No. 952

Another Determinant of Strategic Conformity: Effects of Resource Dependence and the Role of Organizational Credibility

by

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September 2001

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Ver 4.1.

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August, 2001

Acknowledgements: The author would like to thank Henrich Greve, Wesley D. Sine, Deborah Balser, and Robert N. Stern for their comments on the earlier version of this paper. Funding was provided by the University of Tsukuba Institute of Policy and Planning Sciences.

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ABSTRACT

This paper investigates determinants of strategic conformity. I hypothesized that resource dependence structures shape strategic conformity, and that the effects of resource dependence are contingent upon organizational credibility. These hypotheses were tested with a dataset of the venture capital firms in Japan from 1998 to 2000. The results provided moderate support to both hypotheses. This paper extends applications of the strategic embeddedness perspective, explores a new source of strategic conformity, expands the application of resource dependence theory and proposes the role of organizational credibility in understanding organizational behavior. (88 words)

Running Heads: Determinants of Strategic Conformity

Key Words: (1) Strategic conformity, (2) resource dependence, (3) organizational credibility, (4) strategic embeddedness view, (5) organizational autonomy, and (6) Japanese venture capital firms.

INTRODUCTION

Why firms differ has been one of the central questions in strategy and organization research (Amit & Schoemaker, 1993; Barney, 1991; Carroll, 1993; Oliver, 1996). Institutional theory claims that institutional environments define taken-for-grantedness and create the wider social, cultural, and symbolic systems to which organizations conform for procuring legitimacy and acquiring resources (Mayer & Rowan, 1977; DiMaggio & Powell, 1983). Scholars in previous studies have reached agreement that organizations increase conformity by adopting structures and strategies prescribed by government agencies (i.e., coercive isomorphism), educational and professional organizations (i.e., normative isomorphism), and other successful organizations (i.e., mimetic isomorphism) (DiMaggio & Powell, 1983). The increased conformity results in diffusion of organizational structures and the increment of firm homogeneity across organizational fields (Scott, 1995). Although institutional theory is helpful for understanding the similarity and homogeneity of firms, Powell (1991) argued that firm heterogeneity persists even in highly institutionalized organizational fields because homogeneity (or heterogeneity) is just a matter of degree, and that the literature on institutional theory sidesteps the issue of firm heterogeneity.

This study examines determinants of strategic conformity (Finkelstein & Hambrick, 1990; Geletkanycz & Hambrick, 1997; Miller & Chen, 1996) or strategic similarity (Deephouse, 1999). Strategic conformity is defined as "the degree to which a firm's strategy matches the average strategic profile of its competitors in the same industry" (Finkelstein & Hambrick, 1990: 492). As a firm-level concept contrasting with firm heterogeneity, it describes the closeness or conformity of a firm's strategy to the central tendency of the entire industry. This research proposes and tests a causal model that accounts for variations in strategic conformity of firms whereby I intend to make the following two major contributions.

First, this study extends the strategic embeddedness perspective. Following the sociological perspective of embeddedness advocated by Granovetter (1985) who claims that economic action takes place within structures of social relations, the strategic embeddedness perspective suggests that strategic behavior of firms can be more fully understood by analyzing their concrete interactions with resource environments (Miller, 1996; Oliver, 1996; Powell, 1991). This study contributes to this theoretical perspective by demonstrating the embedded nature of strategic conformity.

Second, this study extends resource dependence theory in two ways: (1) showing a consequence of resource dependence that has not been examined and (2) proposing the role of organizational credibility in a process by which resource dependence shapes organizational behavior. While Powell (1991) argued that firm heterogeneity should be a product of complexity in resource environments, there has been no empirical effort to test the linkages between resource dependence and strategic conformity (Miller, 1996). Moreover, while the resource dependence perspective has tended to presume linear effects of resource dependence on various facets of organizational behavior, this study departs from this assumption by taking the contingency approach and examining the role of organizational credibility as a moderator.

This paper proceeds as follows: the following section presents reviews of three constructs in the model: (1) strategic conformity, (2) resource dependence, and (3) organizational credibility. This review section will be followed by presentation of the model and construction of hypotheses. I then explain methodology and report the results of the hypothesis testing. Hypotheses were tested on data on 305 venture capital (VC) firms in Japan from 1998 to 2000. The last section summarizes findings, discusses contributions, and presents directions for future research.

STRATEGIC CONFORMITY, RESOURCE DEPENDENCE, AND ORGANIZATIONAL CREDIBILITY

Strategic Conformity

Strategic conformity is sometimes termed as strategic isomorphism (Deephouse, 1996) or strategic similarity (Deephouse, 1999). All of these concepts describe an identical organizational phenomenon: "the extent to which a firm's strategy conforms to the central tendency of the entire industry" or "the degree to which a firm's strategy matches the average strategic profile of its competitors in the same industry" (Finkelstein & Hambrick, 1990: 487, 492). The lower the strategic conformity of a firm, the more novel or unique strategies the firm adopts compared with its competitors in the same industry. On the other hand, lower strategic conformity of a firm means that it formulates strategies deviant from the industry central tendency.

Previous studies have explored both the consequences and antecedents of strategic conformity. Arguments are divergent on the consequences of strategic conformity. On the one hand, following an implication of institutional theory, some scholars claim a positive association between strategic conformity and organizational performance (Deephouse, 1996; DiMaggio & Powell, 1983; Mayer & Rowan, 1977; Miller & Chen, 1996; Suchman, 1995). Adoption of structures and strategies prevalent in organizational fields enables organizations to increase legitimacy and gain acceptance, social support, and cooperation from regulators, suppliers, customers, and even competitors (Chen & Hambrick, 1995; Scott, 1995). Organizations with greater legitimacy are better able to procure resources from environments and, thereby, are more likely to outperform the competitors.

Other scholars, on the other hand, point out the negative association between strategic conformity and organizational performance (Barney, 1991; Gimeno & Woo, 1996; Hannan et al., 1990). This is because a firm with unorthodox and novel strategies is better able to gain competitive advantage by hitting the weaknesses of its rivals (Porter, 1985), and to earn higher rents since the firm is able to enjoy less competition and the first mover advantage (Baum & Mezias, 1992).

A few analysts have recently led the way in breaking down the barriers between these competing predictions. First, Deephouse (1999) proposed and empirically confirmed the strategic balance theory that "moderately differentiated firms have higher performance than either highly conformity or highly differentiated firms" (148) because "they benefit from reduced competition while maintaining legitimacy" (154). He synthesized the two perspectives by proposing inversed u-shape relationships between strategic conformity and organizational performance. Second, Geletkanycz and Hambrick (1997) proposed that the effects of strategic conformity are contingent on environmental uncertainty. Formulation of unorthodox and novel business strategies exhausts the cognitive capabilities of decision makers and overloads their information processing capabilities under the high environmental uncertainty. This exhaustion and overload ultimately lead to poor organizational performance. Therefore strategic conformity enhances organizational performance for firms operating in uncertain industries.

On the other hand, three empirical studies have been conducted so far to explore antecedents of strategic conformity, including Finkelstein and Hambrick (1990), Geletkanycz and Hambrick (1997), and Miller and Chen (1996). On the basis of the premise that formulation of unorthodox business strategies requires decision makers to learn diversified and heterogeneous information, the first two studies found that strategic conformity is a product of the organizational demography of top management teams. Finkelstein and Hambrick (1990) found that top management teams with short tenure are less likely to take strategies conforming to the central tendency because such teams are less constrained by organizational traditions, possess more diverse information, and are willing to take risks. Geletkanycz and Hambrick (1997) found that top management teams having more ties with extra industries are less likely to take strategies conforming to the central tendency because such teams are more likely to face information that is unorthodox to their own industries and better able to learn innovative strategies from external industries.

Miller and Chen (1996) departed from the demography argument and proposed that the social contexts and market structures in which firms are embedded determine strategic conformity. It was found, for instance, that major industry upheavals decrease strategic conformity, for such upheavals deconstruct the rules of the game in markets to which firms conform for gaining legitimacy. Another finding was positive associations between organizational age and strategic conformity, for old firms have been exposed to typical industry practices and norms for a long time. Miller and Chen (1996: 1211) concluded on the basis of these findings that strategic conformity is "not simply a function of an organization's social context but also its links to, dependencies on, and embeddedness within that context."

However, the empirical evidence for their claim seems to be weak. It was not directly examined in their analysis whether or not variations in strategic conformity are explained by patterns of interorganizational linkages and embeddedness in resource environments. This research extends Miller and Chen (1996) and complements their analysis with an adoption of the resource dependence view as the theoretical perspective and with an exclusive focus on concrete resource flows between firms and environments.

Resource Dependence

A central theme of resource dependence theory (Blau, 1964; Pfeffer & Salancik, 1978) is to understand "the mechanism by which formal organizations are controlled by their environments" (Jacobs, 1974: 45). This theory rests on the premise that lack of self-sufficiency requires organizations to build interorganizational networks for resource acquisition. Interorganizational relations threaten organizational independence and managerial autonomy when interorganizational exchanges involve resource dependence, which is a function of (1) the essentiality of resources that organizations procure from environments, (2) alternative sources of resources, and (3) substitutable forms of resources. The theory claims that organizations are subject to the influence and power of external organizations when they depend upon environments for their resource procurement.

Early empirical studies of resource dependence theory substantiate this theoretical argument by finding effects of resource dependence upon organizational behavior such as executive recruitment (Pfeffer & Leblebici, 1973), implementation of organizational programs that powerful external organizations impose (Ingram & Simons, 1995; Salancik, 1979), and the compositions of boards of directors (Pfeffer, 1973). The one consistent thread in these studies is the emphasis on "the adaptive strategies that organizations use in responding to external constraints" (Nohria & Gulati, 1994: 541).

However, recent studies have cast a doubt on the emphasis of organizational adaptation in the theory, suggesting that organizations strategically manage interorganizational networks and manipulate their resource dependence structures so as to maximize managerial autonomy (Baker, 1990; Oliver, 1991; Provan et al., 1980). Moreover, recent studies have challenged the presumption of linear effects of resource dependence by claiming the contingency perspective that the effects of resource dependence are contingent on organizational, contextual, and institutional factors (Baker 1990; Baker et al., 1998; Mizruchi & Stearns, 1988; Stearns & Mizruchi, 1993). In constructing hypotheses, I follow this recent development with an introduction of organizational credibility in the model as a factor that moderates the effects of resource dependence on strategic conformity.

Organizational Credibility

Organizational credibility is defined as a social relationship in which a social entity (individual, group, or organization) is confident of the competence and future performance of its ongoing or prospective exchange partners. When a social entity perceive that its exchange partner has the competence to bring the expected outcomes or meet the prospects in future, its partner is considered to be credible.

The two sources of organizational credibility examined in this study are (1) past performance and (2) organizational age. First, great past performance of organizations signals their positive attributes and competence, so environmental actors tend to believe that firms that have been successful will continue to be successful in future (Weigelt & Camerer, 1988). The second source of credibility is organizational age. The liability of newness in organizational ecology suggests that younger organizations are more likely to fail because new organizations have to (1) make investment in learning new roles, (2) rely on social relations among strangers, and (3) establish stable resource flows with environments (Stinchcombe, 1965). The stability and reproducibility of old organizations, on the other hand, endow them with more reliability and accountability whereby they are more likely to survive in the selection processes (Hannan & Freeman, 1984). This reproducibility signals the persistence and consistency of firms to environments and increases the reliability of firms.

Organizational credibility is pertinent to trust (Zucker, 1986) and, particularly, knowledge-based trust. Knowledge-based trust operates on the principle of "knowing the other sufficiently well so that the other's behavior is anticipable", and that "the better one knows the other, the more accurately he or she can predict what the other will do" (Lewicki & Bunker, 1996: 121). Credibility and knowledge-based trust have two features in common. First, both of them concern expectations of ongoing and prospective exchange partners. Second, both originate from information about exchange partners. However, credibility and knowledge-based trust differ in the type of interactions required for their development. While a history of direct interactions between exchange partners is required for breeding knowledge-based trust, social entities build credibility upon information distributed by third-party organizations including regulatory agencies, mass-media, professional organizations, and rating organizations. For instance, environmental actors perceive a financial corporation highly ranked by Moody's to be credible even without any prior history of direct interaction.

Organizational credibility is also pertinent to reputation. Both credibility and reputation become more important under the conditions of information asymmetry and uncertainty: when a social entity is uncertain about cause-effect mechanisms in building and managing its exchange relationships, it is more likely to rely upon credibility and reputation (Kreps & Spence, 1985). Another similarity of credibility with reputation is its signaling effect: both credibility and reputation signal the competence of organizations and create expectations about behavioral patterns.

However, there is a crucial difference between credibility and reputation: while reputation involves comparisons and competition (Rao, 1994), credibility does not. The reputations of firms are information about "how a firm's products, jobs, strategies, and prospects are compared to those of competing firms" (Fombrun & Shanley, 1990: 233). Even though all the firms in a single industry are unable to be ranked at the 1st place and share high reputation, all of them theoretically can be considered to be credible. An example that illustrates this point is the U.S. business school ranking in which the schools are ranked on the basis of the quality of education, research facilities, and expenses (Segev et al., 1999). The schools compete with each other to obtain high ranks in this system for attracting prospective students, excellent faculties, and financial resources. It is certain that there are positive correlations between credibility and reputation in this system. However, schools can be considered to be decent and credible even though they are not listed at the top of the rankings. Credibility is just a necessary condition for reputation.

HYPOTHESES

This section is aimed at constructing hypotheses that model associations among the three constructs introduced above: (1) strategic conformity, (2) resource dependence, and (3) organizational credibility. The first group of hypotheses is grounded in a perspective of strategic embeddedness, claiming that economic action and strategic behavior of firms can be more fully understood by analyzing networks of social relations in which firms are embedded (Granovetter, 1985). A number of empirical studies have been conducted to demonstrate how interorganizational networks shape the decisions in, and the behavior of, organizations (e.g., Greve, 1995; Haunschild, 1993). The hypotheses presented here extend previous literature by applying the strategic embeddedness perspective to theorize effects of resource dependence on strategic conformity.

The second group of hypotheses proposes that effects of resource dependence on strategic conformity are contingent upon organizational credibility. A central theme here is that credibility of a firm buffers external influence and generates managerial autonomy even though it is highly dependent upon resource environments, and that this increased independence makes it possible for the firm to take a course of actions without reference to the resource providers and the competitors. This organizational independence may enable them to not follow the central industry tendency in formulating business strategies.

Effects of Resource Dependence

Organizations highly dependent upon environments for resource procurement are more likely to take strategies close to the central industry tendencies. There is a positive relationship between resource dependence and strategic conformity. This argument rests on the premise that interorganizational resource linkages are sources of interorganizational control and influence (Thompson & McEwen, 1958).

Resource dependence invites monitoring and control of external organizations and requires dependent organizations to justify organizational decisions (Eisenhardt, 1989; Mizruchi & Stearns, 1994; Pfeffer & Salancik, 1978). This tendency is particularly manifest when interorganizational exchanges involve transfers of financial resources through equity holdings that allow external resource providers (e.g., financial institutions) to sit on boards of the resource receivers to monitor and control the course of organizational actions (Glasberg & Schwartz, 1984; Mizruchi, 1995; Prowse, 1995). Managers in the dependent organizations are required to consult with and justify to the boards strategies that they formulate and structures that they implement. An effective method of justification is to copy actions and behavior of external firms, and to adopt strategies and structures prevalent in organizational fields because it is isomorphism that legitimates organizational actions and behavior (Deephouse, 1996; DiMaggio & Powell, 1983; Meyer & Scott, 1983; Suchman, 1995). Organizations highly dependent on resource environments increase strategic conformity because imitation of other firms in the same industry helps them justify their decisions to, and gain legitimacy from, resource providers.

Moreover, reduction of resource dependence by definition involves fragmentation of resource environments (Burt, 1980; Emerson, 1962). This fragmentation creates conflicting interests among the resource providers, and makes it impossible for the focal firm to meet the demand and interests of all of its resource providers (Cyert & March, 1963). The fragmentation thereby enables the focal firm to formulate business strategies with their own discretion and without reference to the external actors or its competitors. This increased discretion and autonomy may result in lower strategic conformity.

Three dimensions of resource dependence structures are (1) asymmetry, (2) intensity, and (3) concentration (Baker, 1990; Baker et al., 1998; Kaplan & Minton, 1994; Miller & Chen, 1996). Asymmetry describes the difference between dependence of the focal firm on the external firms and that of the external firms on the focal firm (Baker, 1990; Emerson, 1962; Provan et al., 1980). The greater the asymmetric dependence, the more the focal firm is dependent on the resource environments. Intensity represents to what extent the most influential actor is actually influential (Kaplan & Minton, 1994). High intensity takes place when a single external firm provides a large part of resources of the focal firm. Concentration depicts the extent to which resource providers are concentrated (or fragmented). High concentration occurs when a few firms provide a large part of the resources of the focal firm. Given that there is a positive association between resource dependence and strategic conformity and that resource dependence structures can be dimensionalized in the three ways, it can be stated that:

H1: Asymmetric resource flows from environments to the focal firm are positively associated with strategic conformity of the focal firm.
H2: The extent to which the most possibly influential external organization is actually influential is positively associated with the strategic conformity of the focal firm.
H3: Concentration of resource environments is positively associated with strategic conformity of the focal firm.

Organizational Credibility as a Moderator

The second set of hypotheses proposes that the effects of resource dependence structures on strategic conformity are contingent on organizational credibility. Mizruchi (1995) and Provan et al. (1980) suggest that external organizations exert their influence only under certain conditions. Studies of interlocking, for instance, found that financial institutions send their directors to boards of the resource receivers for monitoring and control only when the resource receivers are in financial difficulty (Boeker & Goodstein, 1991; Mizruchi & Stearns, 1988; Richardson, 1987). A contingency proposed in this study is organizational credibility: when the focal firm is perceived to be credible, external organizations do not exercise influence. Organizational credibility may disconnect linkages between resource dependence and strategic conformity because, similar to trust in exchange relations, the credibility of the focal firm creates a belief in external resource providers that the focal firm will meet the prospects even without their direct control and monitoring (Baradach & Eccles, 1988; Das & Teng, 1998; Jones et al., 1997). Organizational credibility buffers external influence and endows organizational independence and managerial autonomy. The increased autonomy enables the focal firm to formulate strategies with its own discretion and without reference to its external actors or competitors.

Given that two sources of organizational credibility are past performance and organizational age, the role of organizational credibility can be formally stated as follows:

H4: There is weak or no effect of resource dependence structures on strategic conformity for a firm with greater past performance.
H5: There is weak or no effect of resource dependence structures on strategic conformity for older firms.

METHODS

Sample

I have tested the five hypotheses with the data of venture capital (VC) firms in Japan from 1998 to 2000. I collected data mainly from the *Nikkei Annual Report of Venture Business* published by the *Nihon Keizai Newspaper* and complemented it with the *Directory of Japanese Venture Capital* published by the *Venture Enterprise Center*, a nonprofit organization funded by the Ministry of International Trade and Industry (MITI). These publications are the most comprehensive list of Japanese VC firms in existence. The dataset contains 305 firm-year observations, though this number drops in regression analyses due to missing data.

VC firms are organizations that "provide privately held 'entrepreneurial' firms with equity, debt, or hybrid forms of financing, often in conjunction with managerial expertise" (Amit et al., 1998: 442). I used the data of the VC firms in Japan for the following three reasons. First, the VC firm data controls for the importance of resources because all VC firms as financial intermediaries consider inflows of financial resources to be crucial for existence (Hamao et al., 2000; Rau & Turpin, 1992). The second reason is the availability of information. While VC firms in the Untied States procure financial resources by forming VC funds and selling shares of the funds to undisclosed investors such as institutional investors, non-financial corporations, and independent investors, it was common until the late 1990s for the Japanese VC firms to collect financial resources by selling privately held shares of the VC firms, rather than selling shares of the VC funds that they formed (MITI, 1999). Both the names of the shareholders and the amount of their shares were disclosed in the two archival publications noted above. Third, Elango et al. (1995) reported variations in business strategies of the VC firms, so sufficient variance in the dependent variable, strategic conformity, can be expected.

Dependent Variables: Strategic Conformity

Following the findings in Elango et al. (1995), this study focuses upon variations in three facets of business strategies of the VC firms: (1) venture stage of interest (*Stage*), (2) amount of support and services provided to entrepreneurial firms (*Support*), and (3) proportions of loans in the total growth scheme (*LRatio*). Table 1 summarizes pre-operationalized raw data of the five leading VC firms for the year 2000.

<TABLE 1 ABOUT HERE>

First, there are four stages of the life of a new venture in which the VC firms invest: (1) seed, (2) early, (3) growth, and (4) late (Robinson, 1987). In 2000, for instance, Fuji Bank Capital made more investment in the growth and later stages than any of the other four leading VC firms in 2000 (see Table 1). *Stage* is a variable that captures this variation in strategic conformity.

Second, VC firms provide support and assistance to entrepreneurial firms in that they invest. Support includes (1) reference of sales outlets, (2) assistance with alliance formation, (3) reference of people for recruitment, (4) consulting, and (5) sending board members to the ventures (Robinson, 1987; Gorman & Sahlman, 1986). Table 1 shows that while supports provided by JAFCO cover all of the five areas, Nissei Capital provided only "reference of sales outlet" and "assistance with alliance formation." *Support* is a variable that pictures this variation in strategic conformity.

Third, it is not uncommon for Japanese VC firms to make investment in entrepreneurial firms through loans that involve less risk than private equity purchase (MITI, 1998). Firms differ in their reliance upon loans in their growth scheme: while some VC firms increase allocations of resources more to loan investment, others attempt to grow with more allocations to equity purchase. *LRatio* is a variable that portrays strategic conformity regarding the change of resource allocations to loan investment.

In operationalizing these variables, I followed Deephouse (1999) and Finkelstein and Hambrick (1990). In a given year, each aspect of strategies for each VC firm was compared to the industry mean for that strategy and expressed as a standardized score. I multiplied this score by −1, so a score closer to zero indicates greater strategic conformity. Equations for this operationalization are as follows:

$$Stage = (-1) \cdot \sum_{a=1}^{4} \left| \frac{p_{ait} - mean(p_{at})}{SD(p_{at})} \right|$$

where
p_{ait}: VC i's proportion of investment in stage a at time t
p_{at}: VC industry's mean of proportion of investment in stage a at time t
a: (1) seed stage; (2) early stage; (3) growth stage; (4) late stage.

$$Support = (-1) \cdot \sum_{b=1}^{5} \left| \frac{p_{bit} - mean(p_{bt})}{SD(p_{bt})} \right|$$

where
p_{bit}: VC i's provision of service b at time t (1= yes, 0 = no)
p_{bt}: VC industry's means of provision of service b at time t
b: (1) reference of sales outlets; (2) assistance with alliance formation; (3) reference of people for recruitment; (4) consulting; (5) sending board members

$$LRatio = (-1) \cdot \left| \frac{p_{cit} - mean(p_{ct})}{SD(p_{ct})} \right|$$

where
p_{cit}: VC i's loan ratio at time t
p_{ct}: VC industry's means of loan ratio b at time t
p_c: loan ratio = (change of the amount of loan from time t-1 to t) / (change of the amount of equity investment from time t-1 to t)

On the premise of the multidimensionality of strategic conformity (Baum & Haveman, 1996), these three variables were not aggregated for conducting more informative analysis.

Independent Variables: Resource Dependence

I created three variables that capture the resource dependence structures of the VC firms: (1) *Asymmetry*, (2) *Intensity*, and (3) *Concentration*. First, following Baker (1990) and Provan et al. (1980), I constructed *Asymmetry* to capture the averaged relative dependence of the VC firms on the resource environment. This variable compares the dependence of the VC firm j on the resource provider i with that of the resource provider i on the VC firm j.

$$Asymmetry = \frac{\sum \left(\frac{r_{ijt}}{c_{jt}} - \frac{r_{ijt}}{r_{it}} \right)}{n_{jt}}$$

where
r_{ijt}: flows of financial resources from investor i to VC firm j at time t
c_{jt}: the total amount of financial resources procured by VC firm j at time t
r_{it}: flow of financial resource from investor i to the entire VC industry at time t
n_{jt}: the number of major shareholders of VC firm j at time t

The greater this variable, the more dependent the focal VC firm is on the resource environment.

The second measure of resource dependence is *Intensity*, which can be theoretically defined as the extent to which the most powerful external actor is influential (Hoshi et al., 1990; Kaplan & Minton, 1994). This variable is measured by the number of shares held by the largest shareholder of the focal VC firm at time t. The greater the intensity, the more the focal VC firm is dependent on a single resource provider.

The last measure of resource dependence structures is *Concentration*, which is operationalized with the Herfindale Heterogeneity Index (Baker, 1990):

$$Concentration = \sum \left(s_{ijt} \right)^2$$

where
s_{ijt}: shareholding of VC firm *j* by investor *i* at time *t*

The greater score of this index, the fewer resource providers the focal firms is dependent upon.

Moderator: Organizational Credibility

Organizational credibility is measured in two ways: (1) past organizational performance (*IPO*) and (2) organizational age (*Age*). Since the most desirable measure of performance of the VC firms, internal return rate (IRR), is not disclosed in the Japanese market (MITI, 1998), I instead used the accumulated number of initial public offerings (IPOs) that the focal VC firm had backed up by time *t-1*. The rationale for this operationalization is that a major source of financial profits for the VC firms is harvesting through selling equities of entrepreneurial firms after they go public. Organizational age is measured by the number of years from the founding year to time *t* (e.g., Freeman et al., 1983; Henderson, 1999).

Control Variables

Three groups of control variables are included to eliminate alternative explanations for significant effects on strategic conformity: (1) types of the largest shareholder, (2) industries in which the VC firms primarily make investment, and (3) organizational size. First, Hamao et al. (2000) found in their analysis of the 1995 Japanese IPO firm data that the first-day returns of the IPO firms backed up by the VC firms whose major shareholders are securities firms and commercial banks were 20.6 % and 10.2 %, respectively. This finding suggests that it is not only to what extent but also on whom the VC firms are dependent that shapes behavior of the VC firms. In order to control for this effect of the types of the major shareholders, five dummy variables were created: (1) *Bank* (coded as 1 when the major shareholder is a commercial bank), (2) *Securities firm* (coded as 1 when the major shareholder is a securities firm), (3) *Insurance firm* (coded as 1 when the major shareholder is an insurance firm), (4) *Non-financial corporations* (coded as 1 when the major shareholder is a non-financial corporation), and (5) *Local government*[1] (coded as 1 when the major shareholder is a local government).

Second, I controlled for effects of industries in which the focal VC firm primarily makes investment by creating the following four dummy variables: (1) *Telecommunication* (coded as 1 when the major investment target is the telecommunication industry), (2) *Software* (coded as 1 when the major investment target is the software industry), (3) *Environment* (coded as 1 when the major investment target is environment-protection industry), and (4) *Healthcare* (coded as 1 when the major investment target is the healthcare industry). The last control variable is *Organizational size*, measured by the logarithm of assets of the VC firms at time t.

Analysis

Cross-sectional time-series regression models with the fixed-effect estimator were employed for analyzing data. The fixed-effect estimator differs from the ordinal least-square regression model in that it allows the error terms across firm-years to be correlated. This estimator presumes that an error term representing the unit-specific residual does not have a distribution but is fixed, and that "the intercept varies across the N cross-sectional units and/or across the T time periods" (Kennedy, 1994: 222). I chose the fixed-effect estimator from several other estimators for panel data analysis (e.g., between-effect and random-effect estimators) because (1) Hausman's (1978) specification test failed to support the appropriateness of random-effect estimator for analyzing data and (2) the dataset used here contains data of the entire industry, so the fixed effect estimator producing results conditional on the units in the data set is more reasonable (Kennedy, 1994: 222).

1 Three VC firms are funded mainly by local government institutions as well as local financial institutions and companies. These VC firms are called Small Business Investment Companies (SBIC), which were set up Tokyo, Nagoya, and Osaka by the enactment of the Small Business Investment Law under MITI's initiative in 1963.

RESULTS

Table 2 provides the means, standard deviations, and correlations of all variables.

<TABLE 2 ABOUT HERE>

As shown in Table 2, high correlations were found between the three resource dependence variables (r(*Asymmetry*, *Intensity*) = .80, r(*Asymmetry*, *Concentration*) = .75, r(*Intensity*, *Concentration*) = .81)). Despite the fact that the high correlations suggest high validity of the resource dependence measures, they also spur a fear that the multicollinearity collapses regression models. I developed separated regression models for each of the resource dependence variables.

Table 3 reports results of regressions that predict *Stage*, indicating strategic conformity as to the stage in the life of a new venture in which a VC firm invests.

<TABLE 3 ABOUT HERE>

Table 4 presents results of regressions that predict *Support*, indicating strategic conformity as to types of support and assistance that a VC firm provides to entrepreneurial firms in which it invests.

<TABLE 4 ABOUT HERE>

Table 5 shows results of regressions that predict *LRatio*, indicating strategic conformity as to change of the resource allocation to loans.

<TABLE 5 ABOUT HERE>

Hypothesis 1, stating positive associations between asymmetric resource flows and strategic conformity, received moderate support. ($p < .05$ in Model 1 in Table 3 and $p < .05$ in Model 1 in Table 5). As hypothesized, coefficients of *Asymmetry* in Table 3 and 5 are positive, suggesting that when resource flows between environments and the focal VC firms are asymmetric, the two facets of business strategies of the VC firms, the stages of the venture investment and the resource allocations to loans in the growth scheme, are more likely to match the average strategic profile of the competitors.

On the other hand, no significant association was found between *Asymmetry* and *Support* in Model I in Table 4.

Hypothesis 2, stating positive associations between the extent to which the most influential external actor is actually influential and strategic conformity, received moderate support ($p < .001$ in Model II in Table 3 and $p < .01$ in Model II in Table 5). As hypothesized, coefficients of *Intensity* in Table 3 and 5 are positive, indicating that when the resource environments are intensified, the two facets of business strategies of the VC firms, the stages of venture investment and the resource allocations to loans, are more likely to match the average strategic profile of the competitors. On the other hand, the regression results report no significant association between *Intensity* and *Support* in Model II in Table 4.

Hypothesis 3, stating positive associations between concentration of resource environments and strategic conformity, received moderate support ($p < .10$ in Model III in Table 3 and $p < .01$ in Model III in Table 5). As hypothesized, coefficients of *Concentration* in Table 3 and 5 are positive, implying that the more concentrated the resource environments of a VC firm, the more likely that the VC firm conforms to the central industry tendencies in terms of the stages of venture investment and the resource allocation to loans. On the other hand, I did not find any significant association between *Concentration* and *Support* in Model III in Table 4.

Accordingly, Hypothesis 1, 2, and 3 did not receive full, but fairly moderate, support. It seems reasonable to conclude that resource dependence structures account for significant proportions of the variations in strategic conformity. It was found that as the VC firm increases its dependence on the resource environments, it is more likely that its strategic conformity increases. It is, however, important to note that while none of the coefficients of the resource dependence variables were significant in Table 4, many of the control variables that were not significant in Table 3 and 5 are significant in Table 4 (e.g., b of *Bank* = .1268, $p < .001$ in Model I in Table 4; b of *Environment*

= .1172, $p < .001$ in Model I in Table 4). These non-significant and significant findings will be speculated on below.

I then tested Hypothesis 4 and 5 positing that effects of resource dependence on strategic conformity are contingent upon organizational credibility operationalized by past organizational performance and organizational age. Following the traditional way of testing interaction effects, I created six interaction variables by multiplying three of the resource dependence variables with the two credibility variables, *IPO* and *Age*. I then separately developed eighteen regression models with the six interaction variables for each of the three dependent variables of strategic conformity. The regression results with and without the logarithm transformation of the credibility variables were very weak; only four of the eighteen interaction variables were significant (results are not shown here). A possible statistical reason for this weak finding is the steep skewness of the two credibility variables even after the logarithm transformation. The visual inspection suggests that the distributions of the two credibility variables, *IPO* and *Age*, with the logarithm transformation have long tails stretching into higher values. The coefficients of skewness for *IPO* and *Age* are 1.36 and 3.66 even after the logarithm transformation, respectively.

Following an implication in Mosteller and Tukey (1977), I then created two nominal indicators for each of the credibility variables with median splits and compulsively balanced the distributions by separating regression models for these two sub-populations. Table 6 and 7 show the results of regressions for testing Hypothesis 4 and 5.

<TABLE 6 ABOUT HERE>

<TABLE 7 ABOUT HERE>

Although these findings must be treated as tentative due to the failure of obtaining strong findings in the orthodox way (Linn et al., 1981), there are still some interesting findings in these two tables.

The results failed to support Hypothesis 4, stating that the effects of resource dependence on strategic conformity are contingent upon past performance of organizations. Only a combination of Model I-III and I-IV in Table 6 supported this hypothesis: while *Intensity* has significant positive effects on strategic conformity for firms with lower *IPO* scores, there exists no such effect for firms with higher *IPO* scores. The rest of the regression models suggest that regardless of the level of organizational past performance, the resource dependence variables had no effect or effects opposed to the hypothesis (i.e., Model I-II in Table 6). Therefore, Hypothesis 4 was not supported.

Hypothesis 5 was moderately supported, though care should be used in interpreting results in Table 7 in which some of the Wald x^2 are not significantly high (e.g., $x^2 = 16.09$ in Model III-I in Table 7). The results, however, suggest that resource dependence structures have significant positive effects on strategic conformity only for the younger VC firms, while there is no significant association between them for the older VC firms. For instance, a combination of Model I-I and I-II in Table 7 suggests that while *Asymmetry* has significant positive effects on strategic conformity about the stage of ventures for firms with relatively lower age ($p < .01$), *Asymmetry* does not have any effect for firms with relatively higher age. In addition, Table 7 presents another interesting finding: while the variables of resource dependence do not have any significant direct effect on *Support* in Table 3, significant positive effects of *Asymmetry*, *Intensity*, and *Concentration* were found for firms with relatively lower age in Table 7 ($p < .001$ in Model II-I, $p < .05$ in Model II-III, and $p < .05$ in Model II-V). This finding implies that variations in strategic conformity regarding supports that the VC firms provide can be more fully understood by incorporating the level of organizational credibility into the analytical models.

DISCUSSIONS

The purpose of this paper has been to investigate determinants of strategic conformity. It was hypothesized that resource dependence structures determine strategic conformity, and that effects of resource dependence on strategic conformity are contingent upon organizational credibility. Results from the analysis of the Japanese VC firm data lend moderate support to the hypothesis about effects of resource dependence: the VC firms highly dependent upon the resource environments are more likely to follow the central industry tendency in formulating strategies. The hypothesis about the role of organizational age as a source of credibility was also moderately supported: resource dependence does not have any effect on strategic conformity for older firms. These findings suggest the following theoretical contributions of this research.

First, this study found that one source of strategic conformity is resource dependence. Strategic conformity is a result of external influences that originate from interorganizational interdependence for resource acquisition and that of organizational efforts to justify formulation of business strategies by imitation. Influential organizations seem to encourage (or force) the dependent organizations to imitate strategies prevalent across organizational fields. It is also suggested that firms that gain managerial autonomy by managing resource environments are better able to formulate novel and unorthodox business strategies that are deviant from the central industry tendency. It is known that organizational demography (Finkelstein & Hambrick, 1990; Geletkanycz & Hambrick, 1997) and the market structures (Miller & Chen, 1996) account for variations in strategic conformity. This research added new knowledge to this preexisting literature by showing the effects of resource dependence.

Second, this study contributed to the strategic embeddedness perspective by extending its scope of application (Miller, 1996; Oliver, 1996). An exclusive focus on concrete resource flows enabled me to complement and substantiate an argument in Powell (1991) who suggested the linkages of resource environments with firm heterogeneity, as well as that in Miller and Chen (1996: 1210) who claimed that "nonconformity will be much a product of an organization's social context and its interactions with and relationship to that context."

Third, this study also contributed to the resource dependence perspective in two ways: by (1) extending its applicability and (2) suggesting the role of organizational credibility in a process in which resource dependence shapes organizational behavior. Credibility of organizations that originates from their age was found to buffer external influences whereby the linkages between resource dependence and strategic conformity are disconnected for older firms whether they are highly dependent or not. The combination of the second and third contributions suggests that while this study confirmed that this facet of strategic actions of firms is embedded in resource environments, it also demonstrated that the degree of organizational embeddedness differs with the level of organizational credibility. Organizational credibility buffers constraints that resource environments impose in exercising discretion for strategy formulation.

The analysis, however, did not lend support to a hypothesis positing the role of organizational past performance. This non-significant finding suggests us to not draw a decisive conclusion out of this study about organizational credibility. A possible methodological reason for this non-significant finding was the unavailability of the most desirable performance measures for the VC firms (the internal return rates). Aside from this methodological concern, it is also inferred that past performance may play a more complex role in determining strategic conformity than stated in the hypothesis. It is possible that strategies of high performing firms match the average of the entire industry because such firms create templates of organizational actions to which other firms in the same industry conform (e.g., Greve, 1995; Haveman, 1993). As found in this research, there can be another way strategic conformity is linked with organizational performance unless we distinguish organizational performance as a trigger of interorganizational imitation from that as a source of organizational credibility.

The analysis also failed to find significant effects of resource dependence on strategic conformity regarding services and supports that the VC firms provide. Instead, this facet of strategic conformity was primarily explained by control variables that indicate who the major shareholder of a VC firm is. It was found, for instance, that ceteris paribus, a VC firm whose top shareholder is a commercial bank demonstrates greater strategic conformity. The major shareholders of the VC firms in Japan (e.g., commercial banks) sometimes serve the role of parent companies and send their employees to the subordinate VC firms not only for control and monitoring reasons but also for securing employment opportunities (Hamao et al., 2000; Rau & Turpin, 1992). It is inferred that because of this industry practice, there exist close linkages between resource dependence structures of the VC firms and competence of their human resources. What a VC firm is able to do may be sometimes determined by who its major shareholder is. The similarity of the types of shareholders restricts sets of management know-how in the VC firms and leads to the similarity of the services that they can provide.

A managerial implication raised in this research is the cruciality of managing resource dependence structures (Baker, 1990). Previous studies that found significant linkages between strategic conformity and organizational performance suggest that managers should be careful in choosing strategic positions relative to the central industry tendency. The results of this study, however, suggest that managers do not have discretion in choosing the positions unless they manage resource dependence structures and obtain organizational independence. Managers have to start increasing and maintaining organizational independence in order to use discretion in formulating business strategies that can be independent of the central industry tendency.

This study raises several questions for future research. First, there must be alternative sources of organizational credibility to explore in future research. For instance, a possible alternative source suggested in prior research is establishments of linkages with other prominent organizations (Baum & Oliver, 1991; Stuart et al., 1999). Such establishments endorse products and services of the exchange partners because the prominent firms are believed to possess due-diligence capabilities to select excellent firms for their partners. While as reviewed above, credibility has been implied and examined in several research areas, there seems to be no generic theory about organizational credibility. Future research should articulate preexisting literature and explain such questions as how organizations use credibility and where credibility comes from.

Second, the observation window in this research was too narrow to observe long-term trends and dynamism of effects of resource dependence. The evidence is still weak to claim that changes of resource dependence structures will be followed by formulation of business strategies that are not constrained by trends in the industry. It is not easy to find an appropriate research context to address this point because power holders usually institutionalize and stabilize resource dependence structures that favor their interests and objectives (Pfeffer & Salancik, 1978). Scholars should explore contexts with the broad observation windows that allow them to trace historical changes and dynamism of resource environments and test the linkages with firm heterogeneity at the organization level.

Finally, while I believe that this research has complemented previous studies by examining determinants of strategic conformity that have been left out in previous studies, it is also true that this research left out the determinants found in previous research. In particular, this research did not employ a view in Finkelstein and Hambrick (1990) and Geletkanycz and Hambrick (1997), in which they argue that heterogeneity of organizational demography in top management teams shapes strategic conformity. Their view presumes that interorganizational linkages are a conduit of information for scanning environments, rather than a source of external influence

(Mizruchi, 1996). It is important for future research to integrate the two perspectives and complete the model to predict strategic conformity.

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TABLE 1: Variations in the Three Facets of Strategic Conformity of the Five Leading Venture Capital Firms (2000)

	Stage				*Support*					*Lratio*
Name of the VC	Seed	Early	Growth	Late	Reference of sales outlet	Assistance of alliance formation	Reference of people for recruitment	Consulting	Sending board members	Loan ratio in the growth scheme
JAFCO	20%	50%	25%	5%	●	●	●	●	●	.49
Fuji Bank Capital	5%	40%	50%	5%	●	●	●	●		.49
Nikko Capital	n.a.	n.a.	n.a.	n.a.	●	●	●	●		.46
Nissei Capital	10%	50%	20%	20%	●	●				.50
Yasuda	15%	60%	20%	5%	●			●	●	.50

TABLE 2: Descriptive Statistics and Correlations

		N	Mean	S.D.	1	2	3	4	5
1	*Stage*	202	-3.03	1.76	1				
2	*Support*	199	-.88	.21	-.12	1			
3	*LRatio*	262	-.78	1.33	.03	.07	1		
4	*Asymmetry*	281	43.62	38.67	.28	.06	.15	1	
5	*Intensity*	283	61.41	28.51	.28	.02	.16	.80	1
6	*Concentration*	283	.70	.29	.19	.09	.11	.75	.81
7	*Bank*	305	.48	.50	.01	.05	.13	.26	.21
8	*Securities firm*	305	.10	.30	.16	.08	-.23	-.14	-.08
9	*Insurance firm*	305	.10	.29	.14	.07	-.08	.03	.04
10	*Non-financial corporation*	305	.08	.26	-.31	-.04	-.03	-.28	-.07
11	*Local government*	305	.06	.23	-.15	.11	.04	-.19	-.16
12	*Telecommunication*	199	.75	.43	-.03	.02	-.10	.14	.10
13	*Software*	199	.14	.35	-.25	-.02	.02	.01	.05
14	*Environment*	199	.44	.50	-.04	.22	.13	-.17	-.12
15	*Healthcare*	199	.61	.49	.40	-.14	-.07	.23	.11
16	*Organizational size*	304	.62	1.63	-.06	.02	-.20	-.09	-.02
17	*Age*	305	10.95	8.31	.13	.09	-.12	.01	-.02
18	*IPO*	297	35.55	72.51	.12	.13	-.24	.11	.05

	6	7	8	9	10	11	12	13	14	15	16	17	18
6	1												
7	.31	1											
8	-.04	-.40	1										
9	.03	-.32	-.12	1									
10	-.11	-.28	-.10	-.08	1								
11	-.16	-.21	-.08	-.06	-.05	1							
12	.17	-.10	.13	.17	.09	-.13	1						
13	.02	-.08	.26	-.10	.18	-.07	.08	1					
14	-.10	.03	-.09	.00	.07	-.19	.06	-.22	1				
15	.10	.00	.03	.19	-.34	-.26	.04	-.29	.03	1			
16	.09	-.16	.30	.00	.07	.24	.16	.20	-.28	-.15	1		
17	-.02	-.13	.32	-.20	.09	.01	.10	.07	-.15	-.09	.28	1	
18	.20	-.12	.43	-.06	-.08	-.09	.22	.17	-.24	.01	.58	.57	1

TABLE 3: Regression Results: Effects of Resource Dependence on *Stage*

	Model I	Model II	Model III	Model IV
Asymmetry	.1061 **			.0069
	(.0034)			(.0064)
Intensity		.1573 ***		.0195 *
		(.0044)		(.0084)
Concentration			.8432 +	-1.4304 +
			(.4526)	(.7826)
Bank	-.3958	-.1457	-.0852	.0373
	(.3266)	(.3206)	(.3393)	(.3464)
Securities firm	1.0361 *	.8499 *	.8338 +	1.0401
	(.4590)	(.4424)	(.4557)	(.4732)
Insurance firm	.6844	.5540	.5759	.7481
	(.4682)	(.4627)	(.4802)	(.4787)
Non-financial corporation	-.6278	-.9148 +	-.9074 +	-.7323
	(.5558)	(.5280)	(.5423)	(.5734)
Local government	-.4054	-.5152	-.6170	-.3999
	(.7480)	(.7289)	(.7479)	(.7429)
Telecommunication	-.1393	-.0533	-.0496	-.0691
	(.2700)	(.2608)	(.2689)	(.2685)
Software	-.8457 *	-.8388	-.8265 *	-.8298
	(.3729)	(.3523)	(.3621)	(.3688)
Environment	.1322	.0722	-.0070	.1533
	(.2447)	(.2358)	(.2407)	(.2438)
Healthcare	.5527 *	.6033 *	.6510 *	.5845
	(.2706)	(.2635)	(.2712)	(.2677)
Organizational size	.9963	.0884	.0794	.1219
	(.0863)	(.0852)	(.0882)	(.0871)
Constant	-3.7381 ***	-4.2158 ***	-3.8361 ***	-3.9214
	(.4501)	(.4700)	(.4790)	(.5106)
Wald x^2	53.19 ***	61.68 ***	49.63 ***	60.75 ***
N	179	181	181	179

Note
1: Standard errors in parentheses
2: Fixed-effect generalized least-square model
3: $+p<.10$, $*p<.05$, $**p<.01$, $***p<.001$

TABLE 4: Regression Results: Effects of Resource Dependence on *Support*

	Model I	Model II	Model III	Model IV
Asymmetry	.0006			.0006
	(.0004)			(.0007)
Intensity		.0003		-.0008
		(.0006)		(.0011)
Concentration			.0674	.0851
			(.0598)	(.1060)
Bank	.1268 ***	.1116 **	.1015 *	.1202 **
	(.0429)	(.0430)	(.0440)	(.0458)
Securities firm	.1953 ***	.1663 **	.1601 **	.1906 **
	(.0574)	(.0563)	(.0565)	(.0610)
Insurance firm	.1975 ***	.1849 **	.1799 **	.1957 **
	(.0645)	(.0649)	(.0648)	(.0660)
Non-financial corporation	.0447	.0052	.0069	.0469
	(.0726)	(.0702)	(.0700)	(.0750)
Local government	.2789 ***	.2494 **	.2530 **	.2785 **
	(.0976)	(.0967)	(.0963)	(.0984)
Telecommunication	-.0221	-.0271	-.0326	-.0271
	(.0373)	(.0364)	(.0367)	(.0379)
Software	.0040	.0330	.0351	.0059
	(.0555)	(.0530)	(.0529)	(.0558)
Environment	.1172 ***	.1193 ***	.1203 ***	.1156 ***
	(.0326)	(.0316)	(.0313)	(.0330)
Healthcare	-.0600	-.0605 +	-.0615 +	-.0588
	(.0365)	(.0366)	(.0364)	(.0366)
Organizational size	-.0080	-.0077	-.0094	-.0097
	(.0111)	(.0111)	(.0112)	(.0113)
Constant	-1.0298 ***	-1.0060 ***	-1.0233 ***	-1.0286 ***
	(.0588)	(.0628)	(.0624)	(.0657)
Wald x^2	34.14 ***	33.03 ***	34.23 ***	34.68 ***
N	167	169	169	167

Note
1: Standard errors in parentheses
2: Fixed-effect generalized least-square model
3: $+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

TABLE 5: Regression Results: Effects of Resource Dependence on *LRatio*

	Model I	Model II	Model III	Model IV
Asvmmetrv	.0052 +			-.0007
	(.0029)			(.0047)
Intensity		.0091 **		.0057
		(.0037)		(.6527)
Concentration			.8772 **	.4703
			(.3736)	(.0069)
Bank	-.2095	-.2417	-.3068	-.3462
	(.2880)	(.2810)	(.2891)	(.3047)
Securities firm	-.7270	-.8262 *	-.8757 **	-.9269 *
	(.3837)	(.3685)	(.3710)	(.4050)
Insurance firm	-.3593	-.3917	-.4459	-.4610
	(.3934)	(.3868)	(.3889)	(.3999)
Non-financial corporation	-.2922	-.4136	-.4166	-.5134
	(.4892)	(.4602)	(.4608)	(.5081)
Local government	.4067	.3744	.3573	.3083
	(.6388)	(.6240)	(.6245)	(.6410)
Telecommunication	-.1739	-.1357	-.1436	-.1676
	(.2336)	(.2273)	(.2280)	(.2336)
Software	.3655	.3020	.3225	.3841
	(.3348)	(.3125)	(.3123)	(.3350)
Environment	.4185 *	.3716 +	.3394 +	.3796
	(.2068)	(.2002)	(.1997)	(.2086)
Healthcare	-.2169	-.1990	-.2021	-.2231 +
	(.2372)	(.2322)	(.2328)	(.2370)
Organizational size	-.0949	-.0931	-.1151	-.1059
	(.0705)	(.0697)	(.0703)	(.0722)
Constant	-.6380 +	-.9699 ***	-.9413 ***	-.9369 *
	(.3841)	(.3963)	(.3941)	(.4278)
Wald x^2	21.28 *	23.28 **	22.84 **	23.85 *
N	184	186	186	184

Note
1: Standard errors in parentheses
2: Fixed-effect generalized least-square model
3: $+p<.10$, $*p<.05$, $**p<.01$, $***p<.001$

TABLE 6: Regression Results: Effects of Resource Dependence on Strategic Conformity and Moderating Effects of *IPO*

	Low *Age*	High *Age*	Low *Age*	High *Age*	Low *Age*	High *Age*
Dependent Variable:	Model	Model	Model	Model	Model	Model
Stage	I-I	I-II	I-III	I-IV	I-V	I-VI
Asymmetry	.0110 +	.0087 *				
	(.0062)	(.0041)				
Intensity			.0271 ***	.0085 +		
			(.0082)	(.0049)		
Concentration					1.0914	.5635
					(.7734)	(.5905)
Wald x^2	31.30 ***	33.68 ***	44.47 ***	31.63 ***	32.56 ***	28.97 ***
N	84	95	86	95	86	95
Dependent Variable:	Model	Model	Model	Model	Model	Model
Support	II-I	II-II	II-III	II-IV	II-V	II-VI
Asymmetry	.0008	-.0005				
	(.0006)	(.0006)				
Intensity			.0006	-.0007		
			(.0009)	(.0009)		
Concentration					.0250	-.0187
					(.0789)	(.1003)
Wald x^2	56.18 ***	21.85 *	54.50 ***	21.97 *	54.01 ***	21.20 *
N	79	88	81	88	81	88
Dependent Variable:	Model	Model	Model	Model	Model	Model
LRatio	III-I	III-II	III-III	III-IV	III-V	III-VI
Asymmetry	.0051	.0027				
	(.0039)	(.0043)				
Intensity			.0076	.0071		
			(.0054)	(.0056)		
Concentration					.6293	.6309
					(.4899)	(.6213)
Wald x^2	24.54 **	14.90	25.36 **	16.22	24.87 ***	15.61
N	78	106	80	106	80	106

Note
1: Standard errors in parentheses
2: Fixed-effect generalized least-square model
3: Results for control variables were not shown.
4: $+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

TABLE 7: Regression Results: Effects of Resource Dependence on Strategic Conformity and Moderating Effects of *Age*

	Low *Age*	High *Age*	Low *Age*	High *Age*	Low *Age*	High *Age*
Dependent Variable:	Model	Model	Model	Model	Model	Model
Stage	I-I	I-II	I-III	I-IV	I-V	I-VI
Asymmetry	.0134 **	.0055				
	(.0048)	(.0040				
Intensity			.0242 ***	.0059		
			(.0062)	(.0047)		
Concentration					1.3537 *	.4160
					(.6230)	(.5281)
Wald x^2	50.64 ***	30.36 ***	65.63 ***	29.91 ***	50.19 ***	28.65 ***
N	90	89	92	89	92	89
Dependent Variable:	Model	Model	Model	Model	Model	Model
Support	II-I	II-II	II-III	II-IV	II-V	II-VI
Asymmetry	.0018 ***	-.0006				
	(.0005)	(.0006)				
Intensity			.0014 *	-.0005		
			(.0007)	(.0008)		
Concentration					.1292 *	-.0294
					(.0629)	(.0911)
Wald x^2	83.61 ***	21.89 ***	62.85	21.22 **	63.16 ***	20.84 *
N	78	89	80	89	80	89
Dependent Variable:	Model	Model	Model	Model	Model	Model
LRatio	III-I	III-II	III-III	III-IV	III-V	III-VI
Asymmetry	.0067 *	.0044				
	(.0030)	(.0047)				
Intensity			.0096 **	.0097		
			(.0040)	(.0061)		
Concentration					1.0377 **	.9337
					(.3698)	(.6643)
Wald x^2	16.09	13.05	16.04	14.96	18.26 +	14.29
N	89	95	91	96	91	95

Note
1: Standard errors in parentheses
2: Fixed-effect generalized least-square model
3: Results for control variables were not shown.
4: $+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$s