

**The College of Graduate Studies and the College of Engineering  
Cordially Invite You to a**

**Master Thesis Defense**

Entitled

*INVESTIGATING THE FACTORS THAT CAUSE COST AND TIME OVERRUN IN THE RESIDENTIAL  
CONSTRUCTION PROJECTS IN THE UAE: PROJECT MANAGERS PERSPECTIVE*

by

Enas Jamal M. Abu Namous

Faculty Advisor

Dr. Mohammed AL Battah, Department of Architectural Engineering  
College of Engineering

Date & Venue

1:30 pm

Sunday, 18 April 2021

<https://eu.bbcollab.com/guest/65c27b69f4d84c0e897cb21d71ce72c1>

Abstract

The construction industry is considered an essential element to stabilize countries economically. In the UAE, this sector has received a lot of attention and development since the discovery of oil. This has enhanced the continuous expansion in construction activities. Recently, the construction activities reached 60% for the UAE alone, and the majority of it was in Dubai, which in 2018 enhanced its Gross Domestic Product (GDP) to reach 14.5%. Therefore, the decision-makers apply multiple methods at different projects in order to achieve the prime factors for project success which are: cost, time, quality, and safety. However, there are different variables and unpredictable causes that are faced by the construction industry, such as availability of the main resources, different environmental conditions, financial issues, political conditions, poor productivity, and contractual relations. Meanwhile, there is a great interest in delivering residential construction projects to cover the demand of shelter on time and within the estimated cost limits, and most importantly with the required quality, taking into account all that variables.

The aim of this research is to shed light on two of the construction management constraints which are the project's cost and time. The author of this paper focuses on two main objectives. First, exploring and understanding the contributing factors of cost escalation and schedule delay in the residential construction projects in the UAE. Secondly, ranking the factors according to their impacts and risk ratio on projects, which are based on the viewpoint of respondents. A Mixed-method approach was used in this study, starting with the exploratory sequential design in order to feed the first objective of the study, by using a simple thematic approach to analyze the qualitative data. The author applied this study during 2020 and 2021 by conducting semi-structured interviews with thirty construction project managers in the UAE, whose experience range between 5 and 20 years. Followed by the analytical quantitative stage by using the Relative Importance Index (RII) technique on the most frequent factors that were affecting the project's cost and time from literature review. The same participants rank these factors by conducting a 7-point Likert-scale.

The study highlighted some factors that lead to mismatching between the estimated and actual cost and time specified in the residential construction projects, as it has shed light on the most significant causes factors such as poor coordination between the staff, lack of contractors experience, delays in materials delivery, contractor's payment delay, complex surrounding of the site, estimation errors, lack of consultants experience, requirements changes by the client, client's payment delay, fluctuation of material's price, labor and equipment availability, unskilled labor, manufacture issues, authority regulations, and Covid-19.

This study contributes to add further data and growing the literature on construction management in the UAE. This research has opened the door for several future studies on the local level to take the necessary procedures that mitigate the impacts of these factors and thus increase the expansion of the construction industry and productivity to serve the stakeholders.

**Keywords:** UAE, construction industry, Construction management constraints, mismatching, Contractor, Client, Payment, Estimated cost and time, Actual cost and time