

Working Paper

**The Impact of Institutional Settings on
Learning Behavior by Venture Capitalists and
Start-Ups**

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Abstract

Our paper reports research from the emerging institutional field of venture capitalists in Europe. In Europe venture capitalism began to emerge about ten years ago, and thus, in Europe the phenomenon has the characteristics of emergence and novelty, as a local industry venture capitalists have yet to develop distinctive characteristics. The European countries do not constitute a homogeneous institutional environment, but must be perceived as different local settings, and thus, venture capitalism may evolve into different forms in the various parts of Europe. The objective is to understand if and how differences in local institutional settings affect learning and adaptation by European venture capitalists and start-ups, and thus, affect the processes of field formation. For example, it has been observed that institutional settings can facilitate or discourage learning from direct experience (Herriot et al., 1985). Thus, depending on the institutional settings venture capitalists and start-ups may rely on diffusion of experience in various degrees. Experiences can diffuse from the US, where venture capitalism as an entrepreneurial form evolved in Silicon Valley in the 1970s. In the US venture capitalists represent an institutionalized type of organization with formalized rules and standards, codified behavior and roles (Suchman, 1995; Suchman et al., 2001). European venture capitalists and start-ups may imitate behavior and rules developed in Silicon Valley, and thus, a second research objective is to understand if and how US venture capitalism affect the involvement of venture capitalism in Europe.

We study the emergence of a venture capitalist industry in Denmark and Italy, and thus, by selecting two countries with distinctive differences in cultures and institutions, we study learning and adaptation by venture capitalists and start-ups in different institutional settings. We suggest that venture capitalists and start-ups perceiving institutional settings as non venture-friendly are more likely to rely on learning by imitation than on trial-and-error learning.

I. Introduction

The new economy, knowledge and learning are powerful concepts of our time, and it is widely accepted that creating, possessing and utilizing knowledge is a key to competitive advantage of firms. However, creating, possessing and utilizing knowledge are not without problems for firms and entrepreneurs operating in an uncertain world full of surprises. Because, in quickly changing environments knowledge is often subject to distortion and the future is difficult to predict, and therefore, little is known about what knowledge will be relevant in the future.

In the new economy the pace of change constantly increases, as firms and entrepreneurs constantly discover new aspects of the technologies and develop new ideas for how and where to apply them. Furthermore, the population of actors in the new economy constantly grows as the costs of the hardware, the software and the Internet access needed to establish start-ups within the industry constantly decrease. Hence, the economic barriers to entry for new actors are low, making it is possible for far more actors to develop and distribute, for example, software applications. As the population of actors in the new economy constantly grows then many more new ideas, good and bad, are put forward, and therefore, it is impossible to foresee from where the next new good idea will emerge, what will be the source of the idea and what it will be. As Axelrod and Cohen (1999, p. xi) noted:

"In a world where many players are all adapting to each other and where the emerging future is extremely hard to predict, what actions should you take?"

Hence, the new economy is characterized by competition on time-to-market and the firstcomer advantage seems so advantageous that in some sectors the firstcomer takes the most. As noted by Teece (1998, p. 58):

"In winner-take-all or winner-take-the-lion's-share contexts, there is a heightened payoff associated with getting the timing right (one can be too early or too late) and with organizing sufficient resources once opportunity opens up. Very often, competition is like a high-stakes game of musical chairs. Being well positioned when standards gel is essential. The associated styles of competition are, as Brian Arthur (1988) points out, much like casino gambling."

In a world marked by uncertainty and change quick learning and adaptation are important for firms and entrepreneurs attempting to survive, as they must constantly figure out what to do next. However, quickly changing environments undermine the opportunities for learning, as under uncertainty and change actors will experience difficulties in understanding what actions caused feedback and if any relationship exists between action and feedback. Axelrod and Cohen (1999, p. xi) refer to such environments as complex adaptive systems, characterizing them as follows:

“In Complex Adaptive Systems there are often many participants, perhaps even many kinds of participants. They interact in intricate ways that continually reshape their collective future. New ways of doing things - even new kinds of participants - may arise, and old ways - or old participants - may vanish.”

As a result learning cycles are often incomplete (March and Olsen, 1976), and thus, in the new economy firms and entrepreneurs face serious obstacles to learning and they may become slow and poor learners. When firms and entrepreneurs are slow and poor learners new knowledge and new patterns of behavior are likely to emerge as they imitate other firms and entrepreneurs.

Based on these two observations the paper first discusses the processes of learning and adaptation, as well as the problems caused by the quickly and uncertain environment facing firms and entrepreneurs acting in the new economy. Thereafter the paper considers differences in institutional settings as sources of differences in learning and adaptation. By institutional settings we refer to legal environment, entrepreneurial traditions and habits, roles played by the public sector, market efficiency and financial sector. In particular, we want to analyze if there are substantial differences between Italy and Denmark in: tax exemption and incentives; bankruptcy law; dominant company model (family firm, public company, etc.); public subsidies and supports; loan availability and market efficiency. We investigate how these differences are perceived and how they impact on learning behavior by venture capitalists and start-ups.

As its empirical foundation the paper reports from studies of learning and adaptation by venture capitalists and start-ups in Italy and Denmark, however this version of the paper only reports empirical data from Italy. The study was designed as a longitudinal tracking of behavioral and environmental dimensions for each organization studied. Based

on these empirical data we analyze learning and adaptation by several organizations in each country and discuss the some preliminary findings regarding the role of institutions as environments for entrepreneurial activities in the new economy.

II. Learning from Direct Experience and Learning by Imitation

The learning and adaptation process is widely studied in literature. Our interpretation of organizational learning is based on the assumption that organizations follow the logic of appropriateness (March, 1994; 1999) more than the logic of consequentiality. Following Levitt and March (1988) studying organizational learning means understanding how organizations learn from direct experience and how organizations learn from experience of others. “In a social environment, learning from direct experience is supplemented by the diffusion of experience, that is, by imitating others” (Herriott et al., 1985, p. 299). Learning by imitating means learning from the experience of others. “From a rational perspective, imitating can be seen as a way of increasing (on average) the amount of experience from which an individual draws while decreasing (on average) the linkage between that individual’s situation and the experience base action. From a behavioral perspective, it can be seen as a standard way by which adaptive systems deal with uncertainty and ambiguity” (Herriott et al., 1985, p. 299)

For the purpose of operationalizing the notion of learning by imitating, we refer to the social learning theory of Bandura (1977), which emphasizes the importance of observing and modeling the behaviors, attitudes, and reaction of others. Bandura (1977, p. 22) states: “Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms as idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action”. Social learning theory explains human behavior in terms of continuous reciprocal interaction between cognitive, behavioral and environmental influences. Bandura’s (1977) major premise is that we can learn by observing others. He uses the term “modeling” to describe Campbell’s two midrange processes of response acquisition (observation of another’s response and modeling), and he claims that modeling can have as much impact as direct experience. We apply to our organizational behavior study some principles from the social learning theory, which is a general theory of human behavior. In particular, we adopt the varia-

bles validated by Bandura's studies to design the interview guide and the questionnaire used to investigate the learning process adopted by our informants. Social learning theory postulates three necessary stages: attention, retention, and motivation. According to Bandura, an event or procedure grabs attention because it is simple, distinctive, prevalent, useful, and depicted positively. These items are used as indicators in our interviews and observations.

Bandura says that learning from vicarious observation allows people to decrease costly or fatal mistakes. A similar logic supports the exploration/exploitation trade-off proposed by March (1991). In contrast to classical learning theory, Bandura affirms that the action, acquired by imitation, will lie dormant, available for future use, as long as we remember it or as long as a failure or unsuccessful experience does not define it as negative (Levitt and March, 1988). Following Bandura (1977), we store events in two ways: through visual images and through verbal codes. "The highest level of observational learning is achieved by first organizing and rehearsing the modeled behavior symbolically, and then enacting it overtly" (Bandura, 1977, p. 27). Starting from this theoretical framework, we investigate the retention process of our informants from codes, standardized procedure or slogan adopted by the organization. The third stage in the social learning process described by Bandura involves the motivation. Bandura uses the term "motivation" to refer to the rewards and punishments. We observe many forms of behavior in others that we never perform ourselves. Without sufficient motivation, we never adopt that observed behavior. Adopting this theoretical framework and considering different learning situation, we investigate if our informants prefer learning by imitating or by doing.

III. Institutional Settings and Entrepreneurial Behavior in the New Economy

We want to understand how different institutional settings affect learning behavior in the new economy, and thus, we develop an institutional theory framework. Research drawn from economic and organizational disciplines inform our reasoning on this issue. Institutional theories have been used to explain both the increasing homogeneity of organizations (DiMaggio and Powell, 1983), and the processes of differentiation across national boundaries (Jepperson and Meyer, 1991; Orru' et al., 1991). This theoretical dilemma seems worthy of attention since "to have predictive value, institutional theory ultimately must be able to specify ex ante when norms and institutions will promote iso-

morphism and when they will structure and sustain differentiation” (Baron et al., 1999). We focus on one internal mechanism that promotes isomorphism: learning by imitation (Herriot et al., 1985), and we try to explain how institutional settings affect the learning mechanism. We adopt the general definition of institutions suggested by Scott (1995, p. 33):

“Institutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior. Institutions are transported by various carriers – cultures, structures, and routines-and they operate at multiple levels of jurisdiction.”

Behind this general definition, several varieties of institutional theory lay. They differ in the level at which they are applied. Scott identified six categories: the levels of world system, societal, organizational field, organizational population, organization, and organizational subsystem. For each level, Scott identified three pillars: normative, regulative, and cognitive (1995, p. 49). Theorists emphasizing the cognitive pillars start from a social constructionist set of assumptions. Theorists focusing on the regulative pillar embrace a social realist ontology and a rational choice logic of action. Theorists stressing the normative pillar fall between these two areas. We argue that all these theoretical contributions give useful insights in explaining how institutional setting differences and perceptions impact on learning behavior. Mezas (1990) studied changes in normative beliefs regarding financial reporting requirements for corporations caused by the actions of state agents and professional accounting societies. Explaining these comparative differences requires linking the institutional economics literature to the organizational literature. This not only allows us to better understand national institutional factors that promote or inhibit the formation of start-ups (Chesbrough, 1999), but even how these factors affect their learning behavior. National institutional factors, in fact, affect the level of organizational constraints. Several scholars had approached this problem. Meyer and Rowan (1977, p. 340) stated that “organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society.” DiMaggio and Powell (1983) emphasized that institutionalization processes eventually lead to isomorphism. Despite the emphasis the authors put on the topic, this aspect of institutional theory has been treated empirically only in recent years. DiMaggio (1991) studied the construction of the U.S. Art Museums

organizational field, and Galaskiewicz (1991) explored the institutionalization of corporate public service activity in Minneapolis-St. Paul. Edelman et al. (1999) studied the intersection between court decisions, professional work, and organizational practices in the case of EEO grievance procedure. They develop a model of institutionalization where professions, legislative bodies and organizations influence the formation of institutionalized practices. This study unveils the fictive nature of the rational myths diffused by the professions, but also show how socially constructed rationality may over time produce market benefits “as courts recognize and legitimate organizational practices and hold that they may protect organizations from liability” (Edelman et al., 1999, p. 449).

In another line of institutional research, Meyer and collaborators emphasize the role of the policy in shaping the institutionalization process: “formal organizing depends on modern policy. Organizing is everywhere largely a precipitate of this policy and part of the substructure of the rationalized society it builds” (Jepperson and Meyer 1991). Jepperson and Meyer (1991) distinguish among four main types of modern rationalized policy: liberal/individualist, statist society, segmental (state outside of society), and corporatist. Organizations in different policies will differ in terms of amount of formal organizing, domains of organizing, types of structures employed, and form of interpenetration of formal organizing with policy and society. For instance, Orru’ et al. (1991) found that business groups in Japan, South Korea and Taiwan show high degree of isomorphism within each country, but are very different between them. Dobbin (1994) compared the development of industrial policy in the railway industry in the United States, Britain, and France, and showed how the three countries, faced with the same set of problems, developed very different policies and solutions. He argues that the institutions developed to organize economic life were developed along the lines of the principles used to organize political life. In the United States, for instance, free market became the organizing principle of the railway system. In Britain entrepreneurs rather than markets became the main actors in the industrial policy process. In France, the main actor was the state, whose different institutions guided the evolution and operation of the railways. Krasner (1983) has examined the circumstances surrounding the development of common normative frameworks at the international level.

Differences between the “institutional environments” (North, 1990) imply differences in the way firms approach strategy. Institutional conditions affect innovation, from the perspectives of the decision processes within the firm and the external resources available to the industry. We can also say that it is possible to identify different national inno-

vation systems that imply different behavior at organizational level. The concept of national innovation system is not new (Nelson, 1993, 1994; Mowery and Rosenberg, 1993; Mowery, 1992; Hill, 1995). It has developed from economics as a way of viewing the technical advance of industry in different countries. Nations differ in their institutional environments, and differences in these “national innovation systems” (Nelson, 1993, 1994) persist over time (Nelson, 1993). Moreover, these institutional differences can condition the effect of learning and adaptation within firms in different nations, even within the same industry. They do so in part by influencing the levels of the incentive and appropriability constraints. A variety of national factors fall under the rubric of “institutional environment”. North (1990), for example, includes formal factors, such as the degree of recognition for property rights, and informal factors, such as “the rules of the game”. Mowery and Rosenberg (1993) extend consideration to government financing and procurement. Moreover, such an extensive view of national institutions is hard to test empirically and difficult to probe with counterfactual reasoning. An alternative approach to the impact of “institutions” is to identify and isolate a few specific factors in the institutional environment, and examine their impact upon firms. This parsimonious approach is consistent with the view of Aoki (1994), which argues that comparative analysis of the US vs. Japan should pay attention to a system of attributes, rather than considering single attributes in isolation. The institutional factors he considers to be of primary importance are: the characteristics of the capital market; the characteristics of the labor market; and what he terms “the supply market” (Aoki, 1994). Chesbrough (1999) identified three factors influencing innovation process: the fluidity or rigidity of the technical labor market, the amount and structure of venture formation capital, and the prevalence of pre-existing buyer-supplier linkages between firms. While these economic and organizational perspectives have each increased our understanding of innovation, neither literature has had a discernable impact upon the other. Moreover, the United States typically is the setting in which these effects are observed. Even if there are some comparative studies Darby and Zucker (1996) showed that similarity talented “star” scientists in the US are much more likely to be involved in forming new business than are their Japan counterparts in biotechnology. The authors outline that when new entry occurs, it is generally from start-ups in the US, and from extension of existing business in Japan. Such comparative differences suggest that the organizational process of learning cannot be understood unless the national institutional setting in which the firms operate is taken into account. From this it follows that there is reason to

believe that differences in institutional settings produce variations in learning behavior by firms and entrepreneurs. More precisely, it is observed that institutional settings can facilitate or discourage learning from direct experience (Herriott et al., 1985). Thus, depending on the institutional setting entrepreneurs and venture capitalists may rely more on “diffusion of experience, that is, (on) imitating others” in various degrees. However, institutional settings do not produce isomorphism on their own. Isomorphism emerges as actors interpret the institutional settings in a certain way and act on their interpretations. Hence, we suggest:

Proposition: Firms and entrepreneurs that perceive institutional settings as non venture-friendly are more likely to rely on learning by imitation than by trial-and-error learning.

IV. Research Design and Method

Our example of the new economy is the IT industry, as we find the fast pace of change within this industry to be a key driver in the new economy. About this Mendelson and Pillai (1998, p. 415) note:

“The rate of change in the industry’s external environment, including developments in technology, consumer preferences, and market conditions, by far exceeds that of other industries.”

In order to gather the empirical data needed to test the proposition we designed an exploratory case study (Yin, 1984). We designed two case studies representative of two European countries: Italy and Denmark. In both countries the diffusion of venture capitalism is relatively recent. This entrepreneurial form, developed in the Silicon Valley in the 1970s, has been recognized as one of the most important facilitators of the new economy. In the American new economy, the venture capitalist is a clearly institutionalized type of organization with formalized rules and standards, codified behavior and role (Suchman, 1995). In Europe the diffusion of this kind of organization started about ten years ago. Thus, the diffusion of the “start-up phenomenon” in Europe has a characteristic of novelty. The “new economy” is “new” only for the European region, but is already “old” (in term of institutionalized rules) in the United States. These rare circumstances allow us to study the learning behavior of firms and entrepreneurs from a different

perspective. Actually, start-ups and venture capitalists in this first stage of the European new economy has an additional learning source compared with their corresponding Americans. They can rely on the latter's experience. This implies that European organizations can learn by imitating behavior and rules developed in Silicon Valley. Selecting two European case studies we analyzed learning behavior by venture capitalists and start-ups in different institutional settings.

We gathered information on the perspectives of two levels of the management hierarchy in venture capitalists and start-ups. We also incorporated into the analysis the impact of institutional settings (only Italian case study, so far).

IV.i The Italian Case

We identified one of the most representative venture capitalists in Italy, and selected two start-ups from its portfolio, one with a successful record (Itadiego) and one with a problematic record (Itamiche). Both start-ups compete in the same sector. This allows us to focus on similarities and difference at organizational level instead of making an industry level comparison. Table 1 describes the three Italian cases.

Table 1

Description of Case Data				
	Strategic Profile	Total Interviews	Founder-level	Top Management-level
ItaVenture	VC invest in start-up and early stage high tech, internet, wireless, hardware, software	7	5	2
Itadiego	B2B software start-up	3	1	2
Itamiche	Database software start-up	4	2	2

IV.ii The Danish Case

In Denmark we identified one of the most prominent venture capitalists (DanVenture). The CEO of this firm is a former entrepreneur with a rather successful record. From its portfolio we selected a five start-ups and conducted interviews with managers in all organizations. Hence, the Danish sample of interviewees differs from the Italian. Table 2 describes the Danish cases.

Table 2

Description of Case Data				
	Strategic Profile	Total interviews	Founder-level	Top Management-level
DanVenture	VC focus on the global network economy. Identify and develop young companies within selected IT market segments.	2	0	2
Fantastic Music Universe FMU	Digital sheet music	1	0	1
Direct Hedge	Online derivatives broker	1	0	1
Netpoint	High-speed internet access in hotel rooms	1	0	1
Tentake	Supplier of marketing communication intelligence	1	1	0
Travis	Online travel broking	1	0	1

IV.iii Data Collection

We collected data through interviews, questionnaires, observations, and secondary sources. The primary source was semi-structured interviews with individual respondents. At each site we interviewed two types of respondents: founders of the venture capitalist and start-ups financed by the former (founder level interview); CEO and COO of the venture capitalist, and CEO and CTO of start-ups (top management-level interview). The Italian analysis is based upon interviews with 14 key persons: five venture capital founders and three start-up founders, and the top management of these firms. We conducted interviews during several day site visits to the companies. Interviews typically lasted 60 minutes, although a few ran as long as two hours. During the site visit we kept a record of impressions and recorded informal observations made as we participated in activities such as lunches, quarterly Board dinners, coffee breaks, company soccer game and product demonstrations. In addition, whenever possible, we attended meetings as passive note takers. These observations provided real-time data.

We used two interview guides to conduct the two levels of semi-structured interviews. In both cases, we asked respondents open-ended questions that let them tell their stories

of how they have decided to explore new solutions vs. exploit validate ones, or how they acquired new competence and capabilities. We asked probing questions to establish details (for example, when a particular event occurred). The founder-level interview guide had four sections. It began with the background of the respondent and the competitive sector. The second part of the interview focused on perceived differences in institutional setting that had an impact in the decision of founding a company. The third part concentrated on the information gathering and decision making process. The final part of the interview was a structured questionnaire that asked respondents to give numerically scaled responses to identify characteristics of their behavior in critical circumstances. The top-management level interview guide had three sections. It began with the personal background of the respondents and the way in which they had a contact with the company. In the second part of the interview the question focused on how they take a strategic decision. The third section presented questions asked respondents to give numerically scaled responses to characterize their critical behavior in front of unexpected circumstances.

V. Analysis of the Impact of Institutions in the New Economy

We analyzed the empirical data by first comparing them across cases to construct a conceptual framework (Eisenhardt, 1989). Using interviews and secondary sources, we wrote small case studies for each site. Having constructed the cases we then analyzed them.

V.i Institutional Settings and Learning Processes

For this part of the study we looked at how entrepreneurs and venture capitalists perceive institutional factors. Thus, we tried to bring the observation point inside the organization. Studying how these factors identified by the literature influenced learning behavior in new venture and business.

What emerged from our data were insights that linked institutional settings perceived as non venture-friendly with a prevalent learning by imitating behavior. We defined non venture-friendly institutional settings as our informants did, in terms of absence of “institutions” recognized as facilitator of new private enterprises and presence of penaliza-

tions (negative attributes) for non-successful entrepreneurial projects. Table 3¹ presents a summary of these data. We supplemented these data with a questionnaire in which informants were asked to rate the level of agreement on propositions that we based on the literature. We used a five-points Likert scale to rate the propositions. We also gathered qualitative assessments from note taking during the site visit. We assessed the negative characteristics using the same process. We asked informants to describe the conditions that discourage an entrepreneur starting new venture or that discourage a venture capitalist's financing high-risk (or high innovation) projects. Then, we asked to determine whether each condition was present in their environment. Table 4 reports some results. We used a questionnaire to ask informants to express their agreement on the presence of feature that the literature considers disincentive for new venture. We used a five-points Likert scale to rate the level of agreement on the statements, summarized using the mode as reported in table 5.

As emerged from these data, on average our informants identify the environment in which they operate as non venture-friendly. For start-ups interviewed, in the business environment where they act only 32% of the venture-friendly features are present. But 65.2% of the non venture-friendly features are declared as present in the business environment. From the venture capitalist point of view, the situation is less negative. Venture capitalists declared that in their business environment are present 50% of the features characterizing a venture-friendly environment and the 50% of the feature that they used to define a non venture-friendly environment.

Table 3
Summary of Data on Venture-friendly environment

Case	Features of a venture-friendly environment and Presence of venture-friendly features (√)	Conditions that encouraged your new venture/investments
ItaVenture	<ul style="list-style-type: none"> ◦ Merger & Acquisition by corporate ◦ Efficient exit strategies ◦ Accessible Funds raising ◦ Trustable relationships with institutional investors ◦ Information and knowledge access ◦ Reactive and efficient Equity market ✓ Good University/Research Center ◦ Cultural Heterogeneity ◦ Legal and public system promoting new venture ✓ Good business ideas to invest in 	<ul style="list-style-type: none"> a) The Silicon Valley example/model b) Founders (“we are closed friends; we know very well each other; we have different experiences that make us a good team”) c) Trustable relationships with the investors to create the fund d) More dynamic market (“we had the feeling that it was the right time to create something new) e) Network of people with good business ideas to start

¹ In table 3 and 4 the features presented in red are those present in the Italian environment.

		<ul style="list-style-type: none"> f) Our experience in evaluating projects g) International background
Itadiego	<ul style="list-style-type: none"> ◦ no "red tape trap" (low bureaucracy in starting and managing a new company in terms of obligations, permissions, declarations, documents, records, etc) ◦ efficient bank&loan system ◦ easy funds raising (venture capital market) ◦ non unionized labor market ✓ Long term investors relationships ◦ Political stability ◦ tax exemption ✓ infrastructure dedicated to start up businesses ✓ valuable and trustable human resources ◦ non-penalizing legal system h) buyer-supplier ties 	<ul style="list-style-type: none"> ◦ A good business idea ◦ A good team to realize my business idea ◦ Entry of venture capital firms in the financial market; easier access to funds ("For the first time in Italy you can start your business without money, and without bank constraints. I was excited . This is really new in our country. No family loan, no bank: a dream!") ◦ More infrastructure dedicated to new company ◦ Silicon Valley benchmark
Itamiche	<ul style="list-style-type: none"> ◦ no "red tape trap" ◦ efficient & flexible labor market ◦ effective governance practice (Board of Directors has to play an effective instead of symbolic role) ◦ government financing ✓ entrepreneurial tradition ◦ tax exemption and incentives ✓ easy access to information ◦ efficient equity market ✓ entrepreneurial network ◦ educational system linked with the job market ◦ easy fund raising ◦ incentive to R&D ✓ valuable technical labor market 	<ul style="list-style-type: none"> ◦ novelty of our business idea ◦ co-founder ◦ Access to incubator company ◦ Market Euphoria ◦ Investors ◦ Trustable relationship with main venture capitalist ◦ Increasing Internet Diffusion ◦ New economy model ("we knew that our business idea couldn't be interesting one year later")

Table 4

Summary of Data on Venture-adverse environment

Case	Features of a venture-adverse environment and Presence of venture-adverse features (✓)	Conditions that discouraged your new venture/investments
ItaVenture	<ul style="list-style-type: none"> ✓ Inefficient equity market ✓ Difficult exit strategies ✓ Bureaucracy ◦ No Funds ◦ No good business ideas/low entrepreneurial culture ✓ Penalizing tax system ✓ Risk-adverse culture ✓ No infrastructure ◦ Absence of Research Center ◦ No cooperation between economic actors ◦ Inefficient information flow 	<ul style="list-style-type: none"> ◦ Italian Equity Market ("we have to think about different exit strategy; IPO is not so easy in Italy) ◦ Bureaucracy ◦ The Italian risk-adverse culture ("Sometimes smart scientists prefer sell their idea to the University instead of starting their own company")

	✓ Penalizing Bankruptcy law	
Itadiego	<ul style="list-style-type: none"> ✓ Difficult funds raising ✓ Inefficient banking system ◦ Insufficient infrastructure ✓ High tax pressure ✓ Bureaucracy ◦ Not receptive market ◦ Industry concentration ✓ Rigid Labor Market i) Adverse legal and public system ◦ Low technical knowledge ✓ Risk-adverse culture 	<ul style="list-style-type: none"> ◦ Tax pressure ◦ Bankruptcy and Failure Penalization (“When I decided to start my own business I was scared. In Italy if you fail, if you go bankrupt, you have a lot of problems in finding a new job position”) ◦ Bureaucracy
Itamiche	<ul style="list-style-type: none"> ◦ Difficult funds raising ✓ High (>40) Entrepreneurs’ average age ✓ High tax pressure ✓ Bureaucracy ◦ Low IT (internet) penetration ◦ Insufficient Technical Labor Market ✓ Unionized Labor Market ✓ Provincial culture ◦ No infrastructure ◦ No cooperation between Research center and private company ◦ Short term relationship with suppliers ✓ Adverse legal system 	<ul style="list-style-type: none"> ◦ Bureaucracy ◦ Conformist Italian Culture (“Our business idea is innovative. Basically, we suggest to use internet instead of going to speak with a person in a office. Well, this means saving time and money. But in a conformist Italian culture it is not easy turn into social innovation, change habits”. “Italy is very conservative in business. Ifyou are young, it is very difficult to find someone that wants make business with you. Except if you are the owner’s son!! In Italy there is a strong business family tradition.)

Table 5

Summary of Data on institutional statements agreement	
Statements	Level of Agreement *(mode)
Low tax pressure facilitates new business	5
Free Market facilitates new business	5
Liberal society promotes new business	4
Government Financing promotes new business	4
Flexible Labor Market facilitates start up	5
Effective banking system facilitates new business	5
Venture Capital Market promotes start up	4
Efficient Equity Market facilitates start up	5
Family firm tradition facilitates new business	2
Cultural Heterogeneity promotes new business	3
Research-Business linkages promotes start up	4
Unionized Labor Market obstacles new venture	5
Rigidity of the technical labor market slackens new venture	4
Penalizing Bankruptcy law discourages new venture	5
Corporatist society discourages start ups	3
“Local mind Culture” doesn’t promote new business	3
Complex Bureaucracy obstacles business	5
Tax pressure obstacles new business venture	5
Traditional conservative culture discourages start up	4
Inefficient capital market discourages start up	5

Political instability obstacles new business venture	2
Short-term buyer-supplier relationship discourages start up	2

* 1= strongly disagree; 2= disagree; 3= not sure; 4= agree; 5=strongly agree

Evidence from the Italian study suggests the prevalence of learning by imitating. In all Italian cases considered in this study, learning by imitating prevails over learning by trial-and-error independently by the organizational performance and type (start-ups versus venture capitalists). In fact, learning by imitating is preponderate in both the start-ups considered, Itadiego (positive track record) and Itamiche (problematic track record). For evidence on this see table 6 below.

Table 6

Summary of Data on learning statements agreement	
Statements	Level of Agreement *(mode)
Procedures defined by start ups/VCs in the Silicon Valley are simple	5
Procedure defined by start ups/VCs in the Silicon Valley are useful	5
Procedure defined by start ups/VCs in the Silicon Valley are distinctive	5
Procedure defined by start ups/VCs in the Silicon Valley are positive	5
Procedure defined by start ups/VCs in the Silicon Valley are prevalent	4
I tried to codify rules and procedures adopted by others start-ups/VCs	5
I often use slogan introduced by start-ups/VCs in the Silicon Valley	3
I tried to reproduce strategies previously adopted by other start-ups/VCs	5
In a new situation I rely on what other start-ups/VCs did	5
The fastest way to deal with a problem is looking at others solutions	5
I rely on the others' experience	5
In a new situation I try my own way	2
I create the actual internal procedures experimenting new solutions	2
You have to make mistakes in order to learn the right solution	3
The first think that I do when I face a new problem is calling someone who already faced it	4
I ask my managers to follow what other start-ups/VCs did at this stage	4
A failure is a good occasion for learning	2
A failure is a condition to avoid	5
My direct experience is fundamental in my new business	3
Others' experience is fundamental in my new business	5
I feel free to try new solutions	2
I don't consider other positive experience as my starting point	3

* 1= strongly disagree; 2= disagree; 3= not sure; 4= agree; 5=strongly agree

The technical language adopted within these organizations was totally copied from the Silicon Valley. The Italian venture capitalists as the start-ups acquired the language from reading documents, books, and newspapers or speaking with persons employed in the Silicon Valley. They are using the original English version without any translation

in their native language. But what is more evident is how our informants learned procedures and criteria by imitating. Itadiego founder described the process that brought to the definition of the governing procedure of his company as a pure imitating process. As he explained, “When the new economy started in Italy, there was an exciting atmosphere, but even a clear failure threat. Everyone wanted to enter in the new economy founding a start-up. But how you can do it? I had a good business idea. I obtained funds. After that, I had to organize my company. I had ideas on what rules and procedures had to be adopted in my business. But I wasn’t sure that they eventually would work. I knew, for example, that I had to organize some kind of public relation function to relate with investors and potential partners. But I really had no experience in that. Thus, I spent some days surfing the web and calling friends in Germany and United States to find out how these kind of things are managed in other countries. I found some good practices (at least examples). And I proposed them to our venture capitalist”. From above it follows that in the case of Italy our proposition is confirmed, as both firms and entrepreneurs operating in environments perceived to be non-friendly to venturing activities are more likely to rely on learning by imitation than by trial-and-error.

VI. Closure

We initiated this paper by arguing that the problems of learning and adaptation represent a true challenge to the growing number of firms and entrepreneurs involved in the new economy. Especially, we suggested that they face a world where; a) the firstcomer takes, if not the whole market, then at least the lion’s share of the market, and b) a rapidly changing environment might undermine the opportunities for learning. Hence, we suggested that in such an environments entrepreneurs and firms are more likely to solve problems by imitation than through direct experience.

We suggested that firms and entrepreneurs who perceive the institutional settings as non-venture friendly are more likely to rely on learning by imitating than by trial and error. In this analysis we foremost rely on data from the Italian part of the empirical study. The analysis of these data confirms our proposition.

Knowing that entrepreneurs and firms involved in the new economy are more likely to rely on imitation than on direct experience as their learning strategy, we now suggest that actors with extensive networks are more likely to survive in the new economy.

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