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Oliver Williamson and the strategic theory of the firm

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Abstract

Oliver Williamson's contributions to the theory of the firm were of course seminal. Yet, they were not originally formulated to address the central question in strategic management: Why do some firms persistently outperform others in financial terms? We suggest that when Williamson did address this question, his efforts were not compelling. We also suggest, however, that with suitable adjustments, the key mechanisms in Williamson's theory can indeed usefully address this question.

Key words: Theory of the firm; strategy; transaction costs

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Oliver Williamson made tremendous contributions to the social sciences. His scholarship opened entire vistas to researchers across many disciplines and all over the world (Macher and Richman, 2008). It is certainly no wonder that he won the Nobel Memorial Prize in Economics in 2009. He was a mentor to both of us, and we will be forever grateful for his dedication to teaching us.

One of the many fields Williamson's work greatly influenced is business strategy. Somewhat ironically, however, in the 1980s Williamson, in his private conversations with students, expressed considerable doubt about the value of the field. He questioned whether the problems addressed in the field of strategy were simply too ambitious to productively tackle. Can we ever really know why some firms consistently outperform others, or why firms' competitive advantages aren't quickly competed away? In his PhD seminar, Williamson emphasized economic efficiency, and consistent with his early work developing efficiency explanations for vertical integration (Williamson, 1971) actively disputed the importance of market power in determining firm performance – a view advanced by the so-called 'Harvard School of Industrial Organization (IO)'. Indeed, Williamson expressed the view that the Chicago School of Industrial Organization, which doubted the importance of (non-regulatory) barriers to entry, simply defeated the Harvard School in the marketplace of ideas. He loved and repeated James March's comment that 'power is a disappointing concept' (March, 1966).

When Williamson turned his attention to writing about strategy, he emphasized economizing as the universally best strategy. If firms align their governance choices to transaction characteristics following transaction cost theory prescriptions, they will perform well over the long run (Williamson, 1991). On the contrary, 'all the clever ploys and positioning...will rarely save a project that is seriously flawed in first-order economizing' (Williamson, 1991: 75). Williamson suggested that only a small fraction of firms possess market power and that most attempts at strategizing by, say, differentiating a product or service, will be quickly imitated. Firms should instead focus on addressing abundant opportunities to better align their governance choices and thereby improve their efficiency.

Of course, Williamson's 'efficiency-as-strategy' logic also suffers from the imitation critique. If strategizing efforts can be quickly imitated, then certainly economizing efforts can be imitated as

well. It is for these reasons that many conclude that Williamson's theory of the firm – a theory in which firms exist to mitigate opportunistic behavior in transactions featuring asset specificity – is not quite a *strategic* theory of the firm. That is, it doesn't fully and satisfactorily explain persistent performance differences between firms. This is understandable, because for years Williamson (like many economists) seemed unconvinced that such differences really even persist. Yet, there is good evidence that they do (Bartelsman and Doms, 2000; Mueller, 1977; Syverson, 2011).

In what follows, we suggest that Williamson's theory actually has far more to say about strategy's core question of explaining persistent performance differences than even he realized. In particular, we view Williamson's notions of hold-up and optimal boundary choices as constructs central to understanding persistent performance differences, specifically those that emanate from heterogeneous resources and capabilities (Argyres and Zenger, 2012). However, understanding this application of Williamson's logic requires us to depart in several ways from Williamson's original logical setup. In our framing, the unit of analysis is the resource or capability, rather than the transaction. In addition, unlike Williamson's setup, we view resources and capabilities as direct outgrowths of transaction-cost-influenced governance choices, rather than as a mere sideshow, as he seemed to suggest. Although our theoretical arguments are neither formalized nor complete, we think they represent a viable route toward using Williamson's seminal ideas to create a more strategic theory of the firm. We view our modest adaptation of Williamson's logic as providing an explanation for precisely the question that Williamson felt was overly ambitious: why some firms enjoy competitive advantage that generates persistently high performance, but others do not. Moreover, this adaptation offers a straightforward explanation as to how firms, by adopting governance choices consistent with transactions cost logic, develop assets and capabilities that create persistent performance differences among enterprises.

1. The firm's problem

Over the past two decades, the possession of unique capabilities and resources has emerged as the dominant explanation for persistent performance differences (e.g. Barney, 1991; Nason and Wiklund, 2018). For Williamson, these resource- and capability-based theories represented a companion efficiency approach alongside his transaction cost economics, both standing in contrast to classical IO explanations of business strategy that relied on power and entry barriers to explain the observed economy (Williamson, 1991: 76). Although transactions cost economics (TCE) focuses on understanding the boundaries of firms and resource-based arguments on the causes of relative firm performance, both rely on efficiency arguments to generate their explanations. That is, firms' efforts to increase their efficiency (including value for customers) through efficient governance choices and efforts to build and leverage capability, rather than their efforts to create entry barriers or otherwise generate and wield market power, determine their vertical and horizontal boundaries, as well as their long-term financial performance relative to rivals (see Barney, 1986; Demsetz, 1973; Lippman and Rumelt, 1982; Williamson, 1991).

However, for both Williamson and these resource-based scholars, the overlap essentially ended there. In fact, for Williamson the rather trivial connection between these theories is well captured in the framing question that motivated his exposition of TCE logic for the strategy audience in the *Strategic Management Journal*: 'how should a firm A – which has pre-existing strengths and weaknesses – organize X?' (1999: 1103). Thus, from the outset Williamson pushed the presence and origins of heterogeneous capabilities into the background and simply asked how firms (or the economy) should efficiently organize specific exchanges, using a logic that was quite independent of these existing heterogeneous capabilities. Williamson thus entirely sidestepped the more strategic question: 'How does a firm seeking competitive advantage come to assemble and possess the capabilities and resources necessary to gain one?' We argue that a modestly modified version of Williamson's theory provides important answers to this central strategy question and highlights a deep and inescapable theoretical link between the resource-based arguments regarding persistent performance differences and TCE.

To articulate this modified logic, we begin by assuming the economy of the resource-based view (RBV) of the firm – one that consists of a vast array of resources, many with heterogeneous characteristics (Barney, 1991; Peteraf, 1993). Such resources might include physical plants, software, or brand names. They may also include logistics systems or specialized R&D organizations combining human and physical components with organizational routines (Amit and Shoemaker, 1993; Nelson and Winter, 1982). The firm's problem (or what Coase might call the 'entrepreneur-coordinator's problem') in such an economy is to assemble and leverage resources or activities into valuable combinations that deliver sustainable competitive advantage (Argyres and Zenger, 2012; Lippman and Rumelt, 2003). A bundle of resources and activities is more likely to generate such competitive advantage if the resources and activities assembled are uniquely complementary (or co-specialized through asset-specific investments) to one another, that is, each resource or activity increases the value added of other resources and activities in the bundle, and the resulting composition is unique relative to bundles composed by other firms. Thus, the initial strategic task is to identify which resources to assemble and compose. In assembling a bundle of uniquely complementary assets and activities, the 'entrepreneur-coordinator' exercises entrepreneurial judgment (Foss and Klein, 2012, 2015) by composing theories regarding which combinations are likely to be most valuable (Felin and Zenger, 2009, 2018). These strategic theories are often based on diagnoses of customer problems, and insights and analysis about how to solve them (e.g. Felin and Zenger, 2016; Godley and Casson, 2015; Nickerson and Argyres, 2018).

The RBV of the firm, however, is quite agnostic regarding precisely how these resources are to be 'combined' into complementary bundles that generate persistent performance differences. Although firms may access and compose resources using a variety of governance mechanisms including contracts, alliances, joint ventures, unified ownership, or other arrangements, the choice of precisely which arrangements to use is a topic that lies largely outside the logic of the RBV. The RBV instead focuses on the simple need to possess valuable and unique resources (Barney, 1991), and leaves the question of how they are assembled to other research such as on organizational learning and 'dynamic capabilities' (e.g. Teece *et al.*, 1997; Zollo and Winter, 2002). We suggest that Williamson's TCE actually centrally addresses this question of how to develop and own unique and valuable resources, and thus quite directly speaks to the process of enabling the composition of unique, complementary resource bundles central to developing and sustaining competitive advantage – even if Williamson himself did not recognize it.

A straightforward extension of Williamson's TCE implies that ownership of a resource by the firm becomes essential when a resource is a unique complement to other resources in the bundle that the owner-entrepreneur seeks to compose. Consistent with Williamson's notion of asset specificity, uniquely complementary resources are specific to the other resources of the firm. Therefore, if this uniquely complementary resource is externally held with access granted through contractually managed exchanges, then the contractual partner who owns this resource is in a position to 'hold-up' the firm in question with each and every exchange involving this resource, by pricing access to it at a level that approaches the firm's willingness-to-pay. Of course, the firm's willingness-to-pay is determined by the resource's value-added to the complementary bundle that the firm seeks to compose – essentially the difference between the value of the resource bundle with and without access to this unique, externally owned resource. How able this external resource owner is to extract this willingness to pay will depend on the uniqueness of the complementary resource, a value that is measurable as the magnitude of the appropriable quasi-rents that the resource generates for the external resource owner (Klein *et al.*, 1978) – the difference between the value created with this focal resource relative to the value created by its next closest substitute. The greater this difference, the greater is the opportunity that an external owner of a complementary resource has to hold up the focal firm.

If this unique value-added is sufficiently high – higher than the value created in using its next closest substitute – we say that the resource in question is *uniquely* complementary to the firm. In this case, hold-up is particularly tempting for an external resource supplier, because that supplier can capture more of resource's value-added through hard bargaining over its acquisition price. Therefore, the

firm's incentive under these conditions is to acquire and own the resource or capability *pre-emptively*: before the firm's willingness-to-pay (or at least good estimates of it) becomes obvious to resource suppliers. In other words, foresighted strategic actors recognize the unique complementarities inherent to composing capabilities that generate competitive advantage and pre-emptively make governance choices that enable their creation and capture. In this sense, we see the underlying logic of TCE as central to a strategic theory of the firm, in which decisions about the existence of appropriable quasi-rents and hold-up challenges are endogenous choices made by strategic actors seeking to compose competitive advantage-granting capabilities.

Although our discussion above highlights orchestrating unique complementarity across *existing* resources as the driver of these valuable and strategically appropriable quasi-rents, Williamson's primary focus was on the generation of these quasi-rents through active investment. In other words, there are two alternative paths to generating these unique bundles of complementary resources. One is to exercise strategic foresight that recognizes previously unseen complementary patterns among existing resources, some of which are unique. As noted above, here the strategic actor pre-emptively secures these resources before revealing their previously unseen complementary value, thereby avoiding a hold-up problem that would arise if the purchase was made after this value was revealed. Alternatively, the strategic actor may acquire resources in a rather generic form, and then through foresighted investment, render them uniquely complementary to other resources. It was this path that Williamson (1985) essentially envisioned in a process he termed 'The Fundamental Transformation', a process whereby exchanges are initially rather generic and therefore involve large numbers bargaining over generic exchanges, but after specific investment are transformed into highly customized exchanges that demand small numbers bargaining and the prospect of hold-up. In this case, it again behooves the firm to own the resources involved in such exchanges before they are transformed, both as a vehicle to prompt these investments, and as a path to avoid opportunities for hold-up during or after the transformation process.

A key difference between our logic and Williamson's notion of the Fundamental Transformation is that in our theory the degree of resource specificity is endogenous. It is not given *ex ante*, but rather reflects the entrepreneur's exercise of foresight in envisioning desirable patterns of specificity. A second difference is that in our theory, transforming a resource so as to make it uniquely complementary often involves multiple transactions executed over time, rather than a single transaction. For example, transforming generic trucking and warehouse assets into a logistics capability that supports Walmart's early entry into rural areas required a range of uniquely complementary (and highly specific) investments in information technology, including in personnel, software development, hardware, and the like. Each of these investments involved many transactions with outside entities, including individuals and organizations.

The final step in our logic is to link the assembly of a bundle of uniquely complementary resources to a unique capability (or capabilities) that generates sustained competitive advantage. Assume that an 'entrepreneur-coordinator' manages to assemble such a bundle, either through unique and firm-specific internal investments or by pre-emptive acquisition of uniquely complementary resources. If the resulting bundle allows for greater value creation and capture than rivals, and if this unique bundle is difficult for rivals to replicate, then the bundle generates sustained competitive advantage. As Barney (2018: 3319) also emphasizes, it is precisely such co-specialization of resources, or what Williamson might call a process of rendering assets and exchanges more specific to one another as enabled and protected by integration, that is often a necessary condition for generating economic profits.¹

To summarize, although Williamson's theory of the firm was not developed to explain persistent performance differences among firms, its concepts of opportunistic behavior and hold-up in response

¹Our theory builds on Teece (1986), who proposed that what he called 'co-specialized' complementary assets are efficiently internalized. In his theory, however, the driving force for integration is weak legal protection for intellectual property rather than to avoid hold-up. We submit that hold-up is the more general case. In that sense, our analysis is closer to that of Conner (1991), although she did not incorporate resource transformation into her treatment.

to appropriable quasi-rents with integration as its common remedy are concepts central to our more strategic theory of the firm that does address such differences. In our theory, rather than asking Williamson's question of, 'which transactions go where?', we ask, 'which resources go where?' And whereas Williamson answered his question by pointing to the active transformation of assets into more asset-specific forms, we answer our question by pointing to the broader principle that competitive advantages stem from the composition of resources into uniquely complementary bundles – regardless of whether or not this creation effort requires active investment.

Disney's evolving relationship with Pixar between 1998 and 2007 nicely illustrates what we view as the strategic nature of boundary choices – an example we have in part previously discussed (Argyres and Zenger, 2012). By the mid-1990s, Disney's animation capabilities were in decline. Animation was migrating to computer-generated technology, in which Disney had failed to adequately invest, and Disney was suffering a talent drain, fueled in part by the departure of Jeffrey Katzenberg, the leader of the animation unit. In response, Disney entered into a contractual arrangement with an upstart firm, Pixar, to produce several computer-animated films that they could distribute under the Disney brand, and repurpose the characters and other features of the films for use in Disney's other businesses – character merchandising, retail stores, theme parks, cruise lines, music production, and book publishing. With the runaway success of the Pixar films, Pixar quickly became a uniquely complementary resource to Disney's resources and assets engaged in these other businesses. This created a significant hold-up problem, involving over 10 months of haggling, hold-up, and non-cooperative behavior. Indeed, the fact that Pixar was independently owned was prompting behaviors from both parties that were suboptimal toward value creation, compromising the level of complementarity that was possible. Ownership of Pixar by Disney was therefore the solution, and press accounts suggest that the acquisition has been successful, facilitating a level of cooperation and co-specialization that was unachievable in their prior contractual arrangement.

Importantly, in our interpretation it was not a single transaction-specific investment by Pixar or Disney that led to the acquisition, as Williamson's theory might assume or predict. Rather, Pixar was making investments that were important for multiple transactions between Pixar and each of various Disney businesses, including character licensing, theme parks, music, and others. Therefore, the Pixar acquisition changed the core of the Disney Company; it was not a marginal investment at the boundary of the firm involving one transaction only. In our view, the acquisition is better seen as reflecting efforts by Disney's senior leadership to assemble a bundle of uniquely complementary resources, rather than simply to govern a single transaction more efficiently. Therefore, the appropriate unit of analysis in this case was the resource or capability, not the individual transaction.

2. Implications for firm boundaries

Our theory provides a different way of thinking about the relationship between firm resources and capabilities and firm boundary choices. Rather than focus on how the nature of resources and capabilities shapes firm boundaries choices – an approach that typifies the theory of the firm, our strategic theory of the firm focuses on the reverse: how boundary choices shape the formation of resources and capabilities. This perspective is admittedly different from the way Williamson articulated the relationship (although we would argue consistent with its implications), and different from the way this relationship has been explored empirically in the strategy literature. To explain these differences, we begin with a bit of intellectual history.

During the 1990s, interest in the impact of firm capabilities (or 'competences') on firm boundaries grew significantly in the field of strategy based on several articles essentially arguing that firms exist not to mitigate opportunism, but to build capabilities by more efficiently facilitating knowledge transfer and avoiding the need to persuade others to cooperate in their production (e.g. Conner and Prahalad, 1996; Demsetz, 1988; Grant, 1996; Kogut and Zander, 1992, 1996; Langlois, 1992; Nahapiet and Ghoshal, 1998). Some empirical evidence also suggested that capabilities could play a role independent of asset specificity and other transaction cost variables in determining firm

boundaries (Argyres, 1996; Masten *et al.*, 1991). As we noted earlier, Williamson (1999) responded to these developments by suggesting that the arguments were essentially a sideshow to the focus of his theory, simply an additional factor to consider that allows different firms to make different boundary decisions for the same transaction, depending on their ‘pre-existing strengths and weaknesses’.

In the years after Williamson’s (1999) article was published, several papers appeared in the strategy literature using regression analysis to test whether firm capabilities have independent effects on firm boundaries – effects that are independent of asset specificity and other transaction cost variables such as uncertainty and frequency (e.g. Coombs and Ketchen, 1999; Jacobides and Hitt, 2005; Leiblein and Miller, 2003). Conceptual contributions reinforced the idea that capabilities and transaction cost variables represent alternative determinants of firm boundaries (Barney, 1999; Carter and Hodgson, 2006; Madhok, 2002; Wolter and Veloso, 2008), with at least two articles suggesting that, as between the two sets of considerations, capabilities are the more important determinants (Gulbrandsen *et al.*, 2017; Jacobides and Winter, 2005).

Jain and Thietart (2013) take this approach by positing that firm resources and capabilities act as ‘shift parameters’ in Williamson’s (1985) classic graphical model of vertical integration. Consistent with Williamson (1999), they argue that if a firm has a preexisting resource or capability relevant for a particular transaction, the level of asset specificity at which it chooses to integrate drops. When the firm lacks such a preexisting resource or capability, this critical value of asset specificity increases. Jain and Thietart (2013) find evidence for this idea in regressions on data from the information technology industry, in which resource/capability characteristics and asset specificity are entered as independent variables.

Our theory suggests that this way of thinking about the relationship between capabilities and transaction cost theories of firm boundaries is mistaken (Argyres and Zenger, 2012). We suggest that rather than taking resource/capabilities as given or ‘preexisting’, one must inquire into how they were formed in the first place. Our theory suggests that firms compose bundles of uniquely complementary resources in pursuit of capability that generates competitive advantage, and to avoid haggling and hold-up in this composition process, they choose to own these uniquely complementary resources. In this way, transaction cost reduction is central to capability acquisition and development. Therefore, capabilities and transaction cost theories of firm boundaries should not be treated or interpreted as independent of each other or even simply complementary to each other. Nor should capabilities be understood as independent ‘shift parameters’. Instead, the two theories should be seen as deeply intertwined logically – as really part of the same strategic theory of the firm in which integration helps both generate and capture the performance advantages that emanate from composing uniquely complementary resource bundles. Indeed, because these capabilities are developed over time, one really needs longitudinal, rather than cross-sectional studies, to understand how firm boundaries are determined, and how firm boundaries shape the formation of capabilities.

To further illustrate our argument, consider an example from Argyres (1996). The paper describes a manufacturing firm that decided to outsource the production of molds for a new product despite the asset specificity and high expense associated with them when observed in the present. The paper suggests three reasons for the decision: (1) the firm lacked capability in mold-making, which reflected a strategic decision not to invest in it in the past, (2) its generic manufacturing knowledge did not readily apply to mold-making; and (3) significant time would have been required for the firm to acquire a mold-making firm, and/or to learn the technical and managerial aspects of mold-making. The author concludes by writing: ‘Thus, the savings gained by relying on a supplier with superior capabilities outweighed the transaction costs represented by potential opportunism’ (p. 139). The alternative strategic theory of the firm that we advance implies that this conclusion is potentially misleading. Although capabilities may have played an important *proximate* role in the present outsourcing decision, the firm’s earlier strategic decision not to invest in mold-making could well have been driven, for example, by low asset specificity of molds at that earlier time. That is, low transaction costs may have loomed large in the past decision not to invest in mold-making, and the consequences of that transaction cost-driven decision were reflected in a capabilities-driven decision years later. Neither the author of that

paper (Argyres), nor Oliver Williamson as dissertation advisor (who read the paper many times) recognized this important logical flaw: it was not possible to completely separate transaction cost and capabilities-based explanations in this case.

One key implication of our theory is that firms may choose to extend their boundaries by entering businesses in which they entirely lack capability.² This type of choice contrasts with the general prescription of the capabilities literature in strategy, according to which firm boundary choices are driven rather directly by a firm's level of capability in various activities (e.g. Barney, 1999; Gulbrandsen *et al.*, 2017; Jacobides and Winter, 2005). In other words, firms leverage and retain what they internally do well, and outsource the rest. It is certainly empirically true that we observe firms integrated into what they do well. But, of course, this observation fails to answer the question as to why they chose to develop and then retain one set of capabilities or another. In our theory, foresighted firms internally invest in or acquire activities in which they lack capability, if they anticipate that those activities feature unique complementarity with the firm's other assets and activities. This is because failure to own such activities and the capability they create results in a hold-up problem, and therefore a loss of value to other firms.

An interesting example of a successful firm entering uniquely complementary businesses in which it had no prior capability is International Management Group (IMG). IMG's first business was talent management focusing on golf and tennis athletes – sports that rivals had ignored (Anand and Attea, 2002). The firm later acquired ownership of tennis and golf tournaments, even though it had absolutely no experience in the business of hosting and managing such tournaments. The rationale was that by owning these tournaments, IMG ensured that the younger, less well-known athletes it represented in its original talent management business received invitations to enter these tournaments (Anand, 2005). With more tournament entries, the athletes that IMG managed then enjoyed greater exposure, and therefore better chances at lucrative endorsement deals, of which IMG claimed a percentage. In addition, IMG was able to offer more prize money than previous tournament owners because some of it was returned to the firm as commissions on athlete incomes (Anand, 2005). This allowed IMG to attract better athletes to the tournaments, increasing tournament profitability. Therefore, profits from talent management increased because of the ownership of tournaments, and vice versa, implying complementarity between the two businesses. The complementarity was unique because no other talent management firm at the time represented as large a stable of golf and tennis athletes as IMG. Thus, although IMG had no capability in tournament management before entering it, because the business was uniquely complementary to its talent management business, the combination was successful.

IMG possessed even less capability in two other businesses it later entered: TV broadcasting and money management (Anand and Attea, 2002). Owning TV broadcasting allowed it to bias TV coverage in favor of its own athletes, increasing their exposure and therefore their endorsement chances (Anand, 2005). IMG enjoyed lucrative fees from managing its clients' money, based on the trust it had earned in managing their careers. Again, each of these businesses was uniquely complementary to its talent management business, yet IMG had no capability whatsoever in them at the time they choose to enter them. Therefore, the IMG case nicely illustrates the logic of our strategic theory of the firm. IMG foresightedly recognizes unique complementarity among a set of assets and activities, several of which it has absolutely no present capability to operate. However, it nonetheless acquires and enters these businesses as a way to invest in and shape these activities into uniquely complementary patterns that if pursued in the absence of integration would generate rampant hold-up and contractual haggling challenges. The result of these foresighted boundary choices is the generation of

²Examples of such firms abound. Nokia was founded as a timber company, but came to dominate the market for mobile handsets. IBM was founded as a computer hardware and software company, but became a formidable competitor in information technology and consulting services. Netflix began as a movie rental service, and is today a major entertainment production company. Amazon started as an online bookseller, and now leads in the market for cloud services (among others).

capabilities that garner competitive advantage. In our theory, capability levels are an empirical correlate of boundary decisions, but not their cause.

To conclude, transaction cost theory and resource/capabilities-based views of the firm are not different or competing theories of firm boundaries or competitive advantage. They are instead two sides of the same coin. Uniquely complementary resources, whether acquired or transformed, must be combined in order for unique and valuable capabilities to emerge that generate competitive advantage. Moreover, the combination process must be governed in ways that prevent rivals or resource suppliers from blocking the creation of these valuable capabilities, or capturing much of their value once created. Although we view this strategic theory of the firm as a somewhat modest extension (or perhaps a reinterpretation) of transaction cost theory, it is one that Williamson did not contemplate. We believe that with this extension, Williamson's work becomes highly useful in answering strategy's central question of how firms gain and sustain competitive advantage, and in providing guidance for how a forward-looking strategic actor should do so.

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