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Compensating Conformity: resolving the tension between economic incentives and organizational legitimacy in entrepreneurship

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Abstract

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INTRODUCTION

The lens of institutional theory is increasingly useful to develop theoretical explanations for entrepreneurial processes. Instead of focusing on an atomized analysis of the individual costs and benefits of forming ventures, the institutional view emphasizes the social relationship reasons for organizational formation and the acquisition of resources. (Aldrich, 1999; Brush, Greene, & Hart, 2001; Zucker, 1986). Such venture legitimacy stems from the process of adopting organizational forms, practices, and behaviors that are expected (DiMaggio & Powell, 1983) as well as from adopting symbols and labels that reduce ambiguity about the venture through categorization (Kennedy, Lo, & Lounsbury, 2010; Navis & Glynn, 2010). Such behaviors allow firms to flourish by establishing the necessary social connections and gaining resources to overcome their liabilities of newness (Schoonhoven, 2005; Stuart, Hoang, & Hybels, 1999; Suchman, 1995).

Recent work, however, suggests the institutional environment that encourages venture formation may not be compatible with venture growth because the institutional forces that encourage startups differ from those that encourage venture success (Aldrich & Yang, 2012). For example, prior literature grounded in economics emphasizes that reducing the cost and regulatory burden of starting a new venture can stimulate entrepreneurial activity (Djankov, La Porta, & Shleifer, 2002; Klapper, Laevena, & Rajan, 2006). Literature in this stream shows that low starting capital requirements are particularly encouraging for new firm entry (van Gelderen, Thurik, & Bosma, 2005). Yet in contrast, literature grounded in institutional thought finds that low levels of capital are a signal of low organizational achievement and imply a perceived lack of commitment on the part of the founding team (Suddaby & Greenwood, 2005; Zott & Huy, 2007). These research streams on the mechanisms that encourage entrepreneurial founding indicate an

intriguing conflict, creating the theoretical tension that this paper seeks to address. On the one hand, the economic stream emphasizes that lowering the costs and barriers to entry is likely to increase entrepreneurial activity. On the other hand, the organizational stream focuses on the importance of conforming to expectations to create legitimacy. Thus, although the prior literature establishes the effects of the institutional environment on entrepreneurial activity, it is possible that changes to that environment have opposing effects.

This study examines the notion that ventures will not take advantage of regulatory changes that ease the burdens of starting a venture because they are incompatible with the need to establish legitimacy in uncertain founding environments. A lowered entry-cost environment is likely to work at cross-purposes with the importance of appearing legitimate in the eyes of potential resource providers, customers, and other stakeholders. In other words, when ventures take advantage of relaxed entry requirements, they may ironically fail to signal that they have the resources and accomplishments to succeed. Innovative firms may be particularly adversely affected by lowered entry requirements because their novelty is often met with skepticism that can undermine their ability to gather resources (Navis & Glynn, 2011).

Resolution of this tension is particularly critical for two reasons. First, a resolution is likely to inform a better understanding of how institutional changes stimulate entrepreneurship. Indeed, despite the proliferation of public policies that address entrepreneurship by making the entry of ventures easier, we lack a comprehensive theoretical grasp of how institutional change alters entrepreneurial activity (Sine & David, 2010). Moreover, this theoretical tension suggests that since we do not fully understand the interrelationship between the interaction of common regulatory changes and the forces of legitimacy that act on ventures, we have an incomplete understanding of how institutional change affects entrepreneurship. As a result, for example,

policy changes to stimulate entrepreneurship often have unexpectedly poor results. This study addresses these issues by asking: *Do changes in the institutional environment that lower the cost of entry conflict with a venture's need to obtain legitimacy?*

I examine this research question by studying the effects of a national regulatory change that radically lowered venture entry requirements on different types of entrepreneurs and across different industries. To do so, this paper takes advantage of regulatory reform in Japan in which the capital requirements to start a new stock-issuing firm were dramatically reduced from ¥10 million to only ¥1 in 2003. Using data on firms founded before and after the reform, I examine which ventures took advantage of the reform to lower their initial capitalization and which did not. The setting of Japan provides several empirical advantages for this study. First, it is an advanced economy with substantial entrepreneurship, with diverse industries as well as a diverse range of entrepreneurs, ranging from entrepreneurs with elite backgrounds to non-traditional entrepreneurs. Second, the change of minimum capital requirements to 1 ten millionth of the prior level was substantial and unlikely to have been replicated elsewhere. In this way Japan lends a particularly advantageous empirical setting to test this study's ideas.

This study contributes to the growing literature on institutional change and new organizations (Tolbert, David, & Sine, 2010). While prior work on institutional theory indicates the importance of conformity to expectations for ventures (Khairi, 2010; Sine and Lee, 2009), this study contributes a new view of when institutional versus economic forces prevail. Specifically, while prior literature conceptualizes venture legitimacy as a scalable but unitary attribute of an organization, this study shows that legitimacy is a complex combination of legitimating attributes. I conceptualize this by introducing the concept of "compensating conformity" which is the increasing pressure to conform to the expectations of resource providers

and other potential stakeholders in order to compensate for the increasing uncertainty associated with newness or other novelty of the focal venture. This study highlights industry and founder novelty. For policy makers, these findings suggest which ventures are likely to benefit from policies that ease entry requirements, finding that ironically more innovative ventures (those that are often the target of such policies) are less likely to adopt them. These findings also help clarify why policies that lower entry costs often have little effect on venture formation. Overall, these findings suggest that institutional change that lowers required entry costs has important implications for entrepreneurs. Understanding these findings establishes another theoretical link between institutional change and new venture performance.

THEORY DEVELOPMENT

Lowering Cost Barriers

To form a venture, the entrepreneur must assemble their team, define markets, develop products, and gain working capital, among other activities. The resources to execute this process are more available to new organizations that have legitimacy through various symbols and actions that signal organizational conformity (Granqvist, Grodal, & Woolley, 2013; Lounsbury & Glynn, 2001; Zimmerman & Zeitz, 2002). For instance, a multi-year field study of British ventures found that entrepreneurs who use symbolic statements and actions, such as displays of organizational achievement, social associations, and conformity with other similar firms, are more likely to acquire resources (Zott & Huy, 2007). To emphasize that it is the legitimizing activities that ventures prioritize to obtain resources, a study of Swedish ventures found that ventures that prioritize legitimating activities such as legal conformity and business plan framing over other necessary business organizing activities are more likely to gather necessary resources (Delmar &

Compensating Conformity

Shane, 2004). Conformity through mimicking respected and legitimate practices is likely to improve resource acquisition as well as venture performance. In a study of advertising industry ventures, for example, Khaire (2010) showed that new firms, by adopting the same organizational titles as established and successful firms, gained legitimacy and performed better than those that did not. Further, empirical research has found that legitimating actions such as gaining endorsements from prominent and previously established organizations (Gulati & Higgins, 2003), raising capital from successful venture capitalists (Hallen & Eisenhardt, 2011), and having known and prominent founding team members are all associated with greater resources and venture performance (Eisenhardt & Schoonhoven, 1990). It is also notable that even in the absence of actual or anticipated gains, new organizations will adopt the organizational form of antecedent organizations (Tolbert & Zucker, 1983). In summary, ventures seeking resources will often mimic the organizational forms of previously established and successful firms. Overall, the research emphasizing the institutional environment finds that mechanisms legitimating new ventures also catalyze new venture founding and performance.

In contrast, research grounded in economics and finance emphasizes the reduction of costs, easier provision of resources, and lower regulatory barriers to foster entrepreneurship (Djankov et al., 2002; Woolley & Rottner, 2008). A substantial body of literature suggests that lowering the cost of creating ventures will increase startup rates (Klapper et al., 2006). For example, a study of venture formation rates in 39 countries found that the existence of minimum capital requirements and more labor regulations can lower founding rates (Van Stel, Storey, & Thurik, 2007). Overall, research in this economic stream emphasizes the costs and regulatory “rules” of entry, and finds that lowering these barriers is associated with increasing rates of entrepreneurial activity.

Compensating Conformity

Because ventures need legitimacy to gather resources, they need conformity to expected organizational forms and behaviors. I argue that common regulatory structures that ease the costs and burdens of starting a firm deprive ventures of the opportunity to signal that they have adequate resources and organizational achievements (Suddaby & Greenwood, 2005). For instance, commonly seen policies of easing venture entry typically intend to promote entrepreneurship by making it easier and less costly to start a firm. Yet, the efficacy of such formal policies is limited because creating a low entry-cost environment is likely to *conflict* with the informal institutional importance of appearing legitimate in the eyes of potential resource providers, customers, and other stakeholders. There are three reasons. First, low entry costs and easier procedures enable low personal commitment by entrepreneurs. This possibility deters resource commitments from financiers (Suddaby & Greenwood, 2005). Financiers such as venture capitalists require commitments of time, effort and money, while other types of financiers may require capital. These commitments provide a resource cushion, and indicate the dedication of the management team to the venture. In contrast, even if enabled by law, taking advantage of low entry requirements may reduce the commitment of the founding team (or the appearance of commitment) and lower the resource cushion. Second, low entry cost can suggest low organizational achievement even when this inference is not valid. The ability of an organization to commit substantial resources to the new venture indicates some past achievement, and reinforces the legitimacy of the venture (Zott & Huy, 2007). Third, mimicking respected and legitimate organizational structures and practices improves the likelihood of success (Khair, 2010). Resource providers often seek ventures with these respected, traditional structures and practices since they succeeded in the past with prior ventures and eschew unproven forms and practices that take advantage of new regulations. Overall, a firm's quest for legitimacy may cause resistance to

new organizational forms and practices even when they are both less costly and allowed by new policy reforms. The new firms in new industries will, instead, compensate for their newness by conforming to existing forms, even though it may be more costly. *The implication is that ventures with greater novelty are more likely to resist adopting lower entry cost reforms.* In this way, they are engaging in what is *compensating conformity*.

Reconciling the organizational and economic views

The economic and organizational streams suggest different mechanisms by which entrepreneurial activity is encouraged. Research, however, has not reconciled these two theoretical approaches and their conflicting implications that is the focus of this study. Both streams find empirical support for increased venture formation and performance through lowering costs of entry on one hand, and providing legitimization on the other. Yet it is also the case that several empirical studies find that policies intended to encourage entrepreneurship often are ineffective. For example, founding and new firm job creation declined in the U.S. after government efforts to increase them (Haltiwanger, Jarmin, & Miranda, 2012; Reedy & Strom, 2012). Entrepreneurial activity and outcomes after government efforts to encourage them have also been disappointing in Germany (Fritsch, Kritikos, & Rusakova, 2012), and in Japan where venture founding activity varies little from year to year (Statistics, 2011). Moreover, there is evidence that efforts to encourage the founding of ventures may actually produce poorly performing ventures (Nanda, 2011; Shane, 2009).

I argue that this empirical conundrum can be clarified by comparing the economic prediction of increased venture activity when costs of starting the venture are lowered conflicts with the institutional theory implication that ventures will adopt organizational forms that confer legitimacy. To test our argument, this study examines a change to the institutional environment of

entrepreneurship that dramatically lowered the minimum capital cost to start a venture. In 2003, the minimum capital that was legally required to start a stock issuing venture in Japan was lowered from ¥10,000,000 to ¥1. This reduction was enacted through a reform of Japan's corporations code, and was intended to stimulate the formation of ventures, particularly software firms, which unlike manufacturing firms, have low capital requirements. I offer three hypotheses.

HYPOTHESES

The first hypothesis argues that ventures in new industries are particularly likely to avoid adoption of the focal reform that lowered the legal minimum for initial capitalization. Several venture and angel investors in Japan were interviewed to discern sharper focus on our theoretical argument that software ventures will adopt higher levels of initial capital compared to other ventures even though, as an industry, they generally require less. This is because more novel firms are more likely to conform to the organizational forms that existed prior to the reform because they need to bolster their legitimacy by conforming to previously understood and accepted forms and symbols. Seeking to legitimate their potential to gain resources, these ventures are likely imitate other organizations in their field that they perceive to be legitimate or successful (DiMaggio & Powell, 1983; Haveman, 1993).

Our interviews revealed that investors and entrepreneurs view low entry cost ventures with considerable skepticism. As a prominent venture attorney in Japan put it:

“If you were entering into a transaction with a company that you have never heard of, you would look up their corporate registration and thus find out the stated capital amount of that company. If a company were to have a stated capital of 1 yen, potential business partners, investors, and customers may have doubts on whether this is a serious company or not. ”

Compensating Conformity

As this view indicates, ventures in new industries are likely to eschew the opportunity for easier entry if it conflicts with traditional practices. Moreover, this effect is unlikely to be homogenous across industries. The reason is that industries differ both in their novelty and resources needs. Recent research indicates that firms in new industries find it more difficult to raise required resources because they both lack conformity to traditional business models and are inherently more risky given their novel approach (Benner & Ranganathan, 2012; Hsu, 2007; Powell & Sandholtz, 2012).

Since gathering resources is particularly challenging for novel ventures, the most novel firms will be particularly resistant to new organizational forms and practices. Resource providers are less willing to provide resources as the novelty of the venture (e.g., form product, industry, and founder) increases. That is, venture capitalists, and other financiers often prefer investment in known or easily comprehensible businesses (Florida & Kenney, 1988). Yet, uncertainty and ambiguity are typical for novel ventures (Santos & Eisenhardt, 2009). The novelty of ventures that spans categories particularly reduces the attention of investors, and is particularly likely to be overlooked by resource providers at least in the short run (Kennedy et al., 2010; Pontikes, 2012). A study of nano-technology patents, for instance, indicates that firms which patent across technical categories are less likely to receive venture capital (Wry & Lounsbury, 2013). Thus, firms that are difficult to classify may find it difficult to raise funds because organizations that are discordant with expectations face skepticism and are less well regarded. A study of stock market prices, found that confusion among analysts about the proper categorization of a product or firms resulted in the firms failing to get reviews and thus suffered poor valuation performance (Zuckerman, 1999). Overall, firms in new industries are more likely to fail to gather sufficient resources.

Compensating Conformity

Taking these arguments together, ventures in new industries need to adopt a dual nature – i.e., novelty and conformity - because they will be greeted with skepticism and yet need resources. While ventures are viewed skeptically, they can become more legitimated by adopting pre-existing forms and legitimating symbols. This implies that the greater the perceived uncertainty that follows from the venture's being situated in a new industry, the more the need for legitimating forms and symbols to attract resources. This follows because the farther a new venture seems from a resource providers norms, the more important legitimating symbols are for attracting resources by overcoming the skepticism of the novelty (Zott & Huy, 2007). Since software ventures typically compete in new industries with new marketing and business model approaches, software ventures are likely to be the most resistant to adopting a reform that lowers entry cost. Overall, since software ventures have greater inherent novelty, they are more likely to compensate for their lack of conformity with more organizational and symbolic conformity to norms established before reform.

Hypothesis 1: New ventures in software industries are less likely to start with lowered capital after reforms that allow a less costly form, than new ventures in other industries.

Legitimizing Founders

Should the results indicate that H1 is confirmed, it might merely indicate that signaling adequate capital is needed for ventures in new industries. Yet, I argue that it is legitimacy that is most important, i.e. the venture is taking actions to acquire symbols of appropriate and accepted behavior. In order to establish that, this study proposes that other, non-capital, legitimating actions and symbols can compensate for the illegitimacy of low capital. This is because adopting an expected and traditional capital level is not the only route to obtaining venture legitimacy. Instead, the status of the entrepreneur can also bring needed legitimacy to the venture that

Compensating Conformity

likewise creates a compensating conformity. This legitimacy in turn can affect the decisions of resource providers to provision the venture. For instance, if a new venture promises a unexpected innovation that does not conform to accepted industry norms, the presence of a prominent individual in the top management team can assure resource providers of the innovative plan's appropriateness. A study of privately held biotech ventures showed that firms with alliances with high status business and prominent equity investors obtain IPOs faster while also earning greater valuations (Stuart et al., 1999). Other studies reveal that founding team members with previous successful work experience for prominent potential customers favorably affect investor decisions, (Higgins & Gulati, 2006) and that elite entrepreneurs often have social networks that make gathering resources more streamlined (Hallen & Eisenhardt, 2012). In another study of investor interest, the reputations of entrepreneurs favorably influenced IPO underwriters (Cohen & Dean, 2005). Overall, associating with prominent or high status individuals and organizations, through alliance, equity, or top management, confers legitimating attributes on a venture.

It follows then that if high status elite entrepreneurs provide legitimacy to ventures via their social networks, then the ventures they found might have less need for the legitimating attribute of traditional capital levels. Being a social elite founder creates more favorable evaluations by investors and other resource providers (Davidsson & Honig, 2003). In this way, elite founders are themselves legitimizing symbols of their ventures and so decrease the need for compensating conformity. In another way, social elite founders can decrease the need for compensating conformity because they have better access to resources and thus attenuate the need (Aldrich & Zimmer, 1986; Stuart & Sorensen, 2007).

Investors that were interviewed reinforced this view also showing how they expect ventures can compensate for unconformity. As one angel investor put it:

“We look at four key areas when deciding whether to work with or invest in a venture and the resources the founders had to commit is a key one of those. Customers and suppliers also will have a lot of doubt about even starting to deal with a low capital firm. It just doesn’t give us a good feeling. But if I know the good reputation of the founder, that’s different...”

Further, said a successful entrepreneur in Japan;

“We would never have received funding for our Internet play without the participation our new chairman, a Todai (University of Tokyo) alumnus, who was able to have side meetings with his old classmates who were the key decision makers in our bank.”

So, both because of their legitimating attributes and superior access to resources, if ventures in novel industries have elite founders, they are less likely to conform to expected organizational forms than ventures with non-elite founders. Since an elite founding team offers a certification and legitimating effect, novel firms with elite founders are less likely to compensate with conformity to traditional practices. As argued above, those novel industries are likely to be software-based. Thus:

Hypothesis 2: Software ventures with elite founders are more likely to start with lowered capital after reforms that allow a less costly form

Non-conforming Founders

If H2 is confirmed, it suggests on the one hand that non-capital legitimating symbols can compensate for the venture attribute of low capital. The logical implication is that on the other hand symbols or actions that are *less* legitimate will motivate founders to adopt high capital to compensate. In Japan’s context, non-conforming founders, particularly female founders, are

Compensating Conformity

perceived as unorthodox given the traditional expectations for venture founders (Fagenson, 1993; Harada, 2003). Yet, since a changing labor market in Japan increasingly eschews lifetime employment (Ahmadjian & Robinson, 2001), Japanese family arrangements continue their trajectory toward greater need for two incomes. This, plus lower birth rates, are stimulating an increasing number of women to become venture founders (Griffy-Brown, 2010). These founders are a comparatively new organizational attribute in Japan where heads of commercial enterprises are traditionally male and where females still comprise only 4.1% of technical company founders. They are thus unlikely to have as rich a business social network (Futagami & Helms, 2009b). Overall, ventures started by female entrepreneurs are likely to possess less legitimating attributes because of their novelty and non-conformance with traditional roles.

This study argues, then, that since Japanese ventures founded by female founders are considered to be a new form, that these ventures will seek compensating legitimacy by mimicking the older and more accepted organizational attribute of high capital levels. This is particularly salient hypothesis because female entrepreneurs in Japan are less likely to have access to family capital and have narrower business networks. Therefore it is likely to be more difficult for them to raise needed resources so it would be particularly useful to find that they select the high capital organizational attribute. Said another way, if firms compensate for low legitimacy by adopting compensating conformity to more traditional organization forms, it is likely that female led venture will conform to the pre-reform capital standard even though they have a more difficult task raising those funds. In summary, although they might find the lower initial capital requirements of the reform especially attractive, they are ironically the most likely to conform to the older organizational form.

Hypothesis 3: Software ventures with female founders are less likely to start with lowered capital after reforms that allow a less costly form.

METHODOLOGY

The sample consists of firms in the COSMOS 3 database from Teikoku Databank, Ltd. (TDB). TDB is one of the two leading firms in Japan providing credit ratings. This database is particularly comprehensive and accurate in its capture of firms with any commercial activity because Japanese firms rely on this database for evaluating supplier and customer credit worthiness. This database includes information particularly relevant for studying the founding, capitalization and performance of new firms. Teikoku Databank data are frequently used by Japanese scholars (Miyamoto & Rexha, 2001; Schaede, 2008; Singleton & Globerman, 2002; Suzuki, Kim, & Bae, 2002; Takhashi & Nakamura, 2009), and public policy evaluation (ACCJ, 2010).

The 2012 edition of the COSMOS 3 Database consists of Japanese firms incorporated through 2011. These firms include the common legal forms of formal business organization in Japan excluding sole proprietorships and including partnerships, limited liability companies, special corporations, and stock issuing corporations¹. Each record in the database consists of initial firm measures including capitalization, CEO characteristics, incorporation date, legal form, and industry as well as current measures of the focal firm including employees and IPO status. The database also includes financial performance data for the most recent three fiscal years – e.g., revenue and profit. The dataset covers firms incorporated from 1998 to 2011.

Dependent Variable

¹ These firms include stock issuing firms (*kabushiki kaisha* 株式会社), special non-stock issuing corporations (*tokurei yugen kaisha* 特例有限会社), limited partnerships (*goshi kaisha* 合資会社 and *godo kaisha* 合同会社), and general partnerships, (*gomei kaisha* 合名会社), and exclude firms with no commercial activity such as sole-proprietorships.

To examine these hypotheses, this study measures the dependent variable according to whether the firm incorporated as a stock issuing company (*kabushiki-kaisha*) with a level of initial capital lower than ¥3 million, which was only possible after the reform. This event is coded as 1. If the firm was incorporated with a level of initial capital at or higher than ¥3 million minimum the variable is coded as a 0. This study codes for below ¥3 million because that level was not permitted before reform so any venture selecting capital below ¥3 million is choosing the lower capital reform opportunity. The data is obtained from the TDB database. As is common in the entrepreneurship literature, the incorporation date designates the founding date.

Independent Variables

Industry. To examine the differences in the influence of the reform across industries, the 2-digit industry codes are used. TDB assigns firms to industries using SIC codes (Robb & Reedy, 2009) at the 4-digit level. However, TDB sometimes assigns a firm to a 4-digit SIC code when their activities are more diverse, so the conservative 2-digit industry level code is used. Following prior research, these 2-digit industries into one of seven industry categories: *Primary, Manufacturing, Wholesale/Retail, Service, Finance, Construction, and Software* (Folta & O'Brien, 2003). Hypothesis testing focuses on the software industry but includes other industries to enhance robustness and insight.

Elite Founder: In H2, this study hypothesizes about the effect of entry cost reform on firms founded by elites. In Japan, a crucial source of elite status through human and social capital is attending a top university. Entry into the top universities is gained through success in national intelligence tests and is highly desired (Ishida, Spilerman, & Su, 1997). Once they graduate, these individuals have very privileged advantages in terms of access to the best job opportunities and they continue to accrue social human capital through valuable experience gained in these highly

desirable jobs, (Blinder & Krueger, 1996; Conrad, 2009). Further, the alumni networks of top universities are unusually influential sources of social capital in Japan because their graduates both identify with their university, and the top universities accept establishing social networks for their graduates as central to their mission (Yonezawa, 2007).

Because education and not family or government connections are central to elite status in Japan, a focal CEO's alma mater determines elite status. This measure is consistent with prior research on the sources of human and social capital in new firms (Beckman, Burton, & O'Reilly, 2007; Burt, 2000; Davidsson & Honig, 2003; Dencker, Gruber, & Shah, 2009; Eisenhardt & Schoonhoven, 1990; Hallen, 2008). A founding CEO thus has an elite education if this individual is a graduate of one of Japan's top universities. These are the seven former imperial universities - Tokyo, Kyoto, Hokkaido, Tohoku, Nagoya, Osaka, and Kyushu - as well as the Tokyo Institute of Technology and the two leading private universities - Keio University and Waseda University (Yonezawa, 2007). These ten are consistent with top universities in other recognized rankings such as the London Times / QS rankings (Times, 2011) and are cited as such in recent academic research (Deem, K.H., & Lucas, 2008; Freeman, 2010). This data is obtained from the TDB database. If a founding CEO is a graduate of one of the top universities the variable, *Elite Founder*, is coded as 1 and is otherwise 0.

Founder's Gender: Long-standing institutional structures in Japan make the business environment and entrepreneurship difficult for women, making female founded firms more rare (Futagami & Helms, 2009a). Recently, studies have found an increasing entry of females into new ventures (Griffy-Brown, 2010). Moreover, empirical studies of U.S. venture capital investing suggest that the gender of the founder affects the amount invested in a new venture and its valuation, (Hart, Greene, Brush, & Saporito, 2001). Since the arguments in H3 examine the

likelihood of adopting a low cost organizational form in the face of new venture novelty, and given the novel nature of female founder's in Japan, female founders are likely compensate for their novelty by conforming to the non-reform standard. If a founding CEO is a female the variable, *gender*, is coded as 1 and otherwise 0.

Control Variables

Foreign Ownership: Foreign ownership is controlled because it is likely that foreign owners are not subject to the same social expectations and constraints as domestic owners. Foreign ownership is likely to increase the initial capitalization because it is a sign the founders have broad access to capital beyond domestic investors and may serve as a signal of the global presence of the firm (Kimura & Kiyota, 2004). Studies in Japan show that foreign investors may capitalize their firms differently than domestic firms and expect higher returns (Ahmadjian & Robbins, 2005; Asaba, 2005). This study measures *foreign ownership* by a "1" if the focal firm is initially 25% or more owned by foreign organizations or individuals.

To account for background trends *annual fixed effects* are also controlled using annual binary variables. This enables us to control for differences in the macro-economic and business environments that might influence the likelihood of IPO, initial capitalization and performance. It also enables us to control for differences in the initial capital needs of firms over time due to changes in technology or the types of opportunities.

Other Effects: Binary variables control for whether the venture was a subsidiary of a parent venture or not, *subsidiary*. This is because the capital choice of a subsidiary may not be independent of the parent's choices. The macroeconomic environment is controlled for because these conditions are likely to influence initial capitalization and growth. This is done using the variable, *GDP Growth*, which is the cumulative average growth rate of GDP for the three years

centered on a firm's incorporation – in constant 2009 yen using data from the Statistics Japan database (Statistics, 2011).

Model Specification and Econometric Issues

This study examines the likelihood of incorporating with a level of initial capital below ¥3 million that was only permitted after regulatory reform in 2003. Because our dependent variable is binary (low capital founding or not), logit regressions are run using odds ratios with robust errors. This study used odds ratios because they give a sense of the size of the effect that is important because this study are examines effects differences between industries. Consistent with research on testing for interactions with our econometric strategy, since the signs of interaction terms depend on the values of other variables and may not be directly interpretable in logit models, interaction graphs also plotted to present a more complete description of our key interaction results (Hoetker, 2007).

Since a low capital founding was not possible before the reform (unless the founders used a different corporate form with more lax requirements, similar to an LLC, known as the *Yugen-gaisha*), the study focuses on the post-reform time period. This is because these hypotheses more concerned with which types of individuals and firms responded to the reform and because the change between pre and post-reform is less relevant due to the near impossibility of a low capital founding before the reform due to the prior laws. To show that these results are not simply due to inherent industry differences in initial capital needs, the same analysis was run over the time period just before the reform (including the low capital *Yugen-gaisha* firms). If the results were due to inherent industry differences in capital needs then there should be similar industry differences before the reform (and there are not). Estimating these models with a generalized linear model and robust error estimation mitigates the effect of a heterogeneous distribution of independent variables.

RESULTS

Summary statistic for key variables are in Table 1, and correlations between all variables are in Table 2. After reforms allowing firms to capitalize as low as ¥1, the number of new firms capitalizing below ¥10 million doubled from 7.17% to 14.11% generally consistent with economic predictions (Table 1). Yet, the univariate data also indicates that only 3.84% of firms that might have selected very low capital structure, under ¥3 million, did so, suggesting that while some ventures took advantage of the regulations, it is infrequent and supportive of legitimacy arguments. Figures 1 and 2 add further insight. Figure 1 is a histogram of the distribution of initial capital for technical ventures founded before and after the reform in 2003. Notably, the proportion of technical firm that conformed to the more traditional capital level *increased* after the reform allowing an arbitrarily lower level. Figure 2 compared the initial capital levels of elite university alumni led ventures. In this case, *adoption* of lower initial capital of sub-¥10 million yen with the proportion that selected the prior statutory level declining from over 70% to 55%². While this evidences some adoption consistent with economic motivations, it is important to notice the some ventures form at the ¥3 million level even though that level was abolished by the reform.

These univariate findings are explored further in the tests of the first hypothesis. Relevant multivariate regressions are reported in Table 3. The Model 1 includes only the control variables. The effects of the controls are as expected. The general economy has a negligible effect on venture capitalization while firms that are subsidiaries or foreign owned are unlikely to adopt low capital. Model 2 includes key independent variables of industry and gender. H1 predicts that new firms in software industries are less likely to start with lowered capital after reforms than firms in other industries. Model 3 provides evidence with the negative (less than 1 odds ratio) and

² Firms that did not select the ¥10 million level mostly capitalized above ¥10 million. 11% selected the limited liability corporation level of ¥3 million.

Compensating Conformity

significant ($p < 0.001$) coefficient on *software* industry firms indicating that software firms are unlikely to select low capitalization. Notably, all other industries were likelier to adopt very low capital structure with *primary*, *service*, and the *finance* industries significantly more likely to adopt the low minimum capital level, (more than 1 odds ratios).

Next, H2 proposes that ventures started by elite university alumni will be less likely to adopt low capital organizational forms as they provide legitimacy to novel firms. These results are reported in Table 2. The negative and significant coefficient for the *Elite Alumni* variable in the models indicates that, for most industries, elite led firms avoid selecting the low cost organization form. However, when interacted with the *software* industry in model 4, the significantly greater than 1 odds ration on the *software X elite alum* interaction variable indicates robust support for our hypothesized effect that social elite founders provide the needed legitimacy allowing a software form to choose low capital. Additional support is shown in Figure 3 where the interaction is plotted because the marginal effect of odds ratios depends on the levels of other variables (Hoetker, 2007). The plot of the interaction confirms that the presence of an elite founder makes it more likely that a software firm will select the low capital option.

H3 argues that ventures with female founders are less likely to start with lowered capital after reforms that allow a less costly form. These results are reported in Table 4. Table reports the univariate frequency of low capital firms in selected industries. Consistent with this hypothesis, there are no female led low capital software firms, yet, in other industries, females select the low capital structure more frequently than male CEO'S ($p < 0.001$). Notably, since there are no female led software firms that adopt the low capital form, multivariate methods are confounded and thus not used. Nevertheless, that all female led software firms adopted capital above ¥10 million initial capital confirms that female-led firms were less likely to adopt the low initial capital level

implying results consistent with our proposed compensating conformity construct.

Robustness Tests

Because the reform of minimum capital requirements eliminated a regulatory floor, this study could not take advantage of examining the attributes of firms that selected low capital forms before it was permitted. To address this, further tests were conducted to establish the robustness of these results by comparing the distribution of capital levels of software ventures before and after the reform. The distribution of was compared of initial capital accounts before and after reform. Non-parametric tests were employed to determine if there was a change in the probabilistic distribution of capital among firms. For mean values of the distribution, a t-test was conducted and found no difference at the $p < .001$ level. Similarly, the distribution variances were compared with Kolmogorov-Smirnov tests and also found no differences at the $p < .001$ significance level before and after reform for software ventures. Overall, there is no evidence in these tests of any difference of initial capital for software ventures incorporated before versus after the reform that eliminated the capital floor. This is consistent with our hypotheses.

DISCUSSION AND CONCLUSION

Past work on institutional theory and entrepreneurship generally focuses on the importance of conformity to expectations for ventures (Sine & Lee, 2009). This literature emphasizes that new firms must prioritize the acquisition of symbols, associations and organizational forms that confer legitimacy on the venture. Such legitimacy provides the credibility that a firm needs to persuade others customers, resource holders, and other social actors to transact with the venture (Scott, Ruef, Mendel, & Caronna, 2000). Persuasive empirical evidence suggests that ventures that adopt the symbols and actions that communicate conformity to other's expectations attract more resources (Granqvist et al., 2013; Khaire, 2010; Lounsbury & Glynn, 2001). Yet this evidence

conflicts with prior economic literature that emphasizes the instrumental actions and costs of starting a venture. This stream is also empirically supported by studies indicating that as costs and administrative hurdles are lessened, venture activity is increased (Branstetter, Lima, Taylor, & Venvincio, 2013). This study addresses this theoretical tension and the differing entrepreneurial behavior predictions of these two lines of thought.

Our core contribution is a new view of when and how institutional forces act on the formation of ventures in contrast to economic forces. This study focused on industry and founder novelty. The central insight is that reforms that ease entry into entrepreneurship are least adopted by novel ventures and ventures founded by non-traditional entrepreneurs. The results show that ventures in newer industries or with non-traditional founders are more likely to conform to traditional expectations of high initial capitalization. The results confirm that this occurs even though these new industries may require less capital than other industries like manufacturing. While these results for older industries show that, after a policy reform allowing for low cost capital organization forms, new organizations indeed selected the new form consistent with economic analysis. However, ventures with novel or non-conforming organizational forms – in this study’s case, the software industry and female led - did not adopt the new form. New ventures such as these instead adhered to the forms that were required by regulation before reform. Surprisingly, firms in industries associated with high capital such as manufacturing, selected low cost forms while firms in industries requiring less capital such as software selected the former and more costly form. To repeat the earlier summary, those most in need of the entry reform from an economic perspective are often the least likely to use it.

The two hypotheses that examine the effects of legitimate and less legitimate founders drive home the point of the first hypothesis. On the one hand there is the key finding that software

Compensating Conformity

firms with the legitimating presence of an elite alumnus from a top university did in fact tend to adopt the low cost form. Thus, founders with substantial personal legitimacy obtained through educational status are able to adopt the low cost capital level enabled by the legislative reform because their status *compensates* for the ventures liability of starting in a new industry. Ventures, by adding a legitimating symbol of business status, do away with the need to adopt high capital levels to conform.

On the other hand, the results for H3 show that with the less legitimating presence of a female founder – in Japan’s context – that software firms completely avoided accepting a lower cost capital level. These additional results reveal this study’s main theoretical idea of compensating conformity. Ventures can compensate for non-conforming forms or symbols by adopting *alternative* forms and symbols to *compensate* for the non-conformity.

This concept of compensating conformity adds to theories of strategic choice and legitimacy (Zimmerman & Zeitz, 2002). Ventures, needing to appear acceptable and appropriate will acquire the symbols and organizational forms to compensate for newness or non-conformity, even at an economic cost. Further, these result show that the higher capital level is not merely a signal of sufficient capital. If it were a simple signal, then the presence of an elite founder would not mitigate the need for the signal and the presence of a less conforming founder would not drive all such firms to adopt the higher capital. In summary, prior institutional literature makes it clear that legitimacy is not a resource that a venture possesses but rather an attribute of a firm that confers appropriateness (Scott, 2008). The results indicate that ventures can take action to change this attribute by adopting salient symbols and supporters.

Conclusion

This study adds to theory by clarifying the effect of lowering the cost of new firm entry. Our first major contribution is the integration and reconciliation of economic and organizational literatures on the effects of the founding environment. Prior research indicates that lowered entry costs increase entrepreneurial activity as firms adapt to the low cost environment. Yet, observations of new venture formation and studies of organization legitimacy suggest that, in contrast, new firms will be less responsive to low cost environments because they are more concerned with appearing legitimate and low cost organizational forms imply low organizational achievement and low resource availability to potential resource providers. This study integrates these two different predictive theories to find that both literatures are correct but adds a new and important perspective. On one hand, for ordinary new businesses, low cost entry is adopted. On the other hand, firms that are novel or innovative resist adopting the low cost structure that regulatory reform may provide. In this way, regulatory changes to lower costs of entry are blunted. In this I add to the literature calling for better understanding of institutional change and entrepreneurship (Tolbert, David, & Sine, 2011).

Our second major contribution is the theoretical concept of compensating conformity. This study highlights that unconventional ventures can attenuate the skepticism about their prospects by compensating for their unconventionality by conforming to shared conventions in other aspects of the venture. Prior literature conceptualizes legitimacy as an attribute of an organization that it can possess in a continuum of degrees. Our new concept modifies this conception to model organizational legitimacy as a multi-faceted system of attributes that can be low in some respects if compensated by elevated legitimacy in other respects. This adds a new and strategic view of legitimacy for entrepreneurial firms. This study adds this concept of

compensating conformity to our current understanding of organizational legitimacy.

This study also resolves a policy issue that in spite of regulatory efforts, many national contexts do not experience satisfactory outcomes of more vibrant and innovative firms. This is because social processes such as conformity, legitimacy, and perceptions of risk contribute important effects beyond direct economic policy intent. Current strands of research emphasize incentives and pecuniary returns to entrepreneurship, (Cooper, Woo, & Dunkelberg, 1988; Spulber, 2009). In this view, individuals become entrepreneurs when their anticipated monetary rewards exceed anticipated costs. While financial incentives are certainly germane, this study also finds that an entrepreneur's decisions may also be substantially influenced by concerns about legitimacy, conformity, and "saving face". These social and behavioral concerns are likely to influence the efficacy and outcomes of policies to promote entrepreneurship.

The implication of this study, then, is that government efforts to ease entry can be frustrated as new ventures seek to conform to shared beliefs about organizational form and legitimacy. Among the most frequent reforms to any nation's entrepreneurial environment is easing the costs of entry. This study finds that - especially in the case of novel, technological firms that are the most desired from a policy standpoint - that their enhanced need for conformity to attract resources attenuate this policy effort. Novel firms do not adopt low cost forms because they fear that to do so will add to their novelty, increase skepticism about their firm, and reduce their ability to gather resources.

A final implication is the importance of the indirect or second order effects of reforms. I observe the anticipated first-order effects of easier entry requirements for most industries. Yet, this study also finds second-order effects. Technological firms by conforming to organizational forms allowed before reform do not benefit from reduced cost entry requirement and the policy

Compensating Conformity

becomes effective in industries that were not targeted. In the author's prior studies of bankruptcy reform, (Eberhart, Eesley, & Eisenhardt, 2012), and IPOI entry requirement reform, (Eberhart, Eisenhardt, & Eesley, 2013), secondary effect of reforms are also found to be important. Bankruptcy reform incentivized elite founder entry while IPO entry reform focused additional capital investments in new technical firms but reduced capital in other new firms. These indirect effects may be more salient for the ultimate policy outcomes than direct effects *vis a vis* policy goals such as growth and employment.

In summary, this study observes that government efforts to ease entry can be frustrated as new ventures seek to conform to shared beliefs about organizational form and legitimacy. Among the most frequent reforms to any nation's entrepreneurial environment is easing the costs of entry. New industry firms do not adopt low cost forms because they fear that to do so will add to their novelty, increase skepticism about their firm, and reduce their ability to gather resources. This study finds that - especially in the case of novel, technological firms that are the most desired from a policy standpoint - that their enhanced need for conformity to attract resources attenuate this policy effort. The institutional lens employed by this study makes clear that stimulating entrepreneurship is more nuanced than simply reducing costs. This study indicates that efforts must also focus on what entrepreneurs in new industries most need. And what they most need is to be accepted by others.

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Table 1 - Descriptive Statistics

	1998-2002 %	After Reform %
Technical Firms	10.227 (0.303)	7.563 (0.264)
Elite Univ. Alumni	9.517 (0.293)	10.685 (0.309)
Female Founders	5.092 (0.220)	3.374 (0.190)
Capitalization> Y10M	7.177 (0.258)	14.114 (0.348)
Capitalization>Y3M	N/A	3.837 (0.192)

Table 2 – Correlations Table

	1	2	3	4	5	6	7	8	9	10	11	12
1 GDP Growth	1.0											
2 Foreign Owned	-0.050	1.0										
3 Subsidiary	-0.139	0.109	1.0									
4 Elite Founder	0.026	0.011	0.047	1.0								
5 Gender	-0.014	-0.010	-0.086	-0.057	1.0							
6 Primary	-0.007	-0.001	-0.003	-0.007	-0.003	1.0						
7 Manufacturing	0.120	-0.025	-0.008	0.000	-0.037	-0.022	1.0					
8 Construction	-0.008	-0.002	-0.007	-0.002	-0.003	-0.001	-0.011	1.0				
9 Sales	0.106	0.058	0.056	0.013	-0.047	-0.030	-0.313	-0.015	1.0			
10 Service	-0.187	-0.035	-0.051	-0.015	0.077	-0.043	-0.449	-0.022	-0.603	1.0		
11 Finance	-0.011	-0.005	-0.006	0.003	0.001	-0.007	-0.074	-0.004	-0.099	-0.142	1.0	
12 Software	-0.095	0.031	0.046	0.024	-0.022	-0.010	-0.108	-0.005	-0.138	0.158	-0.034	1.0

Table 3 – Logit Regressions)

Odds ratios	(1)	(2)	(3)	(4)
DV= Low Capital	Controls	Founder Effects	Industry Effects	Elite Founder Interaction
GDP Growth	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Foreign Owned	0.475 (0.225)	0.532 (0.244)	0.607 (0.286)	0.607 (0.286)
Subsidiary	0.130*** (0.016)	0.141*** (0.017)	0.152*** (0.019)	0.152*** (0.019)
Elite Founder		0.405*** (0.078)	0.396*** (0.076)	0.383*** (0.075)
Gender		3.108*** (0.433)	2.831*** (0.395)	2.829*** (0.395)
Primary Industries			4.694** (2.824)	4.703** (0.707)
Manufacturing			1.621 (0.618)	1.625 (0.609)
Construction			3.936 (3.748)	3.949 (3.761)
Sales			1.741 (0.618)	1.746 (0.620)
Service			2.564** (0.877)	2.573** (0.880)
Finance			3.371** (1.398)	3.379** (1.402)
Software			0.048*** (0.027)	0.033*** (0.024)
Software X Elite				10.910* (13.67)
Constant	0.133*** (0.024)	0.131*** (0.025)	0.062*** (0.024)	0.062*** (0.024)
Wald chi ²	290.08.***	398.19***	449.81***	455.87***
Yearly Fixed Effects	Yes	Yes	Yes	Yes
N	8,209	8,209	8,209	8,209

Robust standard errors
in parentheses

*** p<0.001, ** p<0.01, * p<0.05

Note: Female founders are not included because all technical ventures founded by females started with Y10million capital and above. This supports our hypothesis, H3, yet confounds multivariate methods

Table 4 – Low Capital Rates

	Mean	Std. Dev.	N
Overall			
Male	0.059	0.236	8016
Female	0.224	0.417	295
Manufacturing			
Male	0.051	0.221	856
Female	0.154	0.375	13
Service			
Male	0.062	0.241	4771
Female	0.255	0.437	227
Sales			
Male	0.054	0.225	1894
Female	0.770	0.269	39
Software			
Male	0.005	0.069	632
Female	0.000	0.000	10

Compensating Conformity

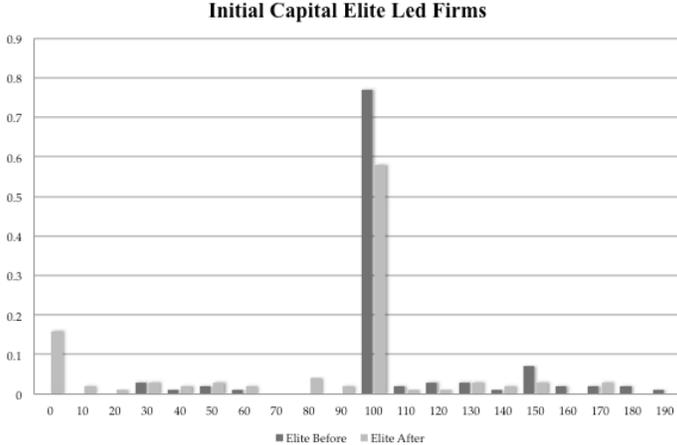
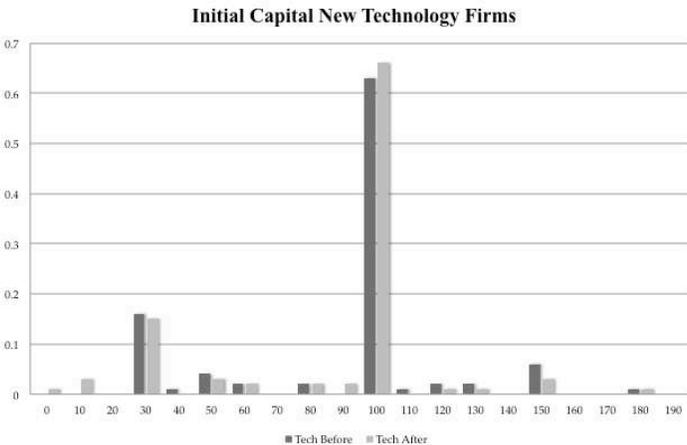


Figure 1 - Bar heights represent the proportion of new technical industry firms that are formed at each level of initial capital. Pre-Reform firms were incorporated from 1998 through 2002. Reform firms were formed 2003 through 2010. Only operating firms are included.

Figure 2 - Bar heights represent the proportion of new elite university alumni led ventures at each level of initial capital. Pre Reform and Reform dates are the same as figure 1.

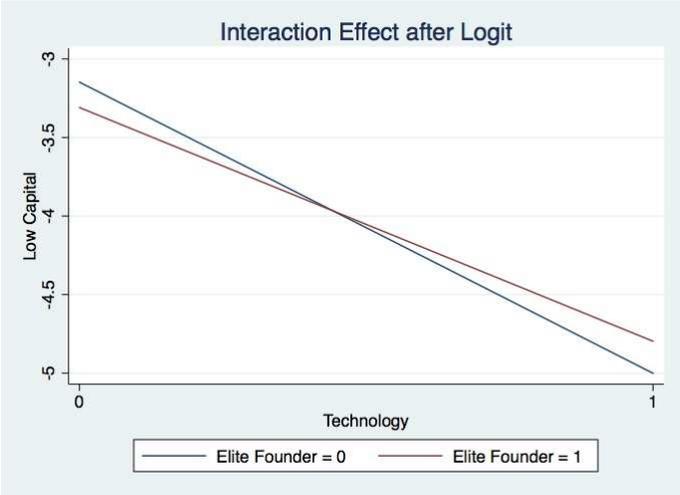


Figure 3 - Interaction effect for an elite founder on the likelihood of a technology firm selecting low capital