FACTORS LEADING TO REMOTE LEARNING IN THE COVID 19 EPOCH: UNDERGRADUATES' AND POSTGRADUATES' PERSPECTIVES

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INTRODUCTION

COVID 19, the world's catastrophe of the 21st century, affected global wellbeing of individuals completely. As of May 2021, the reported COVID cases globally are 153 million, while 3.2 million deaths have been reported by the World Health Organization (World Health Statistics 2021: A Visual Summary). The intensity of the virus has recorded the larger amount of covid patients all over the world within a relatively shorter period. It has done a huge damage to the world's health system while severely compromising the production, financial, economic, environmental and education sectors (Dey & Loewenstein, 2020). The forthcoming prosperity of a country depends on the quality of the education system (Ochilova, 2020). Education structure is not the mere imitating of a physical education scheme but also comprises virtual practices such as distance learning, remote learning and so on (Li et al., 2020). The Sri Lankan education system has not circulated efficiently and effectivelyin 2020 as of the COVID 19, thereby roots to the alternation of government examination dates, way of conducting the exams, assignment structures and etc. (Olaganwatte, 2020). The countless opportunities that the Sri Lankan education system received due to the COVID 19 outbreaks are supplementations to the traditional educational techniques such as the use of virtual, especially online, and remote and mobile learning methods.

At the very outset, users are reluctant to use technical methods because due to trepidation, but in the present context almost all universities, postgraduate institutes and research organizations, as well as some schools, use remote learning techniques since it provides high value to the Sri Lankan education system rather than doing nothing (Hayashi et al., 2020). The usage of remote learning escalates day by day because of numerous inexplicable factors. The real intention of and reasons for the usage is a modernized theme to analyses what will benefit all parties when engaging in online learning and teaching. Contemporary factors that are considered to be important have been demonstrated by a literature review. A diversified learning environment, self-paced learning, pressure from social media and learning packages offered by telecom partners are pragmatic and timely dynamics that determine the usage of remote learning in Sri Lanka (Priyadarshani & Jesuiya, 2021; Dutta, 2020; Ekanayake & Weerasinghe, 2020). Therefore, the primary objective of this research is to ask whether a diversified learning environment, self-paced learning, pressure from social media and learning packages offered by telecom partners contribute to the usage of remote learning during the Covid 19 crisis to identify how these aspects play a significant role in remote learning during the Covid 19 pandemic period.

The theory applicable with the usage of technology is unified theory acceptance and use of technology (UTAUT) that provide the basis for a conceptual framework for this research. The theory is exceedingly used by former researchers in their studies (Thongsri et al., 2019; Kim & Lee, 2020). Accordingly, to the theory, the main four factors that affect the use of technology can be classified as performance expectation, effort expectation, social influence and facilitating condition. Diversity, self-paced learning, pressure from social media and learning packages offered by telecom partners are sub factors that are pragmatic and timely dynamics in determining the usage of remote learning in the Sri Lanka. These factors help develop a model, based on the factors that determine the usage of remote learning as explained by the unified theory of acceptance and use of technology, of which there is limited research in the Sri Lankan context.

METHODOLOGY

As explained by prior research, we have selected four predictive factors that are considered to be significant to the use of remote learning: diversity, self-paced learning, pressure from social

media and learning packages offered by telecom partners. Structured five-point Likert scale questionnaires were distributed as google forms, over the course of one week, among 170 undergraduates and postgraduates at Sri Lankan universities (based on the convenience sampling technique) and achieved a 87% responsive rate. The collected data was analyzed by using the software IBM SPSS Statistics 20 package. The demographic factors in the first part of the questionnaire was analyzed by using a frequency test, and a Confirmatory Factor Analysis approach (CFA) was followed to check the validity of the four dimensions that affect the usage of remote learning.

RESULTS AND DISCUSSION

Sample Profile

Descriptive statistics have summarized the demographic characteristics and structure of the data obtained. Accordingly, it is found that 76.1% of the sample is female while rest represents the male respondents. According to the analyzed data, most respondents are in the 20-25 years' age category, which comprises 63.8% of the sample. Hence, the sample consists of relatively younger students, and the majority (63.8%) of the respondents are in the category of university undergraduates while 36.8% are postgraduate students.

Reliability Test

Cronbach's Alpha is a coefficient that measures internal consistency. It is highly used in business, the medical sciences, management, the social sciences and across other disciplines (Cronbach, 1951). A total of 16 items that measures the four factors of the usage of remote learning were used for statistical analysis. According to Bouwman et al. (2018), Cronbach's alpha values should be above 0.7 In this study, in all variables, Cronbach's Alpha is ranged between 0.715 – 0.815 (Diversity 0.779, Self- Paced learning 0.751, Social media pressure 0.770 and learning packages offered by telecom partners 0.823). Therefore, it can be identified that all four factors have higher reliability.

Convergent validity

If correlations exceed the 0.30 limits, the inter- correlations can be identified, it is enough commonality to justify comprising factors. (Tabachnick & Fidell, 2001). According to correlation metrics from the SPSS analysis, all the inter correlations exceed 0.30 and, accordingly, inter correlations have evidenced to suggest that the factoring would be beneficial.

Discriminant Validity

Henseler et al. (2015) claimed that discriminant validity affirms the uniqueness of the model as well as measures the discriminant validity, and the value concerned is required to be greater than the values of the other latent variables. Even though the output displays high correlation between questions within the same factors, 16 questions under the four factors have low correlations between separate factors excluding itself. Thereby, the study evidences higher discriminant validity.

Factor Analysis

The Kaiser-Meyer-Olkin in SPSS that measures the sampling adequacy indicates the 0.000 significance, confirms that the study sample adequacy is sufficient for the factor analysis. Initial eigenvalues should be greater than or equal to one for identifying the variance does a factor has to explain to warrant the retention of a factor. (Beavers et al., 2013). Since four components illustrate that the Initial Eigenvalues measured by the principal component analysis is higher than 01, then the results revealed that the four factors provide a high individual contribution to the overall explanation. The identified four factors have a 63% explanatory power of usage for remote learning overall, as shown in table 01.

Table 01: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative %
1	**5.609**	35.058	35.058	5.609	35.058	35.058
2	**1.989**	12.431	47.489	1.989	12.431	47.489
3	**1.382**	8.639	56.128	1.382	8.639	56.128
4	**1.134**	7.085	63.212	1.134	7.085	**63.212**

Extraction Method: Principal Component Analysis.

Due to the high correlation and factor loading, all the items are accepted. Table 2 summarizes the relationship among the factors and their observed indicators. Items with high values are given in bold to contrast against the loading on their respective factor. Questions are named D1-D4 (Diversified Educational Environment), S1-S4 (self-paced learning), SS1-SS4 (pressure from social media) and L1-L4 (learning packages offered by telecom partners). Question D1 indicates the chance to meet new friends via remote learning, D2 indicates the chance to identify the new lecturers via remote learning, D3 asks the student's ability to participate in online short courses through remote learning and D4 highlights the student's ability to enhance multiple skills through online short courses. Further, question S1 indicates that self-paced learning allows you to work easily, S2 indicates self-paced learning and free mind, S3 indicates self-paced learning and time saving and S4 asks the usefulness of self-paced learning compared to the traditional method of learning. Question SS1 asks of the ability of social media to encourage students to participate in remote learning, SS2 highlights social media's information ability for remote learning, SS3 indicates that social media informs us of the ways of using remote learning tools and SS4 asks if social media is an easy way to share remote learning materials. Question L1 indicates the helpfulness of learning packages offered by telecom partners, L2 indicates the ability of learning packages to remove network barriers, L3 asks the cost effectiveness of learning packages and L4 asks if the learning packages provide efficient connections to students. Questions D1, D2, D3 and D4 show higher correlations in component three, which is the diversity factor while S1, S2, S3 and S4 are composed together in component 1, which is self-paced learning. Component four has a higher correlation from questions SS1 to SS4 for the social media pressure factor. Finally, component two consists of a higher correlation from questions L1 to L4, a factor named as learning packages offered by telecom partners.

Table 02: Factor loadings on respective items

	Component			
	1	2	3	4
D1	.450	.168	**.561**	.057
D2	.433	.021	**.640**	.198
D3	.078	.152	**.782**	.078
D4	.067	.118	**.806**	.204
S1	**.768**	.267	.023	.152
S2	**.707**	.290	.112	.129
S3	**.689**	.196	.181	.109
S4	**.546**	.130	.266	.046
SS1	-.016	.167	.144	**.827**
SS2	.077	.042	.233	**.843**
SS3	.342	-.024	.025	**.793**
SS4	.134	.162	.308	**.400**

L1	.360	**.653**	.256	.006
L2	.283	**.777**	.079	-.013
L3	.233	**.714**	.044	.230
L4	.093	**.855**	.174	.079

Rotation Method: Varimax with Kaiser Normalisation."

CONCLUSION & RECOMMENDATIONS

According to the analysis, this study revealed that four factors – a diversified educational environment, self-paced learning, pressure from social media and learning packages offered by telecom partners – affect the usage of remote learning by Sri Lankan undergraduate and postgraduate students during Covid 19 crisis. Subsequently, factors have been postulated that those are having influential power over usage of remote learning. In educational bodies such as universities, lecturers can maintain the diversified learning environment through convenient methods of learning such as introducing guest lectures, offering short courses and joining participants from diversified backgrounds in courses while social media facilitators and users, and telecommunication partners in Sri Lanka can use this data for their professional and commercial enhancements. Further, students can learn at their own pace to learn effectively and efficiently while lectures can focus on new learning methods rather than traditional learning activities. Telecommunication partners can offer users more flexible network package with the aim of enhancing the Sri Lankan educational system and telecommunication partners' well-being. Future researchers can use these findings for model building purposes since the factors are postulated in the Sri Lankan context through this research.

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