

## **The Influence Factors Online Learning Risk During Covid-19 Pandemic Among Diploma Insurance Students at Politeknik Kota Bharu**

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### **ABSTRACT**

*The Covid-19 pandemic has affected the higher education institutions across the world. Starting from March 2020, the outbreak of Covid-19 cause all the higher education institutions to be closed in trying to contain the virus to spread. It also affects the educational system worldwide, especially in Malaysia. Students and lecturers started to find out a way to communicate during the Movement Control Order (MCO). Lecturers carry out teaching and learning section from classroom setting to remote and distance learning. The focal point of this research is to find the significant elements that influence online learning risk during Covid-19 pandemic among diploma insurance student at Polytechnic Kota Bharu. This paper focuses on elements that impact online learning risk in terms of technology, finance and environment.*

### **INTRODUCTION**

Having a close look in Malaysia, the Covid-19 pandemic has seen private colleges and universities forced to switch from in-person teaching to online learning. Conventional assessments are additionally being supplanted different types of appraisal after the Movement Control Order (MCO) being authorized. Most of school and higher institution are using full online classes and assessment. Higher education programs are increasingly moving into online market place in response to the changing demographics of the post-secondary learner and new expectations for on-demand learning. Given the growth in online education market, geographic barriers to instructional programs create competition for student that are geographically bound to local college or university [1]. Online learning has become common in providing education materials in higher education by local universities and every part of the world. For some students, they are facing a problem in this kind of situation because technology play its vital role. Poor internet connection may stress student during online classes. Furthermore, finance also become an element that influence online learning during Covid-19 among students. To continue with online classes, students need to sustain with proper gadgets and data plan. It will be difficult for student to carry on online classes if they do not have enough money to buy laptops or credits. Therefore, the researcher must carry on the study to find the significant elements that influence online learning risk among diploma insurance students.

### **Research Objectives**

- i. To explore the underlying factors that affect online learning risk among diploma insurance students.
- ii. To discover the contribution of technology in online learning risk during Covid-19 pandemic.
- iii. To examine the financial factor in online learning risk among diploma insurance students.

- iv. To find the relationship between environment and online learning risk.

## Research Questions

- i. What are the factors that affect online leaning risk among diploma insurance students?
- ii. How technology contribute towards online learning risk among students during Covid-19 pandemic?
- iii. Does online learning risk affect financially among diploma insurance students?
- iv. What is the relationship between environment and online learning risk?

## LITERATURE REVIEW

Coronavirus pandemic has pushed schools, advanced education foundations and preparing suppliers online to guarantee that compelling learning proceeds [2]. Every institutions in Malaysia from primary schools to university level and all around the world has changed their learning method from classroom settings to online learning classes. Learning and teaching activity in Malaysia has attracted keen interest apply technology among students in higher education institution [3]. The researcher also said that the adoption and implementation of Information and Communication Technology (ICT) in electronic learning has become the best solution for teaching and learning process either inside or outside classroom. However, understanding the significant elements in online learning risk whether learning activities are related to transfer knowledge by examining learner's experience after they leave a course is an crucial part of study. The need to fill this hole in the writing turns out to much more basic given the quick movement at which information, innovation instruments and employment jobs and duties are evolving – which means that traditional on-the-job professional development and training are no longer enough in addressing professional's continuing need for learning and development [4-5].

As indicated by Oxford [6], innovation characterize as use logical information for practical purposes, particularly in industry. Learning facilitated by the use of digital tools and matter that involves some form of interactivity, which may include online relation between the learner and their teacher or peers; and educational-paradigm-oriented: information and communication technologies used to support students to upgrade their learning [7]. Through e-learning applications such as Webex, Zoom, Google Classroom and many more has opened up horizons of distance learning education, efficient methods of learning and added quality to knowledge sharing activities. This shows that by using technology, communication between students and lecturer also give a huge impact in online learning. Thus, in helping students to maintaining their learning, a team of online support people produced and executed an academic continuity plan so students could continue their online courses [8].

Since 1990, online learning has escalated with higher education institutions investing substantial resources in electronic learning technologies [9-10]. Through technology, Learning Management Systems (LMS) also helps to ease online courses and online student cooperation as well as track students' progress [11]. Students in higher education should consider the security threats such as Structured Query Language (SQL) injection, data leakage and malware [12]. SQL injection is a technique whereby a user injects SQL commands into the database server from a weak application by controlling the syntax and capabilities of SQL. Data leakage is the illegal transmission of data from one point to another through electronic or physical means. Malware is where a hacker can design a malicious code to interrupt the database system to stabilize an organization's database. Singapore stops teachers from using Zoom video-conferencing tool [13]. The Education Ministry of Singapore suspended the use of video-conferencing tool zoom by teachers after a very serious incident. One of the incidents involved obscene images appearing on

screens and strange men making lewd comments during the streaming of a geography lesson with teenage girls.

Family income also considered as a problem that affects online learning. If the family income is low, it will be difficult for students to buy online learning necessities such as laptop and gadgets. For instance, students' family coming from different income groups has a different need in their daily life. Students needed money to pay for accommodation, transport and daily meal cost [14-15]. Even though by using small expenses, scholarship and loan are still inadequate for them. Sometimes, students get their financial aid in a form of scholarship or loans on yearly, semester or monthly basis [16]. Other than that, delay in getting their financial aid would be quite burdensome for students because they have to rely on other financial resources such as self-financing, family funding, borrowing with others or applying for emergency loans with their higher education institutions. Covid-19 has led to more severe and acute economic losses around the world due to illness and government-mandated social distancing orders. The effect and span of the monetary emergency on singular family units coming about because of the pandemic is hard to foresee. Due to widespread business closures, especially in lower-income populations, national economies expected to contract leading to a dramatic rise in unemployment and poverty rates [17].

Educational institutions see benefits in making their programs comprehensible through a range of distributed locations, including on campus, home and other community learning or resource centre [18]. One of the reasons is, it gives students' greater access to education in comparison to traditional strategy of teaching as students can accept their study from anywhere and at any time as well as being financial-instrument to study part-time or full-time [19]. Undergraduate in a co-operate environments are able to gather much information which they use to generate new ideas for effective learning [20]. On the other hand, a face-to-face learning setting also faced a problem when there are so many needs competing within a certain timeframe to meet each student needs where they will deviate in a way that compromises other learners [21]. This shows that, if the lecturer makes a face-to-face class it will endanger each student because the risk of Covid-19 pandemic is still there since the curve is still fluctuating. According to Ministry of Health (MOH), everyone in the community need to take precautions to stop the spreading of this covid-19 infection. Learners relation in distance education settings are dependent on available communication technologies [22-23]. Thus, by having only mass technology without internet access in students' house will make it difficult for them to attend classes even it only through online. Environment risk is very largely self-driven and dependent on the learners' ability to manage academic responsibilities, with fewer support devices as compared to those available in face-to-face classes. If students have not experienced this kind of self-learning education with a good discipline, they are very likely to quit from their studies. When students are not comfortable with self-learning and constructing knowledge out of their own initiatives, the online environment can become intimidating for them [24].

## METHODOLOGY

In this study, researcher is aiming to obtain 62 sample sizes of respondents that successful in answering the questionnaires. The population in this study is the students from Politeknik Kota Bharu, June 2020 session consist of 3,807 students in four academic departments. Respondents for this study was selected from Diploma Insurance programme session June 2020. Out of 62 students who responded, the greatest were female (74.2%) and the rest were male. Their ages ranged from 18 to 20 years old. In this research, the data collected via Google forms where the links have been send through WhatsApp to the diploma insurance students from semester one until semester five. The main aim of using Google form is to avoid direct contact between researcher and students due to Covid-19 pandemic. Moreover, most students are staying at home

and doing online learning. For this reason, all the information will be gathered from every individual respondents and the unit of analysis is individual.

## RESULTS AND DISCUSSION

This is the most important part of the study where the data gathered earlier must be analyzed using the most suitable technique in order to get optimum result. The collected data from questionnaires will be analyzed using Statistical Package for Social Science (SPSS) version 21. This software program is use for data analysis and interpretation. Statistical analyse include descriptive analysis, correlations, reliability tests and regression analysis.

**Table 1** Online Learning Risk

	N	Minimum	Maximum	Mean	Std. Deviation
Awareness	62	1.00	5.00	4.161	0.908
Collaboration	62	1.00	5.00	3.823	1.000
Communication	62	1.00	5.00	3.871	0.858
Time management	62	1.00	5.00	3.807	0.972
Online calculation learning	62	1.00	5.00	4.178	1.064
Valid N (listwise)	62				

A quick look at Table 1 shows that online learning risk among diploma insurance students at Politeknik Kota Bharu are mostly affected through the difficulty in online calculation learning with the mean of 4.178 compared to other variables. Students feel that they are unable to learn as much in online as they used to in face-to-face courses [25-26]. This shows that it is difficult to clarify doubts on calculation part during online classes compared to classroom mode. Students tend to skip a step or struggle to focus while calculating will make careless mistakes and it will be easy for them to show their mistake while learning in face-to-face class with their lecturers [27]. Poor understanding of how to apply and do mathematical operation in online learning will be a crucial process for students to bear them.

**Table 2** Pearson Correlation for Independent Variables and Dependent Variable

		Online Learning Risk	Technology Risk	Financial Risk	Environment Risk
Online Learning Risk	Pearson Correlation	1	0.670**	0.454**	0.622**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	62	62	62	62
Technology Risk	Pearson Correlation	0.670**	1	0.536**	0.589**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	62	62	62	62
Financial Risk	Pearson Correlation	0.454**	0.536**	1	0.510**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	62	62	62	62

Environment Risk	Pearson Correlation	0.622**	0.589**	0.510**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	62	62	62	62

\*\*Correlation is significant at the 0.01 level (2-tailed)

The Pearson correlation matrix obtained for the five interval-scaled variables is shown in table 2. From the results, there is no correlation exceeded .05. Bivariate correlation was undertaken between technology risk, financial risk and environment risk with online learning during Covid-19 pandemic. It was hypothesized that a positive relationship would exist between the five variables. Result of the correlation indicates that the significant elements that influence online learning risk is associated with the high technology scores ( $r = 0.670$ ,  $p < 0.05$ ), financial scores ( $r = 0.454$ ,  $p < 0.05$ ) and environment risk scores ( $r = 0.622$ ,  $p < 0.05$ ).

Regression analysis is utilized when to anticipate the worth of a variable base on the quality of an alternate variable. R<sup>2</sup> tells level of quality of the estimated regression equation which also known as a measure of “goodness of fit” in the regression. The higher the R<sup>2</sup>, the more confidence can be placed in the estimated equation. More specifically, the coefficients of determination represent the proportion of the total variation in Y that is explained by the regression equation. R-Squared values range from 0 to 100. R-Squared of 100, means that there are strongly significance between dependent variables and independent variables. For this study, the researcher is using R Squared (R<sup>2</sup>).

**Table 3** Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.727 <sup>a</sup>	0.529	0.505	0.461

a. Predictors: (Constant), Environment Risk, Financial Risk, Technology Risk

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	13.853	3	4.618	21.734	0.000 <sup>b</sup>
Residual	12.323	58	0.212		
Total	26.175	61			

a. Dependent Variable: Online Learning Risk

b. Predictors: (Constant), Environment Risk, Financial Risk, Technology Risk

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.891	0.389		2.291	0.026
Technology Risk	0.445	0.117	0.451	3.802	0.000
Financial Risk	0.037	0.099	0.041	0.371	0.712
Environment Risk	0.325	0.113	0.335	2.883	0.006

a. Dependent Variable: Online Learning Risk

This indicates the statistical significance of the regression model that was applied. Here,  $P < 0.0005$  which is less than 0.05 and indicates that, overall, the model applied is significantly good enough in predicting the outcome variable. Regression analysis was conducted to check the relationship between technology risk, financial risk and environment risk with the elements that influence online learning risk. The learning process in online learning cannot reach its full potential until students practise what they learn [28].

Table 3 summarize and analyse the result. As can be seen from the result as shown in the above table, the study for relationship of online learning risk towards diploma insurance students at Politeknik Kota Bharu found that value of R-Squared  $R^2$  is 0.529,  $p < 0.001$ . This implies that 52.9% of the variation of Y value which is online learning risk is explained by the independent variable which is technology risk. Another 47.1% of the balance is due to other risks that are not included in the equation. Meanwhile, the Adjusted R-Squared measures the goodness of fit of variables. From the results, 50.5% of the variation of Y value (online learning risk) is explained by the independent variables which is technology risk, financial risk and environment risk. Since the value of Adjusted R-Squared is reasonable, it demonstrates that the relationship between these variables does exist.

Except for financial risk, the two of variables which is technology risk and environment risk contributes towards the significant elements that influence online learning at Politeknik Kota Bharu. From the result, researcher find out that technology risk is the most important in online learning. It is a must for both student and lecturer to be able to navigate technology, students' location flexibility and time, and students' capabilities and confident level to be a competitive advantage [29]. Besides that, environment risk also shows that diploma insurance students at Politeknik Kota Bharu should motivate one selves throughout the online learning process to focus and try to understand the lesson.

The financial risk is not significant to the online learning risk at Politeknik Kota Bharu. It may be due to students are staying with their parents. The cost involved in online learning are mostly covered by parents or any financial aid provided by the government [30]. However, financial risk is still needed throughout the process of online learning.

## CONCLUSION

As a conclusion, in referring to the findings of the research, researchers identified that online learning is not as easy as it seems. There are major barriers to run an online class. Therefore, online learning risk should point out to find out a possible solution for the problem. Apparently, technology risk and environment risk are the potential problem in online learning process. However, based on the results, researchers found that financial risk does not really emphasis to the online learning risk. This might due to some reasons. Technology risk is the main variable because problems associated with modern technology might come from downloading errors, issues with installation, login problems and problems with audio and video. The lack of on-campus socialization also causes difficulties for students to do group projects in distance learning mode. To prevent any of the risk that could happen, students must aware and trying to mitigating those risk.

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