

Notes of JFU CPA, Tax Advisors, and Digital Tools are prepared for sharing our thoughts on problems encountered in the course of our practice. Subscription is free. Questions and comments are welcome; feel free to write to the Editor, JFU Notes, <a href="mailto:enquiries@jfuconsultants.com">enquiries@jfuconsultants.com</a>







Value-focused Growth
Framework for discerning Value Drivers
Source: JFU | Digital Tools
27 March 2025

### **Authors**

Joseph Fu | Partner (Tax and Risk)
Christopher Fu | Partner (Private Equity and M&A)

Sustainable value-focused growth can only be achieved through productivity enhancements. This Note introduces a framework for discerning value drivers through abstraction.

#### **How Value is Created**

Business is a system that creates value by converting inputs into valuable outputs. Value is realized when outputs are sold on the market, generating revenue and resultant profits. Uncertainty affects expected results and risks must be managed.

There is no winning formula that one can copy as business systems are unique and circumstances change. One may, however, use abstraction to derive a system and value drivers specific to individual firms.

# Abstraction

Abstraction removes practical details and lets one focus on the fundamental elements. The Cobb-Douglas production function,  $Y = AK^{\alpha}L^{\beta}$ , provides a useful framework for discerning value drivers when expanded into a profit function,  $\Pi(Q) = R(Q) - C(Q)$ . The variables Y, A, K, and L are matrices or vectors defined as follows:

- Y is the value created by a firm as a system of production. Value is created when the firm outputs a set of products or product mix (Q), reflecting the firm's strategic orientation on what to produce.
- A is the technology matrix, a constant at a particular point in time but subject to change over time due to technical developments. It reflects the firm's decision on how to produce.
- K and L are inputs of capital and labour, used to create Y in particular proportions according to the firm's technology.
- $\alpha$  and  $\beta$  are powers denoting returns to scale, constants at a particular point in time, but variable over time due to technical developments.

The function is monetarized by multiplying Q with a unit price vector (P), giving rise to revenue (PQ). Similarly, the unit cost of capital vector (V) and cost of labour vector (W) apply to K, L respectively to determine the costs incurred. Firms typically operate within a supply chain, with other firms supplying goods and services as external inputs (M) with unit cost vector (C).

The production function  $Y = AK^{\alpha}L^{\beta}$  can be transformed into an extended profit function by incorporating matrix and vector operations, period costs (F), risks ( $\lambda$ ) and taxes ( $\tau$ ):

$$\Pi = \Sigma P_i Q_i - \Sigma \Sigma v_i k_{ij} Q_j - \Sigma \Sigma w_i l_{ij} Q_j - \Sigma \Sigma c_i m_{ij} Q_j - \Sigma f_n - \lambda(\cdot) - \tau(\cdot)$$

Where v, k, w, l, c, and m are elements of matrices or vectors V, K, W, L, C and M respectively, and i and j are indices for the summation notations representing inputs and outputs.  $f_n$  are elements of period costs (F) resulting from the firm's infrastructural and overhead arrangements.  $\lambda(\cdot)$  is the risk function that can be further analysed into specific risks in the process of risk analysis and management.  $\tau(\cdot)$  is the tax function that can also be further analysed in the process of tax analysis and management.

## **Discerning Value Drivers**

Strategic planning is a dynamic process, seeking emerging value drivers under constantly shifting circumstances. The value drivers are embedded in the production and profit functions as variables and parameters, including respective powers, exponents, and indices.

For instance, the index j in the revenue component  $\Sigma P_j Q_j$  denotes a firm's choice of market orientation and product mixes. The index i in respective cost components characterizes the firm's choice of technology matrix and hence inputs.

By examining the shifting range of these indices in modelling their decisions, firms contemplate responses to technological changes, market shifts, and economic outlooks, discerning emerging value drivers crucial for their future success.

In our earlier Notes on Charting Growth, we used a two-dimensional X-Y plane representing "capability x risk" to derive a growth path. The principal axes, {X1, X2...Xi}, denotes a firm's capabilities while {Y1, Y2...Yi} denote the risks it faces. Points {A, B, C, D} represent actions or strategies that best match the firm's capabilities with the risks it faces, serving as drivers for growth in specific circumstances.

## **Abstraction Shapes Reality**

While the production and the profit functions provide a robust framework for identifying value drivers required to deliver a firm's financial performance, they do not inherently account for the effect of uncertainties on the firm's expected performance. The risk function  $\lambda(\cdot)$  is incorporated to address this limitation.

Risks can only be understood and managed in a practical context – how firms are organized and how business decisions are made. This process was the subject of our three-part series on the application of technology to enterprise risk management, published between August 4 and 18 of 2023:

- (Part 1) Getting The Context Right
- (Part 2) Setting Goals
- (Part 3) Discerning Threats and Opportunities

In summary, business should be viewed as a value creation system, not merely profit-making schemes. Each viable firm must identify key value drivers that enable it to generate a surplus over costs. As operating contexts change, firms must reevaluate their organization to deliver performance and foster new value drivers to maintain value-focused growth.