intervening variables (Fan et al., 1999). SEM provides several benefits and advantages for researchers, including building research models with many variables, examining variables or constructs that cannot be observed or cannot be measured directly (unobserved), testing measurement errors (measurement errors) for observed variables or constructs (observed), confirming the theory by research data (confirmatory factor analysis) and being able to answer various research problems in a more systematic and comprehensive analysis set (Fritz et al., 2007). Finally, SEM has higher flexibility for researchers to relate the theory with data (Grace, 2006).

Covariance-based structural equation modeling (CB-SEM) and variance or component-based SEM (VB-SEM), which includes partial least squares (PLS-SEM), are the two main categories that the SEM approach falls under (Grace, 2010). A variant is the deviation of the data from the mean (average) value of the sample data. Variance measures the deviation of data from the mean value of a sample, so it is a measure of metric variables. A CB-SEM tries to minimize the difference between the sample covariance matrix and the covariance matrix predicted by the theoretical model so that the estimation process produces a residual covariance matrix with a small value close to zero (Grace, 2010) while PLS-SEM aims to test predictive relationships between constructs by seeing whether there is a relationship or influence between these constructs (Hair et al., 2013). The logical consequence of using PLS-SEM is that testing can be carried out without a solid theoretical basis, ignoring some assumptions (non-parametric) and the parameter accuracy of the prediction model seen from the value of the coefficient of determination (R2). PLS-SEM is appropriate for research that aims to develop theory and to overcome tests that cannot be with CB-SEM (Harrington, 2009).

Structural Equation Modeling (SEM) was used in this study since this will analyze the used model (TAM2) model that is affected by the perception and profile of the respondent's groups in the acceptance of the new technology. Moreover, SEM also examines the relationship between the constructs of the learning outcomes, program outcomes,

and prototype utilization of the introduced technology used in a virtual simulation. The analysis then will relate to the theory of the study that will determine the underpinning factors affected by the perception of ease of use and usefulness towards actual system use.

Data Analysis

The Structural Equation Modeling (SEM) method was used to evaluate the proposed research model. It is more effective than the stepwise regression method due to its ability to measure all paths simultaneously (Jung, 2020). The path modeling software, Partial Least Square, was utilized to test the study's hypotheses. The PLS path modeling technique is an ideal tool for testing and validating exploratory models in the early stages of theoretical development (Secondi et al., 2011; Henseler et al., 2009). The PLS path modeling technique was chosen due to its various advantages. One of these is that it does not assume the normal distribution of the data and estimates the least squares recursively. It also has a predictive role, which is useful when planning future decisions (Afthanorhan, 2016; Falk & Miller, 1992; Ruiz, 2008). Compared to the covariance-based methods, the PLS approach is more flexible when it comes to the sample size requirements (Gefen, 1993; Chin, 1991). A more accurate method is to perform a power analysis on the model's proportion of predictors in determining sample size.

Measurement Model Analysis Results

The MSA was used to evaluate the reliability of a certain type of measuring instrument. These requirements are only applicable to the indicators of latent variable effects. A measuring instrument's reliability is usually measured through a series of question statements. The reliability of a measuring instrument depends on the consistency of its question statements with the responses of diverse respondents. For instance, if the alpha coefficients of Cronbach's are greater than or equal to 0.7, then the instrument should be reliable (Fornell & Larcker, 1981; Nunnaly, 1978; Nunnally & Bernstein, 1994; Kock, 2014a; Kock & Lynn, 2012). The flexible form of this criterion indicates that one of the coefficients must be greater than 0.7 (Kock & Lynn, 2012). This criterion is often used for the composite reliability measure, which is greater than the individual one (Fornell & Larcker, 1981; Kock & Lynn, 2012). The more lenient variant lowers the criterion to 0.6 (Nunnally & Bernstein, 1994; Kock & Lynn, 2012). Table 2 shows that the four (4) constructs' factor loadings exceed the threshold of 0.6. This shows that the items of the frameworks are valid tests of the individual construct.

Two coefficients, CR and Cronbach's alpha α, are taken into account when determining the level of reliability in a specific construct (Bagozzi & Yi, 1988; Chin, 2010; Cohen, 1992). In this PLS-SEM study, Hair et al. (2014) suggested using CR. Measurement model results are shown in Table 2, demonstrating significant internal consistency and reliability. The indicator loadings were all greater than 0.60, and the CR and α values were between 0.853 - 0.896 and 0.723 - 0.860, respectively. Based on these findings, it is clear that the reliability of all indicators and constructs is sufficient.

The discriminant and convergent validity of the reflective measurement model are also considered to validate its validity (Hair, Ringle, et al., 2011; Hair, Sarstedt, et al., 2011). According to (Bagozzi & Yi, 1988; Hair, Ringle, et al., 2011; Hair, Sarstedt, et al., 2011), the average variance of the constructs' extracted values should be greater than 0.50 for a valid convergent validity. The AVE is only applicable to models that use reflective indicators. In this study, the AVE values ranged from 0.584 to 0.783, which indicates that the model's convergent validity is highly acceptable (Davcik, 2014; Hair et al., 2014).

Furthermore, while the researcher developed a translation of constructs of TAM to the context of the study based on the supporting literature, the perceived usefulness items which were translated to the context of the study as “intended learning outcomes” were found out to be confused with “course learning outcome items”. This was discovered through the initial test of determining the discriminant validity of the construct. Consequently, the items where combined with course learning outcomes as the solution.

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Table 10. Indicator Loadings, Convergent Validity and Reliability Tests

Constructs	Items	Factors Loadings	Cronbach's α	CR	AVE
Core Competency	EV3	(0.675)	0.738	0.853	0.662
	EV5	(0.888)			
	EV6	(0.861)			
Program Learning Outcome	PEOU1	(0.885)	0.723	0.879	0.783
	PEOU5	(0.885)			
Intended Learning Outcome/ Course Learning Outcome	BI2	(0.830)	0.860	0.896	0.590
	BI3	(0.846)			
	BI4	(0.749)			
	PU1	(0.699)			
	PU2	(0.742)			
	PU5	(0.734)			
Protype Utilization	AUS1	(0.727)	0.821	0.875	0.584
	AUS2	(0.756)			
	AUS3	(0.827)			
	AUS4	(0.759)			
	AUS5	(0.748)			

Table 10 shows the measurement model's discriminant validity. This is the degree to which a construct is different from the other constructs in the model (Chin, 2010; Hair J. F. et al., 2014). The average variance of each construct is compared with the greatest correlation of any other construct within the model. It can also be done by comparing the load of an indicator with the associated construct (Chin, 2010; Fornell & Larcker, 1981; Hair, Ringle, et al., 2011; Hair, Sarstedt, et al., 2011).

The study utilized the AVE square root to determine the degree to which a measurement model's discriminant validity can be assessed. The questionnaires' validity and reliability were established for measuring the four (4) components, and Table 4 also shows that the constructs' HTMT ratios are acceptable.

Table 11. Discriminant Validity using the Forknell-Larcker Criterion

Constructs	1	2	3	4
1. Core Competency (EV)	(0.814)	0.118	0.174	0.293
2. Program Learning Outcome (PEOU)	0.118	(0.885)	0.659	0.545
3. Intended Learning Outcome/ Course Learning Outcome (BI)	0.174	0.659	(0.768)	0.687
4. Protype Utilization (ASU)	0.293	0.545	0.687	(0.764)

Note: Diagonal values are the squareroot of AVE.

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Table 12. Discriminant Validity using HTMT Ratio of correlations

Constructs	1.Core Competencies (EV)	2. Program Learning Outcome (PEOU)	3. Intended Learning Outcome/ Course Learning Outcome (BI)
2. Program Learning Outcome (PEOU)	0.219		
3. Intended Learning Outcome/ Course Learning Outcome (BI)	0.234	0.839	
4. Protype Utilization (ASU)	0.388	0.705	0.820

Note: The HTMT ratios are all significant, that is p <0.05 (one-tailed). The values are within the lower and upper limits of the 90% confidence intervals.

Structural Model Analysis Results

Several studies have already established guidelines and recommendations on how to include information in a manuscript that is used for confirmation factor analysis. Some of these include the Alaike information criteria AIC, Chi-square, the Comparative fit, the Parsimonious fit, and others include the Goodness-of-Fit index (Davcik, 2014; Hair et al., 2014; Hazen et al., 2014; Schreiber et al., 2006; Xiong et al., 2015). Kock (2012) stated that the difference between PLS-SEM and CB-SEM is that the former is better suited for the research that aims to confirm or test hypotheses, while the latter is ideal for the study that aims to make predictions. A multiple regression analysis is comparable to PLS-SEM in terms of its theoretical and practical applications. In terms of model fit analysis, if the goal is to test just hypotheses, then the model fit indices are useless unless every arrow represents a hypothesis. On the other hand, if the goal is to determine the best model, then the model fit indices should be useful.

Nonetheless, using PLS-SEM software techniques, the following indices were calculated: Fit indices such as the standardized root mean squared residual (SRMR), the standardized mean absolute residual (SMAR), the standardized Chi-squared (SChS), the standardized threshold difference count ratio (STDCR), and the standardized threshold difference sum ratio are used to compare indicator correlation matrices (STDSR). As is the case with traditional model fit and quality indicators, the interpretation of these indices is dependent on the SEM analysis's objective. Due to the fact that these indices relate to the fit between the model-implied and empirical indicator correlation matrices, they become more important when determining whether one model fits the original data better than another, especially when combined with the conventional indices Kock (2021). When evaluating the model's fit to the data, the following criteria are recommended: As shown in Table 5, the average path coefficient (APC) is 0.482 with a P-value of <0.001, the average R-squared (ARS) is 0.416 with a P-value < 0.001, and the average adjusted R-squared (AARS) is 0.413 with a P-value of <0.001. The average block VIF (AVIF) value is 1.432, which is good if the value is 5, but preferably 3.3. The average full collinearity VIF (AFVIF) value is 2.243 which is acceptable if 5, and preferably 3.3, is considered desirable. Tenenhaus GoF (GoF) equals 0.522, which is considered small if it is equal to 0.1, medium equals 0.25, and big equals 0.36. GoF is considered to be large when it is greater than the geometric mean of the average communality (outer measurement model), and the average R^2 of endogenous latent variables serves as an index for globally validating the PLS model as it seeks a compromise between the measurement process and the structural model, respectively. The Sympson's paradox ratio (SPR) equals 1.000, acceptable if greater than 0.7, and ideally greater than 1. As a result, it is considered an optimum in this research. The R-squared contribution ratio (RSCR) of 1.000 is considered optimal in this research, with 0.9 being acceptable and 1 being perfect. The statistical suppression ratio (SSR) equals 1.000, which is considered acceptable if greater than 0.7 and ideal if more than 1. Nonlinear bivariate causality direction ratio (NLBCDR) = 1.000, acceptable if the value is greater than 0.7, is considered acceptable in this research. As a result, this model on the influence of various factors to the prototype utilization has high fit indices (Kock, 2021).

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Table 13. Model fit and quality indices

Index Name	Values	Criterion (Kock, 2020)
Average Path Coefficient (APC)	0.482, P<0.001	P <0.05
Average R-Squared (ARS)	0.416, P<0.001	P <0.05
Average Adjusted R-Squared (AARS)	0.413, P<0.001	P<0.05
Average block VIF (AVIF)	1.432	Acceptable if <= 5, ideally <=3.3
Average Collinearity VIF (AFVIF)	2.243	Acceptable if <= 5, ideally <=3.3
Tenenhaus GOF	0.522	Small >=0.1; mediam >=0.25; large >=0.36
Sympson's Paradox Ratio (SPR)	1.000	Acceptable if >=0.7, ideally =1
R-Squared contribution Ratio (RSCR)	1.000	Acceptable if >=0.9, ideally = 1
Statistical Suppression Ratio (SSR)	1.000	Acceptable if >=0.7
Nonlinear Bivariate Causality Direction Ratio	1.000	Acceptable if >=0.7

The table 13, shows the results of the study on the coefficient of determination (R^2), the full collinearity VIF, and the Q^2 of the endogenous variables. The R^2 results indicate the extent to which the variation in the endogenous construct can be explained by the model's identified causal constructs. Also, the VIP test aims to identify the possibility of bias in the results of the study due to multicollinearity, as well as the degree to which the model's findings can be considered reliable. The results indicate that the model is free from the issue of collinearity. Furthermore, the Q2 test indicates the predictive validity of the model to each EC. The correlation between the Q2 and the EC is greater than zero (Hair. 2011).

Table 14. Coefficient of Determination, Full Collinearity VIF, Q2

Endogenous Construct	R^2	Full Collinearity VIF	Q^2
Program Learning Outcome (PEOU)	0.194	1.822	0.184
Intended Learning Outcome/ Course Learning Outcome (BI)	0.524	2.420	0.522
Protype Utilization (ASU)	0.531	2.072	0.529

Note: R^2 – Coefficient of Determination, Q^2 – Stone-Geisser's Value

Results of the testing of hypothesis as shown in Table 7 indicate that not all the hypotheses are supported. Noticeably, only the impact of core competencies has been found out to have insignificant impact to learning outcomes. Although such relationship is rather trivial, the mediating effect of program learning outcome has played its role in developing the impact of core competencies to the intended/course learning outcome.

Table 15. Results of Hypothesis Testing

Hypothesis	Path	B	P-value	f^2	Decision
Direct Relationship					
1	EV → PEOU	0.441	<0.001	0.194 (M)	Supported
2	EV → BI	0.079	0.100	0.036 (S)	Not Supported
3	PEOU → BI	0.677	<0.001	0.488 (L)	Supported
4	BI → AUS	0.728	<0.001	0.531 (L)	Supported
Indirect Relationship					
5	EV → PEOU → BI	0.299	<0.001	0.042 (S)	Supported

Note: EV– Core Competencies; PEOU – Program Learning Outcome; BI - Intended Learning Outcome/ Course Learning Outcome; ASU – Protype Utilization. **$f^2 \geq 0.02$ (Small) - S; $f^2 \geq 0.15$ (Medium) - M; $f^2 \geq 0.35$ (Large) -L**

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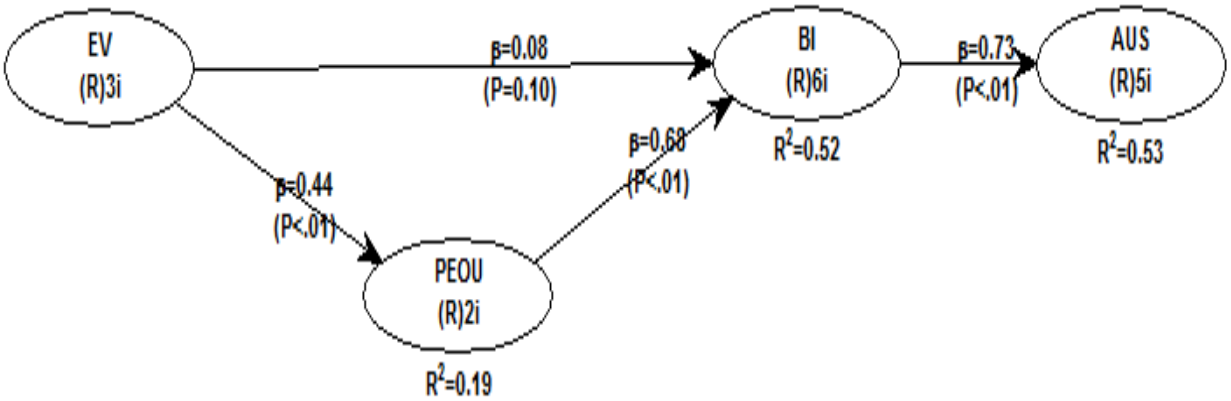

Figure 12. Structural Model with Beta Coefficients

The structural model presented in figure 11 depicts the significant influence of different constructs in the external variables on core competencies extended variable construct in Technology Acceptance Model. They observed that the indirect relationship between core competencies and perceived ease of use has the most significant influence among the constructs, with a beta coefficient of 0.441. Next are the external variables construct of program learning outcomes and behavioral intention having a beta coefficient of 0.079 is not supported and 0.677 external factors respectively in course learning outcome supported.

Moreover, found all constructs investigated to influence TAM adaptation to be significant. These constructs are benefits with a beta coefficient of external variables to the actual system use on prototype utilization of 0.728. The indirect relationships of external core competencies to the perceived ease of use in the behavioral intention 0.299 has a significant influence.

External variables influence the core competencies of TAM.

The analysis discloses the relationship between external variables and core competencies. Hence, hypothesis 1 (HI) has a beta coefficient of 0.441 and a P-value of <0.001. Further, the result corroborates with the findings that today's companies need to understand their core competencies and capabilities to successfully exploit their resources (Prahalad & Hamel, 1990), indicating that all organizations have different resources that enable them to develop different strategies. Henceforth, they still have a distinct advantage if they can create designs their competitors cannot imitate. The ability of managers to identify and exploit these particular or core competencies spells excellence (Butler & Fleming, 2002).

Curriculum Alignment: Industrial technology management of businesses is one of the leading economic activities in the hospitality and tourism industry nowadays. Thus, their perception of the significance of external variables in the perceived ease of the behavioral intention is positive. Moreover, the intended course learning outcome is broad in the field of expertise of that non-board program which is a thorough investigation.

There is a negative relationship between an external variable to the behavioral intention.

Found that hypothesis 2 (H2), where external factors did not support TAM behavioral intention, shows a beta coefficient of 0.079 and a P-value of 0.100. Furthermore, the result aligned with the findings of W. T. Wang & Wang (2009) studied the instructors' adoption of web-based learning systems. It recommended further research on external variables affecting the PU and PEOU. W. T. Wang and Wang (2009) investigated how teachers used web-based learning systems and suggested more research on factors outside the PU and PEOU. To this framework for assessing preceptors' Behavioral Intention to Use LMS in Higher Education, this study integrates TAM with technical variables (such as TTF, Compatibility, and Convenience), personal factors (like Self-Efficacy and Personal Innovativeness), and social aspects (Subjective Norm).

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During this time, children begin to guide their feelings and ideas toward the goals they establish for themselves and use mental strategies to manage their behaviors. These are the highest expectations for children's abilities—self-regulation skills (Bayndr, 2016). According to studies, self-regulated learners may control their learning experience, take steps toward accomplishment, and take on new roles (Zimmerman, 1989). According to a multilevel statistical model of technology and teacher education in Turkey, the lack of training, materials, and hardware are the main barriers to technology integration in teacher education (Goktas, Yildarim & Yildarim, 2009). Suppose teacher educators with the training and resources they need. In that case, they may be unable to model appropriate technology usage and demonstrate its value to preservice teachers, making it more difficult for institutions to implement comprehensive technology instruction approaches.

The evolution of learning media has altered the composition and structure of teacher-student interactions. Teachers with a situation where material distribution was no longer performed face-to-face in class, particularly during the Covid-19 pandemic, necessitated remote learning activities. As a result of this situation, the educational world must adapt to the new learning patterns. Distance studying through the internet might get monotonous, especially for students. During the Covid-19 pandemic, Dhawan (2020) discovered some online flaws, including technical issues (difficulty signing in, online network), time management, teachers' inability to run web-based learning, distraction, anxiety, bewilderment, and lack of concentration.

Perceived ease of use influences the program learning outcome in the behavioral intention of the intended course outcome

The data shows a significant relationship between perceived ease of use and behavioral intention with a beta coefficient of 0.677 and P-value of <0.001; thus, hypothesis 3 (H3) is supported. The result concurs with the findings of in the studies of the relevant literature, the contributions of teaching methods based on inquiry and cooperation to students' achievement and the development of their problem-solving skills are more significant than the contributions of traditional methods (Cooper, Cox, Nammouz, Case, & Stevens, 2008; Johnson, Johnson, & Smith, 1998; Lou, Abrami, & Spencer, 2000; Schroeder, Scott, Tolson, Huang, & Lee, 2007).

Behavioral intention influences the actual use of the system on prototype utilization

The analysis reveals the positive influence of behavioral intention and the actual use of the system. The results show a beta coefficient of 0.728 and a P-value of <0.001; thus, hypothesis 4 (H4) is supported. Also, the result implies that the learner's perception of the impact of prototype utilization is construed and observable. Congruent with the findings of the COVID-19 pandemic, Schuck et al. (2021) discovered that teachers prioritized supporting families and reported chances for parents and teachers to learn about one another. In addition, parental autonomy support is another vital external environmental factor for student learning. In the traditional classroom, teachers mainly guide and support student learning. However, parental autonomy support is also significant when students receive full-time online education in their homes (Zheng & Wan, 2020). Students' characteristics, such as cognitive ability, age, gender, and talent, influence their SRL ability (Zimmerman & Martinez-pons, 1990).

External variables mediate perceived ease of use and behavioral intention

The final model exposes the mediating effect of external variables on perceived ease of use and behavioral intention. The result shows a beta coefficient of 0.299 and a P-value of <0.001, which is acceptable. Thus, Hypothesis 5 (H5) is supported. Further, there is a significant relationship between core competencies and intended course learning outcomes in behavioral intention. Therefore, there is a partial complementary mediation of external variables in the study. It confirms the findings of the teachers' everyday practice, which includes enactors of curriculum, creators of curriculum, and active engagement in education policy through curriculum development that meets the needs of their students (La Fevre, Timperley & Ell, 2016).

As a result, lecturers should begin a blended course by explicitly envisioning information with students about how they will study and the learning outcome expectations, such as projects and at-home teamwork assignments (Wojcicki, Izumi, & Chang, 2015).

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SUMMARY, FINDINGS, CONCLUSION, AND RECOMMENDATIONS

The study's summary of findings, conclusion, and recommendations are presented in this chapter.

Summary

In the core competency, gathered the following from the analysis of the data. The first section, in terms of the respondents, profile the college of business and management instructors who are graduate of Bachelor of Science in Hospitality and Tourism programs 90 percent earned units in master's degree in both programs' respondents. The field in the master's degree Masters of Science in Business Administration Major in Hotel and Restaurant Management (MBA-HRM), Masters of Science in Hotel and Restaurant Management (MSHRM), Masters of Science in Tourism Management (MSTM), Doctor of Philosophy Major in Technology Management (Ph.D. TM), and Doctor in Business Administration (DBA). The remaining 10 percent of the respondent are non-residence instructors who do not yet have a unit's maximum requirement of a master's degree and new faculty status in the institutions. Both programs offered are non-board, relevant in this field of specialization is to have a certification in trade skills as one of the indicators of graduates that can compete in the industry globally.

The core competency as perceived ease of use is that the content should appear visually to make the lesson reliable, the objectives, and address the material, resources, and methods while at home during a pandemic. This paper helps instructors understand the most basic and vital fundamentals of animation editing. The researcher wants to inspire educators to make their animations and use them as an effective tool for learning, as we are all struggling to realize the goal of effective distant education during the challenging times of the pandemic. The research explores the influencing factors of online and offline interactive learning.

The study's respondents included 254 students; at first, second-, and third-year levels in both tourism and hospitality programs in different ongoing courses dealing with reasonable practices of Cebu Technological University – San Francisco Campus under the College of Business and Management. It also examines the present challenges to continuing undergraduate programs amidst the pandemic.

Researchers did this to test the accuracy of outcome-based performance virtual simulations using data from the student's answers participation rate of 98% and the remaining percentage from instructors handling significant courses. I'll utilize a structural equation model (SEM) to support the claim in this research. Using Adobe Photoshop, Illustrator, Premiere Pro, and AfterEffects proves their importance in blended learning in the online assessment of the program and planned course learning outcomes.

Findings

Two hundred fifty-four (254) respondents in all participated in the survey. Of the 166 responders, 65.35% were between the ages of 16 and 20. The second-highest group was respondents aged 21 to 25, who comprised 28.74% or 73 of the total respondents. Following are respondents between 26 and 30 (1.97%), with a corresponding five, and ages of 31 and 35 (3.16%), with a total of eight respondents. The next group of responders, making up 39% of the total, were those between the ages of 36 and 40 and 46 and 50. The following respondents had 65.35% and 28.74%, respectively, aged between 16 and 20 and 21 to 15. Responses between the ages of 41 and 45 were the next group, making up 0.0% of all respondents. Finally, 0.39% of all responders were between the ages of 46 and 50. The majority of responders are between the ages of 16 and 20, according to age and gender statistics.

The majority of responders are between the ages of 16 and 20, according to age and gender statistics. Further, according to McKnight-Tutein and Thackaberry's (2011) examination of a substantial body of literature that contends that women learn differently than men, women are inherently more successful in the online learning environment. They said that women were in a prime position to be good learners because they frequently used effective learning strategies that enabled them to learn in relational ways by depending on connections.

Due to the epidemic, we also transmitted 100% of the survey questionnaire online. Therefore, we must adhere to the policy. The study by McKnight-Tutein and Anderson, Haddad (2005), and Thackaberry (2011), which concluded that this style of instruction was beneficial to women having a high degree of academic achievement, represented the analysis that female students had more prospects for development in online learning. Respondents aged 20 and under-engaged in the study at a higher rate than respondents aged 21 and older.

Moreover, core competencies vitality of virtual simulation employing animation-based suitability for native devices is one of the fun environments during their tertiary level and have agreed on their perception of this learning to set, as shown to various things under external variables. The responses from those who disagreed and could not make up their minds about destruction and the difficulty in understanding showed that blended learning

implementation at the school met students' expectations. Prahalad and Hamel (1990) defined organizational learning as "the organization's collective learning, particularly how to coordinate varied production capabilities and combine various streams of technologies," later broadening this definition to include "a bundle of skills and techniques that enable a company to provide benefit to customers" (Ljungquist, 2007). Graduates in the hotel and tourist industries expect to be customer- and product-focused graduates.

The study reveals the connection between outside factors and core competencies. Therefore, a beta coefficient of 0.441 and a P-value of 0.001 support hypothesis 1 (HI). The outcome also supports that businesses must be aware of their core competencies and capabilities to fully utilize their resources (Prahalad & Hamel, 1990), demonstrating that every organization has unique resources that allow it to formulate distinct business strategies. Therefore, if they can produce designs that their rivals cannot duplicate, they will still have a clear advantage. Excellence is the capacity to recognize and capitalize on these unique or core abilities (Butler & Fleming, 2002).

A beta coefficient of 0.079 and a P-value of 0.100 was discovered for hypothesis 2 (H2), which states that external influences did not support TAM behavioral intention. Additionally, the outcome matched W's findings. T. Wang & Wang (2009) investigated teachers' use of web-based learning systems. It suggested more investigation into factors outside of the PU and PEOU.

With a beta coefficient of 0.677 and a P-value of 0.001, the findings demonstrate a significant link between perceived ease of use and behavioral intention, supporting hypothesis 3 (H3). According to the results, which are consistent with studies of the pertinent literature, collaborative inquiry-based teaching methods have a more significant impact on student's achievement and the development of their problem-solving abilities than traditional teaching techniques (Cooper, Cox, Nammouz, Case, & Stevens, 2008; Johnson, Johnson, & Smith, 1998; Lou, Abrami, & Spencer, 2000; Schroeder, Scott, Tolson, Huang, & Lee, 2007).

The investigation demonstrates the beneficial effects of behavioral intention and system use. With a beta coefficient of 0.728 and a P-value of 0.001, the findings support hypothesis 4 (H4). The outcome also suggests that the learner's interpretation of the effect of using a prototype is interpreted and observable. Schuck et al. (2021) found that instructors emphasized helping families and reported opportunities for parents and teachers to get to know one another, which is consistent with the findings of the COVID-19 epidemic.

The final model reveals how external variables affect how easily be used and how people will act. The outcome displays an acceptable beta coefficient of 0.299 and a P-value of 0.001. As a result, Hypothesis 5 (H5) was confirmed. Additionally, there is a strong correlation in behavioral intention between core skills and planned course learning outcomes.

Conclusion

A highlight in the result of this study implies that virtual simulation using animation-based core competency assessment of both hospitality and tourism students had indicated that they highly agreed on this learning via online and offline as an alternative classroom of facilities while in the pandemic. However, students believed that they needed more advanced and upgraded gadgets and an internet connection to meet the expected output by the program's outcome-based performance in collaboration with industry trends opportunities awaited graduates during the covid19 times. Institutions' support of internet infrastructure and facilities for the stakeholders is vital to sustaining the quality of education during this time. The functionalities of applications in soft skills alignment of the curriculum with the industry expectations of graduates is a good investment, to sum up, the totality of a corporate. Compare the two groups of learners; one group is exposed to the virtual simulation, while the other group is not; to determine how practical and effective the application was.

Recommendations

Based on the findings of the study, the following are recommendations:

1. Stable internet infrastructure in remote areas in the group of islands.
2. Facilities to cater to students that don't have enough gadgets while having online and offline classes during the pandemic.
3. Campus-owned Wi-Fi to address the Flexible Learning Management System.
4. Animation-Based instructional material for the learner in an enjoyable environment during a pandemic lockdown.

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