



VALUE CHAIN GOVERNANCE

INTRODUCTION

Governance is a dynamic feature of value chains that characterizes the relationships or linkages among stakeholders in the chain. Governance is important as it relates to the ability of a stakeholder to determine, control and/or coordinate the activities of other actors in the value added chain. At any point in the chain, a firm (or organization or institution) can set parameters under which others in the chain operate. The stakeholders responsible for establishing parameters can be one or more firms in the chain, actors in the larger enabling environment, or a combination of the two. Different actors may exert more or less influence in local or global markets, and the scope of an actor's impact can be economy-wide or industry-specific.

By setting the parameters for governance, powerful actors influence who acquires production capabilities and market access and how gains are distributed throughout the chain:

- **Acquisition of production capability.** Suppliers can learn by observing what their buyers do and by adopting the best practices that lead firms transmit through embedded services or hands-on advice. Knowing how a chain is governed enables donors and development practitioners to determine the type and amount of upgrading assistance buyers are likely to provide to their suppliers.
- **Market access.** As developed countries dismantle trade barriers, developing country producers do not necessarily gain access because chains are often governed by a limited number of powerful buyers. In order to participate in export manufacturing to developed countries, producers need access to lead firms to know their requirements and produce to their specifications.
- **Distribution of gains.** It is important to know which activities in the chain generate the most profit and who engages in these activities. Understanding how a chain is governed provides firms and practitioners with valuable information on the value chain roles and relationships that allow local firms to build new skills, undertake additional functions in the chain, and create a more balanced distribution of gains.

Governance is particularly important for the generation, transfer and diffusion of knowledge leading to innovation, which enables firms to improve their performance and sustain competitive advantage. Understanding how a chain is governed allows local firms to strategically target the activities and relationships that will provide them with the most benefits. When conducting value chain analysis, one must first identify the type of governance structures that exist, and then select appropriate interventions and leverage points for policy initiatives.

INTER-FIRM GOVERNANCE

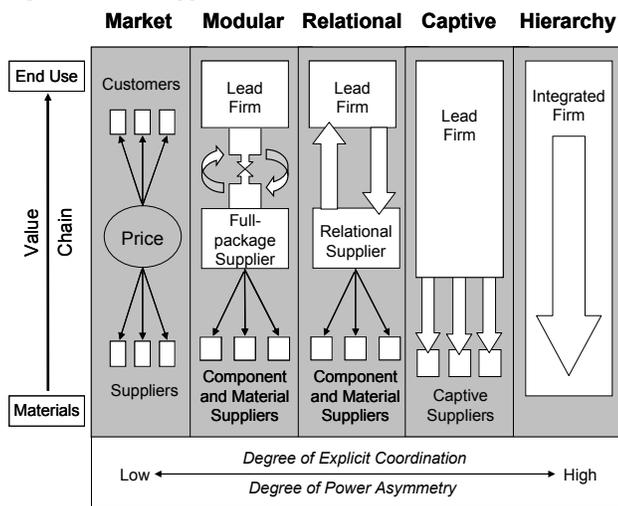
Inter-firm (or value chain) governance exists when some firms work to the parameters set by other powerful firms in the value chain. The firm that sets the parameters with which other firms in the chain must comply is referred to as the *lead firm* in the chain. Lead firms have the agency (within limits) to choose and replace suppliers. This purchasing power allows a lead firm to explicitly coordinate the activities of the supply chain and to pressure suppliers to lower costs, increase quality, adopt specific equipment or business processes, purchase inputs from designated vendors, and invest in particular locations. The relationships lead firms have with their suppliers can be supportive and focused on creating 'win-win' scenarios that improve the long-term view of the entire industry, or they can be predatory and focused on realizing quick profits in the short-term.

The need for value chain governance has been increased by two trends. The first is the trend towards outsourcing non-strategic activities previously performed in-house by vertically integrated firms. Outsourcing has led managerial control to be replaced by lead firms exerting control over their suppliers without direct ownership. Second, product differentiation strategies and the growing number of environmental and social compliance standards have made it imperative to coordinate activities previously carried out at arm's length.

TYPES OF INTER-FIRM GOVERNANCE

The connections between industry activities within a chain can be described along a continuum extending from the market, characterized by arm's length relationships, to hierarchical value chains characterized by direct ownership of production processes. Between these two extremes are three network forms of inter-firm governance: modular, relational and captive (see Figure 1). Network-style governance represents a situation in which the lead firm exercises power through coordination of production vis-à-vis suppliers (to varying degrees), without any direct ownership of the firms.

Figure 1: Five Types of Governance Structure



Market: Market governance involves transactions that are relatively simple. Information on product specifications is easily transmitted, and suppliers can make products with minimal input from buyers. These arms-length exchanges require little or no formal cooperation between actors and the cost of switching to new partners is low for both producers and buyers. The central governance mechanism is price rather than a powerful lead firm.

Modular: Modular governance occurs when complex transactions are relatively easy to codify. Typically, suppliers in modular chains make products to a customer's specifications and take full responsibility for process technology using generic machinery that spreads investments across a wide customer base. This keeps switching costs low and limits transaction-specific investments, even though buyer-supplier interactions can be very complex. Linkages (or relationships) are more substantial than in simple markets because of the high volume of information flowing across the inter-firm link. Informa-

tion technology and standards for exchanging information are both key to the functioning of modular governance.

Relational: Relational governance occurs when buyers and sellers rely on complex information that is not easily transmitted or learned. This results in frequent interactions and knowledge sharing between parties. Such linkages require trust and generate mutual reliance, which are regulated through reputation, social and spatial proximity, family and ethnic ties, and the like. Despite mutual dependence, lead firms still specify what is needed, and thus have the ability to exert some level of control over suppliers. Producers in relational chains are more likely to supply differentiated products based on quality, geographic origin or other unique characteristics. Relational linkages take time to build, so the costs and difficulties required to switch to a new partner tend to be high.

Captive: In these chains, small suppliers are dependent on one or a few buyers that often wield a great deal of power. Such networks feature a high degree of monitoring and control by the lead firm. The power asymmetry in captive networks forces suppliers to link to their buyer under conditions set by, and often specific to, that particular buyer, leading to thick ties and high switching costs for both parties. Since the core competence of the lead firms tends to be in areas outside of production, helping their suppliers upgrade their production capabilities does not encroach on this core competency, but benefits the lead firm by increasing the efficiency of its supply chain. Ethical leadership is important to ensure suppliers receive fair treatment and an equitable share of the market price.

Hierarchy: Hierarchical governance describes chains characterized by vertical integration and managerial control within lead firms that develop and manufacture products in-house. This usually occurs when product specifications cannot be codified, products are complex, or highly competent suppliers cannot be found. While less common than in the past, this sort of vertical integration is still an important feature of the global economy.

DETERMINANTS & DYNAMICS OF INTER-FIRM GOVERNANCE STRUCTURES

The form of governance can change as an industry evolves and matures, and governance patterns within an

industry can vary from one stage or level of the chain to another. The dynamic nature of governance can be largely accounted for with three variables: the *complexity* of information the production of a good or service entails (design and process); the ability to *codify* or systematize the transfer of knowledge along the chain; and the *capabilities* of existing suppliers to produce efficiently and reliably.

Information complexity refers to the intricacy of information and knowledge that must be transferred to ensure a particular transaction can occur. This is important because suppliers working with complicated product and process specifications are more difficult to control and coordinate, which increases switching costs. This effort can be reduced through standardization and codification.

Information codification is the extent to which complex knowledge is converted into industry-wide standards or situation-specific information that can be efficiently transmitted along the chain at a minimal cost. Developments in information technologies enabling better logistics management (e.g., EDI or RFID¹) or computer-aided design (CAD) allow complex data to be easily handed off between value chain partners.

Supplier capability refers to suppliers' ability to meet all transaction requirements. These may include quantity and quality specifications, on-time delivery, or environmental, labor and safety standards. Suppliers need access to support services such as input supply, equipment maintenance and upgrades, reliable transportation, and certification assistance to develop new capabilities. If affordable and effective services are not available from supporting markets, suppliers will rely more heavily on buyers to meet these needs and vice versa.

If one of these three variables changes, then value chain governance patterns tend to shift in predictable ways. For example, if a new technology renders an established codification scheme obsolete, modular value chains are likely to become more relational; and if competent suppliers cannot be found, captive networks and even vertical integration will become more prevalent. Conversely, rising supplier competence might result in captive net-

works moving towards the relational type, and better codification schemes set the stage for modular networks.

OTHER CONTRIBUTING FACTORS

If the governance mechanism in an industry is not adequately explained through one of the inter-firm governance structures, then an alternative force, such as a strong institutional environment or other sources of market power, is likely to be at work.

Business enabling environment and institutions: The *business environment* incorporates the physical entities, including government agencies and non-governmental organizations (NGOs)—such as multilateral agencies, industry trade groups, labor unions and advocacy groups—that set forth institutions and create resources to facilitate compliance with them. *Institutions* refer to the rules that govern society, including laws, policies, standards and societal and cultural norms that impact the structure and competitiveness of an industry. They are derived, to a greater or lesser degree, from the beliefs and priorities embedded in the environment that creates them. Institutions place legal or voluntary limits on actions, and firms that surpass those limits run the risk of sanction, creating pressure for firms to comply.

In this way, the enabling environment can act as a “check and balance” system. When lead firms become too powerful or engage in predatory practices, institutions can be created to place limits on these actions. For example, if the power attributed to a lead firm is associated with its brand's reputation and this reputation is threatened by external activists' accounts of unethical conditions in its factories, then the lead firm is likely to quickly volunteer to improve the conditions. Later on, this may lead to new or revitalized institutions to regulate social and environmental practices, as well as to ensure, certify and assist factories with compliance.

Power is the ability of a firm or organization to drive the direction of the value chain, and thus influence and control other firms in the chain. Power can come from any part of the value chain structure, and in many different forms. *Within the chain*, power is exercised by firms and workers within firms. *Outside the chain*, power comes from the state and other institutions created by the enabling environment and consumers. Those in possession of industry power actively shape the distribution of profits and risk through their activities.

¹ Electronic data interchange and radio-frequency identification, respectively.

Within the chain, power at the firm level can be exerted by lead firms or suppliers. Lead firms can be producers or buyers in the chain. In *producer-driven chains*, power is held by final-product manufacturers and is characteristic of capital-, technology- or skill-intensive industries. In *buyer-driven chains*, retailers or marketers of the final products exert the most power through their ability to shape mass consumption via strong brand names. They source their products from a global network of suppliers located in the places most cost-effective to make their goods. Knowing if the lead firm in a chain is a buyer or a producer can help to determine the most likely upgrading opportunities for suppliers. For example, buyer-driven chains tend to provide more opportunities to their suppliers in product and process upgrading because the core competence of the buyers is in marketing and branding.

The most notable form of *supplier power* comes via *platform leadership*. Platform leaders exhibit marketing or technological dominance, which affords them the power to set standards and warrant higher returns for their products. For example, in some situations brand is defined by origin (e.g., Blue Mountain coffee) or ethnicity; through the “story” of the producers (e.g., Lulu Life beauty products made by Sudanese refugee women); or through organic, conservation or fair trade labeling. In such instances, suppliers exhibit more power and leverage in commercial relationships; however, supplier power is not associated with explicit coordination of buyers or other “downstream” value chain actors. A softer form of supplier power is *competence power*. Unlike platform leadership, competence power is not recognized industry-wide. Suppliers’ technical and service capabilities are viewed as indispensable, but only to the lead firms they serve.

RECOMMENDATIONS & GUIDELINES

Analyze chain governance to determine leverage points: where, how and when practitioners can intervene to effect systemic change and industry behavior. Analysis should seek to understand:

- *Economic interests*: assess the interests of key lead firms and suppliers; evaluate changes that could be made in the system to balance the benefits, profits and power likely to accrue to lead firms versus suppliers.

- *Social structures*: work with respected and knowledgeable social figures, such as key farmers, influential trade organizations or industry leaders who can influence others to adopt or purchase new techniques, technologies, services or inputs.
- *Competition and strategy*: changes in the level of competition or in lead firm strategies can pressure buyers and others to change predatory or abusive behavior.

Encourage capability-enhancing governance at all levels of the chain. Supportive governance facilitates the social and economic development of all of the firms within the chain, and not just the interests of the lead firm. Practitioners should work with lead firms and suppliers to create and monitor rules and standards that will make the chain effective, efficient and equitable for all parties involved. It is important to ensure all chain members understand the terms and performance standards.

Facilitate the development of supporting markets. Technical assistance, training, certification and business services are critical to helping suppliers improve their ability to meet customer specifications, and can be a primary avenue of intervention for practitioners.

REFERENCES

- Gereffi, Gary. 1999. International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48(1): 37-70
- Gereffi, Gary, John Humphrey & Timothy Sturgeon. 2005. The governance of global value chains. *Review of International Political Economy*, 12(1): 78-104
- Humphrey, John & Hubert Schmitz. 2002. *Developing country firms in the world economy: Governance and upgrading in global value chains* (INEF Report No. 61). Duisburg: University of Duisburg
- Humphrey, John & Hubert Schmitz. 2004. Governance in global value chains. In Hubert Schmitz (ed.), *Local enterprises in the global economy: Issues of governance and upgrading* (pp. 95-109). UK: Edward Elgar Publishing Ltd.
- Sturgeon, Timothy. 2009. From commodity chains to value chains: Interdisciplinary theory building in an age of globalization. In Jennifer Bair (ed.), *Frontiers of commodity chain research* (pp. 110-135). Stanford, CA: Stanford University Press

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