Construction is a risky business with only 47% of startup businesses in construction operating after four years. The indirect costs of failed companies far exceed the direct costs of their failure.

Cash is often seen as the most important element of construction companies and their operation. Adequate sources of capital, and a reasonable liabilities-to-assets ratio, are critical for business continuity and success. A lack of cash can mean no payments to subcontractors, laborers, and crews, and no purchases of needed materials. It can lead to limited ability to complete tasks on site, cutting corners in work, or slower pace to match the amount of cash available. Negative outcomes can include delayed or incomplete work or increased financing costs and project risks. Ultimately, construction companies risk failure if they sustain cash flow limitations for some time despite the fact they could be profitable.

In this research, we developed a cash flow model for the assessment of construction companies’ operations and their potential for failure. The cash flow model describes a company’s operational strength using a cash flow cycle with three measures: 1) cash flow cycle profitability, 2) cash flow cycle duration, and 3) access to additional access. We theoretically establish the importance and justification for each measure.

Using a dataset comprised of full quarterly financial records for construction companies tracked over 20 years, we validate the suitability of the cash flow model in predicting construction company failure 6 months, 1 year, and 2 year in advance of failure event at a statistically significant level.