Open innovation has become a popular topic in management literature since Chesbrough published his book with the same title in 2003 (Chesbrough, 2003). Consequently, no longer does it only exist in the realm of conceptualization; at numerous companies it has been applied. Chesbrough (2003) suggests that companies using the closed innovation paradigm are fundamentally inwardly focused when it comes to the development of new ideas, knowledge, and creativity; the notion of the closed innovation paradigm is not unlike that of a castle or silo. The underlying logic of this approach implies a need for vertical integration with the aim of centralized, internal research and development. But the logic underlying the closed innovation paradigm has been challenged in the transformative era of e-business and social media, due to the interdependence of various firms on other firms for critical technologies and other resources. In an information economy, firms are operating in a more open, fast-paced global environment, where firms can create ideas for external or internal use and can access ideas from outside as well as from within. The availability and quality of these external ideas have changed the logic that once led to the formation of internal, centralized R&D silos and that have now evolved with the open innovation paradigm that enables a firm to leverage and share distributed knowledge. Now firms must manage innovation in an uncertain world, and they must adopt an open innovation paradigm and become strategically agile and aligned by leveraging multiple paths to market their in-house technologies, by sharing ideas and intellectual property (IP), and by accessing and integrating external knowledge through strategic alliances and collaborative partnerships.

The basic idea of open innovation is that firms seek out new knowledge and applications that lie outside their boundaries by collaborating with external sources, including suppliers, customers, independent organizations, and even...
competitors at times. New ideas from external sources may become the seed for an internal innovation process (outside-in process) or innovations developed internally may be exploited for new applications or uses in the external environment (inside-out process). The principal notion of open innovation reflects a paradigm shift in the generation of innovative ideas and practices from “closed innovation” to “open innovation.” The former suggests that companies rely on internal knowledge generation for the purpose of controlling the innovation process, but the latter assumes firms can and should use external ideas in addition to internally generated ones, and pursue internal and external paths in advancing their products, technologies, or business models.

The open innovation paradigm creates an environment where firms welcome the external activities of other firms in exploring sources of innovation and opportunities. With rapid advances in network technology, virtualization, and cloud computing, more and more enterprises are pursuing strategic alliances and collaborative partnerships with other firms around the world to complement their strategic initiatives and strengthen their competitiveness by bypassing the comparatively slower and more costly process of building internal competencies, capabilities, and resource strengths to endeavor new innovations and market opportunities. Collaborative arrangements can help a firm to lower its costs or gain access to needed expertise and capabilities in idea generation, while strategic allies with distinctive competencies and technological know-how enable a firm to manage innovation in an uncertain world and pursue opportunities in unfamiliar international markets.

Indeed, strategic alliances have become so essential to exploring disruptive or radical innovations in many industries that they have become a core element of the open innovation paradigm, dynamic value propositions, and business strategy. Increasingly, firms are involved with more than one cooperative strategy. In addition to forming their own alliances with individual companies, a growing number of firms are joining forces in multiple cooperative strategies in a dynamic, collaborative alliance network to stimulate rapid value-creating innovations. Now almost all innovations require some form of collaborative arrangements for development or commercialization (within a complementary ecosystem), though the failure rate of such collaboration remains high. But, not surprisingly, many competitors have often collaborated in such areas as new-product and technology developments to build their innovative competencies.

Many authors have noted that we need to understand the underlying antecedents, applications, and consequences of open innovation (Allarakhia, Kilgour, and Fuller, 2010; Chesbrough, 2006, 2010; Chironi, Chiesa, and Frattini, 2009; Dahlander and Gann, 2010; West and Wood, 2013). In this chapter, I will begin a discussion of the main theoretical arguments for collaboration and interfirm partnerships; and in the subsequent chapters, I will review some of the more practical benefits of open innovation paradigms in the different areas of business operations. I will link the rationale for collaboration with different forms and structures of strategic alliances, focusing on the specific cases of supplier