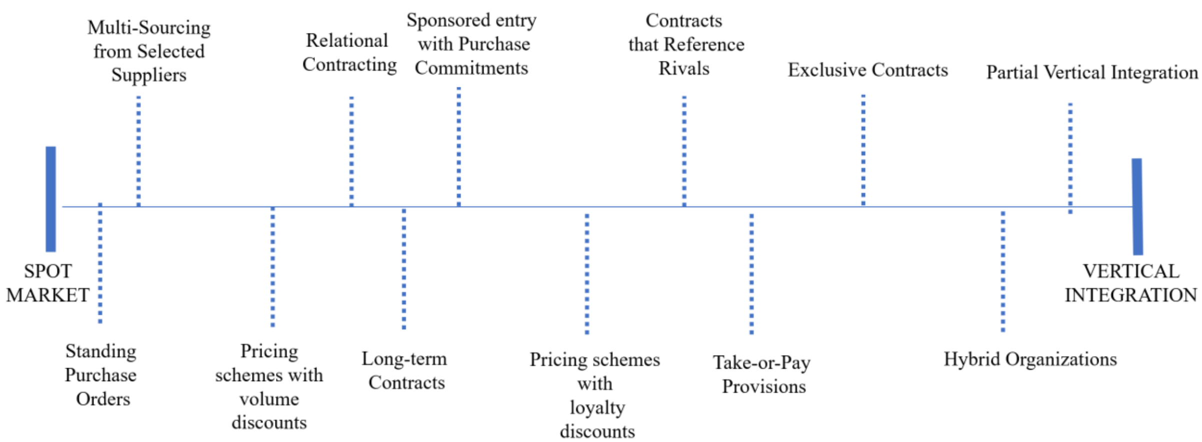
GLOBAL NETWORK FOR ADVANCED MANAGEMENT

Yale SCHOOL OF MANAGEMENT

ORGANIZATIONAL CHOICES: FROM SPOT MARKETS TO VERTICAL INTEGRATION

All firms, including high-tech firms, decide how to organize key functions, e.g., securing supplies of inputs and distributing their products and services to consumers. The threshold question is whether to organize the activities internally or externally. Conditional on that decision, firms have an array of choices.

Figure 1: Continuum of Organizational Alternatives



Source: Edward A. Snyder, "The Vast Space in which the Vertical Merger Guidelines Lived," *The Antitrust Bulletin*, Issue 3, September 2022

If the firm organizes an activity internally with no involvement with outside parties – i.e., *make*, then it is at the right end of the continuum. With complete vertical integration, senior executives face decisions such as (i) whether to set up separate divisions or subsidiaries, and (ii) how to motivate employees.

If the firm decides to engage outside parties – i.e., *buy*, it has many alternatives ranging from spot market transactions to long-term contracts to partial vertical integration.

Consider the EV manufacturer, NIO. Along with other decisions, NIO must decide (a) how to secure lithium for their batteries, and (b) whether to invest in dedicated charging stations. Consider another example, Netflix. It must decide how to secure video content to be included in the portfolio it offers to subscribers. It also must decide how to distribute the content to customers.

Such decisions depend on two related issues:

1. What organizational form is most efficient?
2. What organizational form puts the firm in the best position relative to its rivals?

On the first issue, high-tech firms tend not to rely on spot markets or similar arrangements. One-time purchases of inputs like lithium or a scripted drama may make sense, but reliance on spot markets would put the firm in a risky position.

Instead, the more common organizational forms for high-tech firms are long-term contracts, exclusive contracts, and vertical integration. The main reason for choosing options toward the right end of the continuum depicted above is that they encourage investment in *specific assets* and thereby increase gains from trade. Buyers and sellers will not make such investments when the risk of opportunistic behaviors is high. (Rf., Mini Brief on *Incomplete Contracts and Opportunistic Behavior*. As explained, the risks of opportunistic behaviors increase with complexity, specialization, and uncertainty.)

In theory, vertical integration – at the right end of the continuum – eliminates the problem of opportunistic behavior because a single entity maximizes the gains from internal transactions. Samsung and General Motors, for example, are known to internalize many key functions. But vertical integration adds to the managerial burdens on senior executives. Given that managers who are responsible for key functions are not residual claimants, they do not have the same high-powered incentives that outside firms have to be efficient and keep up with technological developments. For firms that rely on vertical integration, the quality of their senior executive teams is critically important to their long-term success.

Other approaches on the right-side of the continuum, e.g., long-term contracts and exclusive contracts, are often chosen because they reduce the problem of opportunistic behavior by encouraging the parties to rely on each other, but they also establish high-powered incentives.

Close alternatives to exclusive contracts include discount schemes that encourage the buyers to purchase most of their needs from one supplier. Nvidia may offer a discount if the customer buys specified *share,* e.g., 90 percent of its total Graphics Processing Units from Nvidia. T aking the offer means that the customer will not buy more than 10 percent from rivals such as AMD. Some contracts are naturally exclusive. Samsung, for example, decided in early 2023 to continue to make Google its default search engine.[1]

Vertical integration, exclusive contracts, and quasi-exclusive contracts can be used to organize both upstream and downstream activities. It should be understood that even when firms vertically integrate upstream to secure supplies of inputs, they may purchase some of their inputs from other suppliers. Similarly, a firm may choose dual distribution arrangements that involve other distributors.[2] Various efficiency-related factors, e.g., avoiding supply shortages and having access to different technologies, influence these decisions.
Turning to the second issue, a huge economics and strategy literature has focused on when a

[1] https://techreport.com/news/samsung-says-no-to-bing-hugs-back-google/
[2] Another version of exclusionary contracts is *exclusive dealing* whereby retailers and distributors limit what products they sell. For example, the Lucknow, India Car Dealership only sells Volvos. BYD, which operates in 70 countries, relies primarily on exclusive dealerships to sell their EVs.

firm can gain a competitive advantage over rivals through exclusive contracts or vertical integration.[3] The essential idea is that when firms enter into such relationships the industry becomes more closed. If major EV manufacturers gain control over lithium suppliers, then entry downstream into either batteries or vehicles becomes more difficult. (Similar *closed-versus-open* issues arise in the context of ecosystems such as Apple's App Store.)

When you observe vertical integration and exclusive contracts, therefore, it is important to consider whether the organizational forms are motivated by efficiency reasons only or whether they exclude rivals and thereby protect incumbents. In the former case, valuations increase for efficiency reasons. In the latter case, valuations increase because rivals are at a disadvantage.

Many of the most common narratives about why firms have competitive advantages are that they can exclude rivals and deter entry. In high-tech settings, these narratives are common and lead to statements about "high barriers to entry" and "a competitive moat".[4]

The following inquiries are helpful in assessing whether an established firm is using exclusive contracts and vertical integration for efficiency reasons only or to exclude rivals to gain competitive advantage.

i. Does the supplier make large investments that are specific to serving the customer's needs? If so, this indicates that this organizational choice is motivated by efficiencies.

ii. How do marginal prices paid by buyers in the context of exclusive contracts compare to the supplier's marginal costs? This question requires calculating the marginal price over various ranges of output. When marginal prices are below the suppliers costs, that indicates an exclusionary motive.

iii. How much of Total Available Market (TAM) is governed by exclusive contracts? If that is small, then the firms in exclusive contracts do not benefit from the exclusion of rivals.

iv. How much business does a rival supplier need to secure to realize economies of scale? If that is high, then firms that have "locked up" large shares of business through exclusive contracts may gain an advantage from deterring entry.

v. Do rival suppliers who offer better products eventually win over buyers? This will depend on the duration of the exclusive contracts between the incumbent supplier and buyers and the share of buyers under contract.

Developing rigorous answers to the last three questions will help you sort out which firms in fact

---

[3] Besanki, et al., *Economics of Strategy*, 7th Edition, (2022).

[4] For a discussion focused on Apple, see Gallant, C. et al, "How an Economic Moat Provides a Competitive Advantage," *Investopedia*, May 19, 2022.

have competitive advantages over rivals. The evidence on successful entry by innovative firms in high-tech settings should encourage you to be skeptical about the narratives that incumbents are protected from competition and therefore deserve high valuations. Some firms may be protected from competition, but the experience of your professor in evaluating these narratives and rigorous analysis of the questions above suggests that many of those who claim to have such protection are wearing "emperor's clothes."

Relevant recent developments:
1. In February 2024, Reliance Industries and Disney formed a joint venture to create one streaming platform in place of Viacom18 and Star India. Reliance is India's largest private company and the largest conglomerate, with assets across virtually all industries.[5]

Readings:
1. Bruce H. Kobayashi, "The Economics of Loyalty Discounts and Antitrust Law in the United States," Competition Policy International, Vol. 1, No. 2 Autumn 2005
2. "Victory for Intel as EU court orders €1.1bn fine to be re-examined" (2017)
3. "Qualcomm Violated the Antitrust Law", Washington Post, (2017)
4. US Federal Trade Commission's guidance on exclusive contracts
5. Snyder, Edward A., "The Vast Space in which the Vertical Merger Guidelines Lived," The Antitrust Bulletin, Issue 3, September 2022.

[5] https://thewaltdisneycompany.com/reliance-and-disney-announce-strategic-joint-venture-to-bring-together-the-most-compelling-and-engaging-entertainment-brands-in-india/, https://www.thehindu.com/business/reliance-disney-sign-binding-pact-to-combine-media-businesses-in-india/article67896451.ece.