



Exploring Critical Success Factors in Urban Housing Projects Using Fuzzy Analytic Network Process

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Received 12 October 2017; Accepted 24 November 2017

Abstract

Population growth and increasing trend towards urbanization have caused housing demand to exceed its supply, particularly in urban areas in developing countries. Furthermore, housing industry motivates many subsidiary industries and plays a leading socio-economic role in such countries. Therefore, successful completion of housing projects is of great significance quantitatively and qualitatively.

This study aims to propose a framework to evaluate the critical success factors (CSFs) in housing projects considering the interrelationship among factors and criteria. The factors were initially identified through literature review and then refined and categorized using a two-round Delphi method and finally prioritized using fuzzy analytic network process (FANP). To demonstrate the implementation of the proposed model, a case study was carried out on an urban residential building project in Tehran. The framework proposed in this study can be applied as a decision support system for decision makers, project managers and practitioners involved in the housing sector.

Keywords: Project Management; Critical Success Factors; Housing; Building Projects; Fuzzy ANP.

1. Introduction

1.1. Housing Projects

Housing has been one of the fundamental necessities of human societies which provides shelter, identity, security and comfort, and facilitates human's activities in a built environment [1]. Housing plays an important role as a social aspect of sustainable development. Hence, quantity and quality of housing provision may be an indicator of the level of development of a society [2]. In United Nation Habitat Agenda 21 [3], provision of adequate shelter for all humankind was endorsed as a universal goal. In Istanbul declaration, it was emphasized that human settlements should be enhanced with regards to safety, health, livability, equity, sustainable development and productivity.

According to the World Cities Report [4], United Nation HABITAT declared that the world's urban population has increased dramatically from 2.6 billion (45%) in 1995 to 3.9 billion (54%) in 2014. The remarkable growth in the population of some developing countries and also, the increasing tendency towards urbanization has caused considerable demand for residential units in urban areas. On the other hand, housing provision rate has failed to keep pace with the above increasing demand, particularly in some developing countries. Therefore, housing provision has become a crucial issue in such developing countries. According to the United Nation Economic Commission for Africa, annual provision of 10 residential units per 1000 population is required in developing countries [5].

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 <http://dx.doi.org/10.28991/cej-030937>

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