Stigma and Entrepreneurial Failure: 
Implications for Entrepreneurs’ Career Choices 

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I. INTRODUCTION 

Institutional norms, inclusive of formal rules and informal cultural values, set the stage for the levels of entrepreneurial activity and societal wealth created from entrepreneurship in a country (Baumol, 1990; Lee, Peng & Barney, 2007; Cardon, Stevens & Potter, 2009). Because institutional norms dictate legitimacy (Aldrich & Fiol, 1994), entrepreneurs face pressures to act in accordance with normative expectations to secure necessary venture resources (Dimaggio & Powell, 1983). Entrepreneurs’ path to legitimacy is still widely debated; yet, there is a general understanding that entrepreneurs with legitimacy have demonstrated their conformity to the rules and normative expectations of social and institutional stakeholders. Failure to adhere to normative expectations expose entrepreneurs to the stigma of negative social judgments (Goffman, 1963), which result in the economic and social sanctioning of future entrepreneurial activities (Scott, 1987; Landier, 2005).

Stigma is a multilevel phenomenon whereby social groups (macro level) form collective judgments about the consequences of bearing a particular stigma marking and whereby persons (micro level) who bear that marking are socialized to incorporate the judgments of the wider society into their conception of self (cf. Goffman, 1963). To date, the entrepreneurship literature has focused on the macro level, observing that the
stigmatization of entrepreneurial failure is symbolized formally through the regulatory environment or informally through cultural norms and the implications, e.g., on overall entrepreneurial level and diversity in a country (cf. Landier, 2005; Armour & Cumming, 2008; Djankov, McLiesh, & Shleifer, 2007). A core element of stigma theory, however, is the negative implications of stigma on those individuals who bear stigma markings rather than the general population (Goffman, 1963).

To date, the literature has remained silent concerning the individual implications of stigma for the groups of failed entrepreneurs who bear stigma marking. In other words, to date the literature has focused on the macro level aspects of stigma to the omission of individual implications. This is an important shortcoming because it inhibits the development and testing of stigma theory within the entrepreneurship domain. The omission is particularly significant because the challenge of establishing legitimacy is a major driver of entrepreneurial failure and a core theme in the entrepreneurship literature (i.e., Stinchcombe, 1965). Consequently, the focus of this article is on how stigma attitudes at the macro level influences the behavior of those individuals who are stigmatized on the micro level. Specifically, the question asked is whether variations across countries, in negative attitudes towards failed entrepreneurs and in formal regulatory symbols that coerce the disclosure of failure events, influence the future career decisions of failed entrepreneurs.

Building upon the insights of literatures on organizational legitimacy and the social deviance of individuals and organizations, a theory of career responses to the stigma of entrepreneurial failure is developed and tested across 15 GEM countries. Hypotheses are tested using sophisticated multilevel hierarchical logistic regression analyses of
Eurobarometer national data on negative attitudes towards failed entrepreneurs and World Bank indicators of variations in the extent of business disclosure and the depth of credit information across countries. The conceptual model and empirical findings are indicative of the important linkages that can be drawn between the level of formal controls that exist in a country over stigma visibility and the micro-level strategic responses of individual failed entrepreneurs.

Contributions to the extant literature are as follows. First, this article extends the emerging research stream in the organization literature on the stigma of organizations and their managers to the context of entrepreneurs who are subjected to negative social judgment from the shutdown of their ventures. Although the stigma of individuals has been well researched by sociologists and psychologists, the study of stigma in the organizational setting is a young and emerging research stream in the organization literature (Paetzold, Dipboye & Elsbach, 2008). Recent literature has clarified the independent yet related distinction between the stigma of individuals within organizations and the stigma of the established organization itself (Devers, Dewett, Mishina & Belsito, 2009). In the present article, we make a theoretical distinction between the independent yet related faiths of established organizations and their leaders (Sutton & Callahan, 1987); and, the interdependent and often inseparable faith of entrepreneurs and their ventures. This important distinction motivates our development of a theory of the coping approaches that entrepreneurs utilize to strategically respond to the stigma of entrepreneurial failure and the ensuing career outcomes.

Second, building on the literatures on strategic responses to institutional pressures (Oliver, 1991) and stigma coping tactics (Miller and Major, 2000; Jones, Farina, Hastorf,
Markus, Miller & Scott, 1984.), we develop a theoretical model outlining the different career options for failed entrepreneurs and how stigma differentially bear upon these. To date, we are not aware of any such models of stigmatized entrepreneurs. Clearly, this represents a novel contribution. Third, our study of stigma conveying symbols that exist in the form of laws, policies, and procedures of entry regulatory environments for entrepreneurs contributes to the research stream examining institutional pressures on the strategic choices of organizations (Oliver, 1991); and to the emerging research streams on the roles of coping strategies (Singh, Corner & Pavlovich, 2007; Shepherd, 2003) in the entrepreneurial process. In particular, we focus attention to the role of the formal institution as an information carrier to the stakeholders within a country who would otherwise remain oblivious of the stigma markings of individual failed entrepreneurs (Karlsson, Honig & Welter, 2005; Devers, Dewett, Mishina, & Belsito 2009); and the influence of such symbolic information on the future career behavior of failed entrepreneurs.

Fourth, we answer the call from entrepreneurship scholars for more sophisticated hierarchical modeling techniques that examine the entrepreneurial process from multiple levels of analysis (Davidsson & Wiklund, 2001; Alvarez & Busenitz, 2001; Wiklund & Shepherd, 2008) and across diverse geopolitical spaces (Steyaert & Katz, 2004). In the context of institutional pressures exerted upon failed entrepreneurs who are stigmatized, the inquiry in this article separately examines the act of entrepreneurship (i.e., the reentry decision) apart from the mode of entry (i.e., autonomous startup versus corporate employee) and from the manner of organizing (i.e., sole owner versus joint owner structure). We found that in countries where the levels of stigma and regulatory
conveyance of stigma markings were at their highest, the probability was lower that failed entrepreneurs would reenter into entrepreneurial activity. Yet, an interesting finding from our empirical study is that there are contexts in which negative attitudes towards failed entrepreneurs and regulatory disclosures of individual stigmata increase the probability of failed entrepreneurs reentering into entrepreneurial activity. Our finding suggests that negative social and economic sanctions that are associated with stigma markings speak only to one side of the entrepreneurship phenomena. On the other side, stigma can function as a stimulus for failed entrepreneurs to defy their illegitimacy and to actively seek out and engage in innovative behaviors (Cliff, Jennings & Greenwood, 2006) that contribute to the overall diversity of entrepreneurial activities in their country.

The article proceeds as follows. The next section provides a literature review of pertinent research on stigma in the socio-psychology, economics, and organization literatures. Following this section is a conceptual framework of the strategic responses of failed entrepreneurs to stigma that is developed from theories on entrepreneurial behavior, social deviance, and organization legitimacy. Hypotheses are introduced and tested using individual level data on the reentry decisions of 5,560 failed entrepreneurs situated in 15 GEM countries. The findings from our empirical study are next discussed. We conclude the article with a discussion of the implications of our theoretical model and empirical findings on both micro and macro level entrepreneurial activity and present opportunities for future research.
II. STIGMA

*The Sociology of Stigma*

Stigma is the outcome of a process whereby social audiences form collective judgments about the consequences of bearing a particular marking and whereby persons who bear that marking are socialized to incorporate the judgments of the wider society into their conception of self (Crocker, Major, & Steele, 1998; Goffman, 1963). Otherwise stated, persons who bear a particular stigma share a similar ‘moral career’ with other members of the stigmatized group and face similar social and economic sanctions (Goffman, 1963:32). In ancient times, the Greeks signified the banishment of slaves, criminals, traitors and other persons by cutting or burning signs, so called *stigmata*, into their bodies (Goffman, 1963). In modern times, the sentence handed to the stigmatized is not as absolute as complete banishment from corporate life. Rather, the economic or social sanctions imposed on the members of stigmatized groups vary based on the contexts that give rise to their blemished social identities (Rasmusen, 1996).

Research on stigma originated in the sociology and social psychology literatures on social deviance where the focus is upon the implications of negative social judgments of others and distinctions are made on basis of ‘visible’ stigma markings such as race, nationality, gender, physical deformities or on ‘invisible’ stigma markings such as religious affiliation (Goffman, 1963; Spicker, 1984). Interest in impact of stigma expanded into the economics literature where the research interest is on the welfare benefits and costs of imperfect information (i.e., stigma markings) on the social identities of persons in a society. In this body of literature, researchers have examined the economic sanctions of stigma with particular attention to the welfare effects of situations
such as unemployment, wage differential, and business closures that create opportunities for disconnects between their personal identity and social identity; with, the interactions between stigmatized groups and society being based on social identity (Furuya, 2002).

*Stigma of the established organization and its leaders*

Until recently, the stigmatization of organizations and the leaders of those organizations have been neglected in the literature (Paetzold, Dipboye, Elsbach, 2008). Yet, in the organizational realm, economic and social sanctions of stigma are impactful and the detriment to the organization may range from a reduction in bargaining power in exchange transactions to the total disengagement of the social, political, and economic stakeholders in a country (Sutton & Callahan, 1987). A recent focus of the organization literature has been the distinction between the stigma of organizations and individuals (Devers et al., 2009) and the distinction between the implications of stigmatized organizational members (e.g., criminal CEOs) compared to stigmatized organizations (e.g., abortion clinics, bankrupt firms) (e.g., Hudson, 2008; Sutton & Callahan, 1987).

With the starting point that the stigmatization of the organization and its leaders are two separate constructs (Sutton & Callahan, 1987), the contention of organization researchers has been that there is a transfer of stigma between the organization and the leaders of the organization by way of association (Kulik, Bainbridge & Cregan, 2008); and, that this transfer is particularly prevalent in the context of a failed organizations (Sutton & Callahan, 1987; Weizenfeld, Wurthmann & Hambrick, 2008). Organization researchers further suggest that the strength of the spillover of stigma from the organization to the individual leaders and the key to stigma management depends on how closely individual leaders are linked by time, proximity, and accountability to the stigma.
(Semadeni, Cannella, Fraser & Lee, 2008; Tetlock, 1985; Page, 1984). The time and proximity links exist to the organization stigmatizing conduct or event to the extent that the individual leader is either present at the location of the occurrence or has a leadership status at the time of the event. The accountability link, however, is not necessarily bounded by time or location. Accordingly, organization leaders may be stigmatized from organization conduct that takes place prior to or subsequent to their employee or even at a different job site.

III. THEORY DEVELOPMENT

The central tenet of our theory is that the reentry career choices of stigmatized entrepreneurs are influenced by the control that is exerted by institutional forces over the visibility of their individual stigmata to prospective stakeholders (cf. Ragins, 2008; cf. Hudson, 2008; cf. Semandeni, Cannella & Fraser, 2008). We depict this relationship in Figure 1.

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Three aspects of stigma are at the core of our theoretical development. First, there are the normative expectations for the career choices of failed entrepreneurs (Cardon, Stevens & Potter, 2009). Stigma can stifle the future ability of the entrepreneurs who shutdown prior ventures for reasons other than a sale for profit to engage in entrepreneurial activities within their countries (Weisenfeld et al., 2008; Ragins, 2008). Second, there is the question of the entrepreneur’s control over the visibility of stigma markings (Miller & Major, 2000). The institutional context of each country is comprised of formal stigma symbols (explicit regulatory procedures) and informal stigma symbols
(implicit cultural norms) that function as repositories and carriers of information (Goffman, 1963) about individual failed entrepreneurs to investors, creditors, and other stakeholders of the stigmatized venture. Lastly, although stigma has been shown empirically to systematically influence the willingness of entrepreneurs to start new ventures and to engage in risky activities (Armour & Cumming, 2008; Giannetti & Simonov, 2004); there is the matter of the behavioral responses of entrepreneurs to being stigmatized that begs the question of whether individual entrepreneurs have an awareness of stigma markings and the associated sanctions.

*Normative Expectations of Failed Entrepreneurs*

Stigma sanctions are the outcomes of the cultural sensemaking of country citizens as to the formal rules normative expectations for entrepreneurial behaviors that align to the goals of the institution (Cardon, Stevens & Potter, 2009). The efficient reentry of failed entrepreneurs arguably benefits society through gains in knowledge and total economic activity (Shepherd, 2003; McGrath, 1999). Similar to organization leaders, entrepreneurs are linkable to the stigma conduct and event of their ventures by time, proximity, and accountability. Entrepreneurs often will make more than one attempt at entry and may voluntarily or involuntarily exit ventures that they help to create before a successful venture is launched and they gain legitimacy (DeTienne & Cardon, 2010; DeTienne, 2010). While the legal, economic and social actors across countries typically agree to encourage constituents to pursue activities to start new ventures, there is also a need to protect constituents in the country from being harmed by illegitimate entrepreneurs. Yet, case studies of bankrupt firms conducted by Sutton and Callahan (1987) and Semandi, Cannella & Fraser (2008) suggest that stigma not only damages the viability of bankrupt
firms through lost relationships and renegotiated exchange relationships, but that also the leaders of those firms reported being hurt and embarrassed by their tainted labels. Further still, some entrepreneurial exits can be painful both emotionally and financially; (Shepherd, 2003), particularly in contexts where the entrepreneur exit is judged to outside of normative expectations and the entrepreneur is stigmatized (Eurobarometer, 2004; Goffman, 1963; Jones, Farina, Hastorf, Markus, Miller & Scott, 1984). Stakeholders will often pierce what is left of the corporate veil of the organization structure and assign accountability for economic losses to the individual level (and vice versa). Most entrepreneurial firms are small and accountability is concentrated in the hands of management, making it difficult for entrepreneurs to disassociate themselves from their failed businesses. Thus, there is a distinction between established organizations and entrepreneurial firms such that the stigma of the entrepreneurial venture and the entrepreneur leader are intertwined and inseparable.

Founding entrepreneurs have an imprinting effect on the organizations and vice versa such that venture stakeholders often closely associate the conduct and reputation of entrepreneurial firms with that of their founders (Sutton & Callahan, 1987). Still, Steve Jobs is closely linked to Apple as is Bill Gates to Microsoft despite that these businesses are multinational entrepreneurial firms with dispersed ownership and management teams with limited interactions with the founders. Hence, the liabilities of the venture become the liabilities of the individual entrepreneur (Fan & White, 2003) and so does the stigma. Further, unless entrepreneur leaders can exert power to change the normative expectations or legal regime of institutional context, entrepreneur leaders will more likely not be able to directly remove of the stigmatizing marking.
In short, the stigma and loss of legitimacy for the venture becomes a loss of legitimacy for the entrepreneur leader (Hambrick & Mason, 1984). Essentially then, for those entrepreneurs who have failed, a core issue is that of managing information about their failure, i.e., controlling the decisions: “to display or not to display; to tell or not to tell; to let on or not to let on; to lie or not to lie; and in each case, to whom, how, when, and where” (Goffman, 1963:42).

_**Stigma Symbols in Entry Regulatory Environments**_

While the ancient Greeks used branding irons and knives to visibly signal that certain persons were unfit for society, in modern times information about activities that affect the legitimacy of entrepreneurs is often disseminated to social audiences through policies, procedures, and formal institutions that collectively comprise the regulatory environment in which entrepreneurs operate their ventures (Devers et al. 2009 cf. Erickson 1962, p. 310). Thus, these information repositories and the information that they convey represent stigma symbols. In the social psychology literature, stigma symbols are described as the means (i.e., badges, titles, labels) that convey negative social information to stigma conferring critical masses (Goffman, 1963). Stigma symbols can be formal (i.e., regulatory) or informal (i.e., cultural norms) and have been theorized to affect stigmatized and normal persons differently. Through these stigma symbols, social and legal actors of a country describe certain entrepreneurial activities as legitimate or illegitimate and provide stigma markings to those entrepreneurs who do not ‘play by the rules’ (cf. Devers et al. 2009).

Prior research has shown that stigma markings in terms of the regulatory environment play an important role at the macro level. For example, the severity of bankruptcy law in
a country represent a salient form of stigma marking and has been shown to influence
general level of entrepreneurship (Armour & Cummings, 2008) as well as the level of the
capital that creditors make available to failed entrepreneurs to start new ventures
(Djankov, McLiesh, & Shleifer, 2007). On the one hand, the more disclosure of prior
business failures in the entry regulatory environment in favor of creditor rights may lead
to less innovation and growth in the technological industries of countries (Acharya &
Subramanian, 2009). On the other, the same regulatory frameworks that act as stigma
symbols may be important to the screening process of lenders who extend credit to
entrepreneurial firms in several other industries that provide greater societal benefits to a
country (Djankov, McLiesh & Shleifer, 2007).

The prevalence of stigma symbols in entry regulatory environments and the depth of
information that they communicate about the presence of stigma markings vary from
country to country. It is important to note that a regulatory environment that puts greater
stigma on failure, such as more severe bankruptcy law, affects stigmatized and non-
stigmatized individuals differently. Stigma symbols and strong stigmatization may be
viewed positively by the wider society but at the same time cause personal and social
embarrassment to entrepreneurs who are stigmatized from their prior failures (Paetzold,
Dipboye, & Elsbach, 2008). In a study of small and medium sized entrepreneurs in the
U.K. for example, Freel, Carter, Tagg & Mason (2010) found prior failure experiences to
be a significant contributor to the fear of rejection that discouraged experienced
entrepreneurs from applying for business loans, thereby negatively influencing their
reentry decisions.
Strategic Responses to Stigma by Failed Entrepreneurs

In order for a failed entrepreneur to be stigmatized, a critical mass of individuals must agree that entrepreneurial failure is illegitimate and this critical mass of individuals need to associate the inappropriate behavior with that entrepreneur (cf. Hudson, 2008). In other words, the behavioral responses of failed entrepreneurs are a function of the stigma associated with entrepreneurial failure as well as the communication of that information. Thus, there is an interaction effect between the size of the critical mass conveying stigma attitudes that result in the lost legitimacy of failed entrepreneurs and the depth of information in the regulatory environment (cf. Ragins, 2008) and it is this combined effect that failed entrepreneurs need to respond to (cf. Semandeni, Cannella & Fraser, 2008). We depict these relationships in Figure 1. We now turn to the range of behavioral responses open to failed entrepreneurs.

Oliver’s (1991) typology of strategic responses to institutional pressures provides insight into the influence of context and control on the strategic responses to the institutional pressures of stigma. In particular, Oliver’s (1991) typology identifies theoretical mechanisms that drive strategic responses and these mechanisms are likely to be generally applicable also to the behavior of individual entrepreneurs. This typology also resonates with discussions of stigma coping approaches developed in the stigma literature (e.g., Miller & Major, 2000). Importantly, Oliver notes that these strategic responses are a function of the institutional pressures exerted on organizations and the extent to which the organization can control the environment.
Large Critical Mass Conferring Stigma and High Institutional Control over Visibility

This is the situation that hits failed entrepreneurs the hardest. People in a country are generally not forgiving to failed entrepreneurs and associate entrepreneurial failure with illegitimate behavior. Substantial information about the entrepreneurial failure and the linking of the individual to the failure event is stored and is easily available. Thus, failed entrepreneurs can be substantially stigmatized under this situation. In terms of responses, Miller and Major (2000) note that when institutions have high control over stigma markings and, thus, those individuals who are stigmatized perceive their control over the visibility of their stigmata to be low, their coping approaches are likely to involve tactics to escape or disengage from the stigmatized failure event.

Failed entrepreneurs who were once legitimate in their countries, may find themselves stereotypically grouped with illegitimate entrepreneurs who are afforded less access to human, social, and financial capital that are important to the survival and performance of their ventures. Such entrepreneurs may perceive illegitimacy based on a diminished social rather than personal identity to be dehumanizing (Crocker, Major, & Steele, 1998). In such case, we argue that the dramatic avoidance response would be a permanent exit from entrepreneurial activity because this is the domain where the institutional pressures exist (Oliver, 1991; cf. Meyer & Rowan, 1977; cf. Hirschman, 1970). Similar avoidance responses have been documented in the stigma literature, for example, on stigmatized criminals (Rasmussen, 1996).

Oliver (1991) identifies two mechanisms that are likely to lead to acquiescence. The first involves the unconscious agreement of conventions and customs because they are
deeply engrained in society. This mechanism drives failed entrepreneurs to internalize the general opinion that entrepreneurial failure is illegitimate and agree with the stigma marking given to them. In order to wash away the stigma marking, they distance themselves from entrepreneurship and seek out some other career. The other mechanism associated with acquiescence relates to compliance. This is a conscious strategic choice. Because ample information is available about individuals who fail and because entrepreneurial failure is stigmatized, failed entrepreneurs are likely to face problems for example when negotiating with resource providers. As a result, they feel that other career options might present more attractive opportunities that does any form of continued entrepreneurship. Therefore, we propose that institutional contexts which combine a large critical mass of constituents with stigma attitudes towards entrepreneurs with more information are more likely to lead entrepreneurs to acquiesce to the stigma and exit entrepreneurship. Accordingly, our first hypothesis states:

Hypothesis 1: The probability that failed entrepreneurs will exit entrepreneurship altogether is higher in countries with a large critical mass conferring stigma sanctions and high institutional control over the visibility of stigma markings.

**Large Critical Mass Conferring Stigma and Low Institutional Control over Visibility**

This presents a situation whereby entrepreneurs will be highly stigmatized given that constituents find out about their failure. But because the information about the failure is not readily available to everybody, it moves some of the control of failure information away from the institution over to the entrepreneur. Thus, entrepreneurs have greater possibility to influence and control the situation. Avoidance represents a generic strategic
response to institutional pressures in situations where organizations have some control over the information that the environment obtains about its behavior, but there is little possibility to influence the institution per se (Oliver, 1991). Two separate tactics are foreseeable for failed entrepreneurs. Concealment tactics “involve disguising nonconformity behind a façade of acquiescence” (Oliver, 1991: 154). Because failed entrepreneurs become stigmatized if information becomes widely available but entrepreneurs can, at least in part, control this information, it is in their own best interest to conceal any entrepreneurial activity. Low levels of stigma conveying symbols in the entry regulatory environment provide opportunities for failed entrepreneurs to manage the dissemination of information about stigma markings and to negotiate their reentry in a compromised mode of entry. Entrepreneurs can conceal their activities by reentering entrepreneurship as part of a larger team. This leads to the following hypothesis:

Hypothesis 2: The probability that reentering failed entrepreneurs will engage in startup activity as part of a team is higher in countries with a large critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings.

Buffering represents an alternative avoidance tactic and “refers to an organization’s attempt to reduce the extent to which it is externally inspected, scrutinized, or evaluated”. (Oliver, 1991: 155). It has been noted in the literature that the amount of stigma that is transferred between a failed organization and its leaders depends on proximity in terms of time and space (Semadeni et al., 2008). Accordingly, measurable variations may exist in the timeframe and occurrences of failed entrepreneurs who subsequently regain legitimacy (Weisenfeld, et al., 2008). If information repositories and the information that they convey decay, as associated with low institutional control over the visibility of
stigma markings, then failed entrepreneurs can regulate their stigma by deferring their reentry into entrepreneurship. Thus:

Hypothesis 3: The probability that failed entrepreneurs will defer reentry is greater in countries with a large critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings.

Small Critical Mass Conferring Stigma and High Institutional Control over Visibility

Compromise-based responses to institutional pressures are more active than acquiescence and require some form of negotiation or bargaining with the constituents in the environment (Oliver, 1991). Such responses are only possible if the critical mass conferring the stigma marking is relatively small. Rather than completely giving up on entrepreneurship, failed entrepreneurs can reenter using modes that are less associated with their stigmatized history if stigmatization is limited. This suggests the following hypothesis:

Hypothesis 4: The probability that reentering failed entrepreneurs will engage in startup activity as employees is greater in countries with a low critical mass conferring stigma sanctions and high institutional control over the visibility of stigma markings.

Small Critical Mass Conferring Stigma and Low Institutional Control over Visibility

Defiant responses “represent unequivocal rejections of institutional norms and expectations” (Oliver 1991: 157). The specific tactic of dismissal is likely to occur when the interests of the organization diverge dramatically from the normative values, but the costs associated with nonconformity are low. The act of entrepreneurship in itself can be viewed as an outlier activity within the country that is a rejection of institutional norms. Where the act of entrepreneurship is viewed positively, failed entrepreneurs are likely to
face limited sanctions if they decide to reenter. For example, in some contexts, entrepreneurs may view the institutional pressures of the entry regulatory environment as a positive badge of honor. Landier (2005), for example, quotes a U.S. engineer in Silicon Valley who states: “in France, you keep all your life the stigma of a failure. Here in Silicon Valley it is the mark of the entrepreneurial spirit (p. 24).

We argue that the willingness of failed entrepreneurs to dismiss the stigma of failure is higher if fewer people in the country associate failure with stigma; and, there is low institutional control over the visibility of stigma markings. This leads to the following hypothesis:

Hypothesis 5: The probability that failed entrepreneurs will engage in subsequent autonomous startups is greater in countries with a low critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings.

IV. METHODOLOGY

Sample

Our sample is selected from a cross-country pool of individuals interviewed during the 2002-2005 fieldwork of the Global Entrepreneurship Monitor (GEM) project. The GEM Project is an ongoing cross-national study that started in 1999 with the aim of measuring cross-national entrepreneurial activity (Reynolds, Hay & Camp, 1999). The GEM respondents in each country were randomly selected from the general population of their countries and interviewed about their entrepreneurial activities and intentions. In order to derive the country-level variables related to the size of critical masses that confer stigma sanctions and the prevalence of stigma convening symbols that exist in the entry regulatory environments, we combined the GEM data with the World Bank Development
Indicators (WDI) and the European Union Flash Barometer. Complete data were then available for the following fifteen countries: United States, Norway, Iceland and 12 Members States of the European Union (Belgium, Germany, Denmark, Spain, Finland, France, Greece, Ireland, Italy, Netherlands, Sweden and United Kingdom).

Adopting the approach of Kwon and Arenius (2010), the GEM data collected from the respondents in each country were pooled across the 4 year period of 2002-2005 to increase the stability of the measures. Our sample was then limited to include only those entrepreneurs who shut down, discontinued or quit a venture in the past 12 months through means other than a sale because it is within this group of individuals that the potential to be stigmatized from entrepreneurial failure is hypothesized to be highly consequential. A total of 5,560 GEM respondents between the ages of 16 and 85 from the 15 countries corresponded to these criteria.

Variables and Measures

Dependent Variables. We use five binary dependent variables in our study that measure entry decisions and modes of entry and organizing. The dependent variables are constructed from the GEM interview questions: (1) Are you alone or with others currently involved in the startup of a new venture; (2) Are you as part of your job currently involved in the startup of a new venture; and (3) I expect to start a business in the next three years.

Our first two dependent variables measure whether the individuals in our sample were engaged in any mode of startup activity or had made a decision to defer engaging in autonomous startup activity to a future date in the next three years. Specifically, the ‘reentry decision’ variable is an indicator of the failed entrepreneurs in our sample who
responded ‘yes’ to the question that they are currently involved in startup activity in their countries either alone or with others; or as part of their jobs. Next, the ‘deferred reentry’ variable is an indicator of the individuals in our sample who responded ‘yes’ to the question that they expected to start a business in the next three years. To the extent that individuals responded ‘yes’ that they expected to start a business in the next 3 years and also responded ‘yes’ that they were presently involved in start-up activity as an independent venture alone or with others, we coded the ‘deferred reentry’ variable as 0. However, if individuals responded ‘yes’ that they were presently involved in start-up activity that was part of their job, we coded the deferred entry variable as 1 to indicate the intentions of these individuals to start an autonomous venture.

Our third and fourth dependent variables indicate the modes of reentry used by the individuals in our sample who answered ‘yes’ that they were actively involved in start-up activity. Specifically, the third dependent variable indicates those individuals who are engaged in startup activity as employees and the fourth dependent variable indicates those individuals who are engaged in startup activity as either the sole or part owner of an autonomous venture. The ‘employee mode’ dependent variable supports the important distinction between the decision to exit the domain of entrepreneurship and the decision to unlink individual stigmas from new ventures. On the other hand, the ‘autonomous mode’ dependent variable provides another important distinction between the decision to act in defiance of stigma and reenter the domain of entrepreneurship.

Our fifth dependent variable, ‘part-owner reentry’ indicates the mode of organizing used by the individuals in our sample who answered ‘yes’ to the question that they, alone or with others were currently involved in the startup of a new venture. We coded the ‘part
owner reentry’ variable as 1 to indicate those individuals who organized their startups as joint ventures with one or more other persons.

**Independent Variables.** At level 2 of the model, we have constructed two country level variables that measure the size of critical masses that confer stigma sanctions and also the prevalence of stigma conveying symbols that exist in entry regulatory environments. To measure the critical mass in each country, we constructed a ‘stigma context’ variable from survey data collected by the European Commission on attitudes towards entrepreneurship (Flash Eurobarometer No 146, 2004). The survey asked respondents about whether individuals who have started their own business and have failed should be given a second chance. We use the mean ‘no’ responses of the citizens in each of the 15 GEM countries to this question to measure the size of the critical mass conferring stigma sanctions.

To measure the prevalence of stigma conveying symbols in each country, we constructed a ‘stigma symbol’ variable using World Bank Development Indicators (WDI) that were collected as part of the ongoing World Bank Doing Business project that measures the regulations governing small and medium sized business operating in 183 economies. Specially, we used WDI indexes of the extent of business disclosure and depth of credit information that comprise the institutional context of each country. The depth of credit index measures the regulatory policies and procedures of each country that influence the depth credit information about individuals and firms that are available through public and private credit registries. Using a scale of 0-6, the index reports whether the positive or negative data on firms and individuals are communicated; to whom the information is reported; the age of the information and the opportunities for
borrowers and capital providers to inspect the information. Similarly, the extent of business disclosure index uses a scale of 0-10 to measure the disclosure of information about transactions to leadership teams, stakeholders, and in published periodic filings.

To test our hypotheses, we constructed four dummy variables that measure the aggregate variations in the ‘above versus below mean’ critical masses conferring stigma sanctions and in the ‘above versus below mean’ extent of stigma conveying symbols in the entry regulatory environment. We use these distances to create four dummy variables that indicate the countries that are: (1) above mean in both stigma attitudes and regulatory stigma symbols; (2) above mean in stigma attitudes and equal or below mean in regulatory stigma symbols; (3) equal or below mean in stigma attitudes and above mean in regulatory stigma symbols; and (4) below mean in both stigma attitudes and regulatory stigma symbols.

**Level 2 (Country) Control Variables.** We include the variable ‘GDP growth’ in our models. We use this variable because prior studies have found a systematic relationship between the size and dynamics of the entrepreneurial economy and the levels of entrepreneurial activity in countries (Acs, Arenius, Hay, & Minniti, 2005). In particular, GDP growth has used in prior studies as an indicator of the level of entrepreneurial opportunities that exist in a country (Armour & Cumming, 2008). In the present study, we use the year 2000 as the base year for the GDP growth and lagged the variable by 1 year for each year of the four year study period.

**Level 1 (Individual) Control Variables.** Although the goal of our study is to examine the institutional pressures from stigma of entrepreneurial failure and the coercive pressures of the formal symbols in the entry regulatory environment, it is
important that we include individual level variables that are predictors of entrepreneurial behavior in our analysis (Davidsson & Honig, 2003). Age, gender, and education have been found in prior studies to be significant indicators of the human capital that influences the career choices of reascent entrepreneurs (Stam, Audretsch & Meijaard, 2008). Age has been theorized to have a curvilinear effect that both increases human capital through accumulated life experiences and decreases human capital due to loss stamina and risk aversion (Wennberg, Wiklund, DeTienne & Cardon, 2009). To measure this curvilinear effect of age, grand mean centered continuous variables for age and agesquared were included in the model. Researchers have also argued that women tend to perceive their human capital and the opportunities that exist in the entrepreneurial environment less favorably than men (Langowitz and Minniti 2007). Education has also been found to provide a measure of the explicit human capital (Wiklund & Shepherd, 2008; Gimeno, Cooper & Woo, 1997). To measure the effect of these human capital variables, binary indicators of gender (female=1) and education (postsecondary=1) were included in the model.

Model

Because our dependent variables are binary, we estimate two-level hierarchical logistic regression models using the xtmelogit function in the Stata 11 program for fitting mixed-effects models for binary/binomial responses. The xtmelogit function, which estimates random intercept, fixed-sloped models for each dependent variable, can be used for both longitudinal/panel data and for the type cross-sectional data in our study (Rabe-Hesketh & Skrondal, 2008). This estimation technique allows us to nest the individual level decisions of 5,560 failed entrepreneurs included our study in the institutional
contexts of their 15 countries (Raudenbush & Bryk, 2002; Guo & Zhao, 2000; Stewart, Baumer, Brunson & Simons, 2009).

V. RESULTS

Descriptive Statistics

Summary statistics at the country level for our dependent and independent study variables are shown in Table 1. The last three columns in Table 1 present the distance of each country from the mean of the 15 GEM countries for negative attitudes towards giving entrepreneurs a second chance (stigma) and for WDI indicators of the extent of business disclosure and credit depth of disclosure (stigma symbols).

Table 1 also shows the distance of each country from the mean of the 15 GEM countries for negative attitudes towards giving entrepreneurs a second chance (stigma) and for WDI indicators of the extent of business disclosure and credit depth of disclosure (stigma symbols). Figure 2 presents an illustrative graph.

In Table 2, we present additional descriptive statistics and the correlation matrix for our study variables. As shown, approximately 19% of the individuals reported being active in startup activity of which 15% were involved as independent owners of (autonomous) startups and 4% were involved in startup activities as employees. Of the sample, 15% of the individuals stated that they deferred reentry to a subsequent date
within the next three years. As for the mode of organizing, 7% of the sample organized their start activities as joint ventures of two or more people. Additionally, Table 2 shows that the mean age of the sample was 45 years old and that females and individuals with post secondary education each represented 38% of the sample, respectively.

Null Model

Although informative, our preliminary analysis of the descriptive statistics does not control for differences in the institutional context and for individual human capital attributes. Our next step is to fit a null or empty two level-model with only an intercept parameter and country effects for each of the five decision models. Null Models 1, 2, 3, 4 and 5, as shown in Table 3, have no control variables or predictors and are estimated using adaptive quadrature with 7 integration points for each of the five dependent variables in our study. The equation for the null models is described in Equation 1, whereas the intercept $\beta_o$ is shared by all 15 countries and the random effect $u_{oj}$ is specific to the country $j$. The random effect is assumed to follow a normal distribution with the expected value 0 and the variance $\sigma^2_{uo}$:

$$\log \left[ \frac{p_{ij}}{(1-p_{ij})} \right] = \beta_o + u_{oj} \quad (Equation \ 1)$$

Null Model

Although informative, our preliminary analysis of the descriptive statistics does not control for differences in the institutional context and for individual human capital attributes. Our next step is to fit a null or empty two level-model with only an intercept parameter and country effects for each of the five decision models. Null Models 1, 2, 3, 4 and 5, as shown in Table 3, have no control variables or predictors and are estimated using adaptive quadrature with 7 integration points for each of the five dependent variables in our study. The equation for the null models is described in Equation 1, whereas the intercept $\beta_o$ is shared by all 15 countries and the random effect $u_{oj}$ is specific to the country $j$. The random effect is assumed to follow a normal distribution with the expected value 0 and the variance $\sigma^2_{uo}$:

$$\log \left[ \frac{p_{ij}}{(1-p_{ij})} \right] = \beta_o + u_{oj} \quad (Equation \ 1)$$
The initial results of our null or unconditional models support that the entry decisions and the modes of entry and organizing vary significantly across countries. The likelihood ratio statistic for testing the null hypothesis that $\sigma^2_{uo} = 0$ is 153.110 for the reentry decision, 39.25 for the deferred entry decision, 90.69 for the autonomous entry mode, 53.03 for employee entry mode, and 24.49 for the part owner mode of organizing. Each of these test statistics corresponds to a p-value of less than 0.00005; which provides evidence that the between-country variance is not zero. In addition, the intra-block group correlation coefficient (ICC in Table 3) is 6.4% for the reentry decision, 4.7% for the deferred entry decision, 4.7% for the autonomous entry mode, 11.5% for employee entry mode, and 4.2% for the part owner mode of organizing. We calculated the ICC coefficient using Equation 2, whereas $p$ is the ICC coefficient, $\tau_{00}$ is the between country variance from level 2 and $\sigma^2$ is the level 1 variance that is fixed to the variance of a standard logistic distribution, $\sigma^2=\pi^2/3 = 3.29$.

$$p = \frac{\tau_{00}}{\tau_{00} + \sigma^2} \quad \text{(Equation 2)}$$

The ICC of each model indicates that variations in the entry decisions and modes of entry and organizing are likely to be explained by differences in the institutional contexts of each country rather than by individual level attributes. The greater than zero ICCs for the dependent variables further confirms that multilevel modeling is the appropriate for our research question and that the institutional context of the country where an entrepreneur is situated does matter to the entry decision and to the strategic modes of entry.
Hypothesis Testing using Random Intercept Models

Our interests lie in the effects of stigma and stigma conveying regulatory symbols on the decisions of failed entrepreneurs that are above and beyond the effects that are explained by the individual level human capital and economic growth variables. Models 6, 7, 8, 9 and 10 depicted in Table 4 correspond to the random-intercept models that include the level 1 individual attributes for age, age squared, gender and post secondary education and the level 2 institutional context variables for GDP growth, stigma, and stigma symbols.

Reentry Decision (Hypothesis 1). Our findings in Model 6 support our hypothesis that the probability of failed entrepreneurs exiting entrepreneurship is greater in countries with a large critical mass conferring stigma sanctions and high institutional control over the visibility of stigma markings. In Model 6, we found the probability of failed entrepreneurs engaging in startup activity within 12 months of a failed venture to be 59.6% (p<.05) in countries with large critical masses conferring stigma sanctions. We also found the probability of reentry to be 60.3% (p<.05) in countries with high institutional control over the visibility of stigma markings. To test our hypothesis that countries with the dual contexts of high stigma and high regulatory symbol have lower reentry and a higher probability of exit, we included a dummy variable in Model 6 that is coded 1 for the high stigma and high regulatory symbol countries in our study. We found the probability of reentry in these countries was 32.7% (p<.10); with the odds of reentry being 51.4% lower than in other contexts. This fully supports Hypothesis 1.
Deferred Reentry Decision (Hypothesis 3). Our findings in Model 10 support our hypothesis that the probability of failed entrepreneurs deferring reentry is greater in countries with a large critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings. There were missing observations for this variable so N=4,008 for Model 10. We found the probability of failed entrepreneurs deferring startup activity to be not significant in countries with large critical masses conferring stigma sanctions. We also found the probability of reentry to be 57.1% (p<.05) in countries with high institutional control over the visibility of stigma markings. To test our hypothesis that countries with the dual contexts of high stigma and low regulatory symbols are more likely to defer reentry, we included a dummy variable in Model 10 that is coded 1 for the high stigma and low regulatory symbols countries in our study. We found the probability of deferred reentry in these countries was 69.7% (p<.05); with the odds of deferred reentry being 130% greater than in other contexts. This fully supports Hypothesis 3.

Autonomous Mode of Reentry (Hypothesis 5). Our findings in Model 8 did not support our hypothesis that the probability of failed entrepreneurs engaging in subsequent autonomous startups is greater in countries with a low critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings. To test our hypothesis, we included a dummy variable in Model 8 that is coded 1 for the low stigma and low regulatory symbols countries in our study. We found that the decisions of failed entrepreneurs to reenter in an autonomous mode were influenced by individual level attributes and also by the growth of the entrepreneurial economy. Age and post-secondary education increased the odd of reentry by 6.3% and 35.6%, respectively; while
females decreased the odds by 49.1%. GDP growth also increased the odds by 14.9%. Hypothesis 5 was not supported.

*Employee Mode of Reentry (Hypothesis 4).* Our findings in Model 9 support our hypothesis that the probability of reentering failed entrepreneurs engaging in startup activity as employees is greater in countries with a low critical mass conferring stigma sanctions and high institutional control over the visibility of stigma markings. In Model 9, we found the probability of failed entrepreneurs engaging in startup activity in the employee mode to be 70.6% (p<.01) in countries with large critical masses conferring stigma sanctions. We also found the probability of reentry to be not significant in countries with high institutional control over the visibility of stigma markings. To test our hypothesis that countries with the dual contexts of low stigma and high regulatory symbols have a higher probability of reentry in the employee mode, we included a dummy variable in Model 9 that is coded 1 for the low stigma and high regulatory symbols countries in our study. We found the probability of reentry in the employee mode in these countries was 79.6% (p<.01); with the odds of reentry in this mode being 290% higher than in other contexts. This fully supports Hypothesis 4.

*Part Owner Mode of Organizing (Hypothesis 2).* Our findings in Model 7 did not support our hypothesis that the probability that reentering failed entrepreneurs will engage in startup activity as part of a team is higher in countries with a large critical mass conferring stigma sanctions and low institutional control over the visibility of stigma markings. In Model 7, we found the probability of failed entrepreneurs organizing in the part owner mode to be not significant in countries with large critical masses conferring stigma sanctions. To test our hypothesis, we included a dummy variable in Model 7 that
is coded 1 for the high stigma and low regulatory symbols countries in our study. We did not find significant results for this variable. We did, however, find that the probability of reentry in the part owner mode to be 56% (p<.10) with an increased odds of 27% in countries with high institutional control over the visibility of stigma markings. Hypothesis 2 was not supported.

VI. DISCUSSION

Failed entrepreneurs will employ tactics to manage stigma and respond to their lost legitimacy. Our empirical findings are that cross-national differences in levels of stigma attitudes and in regulatory stigma symbols do influence the decisions of failed entrepreneurs to engage or defer future startup activity; as well as, decisions surrounding their modes of entry. The implications of such decisions extend beyond the individual entrepreneur to affect the diversity and total entrepreneurial activity in the country. When entrepreneurs fail in their initial attempts to start-up or to sustain viable ventures, therefore, the implicit question is whether social and economic stakeholders of entrepreneurial ventures would be better or worse off by encouraging or discouraging the stigmatization of individual failed entrepreneurs, i.e., what are the net welfare effects.

Implications for Entrepreneurship Policy

The net welfare effect of stigmatizing failed entrepreneurs depends on the marginal benefits of social acceptance of entrepreneurial failure as compared to the social costs from the possible harm to future stakeholders (Furuya, 2002; Lee, Peng and Barney, 2007; Audretsch, Grilo & Thurik, 2007). Real options theory (McGrath, 1999; Aldrich & Fiol, 1994) provides a useful tool for addressing the overall welfare effects of formal
stigma symbols when reentry following failure is not an option. One net welfare effect when the reentry of failed entrepreneurs is not an option is the potential exclusion of experienced entrepreneurs from economic activity who arguably have greater access to external sources of financing from established network relationships (Westhead & Wright, 1998). Another net welfare effect is the loss of learning and spillover effects that are less likely to occur when the societal response to failure is stigmatization (McGrath, 1999). Opportunities for net welfare losses to occur maybe heightened in the context of failed entrepreneurs who compromise their reentry as management employees as a trade off to engaging in more fruitful autonomous startups (Tyebjee and Bruno, 1984). Real options reasoning may therefore call upon policymakers to set compromising boundaries that balance the normative expectations of entrepreneurs (i.e., innovative and risk taking behaviors) to stimulate economic growth with the institutional pressures that are exerted on entrepreneurs when their venture fail.

VII. Limitations and Future Research

There are limitations in our empirical study that provide opportunities for future research. In the present study, we define failure as the shutdown of a venture for reasons other than sale. Our study therefore does not identify and categorize the reasons for the shutdowns. In other words, we do not distinguish between shutdowns that were outcomes of insolvency or other episodic events or choices. This aggregation of the shutdown of both unviable and potential viable ventures may be considered a limitation in our empirical study. Yet, entrepreneurial failure does occur in contexts other than the liquidation of unviable firms (Shepherd, Wiklund & Haynie, 2009). Entrepreneurial
failure can occur in viable ventures because of partner disputes or simply because of shifts in the goals or interests that outweigh the benefits of continuing to operate otherwise viable ventures (Singh, Corner & Pavlovich, 2007; McGrath, 1999; Gimeno, Folta, Cooper & Woo, 1997). Accordingly, the relationships between the heterogeneity of failure experiences and the effects of stigma and stigma symbols on entrepreneurial behavior provide opportunities for future research.

In addition, we utilize country level macro measures of stigma and cross-sectional micro measures of the reentry decision in our study. The normative expectations of failed entrepreneurs and the stigma responses of individual entrepreneurs may also be clustered by individual level attributes such as gender and also by other contexts such as regions, industry groups or networks (Cardon, Stevens & Potter, 2009; Saxenian, 1994). Likewise, a longitudinal study of the influence of variables with temporal components such as regulatory reporting expirations, dynamism (Damaraju, Barney & Dess, 2010), and resilience (Hayek, 1945) on the entry decisions of failed entrepreneurs would be highly informative.

Lastly, specification of the awareness of stigma conveying symbols in the regulatory environment is an important antecedent to the behavioral responses of failed entrepreneurs (Ragins, 2008; Goffman 1963). The awareness and influence of the regulatory environment on entrepreneurial activity has been a subject of scholarly debate (Djankov, La Porta, Lopez-de-Silanes & Shleifer, 2002; Klapper, Laeven & Rajan, 2006; van Stel, Storey, & Thurik, 2007). Our study does not examine whether individual failed entrepreneurs had either the capacity or willingness to decode the stigma conveying symbols in their entry regulatory environments. Accordingly, opportunities exist for
experimental researchers to examine whether and to what extent failed entrepreneurs call upon stigma conveying symbols in the entry environment to make decisions about the future career choices.

**VIII. CONCLUSION**

The reentry of entrepreneurs following the shutdown of a venture is an important phenomenon; as is the influence of national and institutional pressures on the reentry decision. Our conceptual model and empirical findings show that the causal linkages between general attitudes towards failed entrepreneurs and individual entrepreneurial outcomes may be much more complex mechanisms than previously assumed in the literature.
Figure 1: Moderating effects of Stigma Conveying Regulatory Symbols on Reentry

Figure 2: Graph of Second Chancing Stigma and Symbols across Subject Countries

[Graph showing mean values for different countries, with legend for WDI Business Disclosure Index, WDI Credit Disclosure Index, Eurobarometer Second Chancing Attitudes, HS and HRC, and other indices.]

HS and HRC
Belgium (BE)
Denmark (DK)
Italy (IT)
Norway (NO)

HS and LRC
Germany (DE)
Iceland (IS)
Netherlands (NL)

LS and HRC
France (FR)
Ireland (IE)
United Kingdom (UK)
United States (US)

LS and LRC
Spain (ES)
Finland (FI)
Greece (GR)
Sweden (SE)

HS LS = High(Low) Stigma
HRC/LRC = High(Low) Symbols
Table 1: Country Level Summary Statistics of the Study Variables

<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Reentry Decision (% Yes) (Country %)</th>
<th>Autonomous Reentry (Country %)</th>
<th>Part Owner Reentry (Country %)</th>
<th>Employee Reentry (Country %)</th>
<th>Deferred Reentry (Country %)</th>
<th>Age (Mean) (Country %)</th>
<th>Female Secondary Education (Country %)</th>
<th>Post Secondary Educational Attitudes (%) from Mean</th>
<th>Post Secondary Educationally Positive Attitudes (%) from Mean</th>
<th>Eurobarometer Negative Second Chance Attitudes (%) from Mean</th>
<th>WDI Extent Business Disclosure (%) from Mean</th>
<th>WDI Credit Depth Disclosure (%) from Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>1149</td>
<td>16.2%</td>
<td>13.2%</td>
<td>5.5%</td>
<td>2.8%</td>
<td>16.0%</td>
<td>47</td>
<td>37.7%</td>
<td>44.8%</td>
<td>-15.3%</td>
<td>61.3%</td>
<td>23.1%</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>113</td>
<td>29.2%</td>
<td>23.0%</td>
<td>12.4%</td>
<td>6.2%</td>
<td>19.0%</td>
<td>45</td>
<td>39.8%</td>
<td>52.2%</td>
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<td>61.3%</td>
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<td>45</td>
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<tr>
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<td>3.8%</td>
<td>14.0%</td>
<td>46</td>
<td>45.6%</td>
<td>42.3%</td>
<td>10.2%</td>
<td>29.0%</td>
<td>-17.9%</td>
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<tr>
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<td>17.0%</td>
<td>7.9%</td>
<td>4.8%</td>
<td>7.0%</td>
<td>48</td>
<td>41.2%</td>
<td>17.0%</td>
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<tr>
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<td>14.0%</td>
<td>47</td>
<td>27.3%</td>
<td>45.4%</td>
<td>27.1%</td>
<td>12.9%</td>
<td>-17.9%</td>
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<tr>
<td>Finland</td>
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<td>5.8%</td>
<td>4.2%</td>
<td>1.7%</td>
<td>6.0%</td>
<td>49</td>
<td>40.0%</td>
<td>28.3%</td>
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<td>-3.2%</td>
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<tr>
<td>Germany</td>
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<td>22.6%</td>
<td>16.2%</td>
<td>8.3%</td>
<td>6.4%</td>
<td>15.0%</td>
<td>46</td>
<td>40.3%</td>
<td>32.8%</td>
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<tr>
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<td>14.9%</td>
<td>13.9%</td>
<td>8.8%</td>
<td>0.1%</td>
<td>7.0%</td>
<td>43</td>
<td>41.5%</td>
<td>25.2%</td>
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<td>-19.4%</td>
<td>2.6%</td>
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<td>Iceland</td>
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<td>21.7%</td>
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<td>11.2%</td>
<td>5.9%</td>
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<td>45</td>
<td>37.5%</td>
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<td>Netherlands</td>
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<td>10.0%</td>
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<td>37.7%</td>
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<td>44</td>
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<td>-66.1%</td>
<td>-37.6%</td>
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<tr>
<td>Greece</td>
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<td>17.3%</td>
<td>2.5%</td>
<td>3.1%</td>
<td>16.0%</td>
<td>38</td>
<td>40.7%</td>
<td>38.9%</td>
<td>-32.2%</td>
<td>-83.9%</td>
<td>-17.9%</td>
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</table>
Table 2: Descriptive Statistics for Study Variables

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reentry Decision</td>
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<td>0.39</td>
</tr>
<tr>
<td>2. Independent Startup</td>
<td>0.15</td>
<td>0.36</td>
</tr>
<tr>
<td>3. Part Owner Startup</td>
<td>0.07</td>
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</tr>
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<td>4. Employee Startup</td>
<td>0.04</td>
<td>0.19</td>
</tr>
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<td>5. Deferred Entry</td>
<td>0.15</td>
<td>0.36</td>
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Individual level, N=5,560

<table>
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<th>Variable</th>
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<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Age</td>
<td>45.13</td>
<td>14.33</td>
<td>-.154**</td>
<td>-.152**</td>
<td>-.104**</td>
<td>-.030*</td>
<td>-.157</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. Female</td>
<td>0.38</td>
<td>0.49</td>
<td>-.104**</td>
<td>-.096**</td>
<td>-.0793**</td>
<td>-.034*</td>
<td>-.039*</td>
<td>-.032*</td>
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<td>8. Post Secondary</td>
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<td>.086**</td>
<td>.0673**</td>
<td>-.008</td>
<td>.041**</td>
<td>-.053**</td>
<td>-.015</td>
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</table>

Country level, N=15

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<thead>
<tr>
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<th>S.D.</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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</thead>
<tbody>
<tr>
<td>9. GDP Growth</td>
<td>2.67</td>
<td>1.02</td>
<td>.007</td>
<td>.023</td>
<td>.019</td>
<td>-.029*</td>
<td>.004</td>
<td>-.068**</td>
<td>.002</td>
<td>-.012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Stigma Context</td>
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<td>.95</td>
<td>.038**</td>
<td>.002</td>
<td>.0303*</td>
<td>.074**</td>
<td>.007</td>
<td>.048**</td>
<td>-.005</td>
<td>-.035**</td>
<td>-.507**</td>
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</tr>
<tr>
<td>11. Regulatory Stigma Symbols</td>
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<td>.064**</td>
<td>.013</td>
<td>.039**</td>
<td>.027</td>
<td>.054**</td>
<td>.001</td>
<td>.189**</td>
<td>-.041**</td>
<td>-.170**</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed)  *. Correlation is significant at the 0.05 level (2-tailed).
### Table 3: Estimation of Unconditional Models of the Reentry Decisions and Strategic Modes

<table>
<thead>
<tr>
<th></th>
<th>Reentry Decision Model 1</th>
<th>Autonomous Entry Mode Model 2</th>
<th>Part Owner Entry Mode Model 3</th>
<th>Employee Entry Mode Model 4</th>
<th>Deferred Entry Mode Model 5</th>
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<td><strong>Fixed Effect</strong></td>
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<tr>
<td>Intercept</td>
<td>-1.531 ***</td>
<td>-1.808 *** 0.116</td>
<td>-2.576 *** 0.119</td>
<td>-3.351 *** 0.194</td>
<td>-1.774 *** 0.113</td>
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<tr>
<td><strong>Random Effect</strong></td>
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<tr>
<td>Intercept</td>
<td>0.225 0.095</td>
<td>0.163 0.074</td>
<td>0.145 0.081</td>
<td>0.426 0.202</td>
<td>0.141 0.071</td>
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<td>LR Test: chibar2(01)</td>
<td>153.110 ***</td>
<td>90.690 ***</td>
<td>24.490 ***</td>
<td>53.030 ***</td>
<td>39.250 ***</td>
</tr>
<tr>
<td>ICC</td>
<td>0.064</td>
<td>0.047</td>
<td>0.042</td>
<td>0.115</td>
<td>0.041</td>
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<tr>
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<td>-1367.35</td>
<td>-1451.20</td>
<td>-854.49</td>
<td>-1585.68</td>
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*** p<0.01, ** p<0.05, * p<0.1
Table 4: Random Intercept Multilevel Models of the Reentry Decision and Reentry Modes

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Reentry Decision</th>
<th>Part Owner Reentry Mode</th>
<th>Autonomous Reentry Mode</th>
<th>Employee Reentry Mode</th>
<th>Deferred Reentry Mode</th>
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<tbody>
<tr>
<td><strong>Level 1: Individual Variables</strong></td>
<td></td>
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<tr>
<td>Age</td>
<td>1.030 *</td>
<td>0.016</td>
<td><strong>0.507</strong></td>
<td>1.04 *</td>
<td>0.025</td>
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<tr>
<td>Age²</td>
<td>0.999 ***</td>
<td>0.000</td>
<td><strong>0.500</strong></td>
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<tr>
<td>Female (Yes=1)</td>
<td>0.512 ***</td>
<td>0.040</td>
<td><strong>0.339</strong></td>
<td>0.48 ***</td>
<td>0.057</td>
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<tr>
<td>PostSecondary Education (Yes=1)</td>
<td>1.222 ***</td>
<td>0.092</td>
<td><strong>0.550</strong></td>
<td>1.55 ***</td>
<td>0.150</td>
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<td><strong>Level 2: Institutional Variables</strong></td>
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<tr>
<td>Economic Condition: GDP Growth</td>
<td>1.177 *</td>
<td>0.106</td>
<td><strong>0.541</strong></td>
<td>1.16 *</td>
<td>0.101</td>
</tr>
<tr>
<td>Contest: Second Chance to Failed Entrepreneurs</td>
<td>1.473 **</td>
<td>0.226</td>
<td><strong>0.596</strong></td>
<td>1.03</td>
<td>0.157</td>
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<tr>
<td>Symbol: Depth of Business &amp; Credit Disclosure</td>
<td>1.510 **</td>
<td>0.204</td>
<td><strong>0.603</strong></td>
<td>1.27 *</td>
<td>0.169</td>
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<td><strong>Hypotheses</strong></td>
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<tr>
<td>HIGH Stigma and HIGH REGULATORY SYMBOLS</td>
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<td>0.192</td>
<td><strong>0.327</strong></td>
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<tr>
<td><strong>Random Effects</strong></td>
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<td>Intercept</td>
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<td>0.051</td>
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<td>LR Test chi²(2)</td>
<td>72.220 ***</td>
<td>10.550 ***</td>
<td>45.190 ***</td>
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*** p<0.01, ** p<0.05, * p<0.1
References


Cliff, J.E., Jennings, P.D., Greenwood, R., 2006. New to the game and questioning the rules: the


