

## EFFECT OF CONTRACTOR'S PROFIT PERCENTAGE ON PRICE FLUCTUATION CALCULATED USING CIDA PRICE FLUCTUATION FORMULA

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Price fluctuation is inevitable due to many reasons such as fluctuation of the price of oil, alteration in the technology and inflation in different parts of the world. When it comes to the construction industry, the fluctuations of the prices of construction inputs i.e. materials, labour, plant and equipment should be particularly studied since they can impact the contract cost significantly – ranging from the millions to billions in major projects.

The Price Adjustment (PA) technique for price fluctuations introduced by the Construction Industry Development Authority (CIDA) [formerly Institute of Construction Training and Development (ICTAD)] known as the "CIDA formula method for adjustment to contract price due to fluctuation in prices" has a constant of 0.966 based on a 15% fixed profit percentage according to the derivation of the formula. But the contractor's overhead and profit margin vary widely and neither can be fixed for all projects nor for each and every construction contractor. Generally, it can vary according to the type of construction project and according to the contractor. Hence, the price escalations rendered by the CIDA formula do not represent the true fluctuation for a particular project or a contractor. Therefore, this study was carried out to investigate the degree of accuracy of the CIDA price fluctuation formula method compared to the conventional method using an automated spreadsheet. Furthermore, it discusses and interprets the deviation of the price escalation generated from the CIDA formula and the actual modified CIDA formula for contractor's profit percentage.

The study shows the true escalation to a high-end contractor should be lower than the current escalation calculated by the CIDA formula for a particular project whereas a low-end contractor should be paid more than the current amount generated by the CIDA formula. Therefore, the current CIDA formula does not give the true price escalation from the point of view of the contractor's profit percentage.

Keywords: Cost adjustment factor, Overhead and profit, CIDA formula method, Input percentage, Price escalation

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