Petri Mäntysaari

Organising the Firm

Theories of Commercial Law, Corporate Governance and Corporate Law

Chapter 2
Economic Theories of the Firm

2.1 General Remarks

Economic theories of the firm have provided much of the language and concepts of modern corporate governance and corporate law discourse.[1]

Alternative mechanism. According to economic theories of the firm, the default form of economic exchanges is through the market. The mechanism of market prices is assumed to allocate resources to their most effective uses. The firm is an alternative mechanism.

Variation. There are various competing theories of this alternative mechanism. This is partly caused by the nature of economics. Whereas law is normative and must be applied by people and firms in the complex circumstances of real life, economists have more discretion as economic theories are not applied in a normative way. The firms studied by economists are firms reduced to certain aspects. One can therefore say that economists study fictive rather than real firms.[2] This can contribute to the existence of large differences between the competing theories.

Categories. Economic theories of the firm can be categorised in various ways. If it is assumed that market contracting solves everything, there is no room for the firm. A theory based on such an assumption cannot tell us why firms exist.[3] There are nevertheless theories that go further.

---

[1] See, in particular, Bratton WW, The New Economic Theory of the Firm: Critical Perspectives from History, Stanford L Rev 41 (1989) pp 1471–1527.

[2] Demsetz H, The Structure of Ownership and the Theory of the Firm, J Law Econ 26(2) (1983) p 377: "It is a mistake to confuse the firm of economic theory with its real-world namesake. The chief mission of neoclassical economics is to understand how the price system coordinates the use of resources, not the inner workings of real firms."

[3] Foss NJ, Lando H, Thomsen S, 5610 The Theory of the Firm. In: Bouckaert B, De Geest G (eds), Encyclopedia of Law and Economics. Volume III. The Regulation of Contracts. Edward Elgar, Cheltenham (2000) pp 631–658.

P. Mäntysaari, *Organising the Firm*,
DOI 10.1007/978-3-642-22197-2_2, © Springer-Verlag Berlin Heidelberg 2012

One can broadly distinguish between theories of the existence of firms and theories of the limits of the firm. Theories of the existence of firms focus on market exchange and regard the firm as a production structure. Theories of the limits of the firm focus on internal exchange and regard the firm as a governance structure and an organisational construction. One can thus regard the firm as a production function or as an organisational structure.[4]

This distinction is also the distinction between (a) the *classical* or neoclassical theory of the firm and (b) the *institutional* theory or new institutional economics. The neoclassical theory started with the publication of two articles: Alchian and Demsetz (1972) and Jensen and Meckling (1976). Williamson (1981) is an example of the institutional theory of the firm. In addition, management theorists champion (c) the *resource-based* theory of the firm.[5]

2.2 Production Function

We will now discuss theories of the firm in more detail. The first theories of the firm studied the "*classical firm*". This firm is a *production function* personified by an *entrepreneur*. The main underlying assumption is that organising production within the firm is often more efficient than organising production through contracts between many independent parties.

Generally, theories that describe the firm as a production function are not actually theories of the firm but rather theories of markets in which firms are important actors. They customarily explain why firms exist but do not explain under what terms the firm is the superior form of organisation. For this reason, they are regarded as "black box constructions".[6]

Adam Smith (1776) is regarded as the most important pioneer. Smith identifies the benefits brought by division of labour and *specialisation* in society. According to Smith, firms exist to coordinate and motivate specialised people's economic activity.[7]

Coase (1937) explains the existence of firms by the existence of *transaction costs*: "The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism. The most obvious cost of 'organising' production through the price mechanism is that of discovering what the relevant

[4] See, for example, Williamson OE, The Modern Corporation: Origins, Evolution, Attributes, J Econ Lit 19 (1981) p 1539.

[5] See Wernerfelt B, The Resource-Based View of the Firm, Strat Man J 5(2) (1984) pp 171–180; Barney JB, Firm Resources and Sustained Competitive Advantage, J Man 17 (1991) pp 99–120; Peteraf MA, The Cornerstones of Competitive Advantage: A Resource-Based View, Strat Man J 14 (1993) pp 179–191.

[6] Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) pp 305–360.

[7] Smith A, The Wealth of Nations (1776).

prices are. This cost may be reduced but it will not be eliminated by the emergence of specialists who will sell this information. The costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market must also be taken into account."[8]

Theories based on the notion that the firm is just a *set of contracts* among factors of production are a radical departure from the earlier theories in other respects but still regard the firm as a production function.[9]

Ostrom (1990) mentions some firms (law firms and cooperatives) as examples of *common resource pools*. When the firm is studied as a common resource pool, it is implicitly assumed that it is a production function or a market. This brings the study of common resource pools close to the set-of-contracts theory of the firm (see below).[10]

2.3 Governance Structure or Organisational Construction

Whereas "black box constructions" do not explain under what terms the firm is the superior form of organisation, various theories that study the firm as an *organisational construction* or as a *governance structure* try to provide the answer.

Williamson (2002a, b) is an example of this approach.[11] According to Williamson, firms *exist* because all complex contracts are incomplete. The cost of completing transactions on the market increases, when their complexity increases, or when asset specificity increases (they involve assets that are worth more within a relationship between two parties than outside it). At some point, it makes sense to conduct transactions within the firm.

On the other hand, there are *limits* to the size of firms.[12] Williamson (1984, 1985) suggests that the transfer of transactions out of the market into the firm changes their governance (adaptability) and measurement (incentive) features. Three transaction characteristics are critical for the size of firms: frequency,

---

[8] Coase RH, The Nature of the Firm, Economica, New Series 4(14) (1937) pp 386–405.

[9] Alchian AA, Demsetz H, Production, Information Costs, and Economic Organization, Am Econ Rev 62 (1972) pp 777–795; Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) pp 305–360.

[10] Ostrom E, Governing the Commons. Cambridge U P, Cambridge (1990) pp 25 and 40.

[11] Williamson OE, The Lens of Contract: Private Ordering, Am Econ Rev 92(2) (2002) pp 438–443; Williamson OE, The Theory of the Firm as Governance Structure: From Choice to Contract. Journal of Economic Perspectives 16(3) (2002) pp 171–195.

[12] Arrow KJ, The Limits of Organization. Fels Lectures on Public Policy Analysis. Norton, New York (1974); Grossman SJ, Hart OD, The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, J Pol Econ 94 (1986) pp 691–719; Holmström B, Tirole J, The Theory of the Firm. In: Schmalensee R, Willig RD (eds), The Handbook of Industrial Organization. Volume 1. North-Holland, Amsterdam (1989) pp 61–133; Holmström B, Roberts J, The Boundaries of the Firm Revisited, J Econ Persp 12(4) (1998) pp 73–94.

uncertainty, and, in particular, asset specificity.[13] Williamson is regarded as the originator of modern transaction cost economics.

2.4 Personification of the Firm, Authority

2.4.1 General Remarks

The choice between the firm as a production function or as a governance structure is not the only fundamental choice one can make when studying firms. For the purposes of legal research, at least two questions are potentially relevant. They are only to a limited extent dependent on whether the firm is a production function or a governance structure.

The first relates to the *personification* of the firm. Do firms exist? Who is regarded as the firm? Should the firm be personified at all? These questions can be relevant from a legal perspective, because laws generally facilitate the balancing of conflicting interests. It is important to understand whose interests legal norms should protect. The existence of interests worthy of protection can explain the existence and contents of various legal rights and duties.

The second relates to *authority*. Is authority characteristic of the firm? Who decides or should decide? Even these questions can be relevant, because decision-making can be based on consensus (contract) or authority, and the existence and contents of various legal norms are also connected to the nature of decision-making.[14] For example, the default legal norm is that the amendment of contract terms requires the consent of all contract parties; in an authority relationship, however, one party has a legal right to give instructions unilaterally and the other party has a legal duty to follow the instructions, subject to legal constraints.

Unfortunately, economic theories of the firm do not provide sufficient answers for legal research.

2.4.2 Personification

Obviously, one does not need the concept of authority for the purpose of defining the firm at all, if one assumes that the firm does not exist in the first place. We can therefore begin with the question of personification.

There are at least six customary approaches to personification of the firm in present research: the non-existence of the firm; the owner-manager-entrepreneur

[13] Williamson OE, The Incentive Limits of Firms, Rev World Econ 120(4) (1984) p 741; Williamson OE, The Economic Institutions of Capitalism. The Free Press, New York (1985) p 137.

[14] See also Arrow K, The Limits of Organization. W. W. Norton & Company, New York (1974) pp 68–70 (on consensus and authority).

approach; the team approach; the legal entity approach; the absence of personification; and the principal–agent approach. They are not mutually exclusive and may be overlapping.

Owner-manager-entrepreneur. In classical economics, the firm is regarded as a production function and personified by an owner-manager-entrepreneur that directs production. The existence of an owner-manager-entrepreneur is central for the definition of the "classical firm".[15]

It does not necessarily matter whether the firm is characterised by authority or, as in neoclassical economics, regarded as a set of contracts (see below). The "classical firm" can often be found even in neoclassical economics. For example, Jensen and Meckling (1976) argue that it is misleading to personify the firm. They suggest that the behaviour of the firm is like the behaviour of the market.[16] However, even their starting-point is the existence of an owner-manager.[17]

Team. The firm can also be personified by a team. Alchian and Demsetz (1972) view the firm as a team whose members act from self-interest but realise that their destinies depend to some extent on the survival of the team in its competition with other teams.[18]

Legal entity. Some theories assume that the economic boundaries of the firm are defined by the legal boundaries of the legal entity. The firm and the legal entity are often used interchangeably. Jensen and Meckling (1976)[19] and Chandler (1977)[20] are examples of this approach.

---

[15] Alchian AA, Demsetz H, Production, information costs, and economic organization, Am Econ Rev 62(5) (1972) p 794: "The essence of the classical firm is identified here as a contractual structure with: 1) joint input production; 2) several input owners; 3) one party who is common to all the contracts of the joint inputs; 4) who has rights to renegotiate any input's contract independently of contracts with other input owners, 5) who holds the residual claim; and 6) who has the right to sell his contractual residual status. The central agent is called the firm's owner and the employer."

[16] Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) p 311: "The firm is not an individual. It is a legal fiction . . .".

[17] *Ibid*, p 312. For a critical view, see Fama EF, Agency Problems and the Theory of the Firm, J Pol Econ 88(2) (1980) pp 290–291.

[18] Alchian AA, Demsetz H, Production, Information Costs, and Economic Organization, Am Econ Rev 62 (1972) p 778. See also Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, *op cit*, pp 309–310; Simon HA, Organizations and Markets, J Econ Persp 5(2) (1991) p 36.

[19] Jensen MC, Meckling WH, *op cit*, p 310: "It is important to recognize that most organizations are simply legal fictions which serve as a nexus for a set of contracting relationships among individuals. This includes firms . . ." The authors define legal fiction in footnote 12: "By legal fiction we mean the artificial construct under the law which allows certain organizations to be treated as individuals."

[20] See Rajan RG, Zingales L, The Governance of the New Enterprise. In: Vives X (ed), Corporate Governance, Theoretical & Empirical Perspectives. Cambridge U P, Cambridge (2000) pp 201–227: "Summarizing, there are three main features of [what Chandler (1977) calls the modern business Enterprise (MBE)] that shaped the ensuing debate on corporate governance.

No personification. When the firm is regarded as an organisational construction or a governance structure, the firm is assumed to exist but is not necessarily personified at all.

For example, the behavioural approach represented by Simon (1991) does not require the personification of the firm. Simon discusses why people choose to work for the firm. What motivates them? Simon argues that managers and employees are motivated by authority, rewards, loyalty (identification with goals of the organisation), and coordination (standards and rules).[21]

Transaction cost economics represented by Williamson (1998, 2005) provides a further example of an approach that does not require the personification of the firm.[22]

No existence. In neoclassical economics, the starting point is that the firm as such does not exist. The firm is regarded as a production function and a means of transforming inputs into outputs.

For example, Fama (1980) rejects the notion of the "classical firm". He argues that a corporation does not have owners in any meaningful sense, and that a modern corporation does not have an entrepreneur. On the other hand, each factor in the firm is owned by somebody. The firm is just "the set of contracts covering the way inputs are joined to create outputs and the way receipts from outputs are shared among inputs".[23]

Another example is the study of the firm as a common resource pool (Ostrom 1990). The traditional problem with common resource pools is the so-called "tragedy of the commons"[24] or the fact that resources that do not belong to anyone are not used in a sustainable way since each individual acts according to his own self-interest. It used to be assumed that there are two alternative ways to address the problem: the use of property rights (if the problem is that "everybody's property is nobody's property", one can give the resources to somebody); or turning to an

First, the MBE was well defined by the ownership of assets. The legal boundaries of the corporation could be drawn around these assets and also coincided with its economic boundaries. Moreover, these boundaries did not change unless ownership changed. Since the boundaries were well defined, the main issue in corporate governance was how the surplus generated within these boundaries was to be allocated, and not on how to preserve and protect the boundaries. Second . . . outsiders could obtain power by virtue of their ownership of the crucial assets. As a result, the MBE came to be owned by outsiders. Finally, the concentration of power at the top of the organizational pyramid, together with the separation between ownership and control, made the agency problem between top managers and shareholders the corporate governance problem."

[21] Simon HA, Organizations and Markets, Journal of Economic Perspectives 5(2) (1991) p 30.

[22] Williamson OE, Transaction Cost Economics: How It Works; Where It Is Headed, De Economist 146 (1998) pp 23–58; Williamson OE, Transaction Cost Economics. In: Menard C, Shirley MM (eds), Handbook of New Institutional Economics. Springer, Dordrecht (2005) pp 41–65.

[23] Fama EF, Agency Problems and the Theory of the Firm, J Pol Econ 88(2) (1980) p 290.

[24] Hardin G, The Tragedy of the Commons, Science 162 (1968) pp 1243–1248.

external authority. Ostrom identifying self-governance as a sustainable way to govern common resource pools.[25]

Principal–agent. The last approach identified here is the principal–agent approach.[26] According to this approach, one focuses on the interests of the party or parties chosen as "the principal". Once again, it does not matter whether the firm is regarded as a production function or as an organisational construction (governance structure). Neither does it matter whether the firm is assumed to exist or not.

For example, Fama (1980) distinguishes between management and risk-bearing and treats residual claimants as risk bearers and principals (no personification of the firm, the firm is a set of contracts).[27] When Jensen and Meckling (1976) define the agency costs of outside equity and debt, they assume that the firm has an owner-manager (personification, the owner-manager-entrepreneur approach).[28] Williamson (1985) treats shareholders as the principal in transaction cost economics (no personification). Alternatively, one can also choose other constituencies.[29]

2.4.3 Authority

The second question is the role played by authority. Like some of the questions relating to the personification of the firm, even this question is only to a limited extent influenced by the choice between the firm as a production function or as a governance structure.

Production function. Theories that regard the firm as a production function have different views about the role of authority. (a) According to Coase (1937), firms are defined by authority replacing the market pricing mechanism.[30] (b) In contrast, the notion that activities within the firm are governed by authority is rejected by the set-of-contracts theory of the firm.[31] (c) The modern property rights approach develops

---

[25] Ostrom E, Governing the Commons. Cambridge U P, Cambridge (1990) pp 24–25.

[26] Wilson R, On the Theory of Syndicates, Econometrica 36 (1968) pp 119–132; Arrow KJ, Essays in the Theory of Risk Bearing. Markham Publishing Co., Chicago (1971); Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) pp 305–360. For an overview, see Eisenhardt KM, Agency Theory: An Assessment and Review, Acad Man Rev 14 (1989) pp 57–74.

[27] Fama EF, Agency Problems and the Theory of the Firm, J Pol Econ 88(2) (1980) p 291.

[28] Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) p 312. See also Fama EF, Agency Problems and the Theory of the Firm, J Pol Econ 88(2) (1980) p 290–291.

[29] For a discussion of the role of constituencies, see Williamson OE, The Economic Institutions of Capitalism. The Free Press, New York (1985) pp 298–312.

[30] Coase RH, The Nature of the Firm, Economica, New Series 4(14) (1937) p 392.

[31] Alchian AA, Demsetz H, Production, Information Costs, and Economic Organization, Am Econ Rev 62 (1972) p 777; Jensen MC, Meckling WH, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, J Fin Econ 3 (1976) p 310.

the set-of-contracts theory further: if the firm is regarded as a set of contracts and nothing else, the defining characteristic of firms is ownership of non-human assets (property rights) rather than authority.[32] (d) Authority is again important in the governance of common resource pools. One can solve the problem that "everybody's property is nobody's property" either by creating property rights or by allocating authority to an external regulator or the users of the common resource pool.[33]

Governance structure. Theories of the firm as a governance structure (behavioural and managerial theories of the firm) reject the classical model of an owner-manager in favour of theories that focus more on the motivations of a manager who controls but does not own.[34] However, this does not reduce the role of authority.

According to Simon (1991), it is characteristic of organisations that they use an authority mechanism. Through the authority mechanism, organisations provide a means for coordinating the activities of the groups of individuals that are its members.[35] The fact that firms exist for the purpose of coordination was identified already by Smith (1776) and the authority mechanism by Coase (1937).

2.5 Summary

Because of large variation, economic theories of the firm give little guidance for legal research. Economic theories of the firm seem to have different ideas about the most basic aspects of the firm. They can study the firm as a production function or as a governance structure. The firm can also be personified in different ways or not personified at all. Moreover, authority plays a different role depending on the theory.

Some things are nevertheless clear. First, regardless of the definition of the firm, *firms* are important (Sects. 4.2 and 7.3). Second, regardless of the definition of the firm, *people* are important (Sect. 7.2). For example, people can be regarded as the firm, as parties having authority, as members of an organisation, or as contract parties. Third, the firm is *not a legal entity*. The legal entity should not matter as far

---

[32] This approach was pioneered by Grossman SJ, Hart OD, The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, J Pol Econ 94 (1986) pp 691–719.

[33] Ostrom E, Governing the Commons. Cambridge U P, Cambridge (1990) pp 25 and 40.

[34] Baumol WJ, Business Behavior, Value and Growth. Macmillan, New York (1959); Simon HA, Theories of decision-making in economics and behavioral science, Am Econ Rev 49 (1959) pp 253–283; Cyert RM, March JG, A Behavioral Theory of the Firm. Prentice-Hall, Inc., Englewood Cliffs, NJ (1963); Williamson OE, The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm. Prentice-Hall, Englewood Cliffs, NJ (1964). See also Fama EF, Agency Problems and the Theory of the Firm, J Pol Econ 88(2) (1980) p 289.

[35] Simon HA, Organizations and Markets, J Econ Persp 5(2) (1991) pp 25–44.

as the definition of the firm is concerned (Sects. 4.2 and 4.6). Fourth, the scope of variation between different theoretical approaches probably implies that all economic theories cannot simultaneously be aligned with the reality of people, firms, and existing laws (Sect. 5.3). A legal theory of commercial law, corporate governance, or corporate law should *seek its own way*.