

THE EVOLVING NATURE OF THE ICT SELF-EFFICACY AND THE USE OF ELECTRONIC INFORMATION RESOURCES: A STUDY OF MEASUREMENT CONSTRUCTION, VALIDITY, RELIABILITY AND APPLICABILITY FOR HUMANITIES AND SOCIAL SCIENCES

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Over the past five years, the Information Communication Technologies (ICT) have become dominant forces to shape and reshape the services the academic libraries. Although, researchers have developed various computer and internet self-efficacy scales, none of the literatures have addressed the measurement of ICT self-efficacy (ISE) and use of Electronic Information Resources (EIR). Therefore, the objective of this paper is to discuss the development and validation of ICT self-efficacy and EIR use scales based on university libraries in Sri Lanka.

The sample included 604 of Humanities and Social Sciences (HSS) undergraduates from the Universities of Peradeniya, Sri Jayewardenepura, Ruhuna and Rajarata University of Sri Lanka. To include the wider representative sample out of the 15 universities in Sri Lanka, the above mentioned four universities were included for this study. The response rate was 79%. The pools of items of all the constructs were formulated with the library experts. The survey was conducted using a structured questionnaire and findings are as follows.

In order to finalize the scales, rigorous statistical tests were applied and they provided an empirically validated construct by maintaining desirable psychometric properties which the self-efficacy theory explained. The sampling adequacy was carried out for 53 efficacy items and 97 EIR items selected from the pilot survey and established the Chi-square value and Sphericity test. From the factor analyses, 43 ISE related items with 04 factors and 43 EIR use related items with 05 factors were extracted. The reliability was established with these 09 constructs and ISE- 0.963, Support (S)- 0.755, Training (TR)- 0.914, ICT stress(SS)- 0.914, EIR use- 0.910, Facilities and e-journals (FEJ)- 0.725, Obstacles (OU)-0.772, Training need (TN)-0.879 and Computer experience (CE)-0.772 were able to achieve the recommended standard ≥ 0.70 of the study. Further, to identify the between-item relationships in each construct, the item-total correlation was conducted and the research was able to achieve the level of ≥ 0.40 moderate recommended level. According to the measurement model of the study, the discriminant and convergent validity of these nine constructs were accomplished through Average Variance Extracted (AVE) and Composite reliability (CR). The AVE should be greater than 0.50 was justifying that using constructs for model analysis and CR of 0.70 or greater is considered acceptable value for the model.

The analysis highlighted that these empirically validated scales will be useful to researchers in developing and testing the ISE and EIR use in the Humanities and Social Sciences libraries in Sri Lanka.

Financial assistance given by the University Grant Commission (UGC/ICD/01/25) is acknowledged.