

**UNIVERSITI TEKNOLOGI MARA**

**THE RELATIONSHIP BETWEEN  
LIBRARY TECHNOLOGY,  
SUPPORT, ENVIRONMENT AND  
POSTGRADUATE STUDENTS'  
UTILIZATION OF WEB-BASED  
LIBRARY AND INFORMATION  
SERVICES IN MALAYSIAN  
ACADEMIC LIBRARIES**

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## ABSTRACT

Academic libraries must demonstrate their importance based on universities' institutional outcomes. Web-based library and information services are widely provided in this regard, particularly in the digital age, to facilitate research and learning. Most studies in Malaysia were found to focus on customer satisfaction, service effectiveness, and quality. Instead, numerous international studies have emphasized the utilization of library and information services and students' academic performance in terms of output and outcome. Therefore, this study aims to examine the utilization of web-based library and information services and their influencing factors after reviewing relevant literature, models, theories, and standards. Three factors were identified as library technology, library support, and library environment. Information literacy skills were added as a moderating variable to investigate their effect on library technology and library environment factors in relation to utilizing web-based library and information services. The research framework included five variables and eleven dimensions in total, and five hypotheses were tested. The study was conducted in Malaysia, involving twenty public universities. A quantitative approach was employed, and postgraduate students participated through the distribution of a set of survey questionnaires. The Raosoft calculator suggested 383 as the sample size, and stratified sampling was used to collect data to represent the research, comprehensive, and focused university clusters. Consequently, data from 527 respondents was collected and analyzed using SPSS version 26 and SMARTPLS version 3. The results revealed that library technology, library support, and library environment have a significant relationship with the utilization of web-based library and information services. However, information literacy skills were only found to have a significant moderating relationship between library environment and the utilization of web-based library and information services. The findings were supported by prior studies, which potentially have theoretical, methodological, and practical contributions to the field of academic librarianship and the pertinent domains of knowledge. Furthermore, the top management of Malaysian universities and the Ministry of Higher Education will gain valuable perspectives to understand the factors that will enhance the positive impacts of academic libraries on postgraduates' performance in their learning and research. This is also beneficial to explain the value of academic libraries, which can justify the support that they continuously receive from universities and the government.

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