

## **OWNERSHIP DIFFERENCE AND HOSPITAL PERFORMANCE A THEORETICAL PERSPECTIVE**

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### **ABSTRACT**

**T**his study looks at the relationship between hospital ownership and hospital performance. Efforts are made to focus on the financial rather than legal attributes of ownership by utilizing an agency model of firm behaviour. Agency theory is a better predictor of firm performance in hospitals than the property rights paradigm which is often applied. This is especially true where questions of ownership are often mistaken for questions of control. Importantly, the study fails to support a property rights view of hospital ownership and performance, suggesting instead the importance of influences such as access to capital markets and the agents controlling the firm. These are key ingredients to which hospitals need to respond in today's competitive environment.

There is a widespread interest in the relationship between hospital ownership and hospital performance. This paper looks at the hospital ownership and performance question from a corporate finance perspective. This perspective has been generally lacking in the previous studies. Every effort is made to distinguish the financial ramifications of varying ownership from the legal and ethical considerations more often discussed. The observations made here are applicable to a wide range of services and industries that operate in regulated or otherwise imperfect markets with a variety of ownership types, and not solely within the context of hospitals.

## Literature Review

There is a large and growing literature on this subject but much of it seems poorly focused with respect to the effects of ownership per se. The simplicity with which hospitals are categorised by ownership can hide the difficulty of discerning ownership's influence on performance. There is an even more fundamental concern of what constitutes ownership of a hospital and whether, ownership should have any influence on organizational performance. This point will be taken up in later discussion.

The order of presentation is the following:

1. *The arguments (theories) as to the importance of ownership on hospital performance will be presented: that which alleges that ownership makes a difference in hospital performance and that which implies different ownership types perform equally.*
2. *The evidence on hospital performance by ownership will be discussed.*
3. *Reference is made to the financial agency cost literature which undermines the present study.*

There have always been a number of private hospitals in Australia. Since the implementation of Medicare, private hospitals have witnessed a sizeable growth in numbers as well as a change in the way many of them are organized. This implies that private hospitals' expansion should be viewed as their meeting a growing population's need for medical services that traditional interest

were either too slow or uninterested in providing 1\* (Kushman & Nuckton, 1977 p. 189-204).

This same development of the private hospital is portrayed as "alarming" by some traditionalists in health care. The shift in power from medical professionals to corporate decision makers (Relman, 1980), and the concept of making a profit from people's illnesses is seen as distasteful. (Gray, 1986). This is in stark contrast to the rest of the economy where the traditional view of profit has more to do with the efficient allocation of resources than it does to "gauging" the public of putting them at risk of injury.

It is taken for granted that the role of these institutions is profitability for their shareholders (Relman, 1980). The performance aspect of this is greater productivity on the part of private hospitals 2\*. (By implication, the objectives of tax exempted hospitals and government hospitals are different and this sets up the immediate, surface expectation that hospital performance will differ by the design and "structure" of ownership). The efficiency question in private hospitals, from the theoretical perspective, has usually centered around the argument of property rights. Empirically, the question of effectiveness becomes whether or not private hospitals have the largest "bottom-line" per patient day or admission across categories of hospitals.

## **PROPERTY RIGHTS THEORY**

Property rights theory is not limited, of course, to hospitals. It pertains to any industry where there are firms of differing ownership. Property rights theory maintains that when individual decision makers can be clearly identified as owning the firm, they have a vested interest in seeing it run effectively. There is a correlation between effort and gain. According to H.E. Frech, III, property rights theory assumes that the decision maker has the right to:

1. decide about the use of the firm's resources,
2. keep the residual, and
3. capitalize any wealth gains of the firm by selling his rights. (1976, p.143)

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1\* One study verified that private hospitals respond faster to rises and falls in population changes and verified that this was good for the efficient provision of hospital services. See Kushman, J.E. and Nuckton, C.F., "Further Evidence on the Relative Performance of Proprietary and Non Profit Hospitals," *Medical Care*, 15:3 (March, 1977).

2\* This study will not get into the social, almost moral question that profitability in health care poses for some critics of the private institutions. See both of Relman's work cited and also Gray.

Thus, owner oversight ensures the constant pursuit of the most profitable level of operation. In institutions where property rights are non-existent or ill defined, such as the government hospital, the decision maker has no claim to the residual and cannot capitalize additions to the firm's wealth. Under these conditions, it is assumed that the asymmetric opportunity for personal gain will make the private hospital perform better than the government hospital in the same industry.

Studies have been done in several industries where private firms interact with government firms in an attempt to either confirm or deny the property rights paradigm. Davies's study of Australian airlines supports the contention that private firms outperform their public rivals (1971, p.149-165).

According to Davies, the reason for associating better performance with private ownership is twofold: (classic property rights).

1. the ability to transfer ownership allows for specialization of owner interests and skills, making the capital market more efficient and
2. the correlation between effort and rewards/costs that goes with the property rights contentions (1971, p.149-165).

Christensen and Caves (1980) performed what appears to be a study similar to Davies's but used the Canadian railroad system. They argue that previous studies were a mix of property rights, regulation and limited competition. They describe their work more as a test of property rights isolated from these other effects on performance. They observe a failure to support the property rights contention and conclude that public ownership is not inherently less efficient than private ownership, and that it depends on market conditions. They also make it clear that, somewhat unusual for Government firms, the management of the Canadian National Railway was independent of politics and it was more a case of just having the Government sit on Board. As they state it, the Canadian National Railway was instructed to operate on a commercial basis under a management insulated from politics" (1980, p.974).

While it would appear that the Davies study supports the property rights contention and Christensen & Caves's does not, one could read each as an aberration. At best the property rights approach seems too simplistic. Little can be said about ownership without simultaneously testing contentions about competition, regulation, and efficiency in the product/service markets. However,

while the empirical tests of property rights are made difficult, it is still an influential theoretical model by virtue of the fact that it associates greater organizational and productive effort with the prospect of a higher economic reward. Besides property rights, another rationale for why private hospitals have a performance advantage is that they are highly centralized in a number of ways and can take advantage of certain economies of scale. This is especially true in the areas of planning, marketing, purchasing, hiring, data processing and human capital expertise. Overall, their ideas have no distinct financial implications for private hospitals. The study also does not attempt to discuss any normative behaviour which the data support or deny about what is driving hospital performance. The variety of results surpasses the ability of some simplistic approach being able to adequately capture the information presented.

## **AGENCY THEORY**

The models of financial performance discussed so far all focus on the role of the firm or who the owners are. As a result, the financial agency theory can be applied to hospitals. Agency theory takes an entirely different view of what constitutes the firm. Namely, agency theory sees the world as, "...most organizations are simply legal fictions which serve as a nexus for a set of contracting relationships among individuals. (Frech, 1980, p. 57). Viewed in this light, the question of who owns the hospital is meaningless. Instead, the question is to decide which of the several contracts that make up the firm are influential when it come to observations of financial performance. Stated differently, hospital performance is actually a vector of performance across a set of contracts that are parties to the firm.

It is instructive to compare an agency view of the firm with a traditional one. (see exhibit 1). Agency's economic reality is the financial incentive and reward facing each of the individual components of the firm. To talk about firm performance is to discuss a legal fiction with no basis in fact. The firm's performance merely summarizes the accomplished facts of its members.

Since property rights have already been discussed and also because it so pervades the literature, it is instructive to compare agency theory with property rights. Property rights addresses ownership in a single dimension, namely, ownership of the firm. In the agency world, everyone owns something whether it be the financial capital supplied to the firm or the individual human capital supplied to it and everyone acts in their own best interest to enhance the value of

their “property rights”. In short, agency theory views property rights as a ubiquitous claim. Such claims manifest themselves through the contracting process.

Firms are therefore microcosms of markets in general and are not different to interfirm markets, except for the proximity advantages of bringing the resources of production together where this is worthwhile. The other difference between property rights is that all distributions of value from the firm come to residual claimants. In competitive markets, this assumption is that distributions of value can occur at any point along the financial accounting chains. Prices may be lower or higher than what would be optimal in more competitive settings; expenses may reflect efficiencies of operation or they may reflect distributions to management. These are classic examples of agency theory.

Property rights theory suffers from its close association to a perfect markets assumption where residual claimants drive the system. Agency theory finds its roots in imperfections which are rife in mixed and regulated markets. (Silvers & Kauer, 1986)

The finance literature treats the agency framework as a study of market imperfections 3\* by focusing on the “costs” of agent interactions relative to the idealized case of perfect markets. According to Barnea, Haugen, and Senbet, agency problems derive from three sources:

1. informational asymmetry where managers choose not to reveal the true nature of the firm to principals costlessly 4\*
2. stockholder and bondholder interactions given the limited liability nature of residual claims.
3. managerial consumption of perquisites. (1981,p.7-22)

These problems get translated into so-called agency costs whenever they result in decisions that differ from those of perfect market conditions, where everyone is acting to maximize shareholder wealth.

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3\*. *This is to be distinguished from market inefficiency. A given level of agency cost can be quite consistent with market efficiency as long as one's competitors have equal (or greater) levels of agency cost associated with their operation.*

4\*. *One of the serious confusions in the agency literature is the distinction between agents and principals. Agents are generally taken to include all existing residual claimants, managers, and other contractors to the firm. Principals include new capital suppliers.*

The agency perspective is especially helpful in hospitals with their unconventional corporate structure. Physicians, in particular, have a clear cut role in agency models of hospitals but do not fit neatly into corporate models since they are not quite employees, managers, owners, or customers of the firm. Pauly and Redisch recognized this in their article (1973,p.87-99).

By viewing hospital performance as a function of physicians, their view is really an agency model of the firm where physicians are the dominant agents. The influence of managers on performance is another aspect of agency theory. "Firm" performance may be the result of good versus bad management rather than a function of who supplies capital to the firm. (Clarkson, 1972 p.363-384) (Pauly, 1973 p.87-99).

The implications of agency theory for the study of ownership and performance is that instead of focusing on the distribution of legal rights (as in property rights), there is a focus on the distribution of gains. Such models are flexible enough to decouple firm performance into its composite parts and to look for performance which measures different influences besides the legalities of ownership.

As Eugene Fama describes it, recognizing that ownership of capital should not be confused with ownership of the firm is a first step "...toward understanding that control over a firm's decisions is not necessarily the province of security holders"(1980,p.290). Very little theoretical analysis has been undertaken about agency costs in not-for-profit settings, and there is little in the way of empirical findings to draw from. Picking up on legal prohibition against ownership in the public hospitals, Clarkson writes that one would expect to see two things in public hospitals.

First, more elaborate sets of rules and a wider diversity in the rules would be found in public hospitals. The presumption is that the rules i.e. more specific sets of contracts would be made up for the economic incentives otherwise in place to control shirking. Second, there would be a greater variability of input selection for a given output. (Douglas,1984,p.42)

One of the important contributions is to control for the incentives and qualities of one of the important internal agents to hospital decisions, namely, management. Performance results can then be attributed to other agents such as physicians, capital supplies or patient/payors.

The difficulty is in measuring agency costs. The coarseness of our accounting data simply does not permit one to distinguish between the production

efficiency costs of operation versus those tainted with agency costs. This is a problem associated with there being no standard, no absolutely perfect market-place, such that all others would differ by an agency cost element. The theory's appeal is its hardship: everywhere one looks there are examples of agency costs but there is no reference for measurement.

Even relative measures are made difficult by the efficiency of markets. Players deficient in terms of their control of agency costs are quickly driven from the market as they are unable to compete with less costly alternatives. What one firm gains by increasing in size and specializing may be offset by the increasing costs of monitoring diverse and numerous decision agents.

As a consequence, all firms equilibrate around a competitive norm where it is impossible to distinguish agency costs of other costs such as those of production, development and so forth. About the only conditions where one could imagine cost differences being allowed to nurture themselves, is in regulated markets or otherwise non-competitive situations. Even so, agency costs must remain a rubric for cost discrepancies in general. The analogy is the difficulty in discerning in retrospect between what a person wants to do versus what they are capable of doing. Measured behaviour in either case will look alarmingly the same.

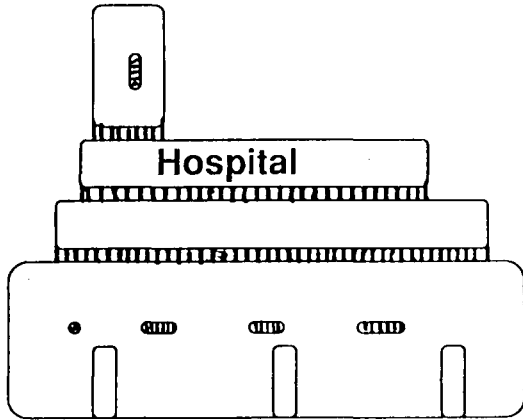
In conclusion, the agency approach remains a powerful means of understanding the plethora of problems in corporate finance in spite of an inability to measure them <sup>6\*</sup>. If this is true in relatively efficient markets, it is doubly true in inefficient ones which provide firms with the opportunity to go their separate ways. Whatever production, management or control cost differences exist should show themselves best where the capital markets are relaxed in terms of their return requirements. This has been, until recently, the case for hospitals.

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<sup>5\*</sup>. He notes that because property rights in the public setting are poorly defined, those institutions put resources into fixed assets, manager perks, charity care, and other uses in patterns different from the private hospitals.

<sup>6\*</sup>. Agency theory isn't alone in this conditions, of course. The same may be said for many powerful theories such as the perfect markets notion in economics. The theory's contribution is that it is helpful to our understanding not that it is measurable or not.

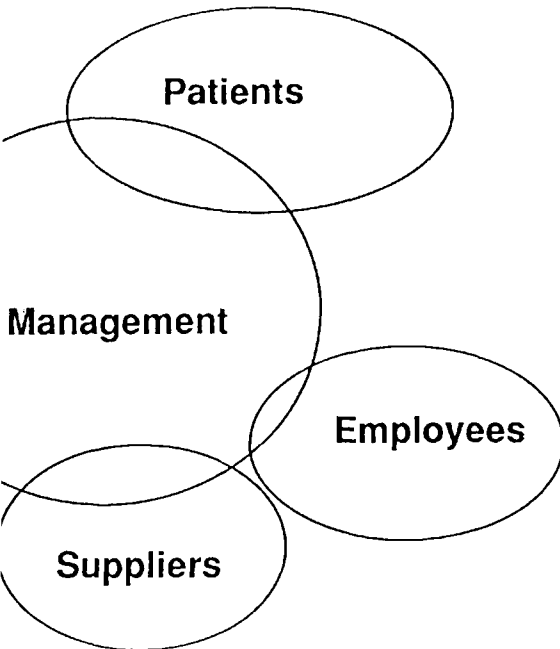




Doctors

## Exhibit 1

### A Hospital ( An Agency Concept)



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