FACTORS CONTRIBUTING TO VARIATION ORDERS: A SURVEY OF CIVIL ENGINEERING CONSTRUCTION PROJECTS IN KENYA

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ABSTRACT

The almost unavoidable situation in construction projects is variation. It is common in all types of construction projects and plays an important role in determining the closing cost and time of the projects. This study investigated factors causing variation orders in civil engineering construction projects in Kenya. To achieve this objective, a questionnaire survey of 12 clients, 32 consultants and 51 contractors, based in Nairobi, Kenya and are involved in civil engineering construction projects was carried out. The simple random sampling method was adopted in selecting the participant companies for the study. The data was analysed using the Relative Importance Index (RII) and correlation tested using Kendall's coefficient of concordance. The study revealed that the ten most important causes of variations are: delay in land acquisition/compensation, differing site conditions, change of plans or scope by client, change of schedule by the client, lack of coordination between overseas and local designers, change in design by consultant, inclement weather conditions, errors and omissions in design, unavailability of materials and equipment, and conflict between contract documents. The findings shall be useful to professionals and policy makers in the construction industry in identifying and managing construction risks that are related to variations, thereby improving construction project performance.
