

## Multi-Criteria Evaluation System for University Library's Performance in Sri Lanka

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### Abstract

The continuous improvement is the key to long-term sustainable development for service orientation institutions. The recent studies on performance evaluation of service providing institutions have established several constructs, and the concept of "Performance Indexing" (PI) has emerged. This study concentrated on the system development of Multi-Criteria Evaluation for university libraries performance in Sri Lanka using the Fuzzy Analytical Hierarchy Process (FAHP). Though, assessing the overall performance of library instead of organizational effectiveness theory is very new and significant. There is a lack of library effectiveness evaluation theories and practices have been developed. Nevertheless, none of them attempted to evaluate the library performance instead of academic library context. Therefore, the aim of this study was to develop a Multi-Criteria Evaluation (MCE) model for PI particular reference to the university libraries of Sri Lanka. The ultimate goal of this model was to enhance the level of service efficiency and customer satisfaction throughout the improvement of inter-competitiveness among those libraries. To achieve the objectives and ultimate goals of the study, a structured questionnaire was developed to identify the users' perceptions about current library services while examining the library expertise opinion about the importance of chosen model variables. The research questions were based on quantitative & qualitative constructs which adapted from organizational effectiveness theory such as; library efficiency, core people process, environment, users' satisfaction, adaptability, and capacity. The Fuzzy extended Analytic Hierarchy Process (FAHP) was used to process the model. The model was tested with appropriate sample (Sample size = 269) of library users which consisted with faculty members and postgraduates. The reliability of the questionnaire scale was suitable for further analysis and its (Cronbach's Alpha = 0.842), and the exploratory factor analysis has confirmed the validity of data. The data was highly correlated with selected factors. 24 items were selected for the further model test. The experts' opinion survey revealed that Library Efficiency and Library Users' Satisfaction are more influenced variables to library effectiveness while Library Capacity, Library Adaptability, and Library Environment are less influenced. The result suggests that library leaders should conduct continuous assessments about their services and should customize perceived quality according to the users' perceptions. The major innovation of the study was to develop a new conceptual model to identify the key influential factors of performance. Another key innovation of the study was to construct a performance evaluation index using the fuzzy AHP evaluation indexing methods. The third innovation of the study was to use the Internet basis resources sharing methods via social media at the Sri Lankan University Libraries to meet their new era challenges.

**Keywords:** *Performance evaluation index, Fuzzy evaluation, Non-profit organizational performance, University Libraries, Sri Lanka*