Book Review:

## *Title:* ***Theories Of The Firm*** **2nd Edition**

Author: **Demetri Kantarelis**

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**Michael Szenberg & Lall Ramrattan**

The *Theories of the Firm* deals with concerns that are important and urgent in industrial organization, microeconomics, managerial economics, venture capital, contracts, torts, and corporations. The methodological structure of the inquiry can be compared to an Aristotelian approach, not on ethics as discussed on page 19 of the text, but in the metaphysical mode of defining a subject matter. Chapter 1 starts out by placing the topics to be discussed in the domain of the 21st Century, delineating the genus of the investigation. In Chapter 2, the firm is central in that domain, performing the role of a decision maker. The firm therefore, is what we wish to ponder upon. Chapters 3-9 lay out all the characteristics that the author thinks we need to know, namely the substances and substrata of the knowledge to be gained from the book. The division is therefore, methodologically tight. The readers are in for an adventure in the presentation of the *Theories of the Firm* with charts and math, and with slight difficulties only on the subject matter.

In Chapter 2, the author foreshadows the direction the *Theories of the Firm* will take in the rest of the book. The direction places the firm largely in the role of a decision maker. Broadly speaking, decision-making involves the use of deductions, statistical inference, and analogies (Gilboa and Scheidler, 2001, 2) In Chapter 3, we learn that the decision-making role of the firm has progressed from the neoclassical standpoint of profit maximization to sales maximization, utility maximization, and satisficing. From the Operation Research point of view, Kenneth Arrow explained that, "…the ideal picture is that someone, presumable the firm that hires the operations researcher, hands him, on a silver platter, an objective function. By talking to the engineers, or by looking into a few scientific laws, he determines the policy alternatives available and also the model" (Arrow 1984, Vol. 4, 55-56). In this decision-making role of the firm, the focus is on the managers and the owners. But as Frank Hahn puts it: "The firm is not a person. So what do we mean by the expectations of the firm? Clearly it must be the managers who are meant. But can managers take actions, which are independent of those of shareholders? Someone after all hires the manager" (Hahn, 1984, 180.) Such difficult questions are tackled by the book.

On a more general foundation, the author explains that the firm makes strategic and statistical decisions on a rational basis. The firm's objective is to decide what to produce. The classical economist would say that what we start with is a profit-maximizing individual armed with a PPC curve that achieved equilibrium where production is equal

to consumption. J. S. Mill will argue that a utility function is being maximized. How the firm produces will be concerned with risk, uncertainty, complexity and behavioral constraints. Here the firm sets strategic objectives, which it tries to make operational by embracing tactical ways to accomplish it (Kantarelis, 24-25).

By giving the *Theories of a Firm* a home only in post neo-classical economics, one may ask if the classical economists had anything to say about the firm. We think the author is on justifiable grounds for being light on the classics, for as the Nobel laureate Arrow puts it, "In classical theory, from Smith to Mill, fixed coefficients in production are assumed. In such a context, the individual firm plays little role in the general equilibrium of the economy. The scale of any one firm is indeterminate, but the demand conditions determine the scale of the industry and the demand by the industry for inputs…J. B. Clark…recognized… the production function. The firm did have now…the responsibility of minimizing cost at given output levels. There were other economists, however, who were interested in the theory of the firm as such, the earliest being Cournot (1838)" (Arrow 1983, Vol. 2, 156). Before Cournot, the "father of economics", Adam Smith, did lay , albeit an incomplete foundation of the theories of a firm (Smith 1776, Book I, Chapters 1-3). The opening paragraph of Smith's book on the Pin Factory is now a story well known. There we find the concept that scale economies are limited by the extent of the market. Also, the idea of agency is buried in Smith's discussion of the joint-stock company, which Alfred Marshall later defined thus: "(A)…joint stock company is a company or partnership, whose capital is divided into shares, usually transferable; some of which are held by each of the members" (Marshall 1923 [2003], 130). Smith actually wrote:

> "The directors of such companies [joint-stock] …being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in the private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company" (Smith 1776, [1976], 741).

Adam Smith's vision of a firm however, remains incomplete for the modern world. Smith did not develop a theory of contract between, for instance, a person that cuts the wire and the person that straightens the wire in the making of a pin. As Oliver Wiliamson puts it: "Pin manufacturing involved a series of technologically distinct operations (wire straightening, cutting, pointing, grinding, and so forth). In principle, each of these activities could be performed by an independent specialist, and work could be passed from station to station by contract" (Williamson 1975, 50). Also, Smith's model needs modification to embrace the rapid development of railroads, steamships, telegraph, and postal services, in short transport and communication. In the 19th century, business began to concentrate. Financial capital also grew in the hands of bankers, who in turn invested it in industries. With those expansions came the need for the evolution of better

organizational functions. (U)nitary form organization where we find separate sales and service divisions under one CEO gave way to (M)ultidivisional forms where we find a CEO responsible for product—business and consumer, and another CEO for geographic organizations—East coast and West coast, When these forms of organization are mixed, Matrix forms result such as where sales and service functions are arrayed across business products (Brickley et al., 362-369).

The school of thought that developed around the evolution of the firm includes J. M. Clark who wrote that "It is not hard to define a 'firm' in principle, it is an independent unity administering operations of production involving purchase, addition of value, and sale of the resulting product or products" (Clark, 90). Harold Demsetz (p. 7) testified that "The predominant notion of a firm in economics is as an institution in which coordination is achieved predominantly by the conscious management of resources. This is the basis for Coase's distinction between transaction and management cost." "The reason firms exist in reality, Coase explains, is that the market functions only at a cost. Since markets do not operate freely they also may be so costly to operate in some circumstances that it is better to rely on an alternative system of coordination—managed coordination within the firm. Coase's discussion of these alternative methods of coordination is focused on the cost of using markets versus the cost of using management" (Demsetz, 5). In more practical terms, George Stigler wrote:

> "For our purpose it is better to view the firm as engaging in a series of distinct operations: purchasing and storing materials; transforming materials into semifinished products and semifinished products into finished products; storing and selling the outputs; extending credit to buyers and so on. That is, we partition the firm not among the markets in which it buys inputs but among the functions or processes which constitute the scope of its activities" (Stigler, 15).

In Chapter 3, the author laid out the foundation of the neoclassical theory it wishes to leave behind in order to pursue the goal "…with respect to 'buying' or 'making' inputs, 'governance structure', stakeholder 'incentive structures' as well as 'strategy' and 'evolution'" of the firm. This means that, as the preface indicates, the T*heories of the Firm* expands and articulates the essential development of the firm from its neoclassical roots through the transaction costs doctrine, agency theory, and evolutionary theories of the firm. This means that the text shades away from what Oliver E. Williamson characterized as "noncontractual (essentially technological) perspective" of the firm, and toward the "new contractual approach…property rights, agency theory, mechanism design, and transaction costs" (Williamson, 1990, 61). If it were asked why the text follows Williamson's approach, Alchian (1968, 34) responds "As of the present moment, the best formulation of a theory that seems to be both more general and more valid than the wealth maximizing theory is the utility maximizing approach more fully presented by Williamson. He postulates that the manager can direct the firm's resources to increase his own utility in at least three ways. First, he can get a higher salary by obtaining greater profits for the owners…Second, he can direct the firm's resources so as to increase his salary at the expense of a decrease in profits…Third, the manager can sacrifice some

increments to stockholder profits in order to increase expenditures for his own non-pecuniary emoluments within the firm."

The anchor point for the *Theories of the Firm* is therefore on Williamson's work, which has roots in Ronald Coase theory of transaction costs, the subject matter of Chapter 7 of the book. Chapters 4-6 expand on the neoclassical side of chapter 2. Chapter 4 gives a comprehensive treatment of game theory; Chapter 5, concentrates on price discrimination and regulation, and Chapter 6 on money management. The nuggets, therefore, of the new theories in Chapter 7 is Coase's reason for the existence of a firm. Chapter 7 opens with Williamson's famous statement of Coase's pivotal finding that the firm and market are alternative way for organizing the same transaction. As Coase puts it::

> "It was the avoidance of the costs of carrying out transaction through the market that could explain the existence of the firm…What I think will be considered in the future to have been the important contribution of this [The Nature of the Firm] article is the explicit introduction of the transaction costs into economic analysis…I argue in 'The Nature of the Firm' that the existence of transaction costs leads to the emergence of the firm" (Coase, 1994, 8-9).

Again, in Coase's words:

> "…there were costs of using the pricing mechanism. What the prices are have to be discovered. There are negotiations to be undertaken, contracts have to be drawn up, inspections have to be made, arrangements have to be made to settle disputes, and so on. These costs have come to be known as transaction costs. Their existence implies that methods of *coordination alternative to the market*, which are themselves costly in various ways imperfect, may nonetheless be preferable to relying on the pricing mechanism, the only method of coordination normally analyzed by economists. It was the avoidance of the costs of carrying out transactions through the market that could explain the existence of the firm in which the allocation of factors came about as a result of administrative decision". (Coase 1992, 5) [Italics added].

It should be pointed out that many strands of evolutions have evolved from the roots that Ronald Coase has planted for the firm. Some disagreements within Coase's paradigm are not worth mentioning. For instance, one may ask how do transaction costs explain why people marry. It does not seem possible to answer this question by saying that people get married to reduce transaction costs. A better answer may be found in asserting that people marry for team cooperation. About this, Alchian and Demsez wrote that "Two men jointly lift heavy cargo into truck. Solely by observing the total weights loaded per day, it is impossible to determine each person's marginal productivity. The output is yielded by a team, by definition, and it is not a sum of separable outputs of each of its members" (Alchian and Demsetz 2006, 154). This is an example of creating refutable implications and not inconsistency with Coase's theorem. (Ibid., 160).

Alchian developed his theory in the direction of dependency relationship within a team. While teamwork is not made the essence of the firm, it arises where information is costly. Here production is not only between managers and managees for the firm because a team can work without a leader. The problem for a firm is to organize, monitor resources including physical assets, and control the costs of the team member who wants to renege. With teamwork, a dependency relationship develops that requires a balancing of member obligations. They wrote: "A firm can be defined as a set of resources and their owners bound by a contractual coalition for more effective production. Such a coalition for achievement of another particular shared objective is often called something other than a 'firm,' e.g., a club, a mutual, a cooperative, a family, an association, a league, a set of franchises" (Alchian and Woodward 2006, Vol.2, 317). On the other hand, Demsetz proceeded to expand Coase's theory of the firm in the direction of productivity. He draws a clear distinction of neoclassical and transactional approach by noting that: "…firms exist not just in commerce but also in the world of theory, and in neoclassical theory they exist because there are gains to specialization. And in particular, gain to specialization of production of goods to be used by others. This rationale for firms to exist contrasts sharply with Coase's, which is based on gains to be had by avoiding transaction costs" (Demsetz 1997, 9).

Kantarelis follows Williamson's work in the direction of contracts and not necessarily choice theory. Williamson probed the feasibility of glue in a relationship in the form of contracts, in a bilateral relationship, which will act as deterrence to its breakdown. Williamson thinks that the transaction costs approach should be "operationalized in a fashion that permits one to assess the efficacy of completing transactions as between firms and markets in a systematic way" (Williamson, 1975, 3). This requires an interdisciplinary approach of economics and organization theory that includes contingent claim contracting, and organizational design theory (Ibid., 7). He merged Simon's bounded rationality with opportunism, and in the process joined internal organizational structure with market structure (Williamson, 1995, 8).

The *Theories of the Firm* covers much of the current developments on the theory of a firm. A most comprehensive summary of transaction costs, principal-agent, and evolutionary theory of the firm can scarcely be found elsewhere. The book is highly pedagogical in that it is sometimes illustrative, sometimes mathematically challenging, and sometimes very descriptive, depending upon the demands of the subject matter itself. We highly recommend this book for both advanced undergraduate and upper level studies, as well as for practitioners of the ordinary business of life.

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