

POST OCCUPANCY EVALUATION OF ADAPTIVELY REUSED BUILDINGS: CASE STUDY OF AN OFFICE BUILDING IN SAUDI ARABIA

Mohammad B. HAMIDA ^a, Mohammad A. HASSANAIN ^{b*}

^a Graduate Student; King Fahd University of Petroleum and Minerals, Architectural Engineering Department, Dhahran, Saudi Arabia

^b Professor; King Fahd University of Petroleum and Minerals, Architectural Engineering Department, Dhahran, Saudi Arabia

*E-mail address: mohhas@kfupm.edu.sa

Received: 15.09.2019; Revised: 8.10.2019; Accepted: 6.03.2020

Abstract

Adaptive reuse of buildings is the practice of converting the use of an originally designed built-environment to suit a new use. This conversion process has a direct bearing on the performance of the building, and the satisfaction of the users with the conditions of the converted built-environment. This paper presents the findings of a post occupancy evaluation (POE) of an adaptively reused student housing facility to an office building, as a case study. The POE was conducted to investigate the consequences of the conversion process on the technical and functional elements of performance of the adapted building. A review of literature was performed to identify the technical and functional elements of performance pertaining to the new use of the building, along with their recommended performance criteria in codes and standards. The study employed multiple data collection methods, including a walkthrough tour to develop insights about the performance of the building elements; interviews to confirm the validity of the identified technical and functional performance elements, and initiate discussion with the users based on the findings of the walkthrough tour; and a user satisfaction survey to obtain the users' feedback on the performance of the building. The findings of the study resulted in developing a series of recommendations to improve the performance of the case study building. The paper serves to guide design professionals involved in the planning and design of adaptive reuse projects, and facilities managers in charge of the daily operations of adaptively reused buildings.

Keywords: Post-occupancy evaluation; Adaptive reuse; technical; Functional; Performance elements; Performance criteria.