

QUANTA AI FOR VALUE ENGINEERING

Technology products already on the market experience constant margin pressure. Value engineering, the process of reducing cost and improving function, is a key lever of margin management. Although value engineering is widely employed in technology, it is often marginalized due to the go-to-market pressures of new product introduction. Minimizing value engineering efforts leaves money on the table and adversely affects profitability. We will explore three core components of value engineering best practices. These elements are designed to maximize returns, minimize risk and support gross margins. Our Quanta AI improves returns on value engineering portfolios by over 20%.

Cisco has returned to double digit revenue growth thanks to its "value engineering" efforts and more competitive pricing.

-- John Chambers

Value Engineering is one of the key initiatives for expanding margins.

-- Honeywell Investor Conference

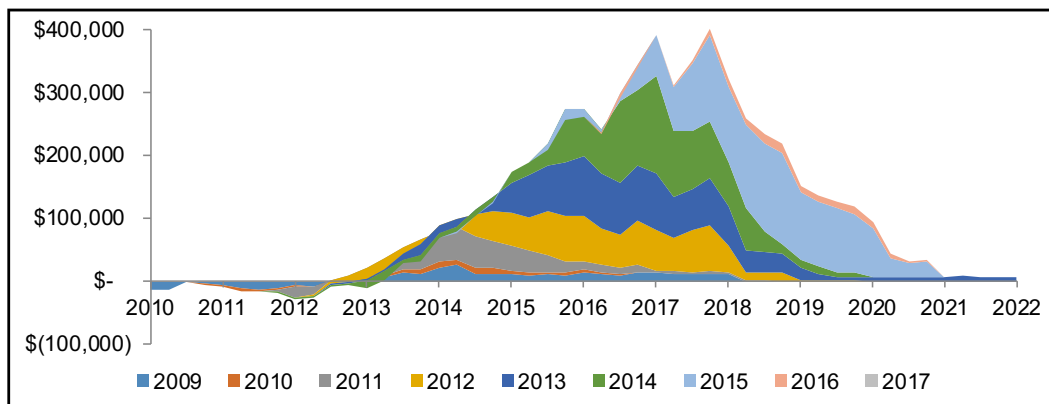
Many firms highlight value engineering and its impact

upon gross margins in

shareholder earnings calls.

As launching new products are prioritized over reducing the cost of old ones, business units often lack funding and resources for value engineering products in the sustaining lifecycle phase. Depending upon the number of products in a portfolio, millions of dollars can be left on the table every quarter. "One-off" projects are not sufficient to move the needle towards margin accretion. A comprehensive program with executive buy in, a venture-capital investment fund model and Quanta AI can deliver world-class results.

Value Engineering Portfolio Returns by Investment Tranche

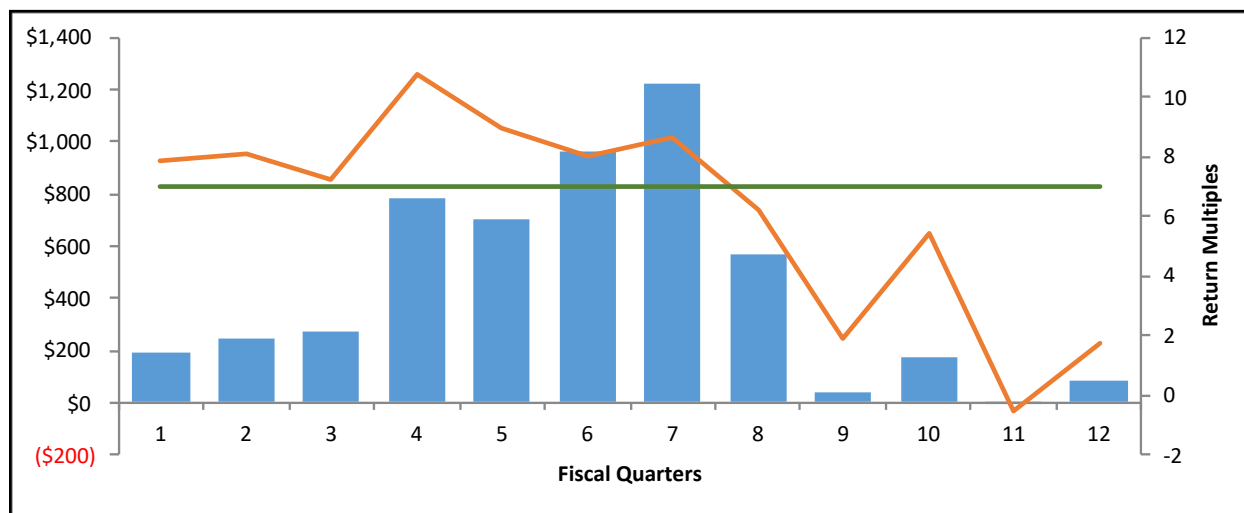


Returns and gross margin impact amplifies over time

Senior executive-level support and **buy in** is essential to a successful value engineering program. A creative approach is to establish an executive board of directors from finance, engineering and supply chain. These executives agree upon the tranche of projects funded each quarter. Once a project is funded, the original commitment to the board of directors is tracked against actual performance. Financial and execution metrics enable a small management team to support the executive board by vetting new business cases, monitoring projects in real time and administer fiduciary responsibilities.

The creation of a dedicated value engineering **investment fund** with annual allocations enables value engineering projects to solicit funding from the executive board. This venture capital “shark tank” approach has several benefits. The fund creates a competitive marketplace for scarce resources. Project proponents are forced to create rigorous business cases. Risk is shared by splitting project funding with individual business units. Internal corporate venturing creatively delivers measurable margin impact, yet leaves product testing and re-launch with business units. Gradually, a value engineering culture bakes into the firm’s DNA. As it does, annual investment can be reduced as engineers incorporate value engineering as part of new product introduction.

Returns by Length of Project



Value engineering projects are most profitable within a two year time frame

Quanta AI. One-off value engineering projects lack margin impact. A successful fund has multiple value engineering projects at different stages. Investments are made in tranches each quarter and returns are measured over various time horizons. As projects differ in complexity, returns and timing, investment decisions must incorporate a myriad of variables. A small team can manage a large portfolio (50-75 projects per manager) using Quanta AI. Fund managers and executives select the highest returning and best projects for the portfolio. Quanta AI ensures proper capital allocation, project selections, maximized returns and measures gross margin impact. Quanta AI can improve returns by over 20%. The road to best-in-class value engineering returns starts with Quanta AI.