

## **A Study of undergraduates' intention to use online library services during COVID -19 Pandemic: a quantitative study**

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### **Abstract**

*Most of the universities in the world changed their teaching & learning strategies into online mode due to the COVID-19 pandemic situation. With this background, students enrolled in universities for 2019/2020 academic year commenced their academic programs via online. During this pandemic period, university libraries are providing their services via online to support the teaching and learning process. However, unlike senior undergraduates, new entrants do not have any experience on academic library services. Therefore, it is important to study whether the new entrants to the faculty of Science are using library online services for their learning process or not. Thus, the main aim of this study was to identify the factors influencing new entrants' usage of online library services. Data were collected through an online questionnaire based on a survey performed among 588 new entrants of the Faculty of Science, University of Peradeniya. The model was tested using path analysis with multiple regression techniques. Findings indicated that majority of new entrants accessed the library website and past papers. In addition, utilizing soft copies of text books and documents delivery services received higher percentages. Perceived usefulness was found to be a direct significant determinant of new entrants' behavioural intention of online library services acceptance and visibility had a strong effect on perceived usefulness compared to other determinants. Based on the results, it is recommended that the library management should focus on providing more relevant information resources and services via online. Furthermore, programs should be conducted to improve the students efficacy level of accessing online library resources and services in order to enhance their usage.*

**Keywords:** *Online Library Services, COVID -19, New Entrants, University*

### **Introduction**

COVID-19 pandemic situation has changed physical activities of university libraries into the online mode. At present, most of university libraries provide online based services to fulfil the information requirements of students and researchers. Therefore, this study aims to explore the undergraduates' acceptance of online services provided by the library for their teaching learning process. This study mainly focused on first year undergraduates' who enrolled in the university for the year 2020/2021. Newcomers have different experiences towards library and its services compared to other undergraduates as they attend library orientation programs via online. They gain virtual library experiences due to the pandemic situation. Thus, it is timely and important to study how online library services are used by this targeted users and which factors affect their usage. A few empirical studies were found on the provision of online library services in the local academic setting (Fernando & Senevirathne 2021; Mashroofa, 2021; Perera & Suraweera 2021). However, no attention has been paid on examining new entrants' intentions towards online library services and the determinants in the context of this global pandemic emergency.

### **Objectives**

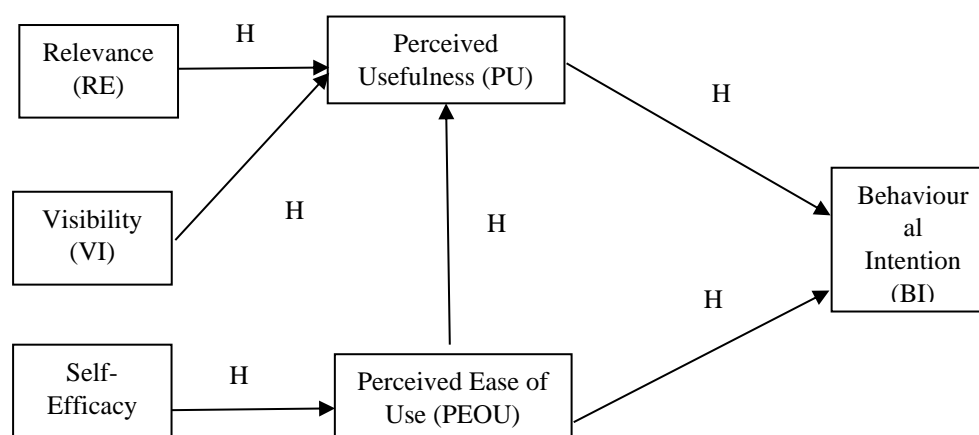
This study aims to identify factors influencing the intention to use online library services provided by Science Library, by new entrants. More specifically, the present study is guided by the two specific objectives:

To identify the services that students widely use during pandemic period

To examine the relationship between first year undergraduates' behavioural intention and the determinant factors

## Methodology

Following conceptual framework was developed in order to exhibit the relationship between first year undergraduates' behavioural intention and determinant factors. Conceptual framework was formulated using core concepts of Technology Acceptance Model (Davis et al., 1989) and other three external variables were extracted from available literature



*Research Hypotheses*

H1 : PU will have a significant positive impact on the BI to use Online Services

H2 : PEOU will have a significant positive impact on the BI to use Online Services

H3 : PEOU will have a significant positive impact on the PU of Online Services

H4 : Relevance will have a significant positive influence on the PU

H5: Visibility will have a significant positive influence on the PU

H6: Self efficacy will have a significant positive impact on the PEOU

The data were collected using an online questionnaire distributed among all first year undergraduates of the Faculty of Science, University of Peradeniya from June –August 2021. Total number of students who enrolled in 2019/2020 batch was 588. There were 318 completed responses and data were analysed using Statistical Package for the Social Sciences (SPSS). The model was tested using path analysis employing multiple regression analysis techniques.

## Results, Discussion

The results of reliability statistics of the constructs (PU = 0.860, PEOU = 0.792, RE = 0.784, VI = 0.775, SE = 0.857, BI = 0.743) exceeded the acceptable level of 0.7 (Sekaran, 2000), confirming that the questionnaire was a reliable tool.

Table 01: Usage of online Services by new entrants

Services	No	%
Library Website	298/318	93.71
Soft Copies of Text Books	258/318	81.1
Soft Copies of Journal Articles	31/318	9.7
Past papers	271/318	85.22
Document Delivery Service	108/318	33.9
E-journals	21/318	6.6
Databases	13/318	4.0
Digital Library	07/318	2.2
Library online catalogue	121/318	38
Ask Librarian	34/318	10.6

Library initiated as well as enhanced several online services for undergraduates to fulfil their information requirements during COVID-19 pandemic period. Table 01 shows the number of responses received from the students for each service. Majority of students used the library website for accessing information (94%) while 85% of them accessed online past papers. Around 81% of new entrants used the service of soft copies of text books. Further, 38% of new entrants accessed the online library catalogue and 34% of students used the document delivery service. Least percentages were received to e-journals, databases and digital library services. Findings revealed that majority of new entrants' accessed the library website and past papers, used soft copy service of text books, document delivery service, and online library catalogue.

Table 02: Results of the Hypotheses

Hypotheses	Path	Standard Co-efficient $\beta$	Sig.	R2	Result
H1	PU $\rightarrow$ BI	0.451	0.003*	0.537	Accepted
H2	PEOU $\rightarrow$ BI	0.164	0.001*		Accepted
H3	PEOU $\rightarrow$ PU	0.463	0.000*	0.610	Accepted
H4	RE $\rightarrow$ PU	0.299	0.002*		Accepted
H5	VI $\rightarrow$ PU	0.548	0.004*	0.457	Accepted
H6	SE $\rightarrow$ PEOU	0.223	0.000*		Accepted

Multiple regression analysis was used to test the relationships among the independent variables and the dependent variables of the research model. According to the Table 02, beta ( $\beta$ ) values indicated that Perceived Usefulness and Perceived Ease of Use contributed positively in measuring student Behavioural Intention to use online services ( $\beta = 0.451$ ,  $p \leq 0.05$ ,  $\beta = 0.164$ ,  $p \leq 0.005$ ; respectively). Perceived Usefulness was influenced by Perceived Ease of Use ( $\beta = 0.463$ ,  $p < 0.005$ ). Also, Relevance and Visibility were positively

associated with Perceived Usefulness ( $\beta = 0.223$ ,  $p < 0.005$ ,  $\beta = 0.548$ ,  $p < 0.005$ ; respectively). The positive association was found between Self-Efficacy and Perceived Ease of Use ( $\beta = 0.223$ ,  $p < 0.005$ ). Overall, Perceived Usefulness and Perceived Ease of Use accounted for 53.7 per cent variation in the student Behavioural Intention to use the online services. Further, Perceived Usefulness was a direct significant determinant of new entrants Behavioural Intention of online services acceptance. Moreover, findings demonstrated that Visibility had a strong effect on perceived usefulness compared to other determinants. Findings indicated that students who recognized the benefits and its usefulness of online services provided by library and believed that using the said services improve their performance to achieve academic targets. It leads to motivate students to increase their intention to use these services.

### **Conclusion & Recommendations**

The present study seeks to understand the online library services used by new entrants and the factors behind their intention of using online services from the perspective of TAM. Majority of the new entrants had accessed library website and online past papers. Many students used the services of soft copies of text books (81%) whereas, use of digital library, databases and e-journals were not popular among first year undergraduates. It was found that perceived usefulness was a strong determinant of students' behavioural intention to use online services. Visibility was also a strong determinant which contributed indirectly to student behavioural intention to use online services. Based on the results, it is recommended that library management should focus on enhancing the usefulness feelings of students while they are using online library services. It will lead to encourage them to continue these services. Moreover, adding more relevant information resources and making the library website access easy to use will increase the use of online services. Further, it is recommending to incorporate other factors into the research model to visualize the student's behaviour intention in a wider aspect.

### **References**

- Davis, F., Bagozzi, R., Warshaw, R.(1989).User Acceptance of computer technology: a comparison of two theoretical models. *Management Sciences*, 35,982-1002.
- Fernando, K., Senevirathne, S..(2021). Survey on online library services provided the COVID pandemic Situation: with special reference to academic libraries in Sri Lanka. In L. Jayatissa & R. Gamage (Eds.), *Proceedings of the NILIS research symposium 2020* (P.21). National Institute of Library and Information Sciences, University of Colombo. [https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020\\_Proceedings\\_20210323.pdf](https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020_Proceedings_20210323.pdf)
- Mashroofa, M. (2021).Sustainability of Library & Information Services during COVID 19 Pandemic : a case study of South Eastern University of Sri Lanka Libraries. In L. Jayatissa & R. Gamage (Eds.), *Proceedings of the NILIS research symposium 2020* (P.22). National Institute of Library and Information Sciences, University of Colombo. [https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020\\_Proceedings\\_20210323.pdf](https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020_Proceedings_20210323.pdf)
- Perera,L., Suraweera, N.( 2021). Academic Library support for E- Learning. In L. Jayatissa &

R. Gamage (Eds.), Proceedings of the NILIS research symposium 2020 (P.25). National Institute of Library and Information Sciences, University of Colombo. [https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020\\_Proceedings\\_20210323.pdf](https://nilis.cmb.ac.lk/wp-content/uploads/2021/03/NRS2020_Proceedings_20210323.pdf)

Sekaran, U. (2000). Research methods for business: A skill-building approach (3rd ed.). New York: John Wiley & Sons.