When the Same Numbers Mean Different Things

A comparative analysis across infrastructure and technology

Purpose

This memo uses one analytical system to study two very different businesses—a **Nepali hydropower startup** and an **Indian technology unicorn**—to understand how standard financial metrics behave across contrasting economic structures. Rather than treating ratios as conclusions, the goal was to observe how context alters their meaning.

Method

I used a Python–MySQL system I built independently to store financial statements and calculate core ratios. The same code, metric definitions, and time windows were applied to both companies to avoid tailoring the analysis to fit expectations.

What changed was not the calculation, but the interpretation.

Metrics Observed

The analysis focused on five basic indicators:

- Net margin

- Assets-to-liabilities ratio

- Revenue growth

- Asset intensity (assets relative to revenue)

- Multi-period trend consistency

These were chosen because they are commonly taught early in finance and economics, yet are often interpreted without sufficient attention to business structure.

Case 1: Nepali Hydropower Startup

Hydropower is capital-intensive by design. Large upfront investment precedes stable but regulated cash flows.

What stood out was how metrics that might appear concerning in other sectors were structurally expected here. High leverage reflected infrastructure financing rather than fragility. Lower liquidity did not indicate operational weakness, but capital being locked into long-lived assets. Revenue growth was steady but constrained, shaped more by regulation and capacity than by demand.

The numbers suggested patience, not inefficiency.

Case 2: Indian Technology Unicorn

The technology company showed almost the inverse pattern. Asset intensity was low, liquidity was stronger, and revenue growth was rapid. Margins were thinner and more volatile, largely due to reinvestment rather than poor performance.

Here, flexibility mattered more than stability. The same ratios emphasised execution risk, scalability, and market sensitivity rather than capital recovery.

The numbers suggested speed, not security.

What Changed When the Same Ratios Were Compared

Running both cases through the same system clarified several ideas:

1. **Leverage is not inherently risky or safe.**
   Its meaning depends on whether assets generate long-term contracted returns or short-cycle optionality.

2. **Liquidity is contextual.**
   In infrastructure, it reflects commitment; in technology, it reflects adaptability.

3. **Margins describe strategy, not just efficiency.**
   Stable margins can signal constraint. Volatile margins can signal deliberate reinvestment.

4. **Growth without assets changes how risk accumulates.**
     Rapid growth amplifies execution uncertainty rather than guaranteeing value creation.

These differences only became visible because the analysis resisted changing tools to fit intuition.

Limits of the Analysis

This system simplifies cash-flow timing and does not model discounting or policy shocks. The conclusions are therefore directional rather than predictive.

Reflection

This comparison changed how I understand financial analysis. I no longer see ratios as answers, but as signals that require interpretation shaped by structure, incentives, and time horizon. Using the same analytical framework across two incompatible business models made that clear in a way isolated case studies never had.

This is the kind of thinking I hope to keep developing—where quantitative tools are used not to replace judgment, but to discipline it.