

# Identifying Key Variables Explaining the Profit of Construction Companies from Financial Statement Data

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## ABSTRACT

Profit is one of the most important factors in managing companies. As construction companies run their business on a project basis, their cash flow differs from that of companies in other industrial sectors. This study empirically analyzes the financial factors and explains the profit of construction companies based on the financial statement data for construction companies in South Korea. This paper presents two approaches for extracting financial independent variables that presumably affect the return on equity (ROE) representing the profitability of a company. The first approach involves conducting an in-depth literature review and extracting variables frequently used in prior research studies. The second approach uses the stepwise logistic regression. In the experiment, the dependent variable, ROE, was predicted by a series of neural network analyses. The experimental results show that the model selecting the independent variables through stepwise logistic regression is more predictive than the model that selects independent variables from the literature review. This study adds empirical evidence of financial factors affecting financial performance in the construction industry.