

Agency Theory, National Culture and Management Control Systems

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ABSTRACT

Management control system of an organization is the structured facet of management, the formal vehicle by which the management process is executed. In most organizations, systems exist for planning, organizing, directing, controlling and motivating. Depending on the level of appropriateness and quality of the management control systems, the task of management is either facilitated or hindered. The end goal of a management control system is achieving organizational objectives. Because employees (agents) do not always give their best efforts for achieving organizational objectives, management control systems need to strive for aligning goals of agents (e.g., employees, subordinates) with that of principals (eg. senior management, owners). Agency theory and its extension, principal-agent model, provide insights to the problem of goal congruence and suggest remedies, at least in the Western cultural context. Whether the agency theory presumptions, predictions and prescriptions are universally applicable is an important issue in management. Their validity in different cultural contexts is largely unknown. The available literature to date indicates the possibility that agency theory may not be valid in non-western cultures. However, further empirical research is needed in non-western cultures to shed more light to this issue.

INTRODUCTION

Agency Theory provides theoretical underpinnings for many research efforts in the disciplines of economics, management, marketing, finance, accounting and information systems. It is one of the most influential theories that underlie the bulk of the corporate governance and management control research in the Western world. Fundamental to agency theory is the assumption that agents are opportunistic and will always engage in self-serving behaviour if opportunities arise. Accordingly, the role of control systems (e.g., structures, procedures, information systems, monitoring, performance evaluation, rewards, penalties) is to help principals in curbing opportunistic behaviour of agents by reducing opportunities and incentives for such behaviour. This paper discusses the main characteristics of agency theory (and its extension, the principal-agent model) and identifies a number of Management Control System (MCS) design questions that may be examined using an agency theory perspective. Based on the arguments of management scholars for a cultural difference in management style in Asia (e.g., Nanayakkara, 1992; Wijewardena and Wimalasiri, 1996), and based on the limited empirical research available (e.g., O'Connor and Ekanayake, 1997; Roth and O'Donnell, 1996; Sharp and Salter, 1997; Taylor, 1995), the paper also sounds the possibility that agency theory assumptions may not be valid in Asia. The objective of this paper is to encourage further research into the applicability of agency theory for the study of management control issues of organisations in Asian societies

1. AGENCY THEORY

Agency theory is concerned with the 'agency problem' that exists when there is an agency relationship. In an agency relationship one party (the principal) delegates decisions and/or work to another (the agent). The agency problem occurs because the agent has goals that are different from the principal's (Jensen and Meckling, 1976; Ross, 1973). The premise of agency theory is that agents are self-interested, risk-averse, rational actors, who always attempt to exert less effort (moral hazards) and project higher capabilities and skills than they actually have (adverse selection). Agency theory attempts to resolve two problems relating to the agency problem. The first is the monitoring problem that arises because the principal cannot verify whether the agent has behaved appropriately. The second is the problem of risk sharing (particularly in case of outcome-based controls) that arises when the principal and the agent have different attitudes towards risk (Eisenhardt, 1989). Agency Theory is split into two camps (Eisenhardt 1989, Jensen 1983). The first camp (positivist research) has "focused on identifying situations in which the principal and agent are likely to have conflicting goals and then describing the governance mechanisms that limit the agent's self-serving behavior" (Eisenhardt, 1989, p.59). Positivist agency research is almost exclusively concerned with the goal conflicts between owners (shareholders) and managers. Along the positivist line, Jensen and Meckling (1976) examined how equity ownership by management help align goals of the managers with those of owners; Fama (1980) examined the role of capital and labour markets in controlling the behaviour of

managers; Fama and Jensen (1983) examined the role of the board of directors as a monitoring device. The second camp (the principal-agent research) believes in a general theory of principal-agent relationship applicable to employer-employee, lawyer-client, buyer-supplier relationships. According to Eisenhardt, the “positivist theory identifies various contract alternatives, and principal-agent theory indicates which contract is the most efficient under varying levels of outcome uncertainty, risk aversion, information and other variables” (1989, p. 60). Agency theory has grown beyond its original positivist domain and has been used by (principal-agent) researchers in a number of disciplines to study issues that arise from agency-like relationships, for example, superior-subordinate relationships. The widespread use of agency theory (both positivist and principal-agent) can be attributed to the appeal of the model due to its assumptions about people (e.g., self-interest, bounded rationality, risk aversion), organizations (e.g., goal conflict among members), and information (e.g., as a commodity and a monitoring device) (Eisenhardt, 1989). Agency theory attempts to depict human behaviour in organizations. Jensen (1983) describes agency theory as a powerful theory of organizations.

2. AGENCY THEORY AND MANAGEMENT CONTROL SYSTEMS

Two clear types of principal-agent relationships are present in the management control system of a typical firm (Kaplan and Atkinson, 1989). First, between the firm’s owners or shareholders (the principal) and the top management (the agent). Second, between the firm’s top management group acting as the principal and the divisional managers, who manage the decentralised units, as the agents. Examples of research into the first type of agency relationships are: Jensen and Meckling (1976); Demsetz and Lehn (1985); Bhagat *et al* (1985). Examples for the second type are: Roth and O’Donnell (1996); Govindarajan and Fisher (1990). Some research has extended the conceptualisation of this second type of principal-agent relationships to encompass superior-subordinate, employer-employee, manager-worker relationships (e.g., Eisenhardt, 1988; Gomez-Mejia and Balkin, 1992). Agency theory ideas are helpful for designers of control systems in understanding these relationships. Managing the relationships optimally to achieve organisational goals is an important task of any management control system. Agency theory ideas on risk, outcome uncertainty, monitoring, information systems, and incentives can provide theoretical leverage to the study of organizational situations (Eisenhardt, 1989). An agency perspective can shed light directly on many aspects of the total management control system of an organization. Some of these aspects are information systems and information processing, internal controls and audits, performance measurement and evaluation, compensation and incentives. Agency theory’s implications for management control are wide ranging. First, it implies that an agent’s self-interested behaviour can be monitored by information systems (Eisenhardt, 1989). Hence, formal information systems, such as budgeting and management reporting, and informal information sources such as managerial observation and surveillance are important aspects of control that can be studied using an agency theory perspective. Second, agency theory views control system aspects of compensation and incentive schemes as tools for aligning agent’s motives with organisational goals. This view provides an important perspective for understanding the role of these control system aspects: for example, the role of share options commonly seen in incentive packages of senior executives. Third, agency theory brings into focus uncertainty and risk considerations that need attention in devising control systems. For example, if the outcomes are highly uncertain, it will be costly to contract on (for example, compensate on) outcomes, as transferring of risks to employees (agents) who are risk-averse will be inefficient. A prerequisite of management is delegation of decision-making rights. As Armstrong points out, “In the literature of agency theory, the term ‘agency’ is firmly established as denoting delegated decision-making rights” (1991, p. 8). Delegated decision-rights necessitate control structures, processes and procedures. From an agency perspective these are essentially devices for monitoring agents. In addition to monitoring devices, a management control system consists of structures for performance evaluation and rewarding. In the following sections, an attempt is made to highlight a number of basic questions being faced by designers of management control systems, and to identify how agency theory can contribute to a greater understanding and possible resolution of some of these questions.

Behaviour Controls or Output Controls?

Is it better to control the agent’s output rather than his/her behaviour? This is a fundamental question any principal (manager) is likely to face. The advantage in outcome controls is that both the principal and agent can observe outcomes. In contrast, efforts exerted by an agent cannot be observed by the principal and are known only to the agent him/herself. In spite of this, principals use behaviour controls with the motive of monitoring agent’s efforts. Effort is a disutility for the agent. Particularly in non-programmable tasks, agents can exert a high or low level of effort without being observed. Low level of effort is called moral hazard problem in agency theory. The more autonomy the agent enjoys and the greater the information the agent possesses, and the greater the specialized

knowledge required to perform the task, the greater the chances for the occurrence of moral hazards (Holstrom, 1979). To an extent, the moral hazard problem can be addressed by monitoring (e.g., information systems), outcome controls (e.g., entering into contracts based on outcomes/targets), and incentives (e.g., compensation schemes). In terms of agency theory, the second problem in agents is the problem of adverse selection. That is, the agents may misrepresent their ability and that principal is unable to observe the ability of agents. In the adverse selection model, rather than attempting to induce the appropriate level of effort from a specific agent through a contract, the principal tries to select an agent with the appropriate level of skills. The principal will write contracts such that only the agents with the desired ability will accept a specific contract (Van Ackere, 1993). This shows the importance of individual contracts, incentives, and agent selection in management control. High programmability of the task (here, it is possible to observe an agent's level of effort through behaviour controls because behaviours leading to desired outcomes can be stipulated) and trustworthiness of the agent (and also loyalty, organisational commitment) may support a behaviour-based control system (Van Ackere 1993). An agent's risk preferences also impact on the suitability of contracts. For example, outcome-based contracts transfer risk from the principal (who is risk-neutral because of opportunity to diversify) to agent (who is risk-averse because employment cannot be diversified) and therefore, a risk averse agent demands more compensation in order to feel compensated for higher risks he/she will have to bear. Determination of the optimum contract (i.e., behaviour versus outcome) is the focus of the principal-agent literature (Eisenhardt, 1989). In line with the positive agency perspective, Eisenhardt (1989) hypothesised and found that when contracts are outcome-based, or principals have information to verify agent behaviour, agents are more likely to behave in the interest of the principal. A possible alternative and/or complement to outcome and behaviour controls seems to be social/cultural controls (e.g., clan controls [Ouchi, 1980]). "Clan control implies goal congruence between people and, therefore, the reduced need to monitor behaviour or outcomes" (Eisenhardt, 1989, p. 64).

In designing compensation and incentive schemes

With regard to compensation strategy, agency theory suggests that organizations choose between variable pay (e.g., bonus, incentive plans, profit-sharing, employee share option plans) and fixed pay (e.g., salary) depending on how easy it is to monitor job performance (i.e., behaviour/effort) (Stroh *et al.*, 1996). As it is easier to monitor performance when task programmability is high, the agency theory expectation is that task programmability will be positively related to the use of behaviour-based compensation schemes (e.g. fixed salary) and negatively related to the use of outcome-based contracts (e.g., variable pay). This is because programmable tasks allow the principals to specify the behaviours that the agents need to perform (Stroh *et al.*, 1996). When work behaviours are non-programmable the principal has no other way than to monitor behaviour by assessing outcomes (e.g., number of publications by university academics) (Gomez-Meija and Balkin, 1992). If the agent is risk neutral it is optimal to write a contract giving the agent all the benefits from the job (e.g. sales income) less a fixed amount as large as possible (but not so large that the agent will not accept the job) (Van Ackere, 1993). This is essentially a franchise agreement, and is the first-best solution for the principal because it takes care of the moral hazard problem. However, if the agent is risk averse and the principal is risk neutral it is sub-optimal to pass all the risk to the agent as the agent needs a higher return for the risk. Hence, according to agency theory, it is necessary to trade-off risk sharing and incentive compatibility and find a solution that is essentially a second-best solution (Van Ackere, 1993). In line with agency theory, economic perspectives on organisational control generally support the use of performance-contingent pay (Conlon and Parks, 1990). Agency theory, prescribes the use of performance incentives for agents when the principals cannot observe the agent's actions. "[W]hen the costs of directly monitoring an individual's actions exceed the costs of administering incentives based on performance outcomes, performance contingent incentives are a preferred method of control" (Conlon and Parks, 1990, p. 604).

Management information systems

The important questions with regard to management information systems are: How comprehensive the system should be given that information is costly? How should the information produced by information systems and accounting procedures (eg., budgeting systems, monitoring systems, variance investigation systems, cost allocation systems, responsibility accounting systems, and transfer pricing systems) be incorporated into the employment contracts in order to mitigate agency problems (Baiman, 1990)? Should the choice of monitoring system (e.g., reporting method) be delegated to the agent (Baiman, 1990)?

Agency theory's (more specifically, transaction cost economic's) implication is that the inability to have complete contracts give rise to governance procedures (e.g., management control systems) as a mechanism to limit

the opportunistic behaviour of agents. Accordingly, the role of management information systems, being a part of governance procedures, is to monitor agents' self-interested behaviour.

Performance Evaluation

The types of questions that can be studied from an agency theory perspective are: How should performance be evaluated? Should it be based on behaviour or agreed-upon (e.g., budget-based) outcomes? Should the standards (e.g., budgetary targets) be tough? How should performance evaluation and incentives (compensation and rewards) be aligned? How much discretion should the principal (supervisor) have in evaluating and rewarding the agent (subordinate)? What should be the role of accounting numbers? Should the performance measures encompass only that which is controllable by the agent? If the agent is risk averse, responsibility accounting-based performance evaluation and compensation may not be optimal as this passes the risk (of achieving outcomes) to the agent. Although responsibility accounting is widely accepted in accounting literature, agency theory would argue that the agent (e.g., subunit manager) should only be responsible for efforts he exerts with known skills (Demski and Feltham, 1978). One of the important messages of agency theory (specifically, principal-agent model) with regard to management control is that performance evaluation by itself is insufficient for obtaining desired behaviours from an agent. According to Baiman (1990) "the principal-agent model only solves for the incentive function which is the composition of the performance evaluation function and the reward function". The implication is that we need to study performance evaluation and rewards together to gain meaningful insights.

3. AGENCY THEORY-BASED EMPIRICAL RESEARCH ON ASPECTS OF MCS

Compensation and incentives:

Eisenhardt (1985) examined the choice between salary (behaviour-based compensation) versus commission (outcome-based compensation) using a sample of retail stores. The agency variables used for the study are information systems, cost of outcome measurement, and outcome uncertainty. The results support the agency expectations that variables of task programmability, information systems, and outcome uncertainty predict salary versus commission choice. Wolfson (1985) examined whether explicit incentives being used in oil and gas limited partnerships were to control moral hazard problems. Lewellen *et al.* (1987) examined whether executive pay packages can be explained as attempts to reduce agency costs resulting from management having a shorter decision horizon than owners. The results of both of these studies were in the affirmative. Eisenhardt (1988) used variables from agency- and institutional-theory perspectives to examine the compensation policies (salary versus performance-based compensation) of retail stores. The variables of job programmability, outcome uncertainty, type of merchandise, and age of a store were found to be strong predictors of compensation policy. Results support the agency- and institutional-theory-based hypotheses, suggesting that both perspectives are needed to understand compensation policies. In a laboratory study, Conlon and Parks (1990) found that the ability to monitor an agent's behaviour negatively related to performance contingent compensation. The experiment of Berg *et al.* (1985) provides direct evidence that agents act opportunistically but respond to their compensation plans, and that principals are aware of this and choose employment contracts that efficiently mitigate the agency problem.

Stroh *et al.* (1996) investigated the effect of agency theory-based variables on the proportion of variable pay compensation that managers receive. While the results support the classical organisational prediction that under higher risk organizations pay a higher proportion of variable pay, they do not support the agency theory's prediction that risky organizations will buffer their managers' risk by paying them a risk premium. Alles, Datar and Lambert (1995) modelled the management control, incentives and motivational aspects in just-in-time production settings. The focus was on the interaction between inventory and incentive issues.

Performance Evaluation

Magee (1980) and Baiman *et al.* (1987) observe that there is a difficulty of inducing agents honestly to reveal their private information, particularly when such information is used to evaluate the agent's performance. Berg's (1988) laboratory experiment tests the responsibility accounting and controllability principle versus informative condition as the basis for designing managerial accounting reporting and performance evaluation systems.

Penno (1988) shows that it is in the best interest of both the principal and agent to delegate the choice of monitors to the agent whose performance is being evaluated. Similarly, Baiman and Kumar (1989) report conditions under which both the principal and the agent are better off by delegating the outcome reporting choice to the agent. Banker and Datar (1989) demonstrate that for a large class of production functions, the relative amount of

weight that the performance evaluation measure should place on different signals is related to the sensitivity of those signals to the agent's actions. Penno's (1990) findings support the view that when an agent's compensation depends only on accounting data (e.g., profit, sales), any performance information concerning indirectly related activities may have no motivational effect on the agent.

Budget-related behaviour

Motivated by the agency theory's attention on the existence of information asymmetry between managers and subordinates, Young (1985) tested the effects of private information about productive capability, risk preferences, and participation on budgetary slack. The results of the laboratory study support the hypotheses that subordinates who participate build budgetary slack and that slack in part attributable to subordinate's risk preferences. It was also found that budgetary slack was mitigated by 'social pressure to reveal truthful information'. This indicates that social pressure against misrepresentation may align subordinates' personal goals of performance with those of management.

4. CULTURAL DIFFERENCES IN AGENT BEHAVIOUR

Although agency theory captures the typical nature of agents in Western cultures, given the cultural differences, it may not be the case with regard to non-Western cultures. The question of whether the basic nature of agents is essentially the same across cultures is fundamental to the issue of the universal applicability of agency theory. Since the work-related norms and values of agents (e.g., employees, subordinates, managers) are different between cultures (e.g., Hofstede, 1980), it can be argued that the basic nature of agents is different between cultures. In the Asian context, there is overwhelming indirect support in the literature for making a distinction between Western and Asian agents (e.g., Nanayakkara, 1992; Wijewardena, 1992; Wijewardena and Wimalasiri, 1996). There is also a limited amount of empirical research that directly tests agency theory in different cultural contexts. Taylor (1995) uses a multi-paradigm (i.e., contingency, agency and cultural) conceptual framework that examines the budget-related behaviour in a multi-cultural setting. Among its variables are the agency variables of information asymmetry and outcome-based compensation schemes. The study finds a lack of cross-cultural transferability of assumptions underlying agency theory with regard to budget-related behaviour. Taylor argues that the "effectiveness of traditional control sub-systems (i.e., budgetary participation, budgetary emphasis and compensation scheme), as predicted by agency theory for the Western group, [does] not hold for the Chinese group" (1995, p. xi). The Roth and O'Donnell (1996) study is an extension of agency theory to explain the compensation strategy of foreign subsidiaries. Results indicate that compensation strategy is influenced by the agency problem and that an incentive system aligned to the prevailing agency state (which is affected by subsidiary's cultural distance, lateral centralisation, senior management's commitment to the parent) is positively related to the effectiveness of subsidiaries. Sharp & Salter (1997) explored the universality of agency theory and prospect theory in explaining escalation decisions for losing (unprofitable) capital expenditure projects. The study invoked the cultural dimensions of individualism/collectivism and loyal versus utilitarian involvement to form the expectation that the effect of agency conditions (the presence of an incentive to shirk and asymmetric information) on project escalation decisions would be smaller in Asia than in North America. It hypothesised that Asian managers would be less willing to act in their self-interest (a lower agency effect), and would be more willing to escalate a decision in the face of negative framing (a stronger framing effect). The results support that agency theory has strong explanatory power for project escalation decisions in North America, but no explanatory power in the Asian sample. Although framing effects are significant in both samples, they are not significantly different. O'Connor and Ekanayake (1997, 1998) examined the differences in the use of budgets (an output control) for evaluating the performance of subordinate managers in Australia, Singapore, South Korea, and Sri Lanka. Hofstede's (1980) cultural dimensions of power distance, individualism, and uncertainty avoidance were used to measure the cultures and to develop hypotheses. The results of the empirical study support the theoretical expectation that budget emphasis in performance evaluation is lower in Asian samples, indicating a lower agency effect in Asian cultures.

5. CONCLUSIONS

Agency theory is applicable in relationships that mirror basic agency structure of a principal and an agent (Eisenhardt, 1989). The agency model has been considered as a coherent framework with which to analyse managerial issues (Baiman, 1990). This paper identified the types of management control problems that can be examined from an agency theory perspective and outlined relevant empirical research on compensation and incentives, performance evaluation, and budget-related behaviour. Although the research based on agency theory has contributed to our understanding of management and management control systems in Western organisations, given the cultural differences that exist between Western and Asian societies (e.g., Hofstede, 1980), it is uncertain whether the agency theory findings have equal validity in Asian organisations. The available limited empirical research into this issue (e.g., Sharp and Salter, 1997; O'Connor and Ekanayake, 1997) suggests that agency effects are lower in Asia. In this era of globalisation of businesses and Western managerial practices, it is important that we undertake further research into the question of generalisability of agency theory-based management control prescriptions in different cultural contexts.

Notes:

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A programmable task is one whose requisite behaviours can be precisely defined (Eisenhardt, 1989).

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