

## Implementation of Quality Function Development to Incorporate Customer's Value in the Conceptual Design Stage of a Construction Projects

**Authors :** Ayedh Alqahtani

**Abstract :** Many construction firms in Saudi Arabia dedicated to building projects agree that the most important factor in the real estate market is the value that they can give to their customer. These firms understand the value of their client in different ways. Value can be defined as the size of the building project in relationship to the cost or the design quality of the materials utilized in finish work or any other features of building rooms such as the bathroom. Value can also be understood as something suitable for the money the client is investing for the new property. A quality tool is required to support companies to achieve a solution for the building project and to understand and manage the customer's needs. Quality Function Development (QFD) method will be able to play this role since the main difference between QFD and other conventional quality management tools is QFD a valuable and very flexible tool for design and taking into the account the VOC. Currently, organizations and agencies are seeking suitable models able to deal better with uncertainty, and that is flexible and easy to use. The primary aim of this research project is to incorporate customer's requirements in the conceptual design of construction projects. Towards this goal, QFD is selected due to its capability to integrate the design requirements to meet the customer's needs. To develop QFD, this research focused upon the contribution of the different (significantly weighted) input factors that represent the main variables influencing QFD and subsequent analysis of the techniques used to measure them. First of all, this research will review the literature to determine the current practice of QFD in construction projects. Then, the researcher will review the literature to define the current customers of residential projects and gather information on customers' requirements for the design of the residential building. After that, qualitative survey research will be conducted to rank customer's needs and provide the views of stakeholder practitioners about how these needs can affect their satisfy. Moreover, a qualitative focus group with the members of the design team will be conducted to determine the improvements level and technical details for the design of residential buildings. Finally, the QFD will be developed to establish the degree of significance of the design's solution.

**Keywords :** quality function development, construction projects, Saudi Arabia, quality tools

**Conference Title :** ICCMSR 2020 : International Conference on Construction Management and Rehabilitating Structures

**Conference Location :** Rome, Italy

**Conference Dates :** April 08-09, 2020