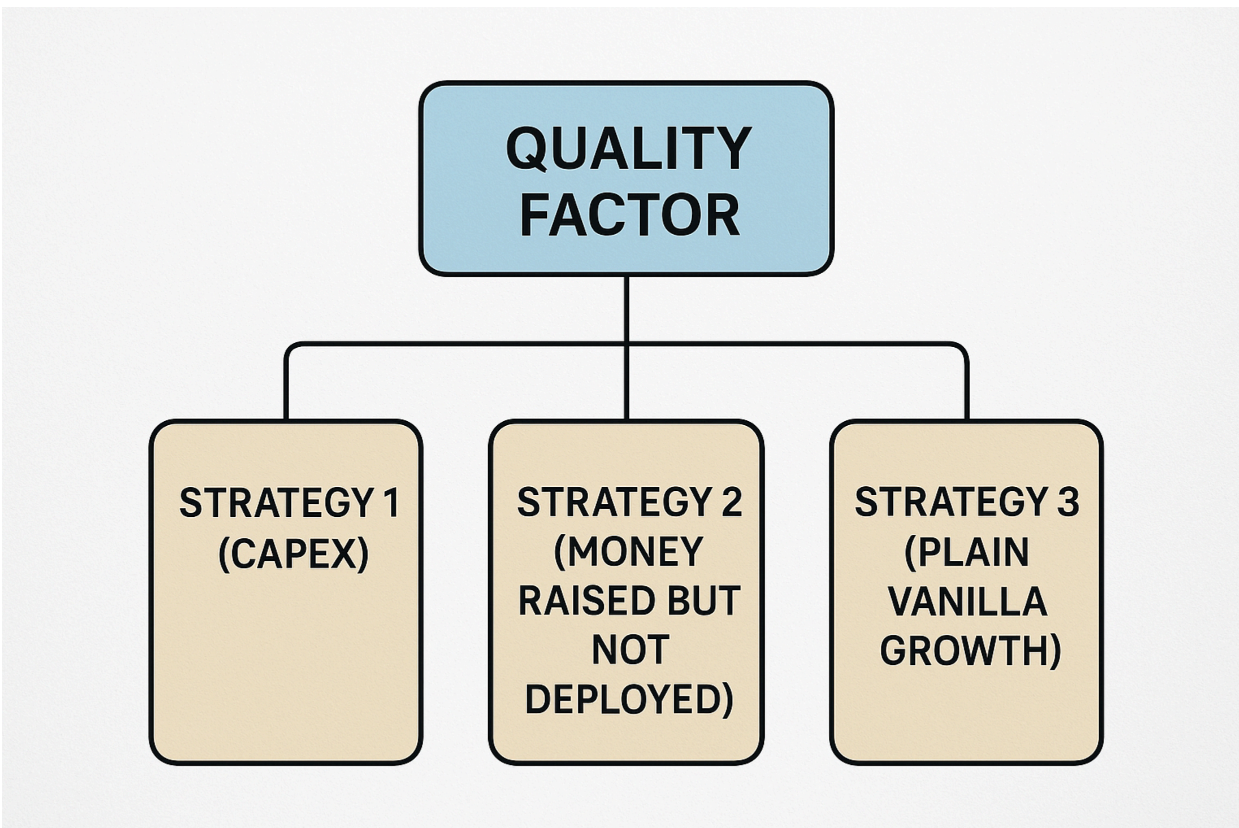
Quant Factor Framework

Before applying any investment strategy, a **Quality Filter** is implemented to define the investable universe. This filter ensures that only financially sound and fundamentally stable companies are considered.

Quality Filter Criteria:

- **Market Capitalization**: Between ₹500 crore and ₹30,000 crore
- **Promoter Holding**: Greater than 40%
- **Annual Sales**: More than ₹100 crore
- **Exclusion**: SME-listed companies are excluded

Companies that meet all the above criteria form the **universe** on which the following strategies are applied. The Quality Factor serves as a qualifying gate to eliminate weak or unsuitable companies upfront.



Strategy 1: Capital Expenditure (Capex) Expansion

Objective:

To identify companies actively investing in business expansion through significant capital expenditure, which is expected to translate into revenue and margin growth over time.

Screening Formula:

- **CAGR of Gross Block + CWIP** over 1, 2, or 3 years > 50%

Interpretation:

Such companies are in an expansion phase, as evidenced by large investments in fixed assets. This early-stage capex often precedes meaningful improvements in operational performance.

Strategy 2: Capital Raised but Not Yet Deployed

Objective:

To find companies that have raised substantial funds (via equity or debt) but have yet to deploy these resources into asset creation.

Screening Formula:

- **Share Capital** > Previous Year
- **Long-Term Debt** > 30%
- **Gross Block + CWIP Growth** < 10%

Interpretation:

These companies have accumulated capital but are still in a pre-deployment phase. This strategy aims to identify early-stage expansion opportunities before the impact of capital deployment is reflected in financial performance.

Strategy 3: Plain Vanilla Growth (Efficient Growth without Heavy Investment)

Objective:

To identify companies that are growing rapidly **without** requiring significant capital expenditure or working capital—i.e., efficient, asset-light growth.

Screening Formula:

- **Incremental Working Capital / Incremental Sales** < 10%
- **Incremental CAPEX / Incremental Sales** < 10%
- **Sales Growth** ≥ 20%
- **Equity Capital** ≤ Prior Year × 1.10
- **Long-Term Debt** ≤ Prior Year × 1.30

Explanation of Incremental Ratios:

- **Incremental Working Capital** = (Current WC - Prior WC) / (Current Sales - Prior Sales)
- **Incremental CAPEX** = (Current CAPEX - Prior CAPEX) / (Current Sales - Prior Sales)

Interpretation:

Lower incremental ratios suggest the company is growing with minimal additional investment—an indicator of high capital efficiency. This strategy targets businesses with strong internal operating leverage.

Strategy 4: Turnaround Opportunities (Low Quality, Outside the Filter)

Objective:

To identify distressed companies showing internal signals of recovery, despite current underperformance.

Screening Formula:

- **Cash Flow from Operations (CFO)** > 0
- **Cash Flow from Investing (CFI)** < 0
- **Cash Flow from Financing (CFF)** > 0
- **Profit After Tax (PAT)** < 0

Interpretation:

Although these companies are currently loss-making and do not pass the quality filter, their cash flow patterns indicate active restructuring or reinvestment. This strategy targets potential turnaround cases that may offer outsized returns if the recovery plays out successfully.

Factor Score Calculation Methodology

To standardize and rank companies across different strategies, we apply **Z-score normalization**. This allows us to measure how far a company's metric is from the average of the peer group, in terms of standard deviations.

Z-Score Formula:

$$Z\ Score\ =\ (X\ -\ \mu)\ /\ \sigma$$

Where:

- X = Value of the metric for the company
- μ = Mean of the metric across all companies
- σ = Standard deviation of the metric across all companies

Strategy-Wise Factor Score Calculation

Strategy 1: Capex Expansion

- **Input Metrics**:
  CAGR of **Gross Block + CWIP** over 1, 2, and 3 years
- **Score Logic**:
  Avg of 3 CAGR values for each company
  Calculate Z-score on this combined value
  Higher score indicates **more aggressive capex expansion**

Strategy 2: Capital Raised but Not Deployed

- **Input Metrics**:
  - Increase in **Share Capital**
  - Increase in **Long-Term Debt**
  - Low Growth in **Gross Block + CWIP**

- **Score Logic**:
  Combine the two positive signals (capital raised) and subtract capex growth
  Apply Z-score on the final derived value
  Higher score given to companies that raised funds but haven't deployed yet

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Strategy 3: Plain Vanilla Growth

- **Input Metrics**:
  - **Revenue Growth**
  - **Incremental Working Capital**
  - **Incremental CAPEX**
- **Score Logic**:
  Use the following formula:
  Score = Revenue Growth−(Incremental WC+Incremental CAPEX)
  Apply Z-score on this derived value
  Higher score given to efficient growth (high growth with low capital needs)

Strategy 4: Turnaround Opportunities

- **Input Metric**:
  - **Cash Flow from Operations (CFO)**
- **Score Logic**:
  Apply Z-score directly to CFO values
  Higher score indicates stronger internal cash flow, despite losses

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