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Agency Theory And Problem; A Healthcare Perspective

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***Abstract*—Agency theory has been misconstrued in some quarters to focus only on transactions between a principal and an agent in direct commercial transactions or contracts. However, it may go beyond direct contractual agency agreements between two persons. Often times, business relationships are intertwined and involve more than two persons that a closer look or analysis would have to be done to ascertain the nature of the agency theory at play, roleplays in action and obligation of parties. Generally, business undertakings are executed on the foundation of agency theory and this paper will attempt to expand this discourse with regards to the healthcare sector. It is noteworthy to mention that agency theory has been applied by scholars in numerous fields but it still has controversies (Eisenhardt, 1989).**

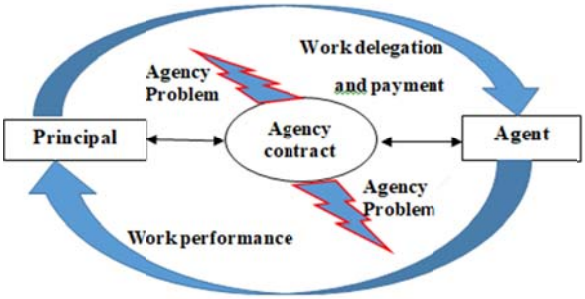
This theoretical paper highlights the concept and definition of agency theory and problem, the assumptions, and its assertions. It also examined some empirical studies of agency theory in the healthcare sector, the implications of the theory in healthcare decision-making and potential unintended consequences of applying the theory in healthcare.

Keywords—Agency theory, healthcare, agency problem, goal conflict, opportunism, bounded rationality, and risk aversion, information asymmetry and commoditization of information.

Introduction

Agency theory applies to a contractual association in which one entity (principal) assigns a task to another (agent) who is expected to do the job based on the terms of a contract (Jensen & Meckling, 1976). The agreement which binds the principal and the agent is the unit of analysis with the underlying context of opposing interests between the parties. Since it is difficult to describe and predict future contingencies, the executed contracts are often difficult to implement (Shleifer & Vishny, 1997). Consequently, agents obtain the right to make decisions beyond their scope in the agency contract (Wells, 2022). They tend to make decisions that are beneficial for themselves (self-interest) without regard to the principals' interests, who, on the one part, retain the threat of the consequences of the agents' choices, actions, and inactions. The agency problem arises due to these (Ross, 1973; Fama & Jensen, 1983). Principals endeavor to minimize agency problems by applying monitoring and incentive techniques.

Figure 1. Agency theory and problem framework (Source: Kingsley C. Iheanacho)



Assumptions

Critical assumptions of agency theory are conflict of goals, opportunism, bounded rationality, and risk aversion. Others are information asymmetry and commoditization of information (Eisenhardt, 1989). The theory provides an explicit foray into information networks, outcome uncertainty, incentive, and risk (Eisenhardt, 1989). The theory does not acknowledge the view that an agent's motives and actions might be positive (Donaldson, 1990). Instead, it asserts that the worth of a firm may only be optimized if necessary incentives and adequate monitoring can restrain agents from using their discretion to maximize their benefits. The focus of principals and agents should be aligned and in sync to address their different preferences regarding firm activity and attitudes toward risk exposure.

What the theory asserts

Due to the opportunistic tendency of the agents and the conflict of goals between the principal and agent, the theory predicts that expenses sustained by less-checked agents will exceed those experienced by their more-checked counterparts (Jensen & Meckling, 1976). It also asserts that incentive pay and performance should be assessed relative to peers in the market space rather than absolute performance. Some previous studies averred that changes in top management monetary remuneration were inversely related to sector and market outcome dynamics but positively related to the organization's performance (Gibbons & Murphy, 1990). This implies that

incentives could be a way of motivating the agent to increase returns to the principal. Agency theory also forecasts that incentive models and adopting such models should lead to net increases in the principals' wealth (Marco Becht & Ailsa Roell, 2003). On the assumption of risk aversion, the theory also asserts that risk-neutral administrators are likely to opt for the behavior-based agreement, whereas risk-averse administrators would likely opt for an outcome-based agreement: sensitive to outcome improbability; shift responsibility to the agent. On bounded rationality, information asymmetry, and commoditization of information, agency theory predicts monitoring will distort the roleplay between principals and agents, including the possible use of agreements and imposing pay based on performance. Furthermore, agency theory predicts that professional entities will use several governance techniques for contract specialists than members (Loughry, Misty, et al. 2006). Finally, the agency theory in healthcare predicts that providers, deficient agents of patients, will work to enhance their benefit to the detriment of the patient's interests (Nguyen, 2011).

Empirical studies in the healthcare sector

Bounded rationality argues that agents make decisions based on insufficient information and cognitive ability (Willman, 2014; Simon, H, 1947). Consequently, agents may need help to anticipate the full consequences that follow each decision they make. As a result, information becomes a sought-after commodity. Loughry, Misty, et al. (2006) corroborated the assumption of bounded rationality and commoditization of information in their agency theory investigation of medical contractors versus member physicians. They found that most medical groups use optimized monitoring and incentive mechanisms for both member and contract physicians. At the same time, some did not monitor at all but only provided incentives which alone did not ensure enforcement of compliance with organizational rules and agents' utility. Information asymmetry suggests that the principal and agent have varying degrees of information (usually, the principal has less). It is lavish and challenging when the principal has to constantly observe the agent's behavior to avert incurring loss. Muhlbacher, A. C. et al. (2018), in their study, identified information asymmetry as prevalent in integrated care systems or care delivery contract designs. They recommended how it could be drastically reduced by itemizing three necessary activities before the end of the contract; signaling, screening, and self-selection. Figure 1 illustrates the effect of the asymmetric distribution of information on contract design before it is concluded (adverse) and afterward (moral hazard). Second, Rochaix, Lise (1987) found that more-informed patients would impact their physician's behavior by consulting a second opinion. Their model predicted that physicians who are averse to risk would choose the treatment recipe aligning with the patient's choice if they had been fully informed. The study validated their hypothesis that a small subset of informed patients is sufficient for doctors to act as "good" agents in healthcare services. Opportunism, as an assumption, stems from the belief that individuals work to get the most out of any business relationship. Ljerca, Cerovic, et al. (2012) validated the premise of the agent's opportunism in healthcare services but asserted, on the contrary, that most health professionals, in addition to financial motives, are also driven by humane reasons. The utility functions of patients and physicians are not mutually exclusive.

The theoretical implication to healthcare decision-making

The theory assumes that the principal sets up an agent reward schedule based on the expected outcome to limit goal conflict and opportunism. However, in the healthcare sector, the payment system of remuneration to the agent is usually set up by a third party, either the government or health insurance companies (HMOs). An optimal reward schedule is crucial to achieving efficiency in the physician-patient relationship; achieving this through third parties can take time and effort. This is because defining and measuring health and outcomes can be problematic. There is also the issue of establishing the agent's input in achieving results even when the outcomes can be observable (Mooney, G. & Ryan, M., 1993). The agent's decision-making in the healthcare space is also affected by the willingness and capacity of the principal to provide funds for the required services in fee-for-service models.

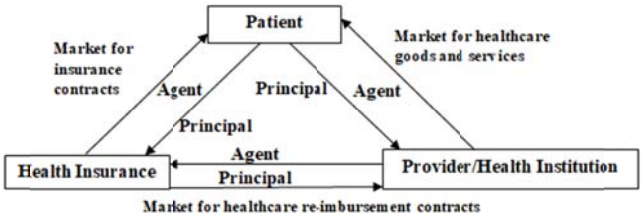


Figure 2. Agency theory application in healthcare contract design (adapted from Mulbacher et al.).

The theory affirms that complicated fee structures will prevail in markets with information asymmetry. In healthcare, the way out would be to create a contract compatible with the incentive so that the utility of both the physician and the patient would be maximized. A properly-designed payment system in healthcare will play a crucial role in changing physicians' behavior. For example, when deciding on the optimal payment model for the physician's motivation and maximization of the patient's utility, the fundamental principle should be the efficient use of resources and effective allocation to ensure a robust and productive healthcare system (Ljerka, Cerovic, et al., 2012). To address the goal conflict, bounded rationality, and risk aversion tendencies of the agents in the healthcare sector, decision control should be separated from management to minimize agency problems (Fama & Jensen, 1983). Fama et al. argued that decision control should be responsible for ratification and

monitoring, while decision management should be responsible for initiation and implementation. That way, the management functions in the agency relationship are shared while the principal retains strict control of the decision-control function. In the health sector, health providers are agents of health maintenance organizations (HMOs) who act as the principal in the relationship. Due to self-interest, the HMOs prefer that physicians keep patient-care costs low, even when they know that qualitative treatments for patients' excellent healthcare results are often expensive. This opportunistic inclination of HMOs is of great concern to the patient.

Potential unintended consequences of applying the theory

Due to the imperfect nature of the markets, some of the predictions of agency theory have unintended consequences (Shleifer, 1997; Daily et al., 2003). Agency theory predicted that monitoring systems usage in contracts would increase. This may be challenging to implement holistically in health services due to the sensitive nature and variability of health outcomes among individuals and the system's structure. Instead, the agent would continue to toe the line of safety and assurance of payment through the widely used fee-for-service under the applicable Centre for Medicare and Medicaid Services (CMS), Health Maintenance Organizations (HMO,) or autonomous care systems. The implication for the professional services sector in low-cost incentives without a valid outcome measure would be a dilemma (Loughry, Misty, et al. 2006). Giving incentives to people is insufficient to get a task done; there is a need to confirm that the ability to do the job is not in doubt (Hillman & Dalziel, 2003). The outcome is positive when agents are incentivized conditionally with matching output expectations. Likewise, a risk-averse physician would opt out of any outcome-based agency contract instead of a behavioral-based one. Clinicians might avoid highly-complicated and risky medical procedures if the compensations from those are outcome-dependent. Finally, social media, the Internet, and attendant online-based service delivery reviews have reduced the impact of information asymmetry.

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