© *Academy of Management Review*
2020, Vol. 45, No. 4, 711–716.
https://doi.org/10.5465/amr.2020.0372

## FROM THE EDITORS

# DEVELOPING A THEORY OF THE FIRM FOR THE 21ST CENTURY

Why do firms exist? The answer to this question has puzzled scholars since at least the 1930s. Given that the invisible hand of the market—with its emphasis on competition and prices—can efficiently coordinate economic exchanges among literally millions of people, why would it ever make sense to try to coordinate such exchanges through a firm—with its emphasis on bureaucracy, rules, and managerial hierarchies? And yet, firms do exist, and they can even prosper. As noted by D. H. Robertson (quoted in Coase, 1937: 388), firms in the economy exist as "islands of conscious power in [an] ocean of unconscious co-operation, like lumps of butter coagulating in a pail of buttermilk."

### ECONOMIC THEORIES OF THE FIRM

Of course, there have been numerous attempts—mostly by economists—to explain why firms exist. Many of these efforts have been recognized by Sveriges Riksbank Prizes in Economic Sciences in Memory of Alfred Nobel. This extensive literature has been reviewed elsewhere (see, e.g., Hart, 1989, 2011; Holmström & Tirole, 1989; Milgrom & Roberts, 1988), and is only highlighted here.

Among the most influential "theories of the firm" are transactions cost economics (Coase, 1937; Williamson, 1975, 1985), in which firms are thought to arise because of threats of opportunism created by the transaction-specific investments needed to complete economic exchanges; agency theory, wherein firms are thought to exist in order to ensure that employee actions are consistent with the interests of a firm's owners, its shareholders (Jensen & Meckling, 1976); team production theory, according to which firms are thought to come into being in order to prevent shirking by those cooperating to create, produce, and sell products or services (Alchian & Demsetz, 1972); and incomplete contract theory, further to which firms are thought to arise in order to assign residual rights of control when complete contracts among those working together cannot be written, and to mitigate associated incentive conflicts (Grossman & Hart, 1986; Hart & Holmström, 2010; Hart & Moore, 1990; Holmström & Milgrom, 1994).

### POSSIBLE LIMITATIONS OF PRIOR THEORIES OF THE FIRM IN THE 21ST CENTURY

While acknowledging that these economic theories of the firm have had much to say about firms and their existence, there is a growing sense that they may have some important limitations, especially in the context of the 21st century. Several of these limitations, all of which emphasize behavioral and managerial dimensions explaining why firms exist, are briefly discussed here.

#### Boundaries and Ecosystems for Firms in the 21st Century

For example, many of these prior theories have focused much of their effort on trying to explain the existence of firm boundaries—with a bright-line distinction between those economic activities "within" a firm's boundary, and those "outside" a firm's boundary. But this emphasis on distinct boundaries seems oddly out of step with current work that shows that many firms in the 21st century operate in—often very innovative—ecosystems (Adner, 2017; Hannah & Eisenhardt, 2018; Jacobides, Cennamo, & Gawer, 2018). In this context, the emergence of structured cooperation within the economy is not just the result of an abstract and static choice between market and hierarchical forms of governance, or even between market and hybrid forms of governance. Instead, structured cooperation emerges through a complex interaction among a wide variety of economic actors in an ecosystem (Afuah & Tucci, 2012; Kogut, 2000). Within these ecosystem settings, questions concerning whether or not economic exchanges are "within" or "outside" a firm's boundary" are less important than questions about how bundles of exchanges can help generate social and economic value.

#### Firm Shareholders and Other Stakeholders in the 21st Century

Many economic theories of the firm—especially agency theory and team production theory–are steadfastly wedded to the assumption that a firm's only residual claimants—that is, those who have a claim on profits generated by a firm—are a firm's shareholders (Friedman, 1962; Jensen, 2002). This is the case even though more and more firms are explicitly recognizing that stakeholders, besides shareholders, can have residual claims on a firm's profits (see, e.g., Husted & de Jesus Salazar, 2006; Zingales, 2000), especially when their resources help create those profits (Barney, 2018).

The 21st century looks like it may become the century of stakeholder-oriented firms, although what this might mean in practice is still an ongoing discussion (e.g., Allen, Carletti, & Marquez, 2015). This discussion is confounded by empirical evidence that firm objectives often vary across countries (Yoshimori, 1995). And yet, it seems that, in many parts of the world, society increasingly expects businesses to help solve problems of environmental degradation, inequality, and poverty. And the business community is beginning to respond to these expectations.[1] Performance measured only in financial terms is increasingly seen by many key actors in the economy as a myopic way to assess firm activities, and many firms are now attempting to achieve triple bottom line performance in relation to financial, environmental, and societal metrics (Kaplan & McMillan, 2020).

Relatedly, there seems to be a growing awareness of the vital role of firms in tackling societal challenges regarding, for instance, environmental sustainability—including inter-temporal trade-offs in which future generations cannot make their voices heard today. Apart from employees, it may be the case that 21st-century consumers will prefer engaging in trade with firms that embrace these responsibilities instead of those that mistreat stakeholders in favor of profit maximizing.

The implications of more fully incorporating a stakeholder orientation into theories of the firm are not fully known. It may turn out, for example, that stakeholder ideas can be incorporated into current economically oriented theories of the firm. Or, on the other hand, incorporating stakeholders may require an entirely new theory of the firm, that takes as a starting point that firms exist to pursue some (explicit) societal good, under the constraint of making a profit, instead of the other way around.

### The Meaning of Firm Ownership in the 21st Century

A prominent theme in economics-based theories of the firm is the idea that ownership is "a tool that, when deployed correctly, aligns incentives among parties and leads to high economic value creation" (Foss, Klein, Lien, Zellweger, & Zenger, 2020: 5). Foss et al. (2020) focused on "ownership competence" and equated the component that they labeled "governance competence" (or "how to own") with delegating decision-making to management and "skillfully managing the distribution of rents generated within firms in ways that provide value-generating incentives" (p. 12).

However, this characterization of ownership may be evolving in the 21st century. It could be that economic actors in the 21st century will have to earn the right to ownership by respectfully "walking the land" (or "possessing," according to Roman law),[2] instead of just exercising faceless on-paper-only controlling from afar. The growing importance of this "active" ownership can be seen in the increasing role of "money with an attitude"; for example, sustainable investment funds and assets managed by firms such as the U.S. global investment manager BlackRock (with more than $8 trillion in assets under management), which increasingly affects the fortunes and behavior of important 21st-century firms. Such "active" and "situated" exercise of ownership becomes increasingly important in situations in which the value of an acquisition depends on the reactions, loyalty, and retention of highly capable individuals or groups in the target firm (see, e.g., Zander & Zander, 2010; Zander, Zander, & Yildiz, 2012).

The fundamental question regarding the evolution of the concept of ownership in the 21st century may be the legitimacy and justification of private property rights as opposed to common or collective property rights. With the increasing social function of the firm,

[1] For example, according to 181 CEOs associated with Business Roundtable (2019), "Each of our stakeholders is essential. We commit to deliver value to all of them, for the future success of our companies, our communities, and our country." Moreover, dozens of leading multinational companies have joined the Organisation for Economic Co-operation and Development's Business for Inclusive Growth coalition to ensure economic opportunity and equality for all stakeholders, and the World Economic Forum annual meeting's theme for 2020 was "Stakeholders for a Cohesive and Sustainable World."

[2] One of the characteristic features of classical Roman law is the sharp distinction it draws between ownership and possession. In rough terms, "ownership" is title and "possession" is actual enjoyment (see Tate, 2006).

owner rights to use and manage as they please, to the exclusion of the consideration of these actions on others in society, may well be questioned. It could be that a feeling of ownership among employees of the firm will become increasingly in demand and necessary for what philosophers have called "the ethical development of the individual, or for the creation of a social environment in which people can prosper as free and responsible agents" (Waldron, 2020). It seems likely that a theory of the firm with this reconceptualization of property rights would be quite different from current economically oriented theories.

### Value Creation, Uncertainty, and Firms in the 21st Century

Many of the economic theories of the firm focus on when firms, as a governance mechanism, are superior to markets in executing a given business strategy. For instance, in their famous example, Alchian and Demsetz (1972) focused on the cooperation that is needed to move heavy cargo. Indeed, these authors derived the structure of the traditional capitalist firm from efforts to reduce the shirking that may exist among those cooperating in cargo moving. But, as brilliant as this analysis was, it left at least one important question unanswered: Why should the cargo be moved? Such analysis implicitly takes the economic value that can be created through cooperation—in this case, the economic value that can be created by moving the cargo—as given, and then examines how that effort should be organized.

Williamson (1985) made this implicit assumption explicit: his comparative governance approach took "gains from trade" as given and asked only about the most efficient way to manage this trade. In this sense, these theories abstract away from the question of how economic value can be created in the first place—a question that is at the heart of strategic management theory. In stable economic environments, it may be reasonable to assume that "gains from trade" from potential exchanges can be taken as given. But that kind of stability seems ever more unlikely in the 21st century.

Not surprisingly, by assuming away the strategy question, these theories of the firm also—to a large extent—assume away problems associated with Knightian uncertainty, innovation, and entrepreneurship. Indeed, Alvarez and Barney (2005) showed that both transactions cost theory and incomplete contracting theory must be significantly modified if they are to apply in settings characterized by Knightian uncertainty. And yet, if we have learned anything from 2020, it must be that Knightian uncertainty—where decision-makers not only do not know what the "right" answer is, they do not know the possible outcomes of a decision nor the probability of those outcomes (Knight, 1921)—is probably a more important part of our "new normal" than prior theories would acknowledge (Alvarez & Porac, 2020). Entrepreneurship is one important way that individuals can organize under conditions of uncertainty (Alvarez & Barney, 2007). Theories of the firm that do not incorporate Knightian uncertainty, innovation, and entrepreneurship seem oddly out of touch with the fundamentals of business in the 21st century.

### Incentives and Social Dimensions of Firms in the 21st Century

Given their economic roots, it is not surprising that prior theories of the firm tend to emphasize economic incentives as central to understanding why firms exist. And it is certainly true that economic incentives are an important part of the story of why firms exist. But, what we have learned from several decades of work in organizational behavior and organization theory is that firms are deep pools of conflicting motives and interests—only some of which are purely economic in nature (Akerlof & Kranton, 2008; Bandiera, Barankai, & Rasul, 2010; Ellemers, De Gilder, & Haslam, 2004; Peterson & Luthans, 2006). Firms help people create a sense of identity (Alvesson & Robertson, 2006), they continue to help provide people with purpose and direction (Naim & Lenka, 2018), and they are a rich source of social contacts and exchange.

Treating firms as if they are only economic entities misses some of the most important social dynamics within firms, and thereby fails to recognize one significant reason for their existence. Firms are social entities providing their members with a sense of community (Kogut & Zander, 1992, 1993, 1996; Zander & Kogut, 1995). Membership and belonging, while demanding moral and notional consistency, lead to the coordination of expectations and guide learning in efforts to create economic value. The social role of firms therefore supports knowledge creation, accumulation, and transfer. These processes are likely to become even more important as other institutions in society—religion, family, neighborhoods—may wane in importance in creating identity in the 21st century.

### Artificial Intelligence and Management of Firms in the 21st Century

The overriding concern with incentives in prior theories of the firm has also been criticized for neglecting technological development and productivity differences among firms (Demsetz, 1991; Foss, Lando, & Thomsen, 2000; Milgrom & Roberts, 1988; Nelson & Winter, 1982; Penrose, 1959; Winter, 1988). With operations in many firms currently experiencing major changes due to the introduction of productivity-enhancing artificial intelligence (Frank et al., 2019), a compelling question when theorizing about the firm may be as follows: What is left of the "labor component" once machines do the heavy physical work and artificial intelligence takes care of elementary and routine administrative tasks?

Arguably, the labor force that is left to be managed will, to a large extent, consist of individuals who are well educated, independent, mobile, and well aware of their value.[3] In this light, the challenge for traditional theories of the firm in the 21st century may be the inability of owners and managers to exercise authority consistent with the idea of "managerial fiat" (Williamson, 1991). Thus, changes in technology and the quality of labor may spur additional experimentation on the part of firms regarding the nature of incentives, organizational templates, and organizing principles required to be successful in this new setting. Increasingly, these changes may lead firms to be less hierarchical, with less clarity regarding lines of command, planning, contracts, and (economic) incentives. Indeed, it may be the case that managers from the 20th century would not even recognize 21st-century managers based on their daily activities and the foundations of their authority.

## CONCLUSION

The field of management has learned much from theories of the firm developed in the field of economics. However, given trends in the 21st century, it may be time for economically oriented theories of the firm to learn from the field of management. This suggests an interesting possibility: the need to develop a managerial theory of the firm, as opposed to an economic theory of the firm, for the 21st century.

There are at least two ways such a theory could be developed. First, scholars might try to modify economic theories of the firm to incorporate these more managerial elements of firms. Some efforts in this direction have already taken place (e.g., Radner, 1996) and they have generated several important insights. Alternatively, scholars could build new theories of the firm wherein management issues are central assumptions, rather than modifications of economic theories of the firm. Of course, developing wholly new managerial theories of the firm will be a significant challenge, if only because economic theories of the firm are well established in both the economics and management literatures.[4] However, such a managerial theory of the firm could generate insights that would be unlikely to occur by simply adding "more management" to existing economic theories.

**Sharon A. Alvarez**
University of Pittsburgh

**Udo Zander**
Stockholm School of Economics

**Jay B. Barney**
The University of Utah

**Allan Afuah**
University of Michigan

## REFERENCES

Adner, R. 2017. Ecosystems as structure: An actionable construct for strategy. ***Journal of Management***, 43: 39–58.

Afuah, A., & Tucci, C. 2012. Crowdsourcing as a solution to distant search. ***Academy of Management Review***, 37: 355–375.

Akerlof, G., & Kranton, R. 2008. Identity, supervision, and work groups. ***American Economic Review***, 98: 212–217.

Alchian, A., & Demsetz, H. 1972. Production, information costs, and economic organization. ***American Economic Review***, 62: 777–795.

Allen, F., Carletti, E., & Marquez, R. 2015. Stakeholder governance, competition, and firm value. ***Review of Finance***, 19: 1315–1346.

[3] While financial capital is currently cheap, human capital, new ideas, and highly skilled knowledge workers are often found to be scarce and come at a premium.

[4] Of course, established theories of the firm should not be uniformly discarded. Just as classical mechanics is still used by engineers in the 21st century to design bridges and airplanes while special and general relativity and quantum mechanics flourish, our established theories of the firm will most likely continue to be useful for certain purposes and under particular boundary conditions.

Alvarez, S., & Barney, J. 2005. How do entrepreneurs organize firms under conditions of uncertainty? ***Journal of Management***, 31: 776–793.

Alvarez, S., & Barney, J. 2007. The entrepreneurial theory of the firm. ***Journal of Management Studies***, 44: 1057–1063.

Alvarez, S., & Porac, P. 2020. Imagination, indeterminacy, and managerial choice at the limit of knowledge. ***Academy of Management Review***. Published online ahead of print. doi: 10.5465/amr.2020.0366

Alvesson, M., & Robertson, M. 2006. The best and the brightest: The construction, significance and effects of elite identities in consulting firms. ***Organization***, 13: 195–224.

Bandiera, O., Barankay, I., & Rasul, I. 2010. Social incentives in the workplace. ***Review of Economic Studies***, 77: 417–458.

Barney, J. 2018. Why resource-based theory's model of profit appropriation must incorporate a stakeholder perspective. ***Strategic Management Journal***, 39: 3305–3325.

Business Roundtable. 2019, August 19. "Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans.'" Retrieved from https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans

Coase, R. 1937. The nature of the firm. ***Economica***, 4: 386–405.

Demsetz, H. 1991. Comment on "The organization of economic activity." ***Small Business Economics***, 3: 67–69.

Ellemers, N., De Gilder, D., & Haslam, A. 2004. Motivating individuals and groups at work: A social identity perspective on leadership and group performance. ***Academy of Management Review***, 29: 459–478.

Foss, N., Klein, P., Lien, L., Zellweger, T., & Zenger, T. 2020. Ownership competence. ***Strategic Management Journal***. Published online ahead of print. doi: 10.1002/smj.3222

Foss, N., Lando, H., & Thomsen, S. 2000. The theory of the firm. In B. Bouckaert & G. de Geest (Eds.), ***Encyclopedia of law and economics*** (Vol. 3): 631–658. London, U.K.: Routledge.

Frank, M., Autor, D., Bessen, J., Brynjolfsson, E., Cebrian, M., Deming, D., Feldman, M., Groh, M., Lobo, J., Moro, E., Wang, D., Youn, H., & Rahwan, I. 2019. Toward understanding the impact of artificial intelligence on labor. ***Proceedings of the National Academy of Sciences***, 116: 6531–6539.

Friedman, M. 1962. ***Capitalism and freedom***. Chicago, IL: University of Chicago Press.

Grossman, S., & Hart, O. 1986. The costs and benefits of ownership: A theory of vertical and lateral integration. ***Journal of Political Economy***, 94: 691–719.

Hannah, D., & Eisenhardt, K. 2018. How firms navigate cooperation and competition in nascent ecosystems. ***Strategic Management Journal***, 39: 3163–3192.

Hart, O. 1989. An economist's perspective on the theory of the firm. ***Columbia Law Review***, 89: 1757–1774.

Hart, O. 2011. Thinking about the firm: A review of Daniel Spulber's *The theory of the firm*. ***Journal of Economic Literature***, 49: 101–113.

Hart, O., & Holmström, B. 2010. A theory of firm scope. ***Quarterly Journal of Economics***, 125: 483–513.

Hart, O., & Moore, J. 1990. Property rights and the nature of the firm. ***Journal of Political Economy***, 98: 1119–1158.

Holmström, B., & Milgrom, P. 1994. The firm as an incentive system. ***American Economic Review***, 84: 972–991.

Holmström, B., & Tirole, J. 1989. The theory of the firm. In R. Schmalensee & R. D. Willig (Eds.), ***Handbook of industrial organization*** (Vol. 1): 61–133. Amsterdam, Netherlands: Elsevier.

Husted, B., & de Jesus Salazar, J. 2006. Taking Friedman seriously: Maximizing profits and social performance. ***Journal of Management studies***, 43: 75–91.

Jacobides, M., Cennamo, C., & Gawer, A. 2018. Towards a theory of ecosystems. ***Strategic Management Journal***, 39: 2255–2276.

Jensen, M. 2002. Value maximization, stakeholder theory, and the corporate objective function. ***Business Ethics Quarterly***, 12: 235–256.

Jensen, M., & Meckling, W. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. ***Journal of Financial Economics***, 3: 305–360.

Kaplan, R., & McMillan, D. 2020. ***Updating the balanced scorecard for triple bottom line strategies*** (HBS working paper 21-028). Retrieved from https://hbswk.hbs.edu/item/updating-the-balanced-scorecard-for-triple-bottom-line-strategies

Knight, F. 1921. ***Risk, uncertainty, and profit***. Boston, MA: Hart, Schaffer, and Marx.

Kogut, B. 2000. The network as knowledge: Generative rules and the emergence of structure. ***Strategic Management Journal***, 21: 405–425.

Kogut, B., & Zander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. ***Organization Science***, 3: 383–397.

Kogut, B., & Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. ***Journal of International Business Studies***, 24: 625–645.

Kogut, B., & Zander, U. 1996. What firms do? Coordination, identity, and learning. ***Organization Science***, 7: 502–518.

Milgrom, P., & Roberts, J. 1988. Economic theories of the firm: Past, present, and future. ***Canadian Journal of Economics***, 21: 444–458.

Naim, M., & Lenka, U. 2018. Development and retention of Generation Y employees: A conceptual framework. ***Employee Relations***, 40: 433–455.

Nelson, R., & Winter, S. 1982. ***An evolutionary theory of economic change***. Cambridge, MA: Harvard University Press.

Penrose, E. 1959. ***The theory of the growth of the firm***. Oxford, U.K.: Blackwell.

Peterson, S., & Luthans, F. 2006. The impact of financial and nonfinancial incentives on business-unit outcomes over time. ***Journal of Applied Psychology***, 91: 156–165.

Radner, R. 1996. Bounded rationality, indeterminacy, and the theory of the firm. ***Economic Journal***, 106: 1360–1373.

Tate, J. 2006. Ownership and possession in the early common law. ***American Journal of Legal History***, 48: 280–313.

Waldron, J. 2020. Property and ownership. In E. N. Zalta (Ed.), ***The Stanford encyclopedia of philosophy*** (Summer 2020 ed.). Retrieved from https://plato.stanford.edu/archives/sum2020/entries/property

Williamson, O. 1975. ***Markets and hierarchies: Analysis and antitrust implications***. New York, NY: Free Press.

Williamson, O. 1985. ***The Institutions of capitalism***. New York, NY: Free Press.

Williamson, O. 1991. Strategizing, economizing, and economic organization. ***Strategic Management Journal***, 12: 75–94.

Winter, S. 1988. On Coase, competence, and the corporation. ***Journal of Law, Economics, and Organization***, 4: 163–180.

Yoshimori, M. 1995. Whose company is it? The concept of the corporation in Japan and the West. ***Long Range Planning***, 28: 33–44.

Zander, U., & Kogut, B. 1995. Knowledge and the speed of the transfer and imitation of organizational capabilities: An empirical test. ***Organization Science***, 6: 76–92.

Zander, U., & Zander, L. 2010. Opening the grey box: Social communities, knowledge and culture in acquisitions. ***Journal of International Business Studies***, 41: 27–37.

Zander, U., Zander, L., & Yildiz, E. 2012. Building competitive advantage in international acquisitions: Grey box conditions, culture, status and meritocracy. In A. Verbeke & H. Merchant (Eds.), ***Handbook of research on international strategic management***: 211–237. Cheltenham, U.K.: Edward Elgar Publishing.

Zingales, L. 2000. In search of new foundations. ***Journal of Finance***, 55: 1623–1653.