

**INSTITUTIONAL INFLUENCES ON THE WORLDWIDE EXPANSION OF
VENTURE CAPITAL**

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ABSTRACT

The venture capital industry started in the United States and then spread worldwide. As it spread into other countries, there was a conscious attempt to copy industry practice from the United States. However, venture capitalists in other countries are subject to different institutional forces that can impact their behavior. This paper uses an institutional perspective to develop testable propositions on the impact of various institutions on venture capitalists' behavior. The paper concludes with a discussion of the implications of an institutional theory perspective for venture capital research and public policy.

In the United States (U.S.), companies that received venture capital (VC) financing provide approximately 12.5 million jobs. Firms such as Intel, Microsoft, Federal Express, Apple Computer, and even Starbucks may not have existed, or at a minimum would not have grown to the level they have, without VC. It is estimated that VC funded firms contribute \$1.1 trillion annually to the U.S. economy. This represents 11% of the country's gross domestic product (DRI-WEFA, 2002).

The importance of VC is not limited to the U.S. (Ooghe, Manigart and Fassin, 1991; Wright, Lockett, & Pruthi, 2002). The Global Entrepreneurship Monitor research project recently found that VC "plays a central role in facilitating high growth entrepreneurship" in the 21 nations examined (Reynolds, Hay, Bygrave, Camp, & Autio, 2000: 49). However, despite its importance to entrepreneurship, VC has not expanded to the same levels internationally as it has in the U.S. (Reynolds et al., 2000). In part, the lack of expansion is due to a lower level of understanding how VC operates in these markets (Bruton & Ahlstrom, 2003). There has been some important research conducted on VC outside the U.S. (i.e. Jeng & Wells, 2000; Wright, Lockett, & Pruthi, 2002; Bruton & Ahlstrom, 2003), however, our overall level of understanding VC outside the U.S. remains limited. The absence of this understanding of VC in such markets increases the perceived risk of investment in VC funds that focus on those markets and lowers the level of capital that can be raised.

VC initially developed in the U.S., and later spread around the world. Prior research in the U.S. relied heavily on agency theory to explain how VC firms operate. But this theory has not been able to fully explain VC in the U.S. because it is temporally bound, and views the VC manager-CEO relationship as purely economic (Arthurs & Buzenitz, 2003). Internationally, total reliance on agency theory, or any theory based on an assumption of purely economically-driven human behavior, would be even more suspect. In an

international context, the environment in a country may differ from that in the U.S. in a variety of dimensions (Wright, et al., 2002). Therefore, a richer theoretical perspective beyond agency theory should be employed to examine VC internationally. Specifically, this richer theoretical perspective will help to understand how the institutions in the different locales impact VC as it spread from one country to another.

The goal of this paper is not to explain the level of VC activity in different regions of the world¹, but rather to gain a deeper understanding of the way VC companies are organized and behave around the world. This insight will have applications not only to VC but also to other entrepreneurial ventures as such ventures spread from one region of the world to another.

To obtain this understanding we will first focus on the development of VC in the U.S., and then examine the spread of VC to other regions of the world and the differing institutions encountered. This is followed by the development of testable propositions as to how particular institutions impact VC firms' behavior around the world. In developing these propositions, we will draw on literature from the VC domain and on the institutional perspective of management. The article will conclude with a discussion of implications for researchers, practitioners, and public policy-makers.

The Development of U.S. Venture Capital Industry Practices

A major part of the establishment of any industry is the development of accepted industry practices. As an industry emerges, basic processes emerge and gain legitimacy. Industry processes must both work and be accepted by industry participants (Aldrich & Fiol, 1994). Once developed these approaches are not instantly recognized and adopted as the "best way." Rather, they are identified over time based upon both the successes and failures

¹ For an explanation of differences in level of VC activity, we refer the reader to Black & Gilson (1998) and Jeng & Wells (2000)

of industry participants. In the case of VC, the industry was “born” soon after the end of World War II in the U.S., and became “institutionalized” in the U.S. in the mid-1980s (Reiner, 1989).

As institutional practices are invented, tested, and found appropriate they spread informally through the industry. For example, Suchman (1995) found that legal terms in VC agreements that were routine in Silicon Valley were less common the farther a firm was from Silicon Valley. However, over time, the terms then spread until they became routine throughout the U.S. Once industry practices are established, isomorphic pressures then cause new entrants to adopt the existing institutional practices of the industry.

A major factor in the institutionalization of the VC industry was the high level of cooperative behavior among VC firms during the early years of the industry. The VC industry started very small. As a result, in the early years VC firms generally syndicated their investments with other VC firms in order to diversify their investment risk while maximizing return on their efforts (Reiner, 1989). As the size of venture funds grew, the need to syndicate for financial risk diversification declined, but VC firms continued to syndicate investments in order to share knowledge and other non-financial resources, such as legitimacy and deal flow (Sorenson & Stuart, 2001). For syndication relationships to work, strong relationships among VC firms had to be developed since trust was central to the success of syndication (Bygrave, 1987; Sorenson & Stuart, 2001).

Beyond ad hoc cooperative behavior by VC firms, a strong trade association can reinforce industry practices. The National Venture Capital Association (NVCA) was formed in 1973 with a major thrust being the promotion of “professional behavior.” The Association has written professional standards with which members agree to comply. Despite being a strictly voluntary organization with relatively expensive membership fees (e.g. \$8,000 per

year for a VC firm with \$100 million under management), the NVCA has enjoyed widespread industry support. The result was the development of strong normative set of beliefs for industry practice. Evidence of the establishment of the normative institutions was demonstrated by a field study of VC firms conducted in three different regions of the U.S. by Fried and Hisrich (1995). They found that VC firms from each region shared the same “dominant logic” or sets of beliefs about how VC firms and their portfolio companies should behave.

The Spread of Venture Capital to Europe

As the industry became institutionalized in the U.S., it began to emerge in Europe. Initial VC activity occurred in the late 1970s in the U.K. and in the early 1980s on the Continent of Europe (Ooghe et al., 1991). Primarily experienced VC managers who had been in the industry in the U.S., and who drew heavily on U.S. investment capital, set up the early European VC firms (Manigart, 1994). In fact, in some cases, the European VC firms were set up as affiliates of U.S. VC firms. The result was a clear and largely deliberate attempt to found the European industry based on the normative institutions of the U.S. industry (Manigart, 1994). As a result, it can be expected that there are similarities in behavior of U.S. and European VC firms.

Sapienza, Manigart, and Vermeir (1996) found such similarities in U.S. and Europe when they examined the relative importance of VC firms’ roles and the factors influencing the amount of time spent in VC manager-CEO interactions. However, they also discovered that VC managers in the U.S. spent considerably more time than their Continental European counterparts interacting with their portfolio company CEOs. Sapienza and colleagues used an agency perspective in their analysis and attributed the differences in time spent to the fact that many Continental European VC managers had a banking background and to differences in

ownership structure between European and the U.S. VC firms. Whereas most U.S. VC firms are set up as independent partnerships, raising their funds from different sources, Continental European VC firms typically were wholly or partially owned by financial institutions such as banks.

The Spread of Venture Capital to Asia

After the development of the VC industry in the U.S. and its spread to Europe, the industry then emerged in Asia in the mid to late 1980s. By 1990, there were over 300 VC firms in Asia, a number that more than tripled by 2000. As in Europe, Asian VCs made a clear and largely deliberate attempt to adopt the normative institutions of the U.S. industry. Numerous Asian VC firms are formally connected to U.S. VC firms, received their business training in the U.S., and maintain personal contact with U.S. VC firms (Bruton, Dattani, Fung, Chow, & Ahlstrom., 1999; Wright, Lockett & Pruthi, 2002).

In addition, the training of VC managers in Asia is still heavily connected to the U.S. industry. For example, the leading Asian training entity is the Institute of Private Equity Investment. Since 1995, it has provided semi-annual training seminars in Asia for new Asian VC managers. Over 60 percent of the Institute's instructors have been VC managers that either received their education or training in the U.S., or are currently affiliated with a U.S. VC firm. The instructional materials used are largely drawn from research on the U.S. VC industry.

To summarize the status today of VC globally, the U.S. is clearly the largest VC market, with more capital for investment than the rest of the world combined (Reynolds et al., 2002). The next major domain for venture capital is Europe with major centers in the UK (although more geared towards investments in later stages and management buy-outs),

Sweden, the Netherlands, and Germany. The Asian industry today is the smallest of the three major regions. There is a relatively large industry in Japan; however, this industry is unique in the world in its structure and behavior. For example, the industry typically makes loans in addition to the equity investments. The rest of the industry is spread throughout Asia with large and highly growing concentrations of VC in South Korea, Singapore, and Hong Kong. However, the VC firms in the latter typically use those locations as their office and travel throughout the region to make their investments throughout the region.

VC is beginning to develop in Latin America (Charvel & De Yeregui, 2002), and is truly in its infancy in Africa (Morris, Watling, & Schindehutte, 2000). Similarly, VC is limited in the Middle East, except for Israel where there is a developed VC industry (Mayer et al., 2004), with considerable interconnections with the U.S. VC industry.

An Institutional Perspective

The use of institutional theory in management literature is growing. Particularly, its ability to address issues in the international arena has been cited (Hoskisson, Eden, Lau, & Wright, 2000). There exist differences in how researchers view institutional theory. Scott (1995a) sought to bring some consistency to the analysis of institutional theory. He recognized that various theoretical lenses emphasize different institutional forces and that the institutional forces emphasized could be grouped together into three categories: normative, regulatory, and cognitive. Each rests on a different assumption about the nature of social action (Scott, 1995a: 49). These categories are not without controversy nor are the lines that demarcate between the various categories clear (Hirsch & Lounsbury, 1997). However, Scott's (1995a) categories have received wide use in the general management literature and more specifically have been employed in the limited research that has examined institutional theory in international entrepreneurial settings (i.e., Busenitz, et al., 2000).

The first of Scott's (1995a) forces are normative; these pressures help define what behaviors and values are expected of individuals or organizations (March, 1981; Scott, 1995a). Regulatory forces, the second category, include the laws and political power that regulate individual and organizational action (Scott, 1995a). The third category consists of cognitive institutional influence that develops over time through social interactions among participants (Berger & Luckmann, 1967). Such cognitive processes shape individuals' views of what is possible and what actions should not be considered (Scott, 1995b). While the lines of demarcation of these categories are not without controversy, the basic categories are widely accepted. Institutional theory would argue that the similarities and differences in VC behavior around the world are the result of the configuration of normative, cognitive, and regulatory institutions in each country (Busenitz, et al., 2000, Wright, et al., 2002).

Normative Institutions: The greatest similarity would be expected in the shared values and norms about the appropriate way of working in the profession. Evidence of the presence, and power, of normative factors in a professional setting is evident in the U.S. in a variety of professions (i.e., Barron, Dobbin, & Jennings, 1986; Dobbin, Edelman, Meyer, Scott, & Swidler, 1988; Kalbers & Fogarty, 1998). In each of these cases professionals that follow the originators tended to replicate what the others had done, whether or not it was economically rational to do so. As noted before, there is evidence of consistency in the beliefs and standards of action of VC managers in the U.S. as to what a VC manager is to do (Fried & Hisrich, 1995). Additionally, there is some evidence that these beliefs and standards of action have carried over to Europe (Sapienza, et al., 1996). This similarity would be consistent with an industry with strong values and norms that come from the nature of the interaction within the industry and the dependence of the members of the industry on each other. Additionally, the fact that a significant number of the early VC managers outside the

U.S. have worked in or been trained by these VC managers would result in the extension of the U.S. industry values and norms. The fact that the dominant normative logic may be U.S.-based does not imply that the local environment is not important. For example, Wright et al. (2002) showed that U.S. VC companies, entering in the Indian market, adapted their way of working to the local market conditions, with local regulatory and cognitive institutions further shaping the behavior of VC managers.

Regulatory Institutions: There are major differences in regulatory institutions around the world. These differences fall along four key points: underlying legal philosophy, legal protections for investors, legal enforcement, and the fundamental nature of the capital market system.

From a legal philosophy there are differences around the world. Comparative law scholars divide commercial law systems into two major families---common law and civil law. In common law systems, laws are primarily built upon legal precedent established by judges as they resolve individual cases. The common law originated in England and spread to its colonies, most notably the U.S. The civil law tradition is more widespread globally. It uses statutes and comprehensive codes as the primary building blocks, relying heavily on legal scholars to formulate and interpret its rules. Civil law originated in Ancient Rome and has two major branches today—French and German. Thus, depending on the historical roots of the country, its underlying legal system will differ.

An important dimension for VC investors is the level of legal protection they can expect as minority shareholders in their portfolio companies. La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998, 2000) compared the level of investor protection in various countries. Issues such as voting rights attached to shares, protection of the shareholder voting mechanism against abuse by management, and remedial rights of minority shareholders were

examined. They found that common-law countries have the strongest legal protection of shareholders, while investor protection is weaker in German civil-law countries, and still weaker in French civil-law countries. Strong legal investor protection is associated with effective corporate governance (La Porta et al., 2000) and efficient allocation of capital (Wurgler, 2000). Therefore, differences in the level of investor protection could impact the way the VC industry develops.

Commercial legal systems may vary based on whether they are built upon common law or civil law. However, an even bigger issue in much of the world is not the existence of laws, but rather their enforcement (Bruton, Ahlstrom, & Wan, 2003). Thus, in Japan the civil law tradition provides low investor protection, but in countries like China the situation is no better and may be worse. Laws for investor protection may be on the books, but enforcement there is erratic to non-existent.

Finally, in some countries banks are allowed to own stock in public and private companies while in others they are not. For example, both Germany and Japan are bank-centered (Black & Gilson, 1998) with banks owning borrowing firms' stocks and serve on their boards of directors. In contrast, in the U.S. banks may not own such stock and there is a wider dispersion of stock ownership. Financial markets like those in the U.S. and U.K. are referred to as stock market centered. The impact of this regulatory difference can have a major impact on the nature of the market for exit for VC backed firms.

Cognitive Institutions: Cognitive institutions build from the culture of the society. The institutions of greatest concern here are the differences in the value placed on entrepreneurs, and the role of social networks.

A major difference between the U.S. and some European countries is the status attached to entrepreneurs. In the U.S., entrepreneurs are held in high status, but not in some European countries (Reynolds et al., 2000). In fact, in some European countries the entrepreneur is typically viewed as an opportunist. The impact of this cognitive institution on the supply of entrepreneurs has already been noted (Kuemmerle, 2001). The risk of failure, particularly in early stage ventures, is high. In countries where entrepreneurs have high status, the status rewards from success are high and the punishment for failure is low. On the other hand, in low status countries entrepreneurial success does not necessarily lead to high status and entrepreneurial failure has major negative implications. In part, this leads many of the best students in the U.S. to be drawn to entrepreneurship, but not in Continental Europe. For example, the 2000 Global Entrepreneurship Monitor showed that in the U.S. only one out of five adults would **not** start a new company out of fear of failure. In France and Germany that number increased to almost one out of two (Reynolds et al., 2000). In Asia, entrepreneurs were not viewed as opportunist, but a similar attitude towards failure by entrepreneurs was held (Reynolds et al., 2000 and 2002). This attitude towards potential failure would similarly limit the supply of entrepreneurs in Asia also.

Another important cognitive difference is in the strength of social networks. For example, the level of interconnections between business people in much of Europe is often much stronger than in the U.S. In the U.S, relationships may be important but the ability to produce economically is more critical to business. However, in many European countries the need to be part of a social network is vital in business (Wells & Grieco, 1993).

The difference in Asia may be even stronger. Biggart and Hamilton (1992, p. 472) argue that “Asian economies espouse different institutional logics from Western economies, ones rooted in connectedness and relationships”, or “gaunxi” as it is known in China. A social network, and the connections within it, provide not only benefits to its members, but also impose obligations on them (Tsang & Walls, 1998). Such networks initially arose in response to the absence of strong legal traditions. The relationships and connections provided by the network are an alternative means to enforce contracts or sanction violators (Perkins, 2000). One outcome of the importance of these relationships is that the parties often focus more on maintaining interfirm and interpersonal relations than on immediate profits (Chen, 2001; Pye, 2000).

The status of the various institutions in each of the three regions focused on is summarized in Table 1.

(Insert Table 1 About Here)

Propositions

Thus, institutions have the potential to provide insight to how the behavior of VC firms may be similar and different around the world. The next issue then is to develop propositions that will lay the ground work for the future investigation of the exact nature of the similarities and differences that the institutions will produce. There are several important VC activities that have wide spread understanding in the U.S. including: deal selection, amount of post investment contact with the portfolio company's CEO, size and composition of the board of directors, and monitoring and value adding by the VC firm to the portfolio company. These activities have been widely examined and the understanding of these issues in the U.S. can help researchers to examine how key institutions in different environments could impact these activities. Some of the propositions developed here will be illustrated with results of a preliminary empirical study, as outlined in appendix A.

Deal Selection and Preferred Investment Stage

A major concern in selecting deals for investment is the potential portfolio company's stage of development. The U.S. VC industry's willingness to invest in early stage deals is seen by many as a major driver of economic development (Gompers & Lerner, 2001; Kuemmerle, 2001). The stage of portfolio company development also heavily impacts other VC firms' decisions and behavior (Elango, et al, 1995). U.S. VC firms have historically been active early stage investors, but this is rarely the case in other countries (Allen & Song, 2003; Bruton & Ahlstrom, 2003; Ooghe et al., 1991). For example, investments in start-ups, early stage or expansion stage investments combined in the three years from 1999 to 2001 exceeded more than 0.4% of GDP in the U.S., but was less than 0.2% of GDP in France and the Netherlands, and less than 0.05% of GDP in Japan (Reynolds et al., 2002).

Several institutions may lead to this difference. As noted earlier, cognitive institutions impact the supply of entrepreneurial talent for early stage ventures. The supply of

entrepreneurs is higher in countries where the entrepreneur has high status. In these countries, highly educated individuals are more likely to pursue an entrepreneurial career, rather than act as a manager in a large company. This increases potential financial returns to the VC firms from early stage investing. Further, if the view of entrepreneurship is high, then the VC managers also derive significant non-financial rewards from being a key participant in the entrepreneurial process.

There will be greater early stage investing in stock market centered capital markets, since the exit mechanism from the investment for the VC firms is clearer (Black & Gilson, 1998). The stock market also allows the VC firms to potentially obtain higher returns through an IPO, which in turn allows the VC firms to take greater risks. Additionally, stock-centered markets allow the VC managers and entrepreneurs “the opportunity to enter into an implicit contract over control, which gives successful entrepreneurs the option to reacquire control from the VC firms by using an initial public offering as the means by which the VC firms exit from portfolio investments” (Black & Gilson, 1998, p. 243).

Moreover, in bank centered financial systems, many VC firms will be fully or partially owned by banks (Ooghe et al., 1991). The nature of investors in a VC firm influence its investment strategy, with bank owned VC firms investing more in later stage ventures compared to individual and corporate backed VC firms (Mayer, Schoors & Yafeh, 2004; Hellman, Lindsey & Puri, 2004). VC firms are thus less likely to invest in early stage deals when operating in bank centered financial systems.

Finally, if there is a strong reliance on social networks in the region, an individual venture capitalist typically relies on the network to help generate prospective investments (Sorenson & Stuart, 2001). This network also typically screens the potential investments and only proposes those for funding that are strong. The network may favor ventures that have lower risk since the negative impact on the network holds greater sway than the concern for any

given venture. This reliance on networks is particularly useful in domains where there are weak legal/regulatory institutions. As a result of these various factors, the likelihood of VC firms making a ground-breaking, early stage investment is much lower in countries with high levels of reliance on networks.

Therefore, it is proposed:

Proposition 1a: Early stage ventures are more likely to be selected for funding by VC firms in countries that place a high value on entrepreneurs and entrepreneurship.

Proposition 1b: Early stage ventures are more likely to be selected for funding by VC firms in countries with stock market centered capital markets.

Proposition 1c: Early stage ventures are more likely to be selected for funding by VC firms in countries with a low reliance on social networks.

Most venture investments come to VC firms in the U.S. through personal referrals. The referral is important to the extent it helps get the deal beyond the VC firms' generic screen, but is not a major factor in deal evaluation once the deal makes it over that initial hurdle (Fried & Hisrich, 1994). However, in countries where cognitive institutions lead to a reliance on strong social networks, an entrepreneur will experience great difficulty attracting funding if he/she is not already a member of the social network of the VC firm or referred by a member of that network; and may find entry into that network extremely difficult. In fact, Hurry, Miller and Bowman (1992) found that Japanese VC firms stressed membership in their social network as an investment criterion, even when investing in U.S. based companies.

The importance of being a member of a network is also higher in countries where legal institutions produce a legal system that offers little protection for investors. While VC managers in any country will want to deal with entrepreneurs they trust to provide accurate information and behave in a non-opportunistic manner, trust to some extent is an alternative to strong legal protection (Allen & Song, 2003; Manigart, Kosgaard, Folger, Sapienza, & Baeyens, 2001). U.S. VC managers rely on information present in the plan to assess the risk of the proposed ventures (Wright, Thompson & Robbie, 1992), but they also know that they have legal rights protecting their investment against agency problems with the entrepreneur (Bruton, Fried, & Hisrich, 2000; Sapienza & Gupta, 1994). However, in weak legal systems, personal trust is paramount. Trust is built on prior relationships, so these relationships are vital in selecting deals.

Therefore it is proposed:

Propositions 2a: Entrée to the VC firm's social network increases the likelihood of a venture being selected for funding in countries with strong social networks.

Propositions 2b: Entrée to the VC firm's social network increases the likelihood of a venture being selected for funding in countries with weak legal systems.

Level of Interaction between CEO and VC.

A major component of operational practice in a VC firm is how much time VCs should spend with the CEOs of portfolio companies after an investment has been made. Sahlman (1990) argues that U.S. VC firms' structure deals in order to maximize portfolio returns, minimize agency risk, and maximize efficiency in the operation of the VC firm itself. Implicit in this economic view of VC is the belief that the VC firm and its portfolio

companies are separate and independent entities. Thus, since the VC manager's time is a valuable commodity, it is invested only as necessary to add economic value (Gifford, 1997). In turn, the VC firm's financial performance is maximized by the efficient use of VC manager's time.

This logic is supported by the findings of Sapienza (1992) and Sapienza and Gupta (1994). They found that the level of VC-CEO interaction was higher in early stage ventures, where there is a high level of uncertainty. In an early stage venture, the VC manager has a greater need to monitor the CEO and can also add more value. Similarly, VC managers with a great deal of experience in the portfolio company's industry will be more involved because they can use their experience and contacts to add more value to the firm. However, the more general experience VC managers possess, the less need for interaction because experienced VC managers are more efficient in processing information provided by the CEO. Length of time the company has been in the VC firm's portfolio is also a factor. Over time, VC managers develop a high level of knowledge about portfolio companies and their CEOs, so the amount of time spent interacting with the CEO can decline. Finally, since travel is a costly use of VC manager's time, the level of interaction declines as the distance between the VC manager's office and the portfolio company increases. Therefore, evidence from the U.S. strongly supports an economic view of the VC manager's behavior.

Sapienza et al. (1996) found similar venture capital behavior in Europe, with one major difference. Venture stage was a highly significant predictor of interaction in the U.S. but much less so in Europe. As a result, the overall model lost predictive power in Europe. This does not mean that venture stage is unimportant in Europe. Rather, since many European VC firms do very little early stage investing, there was too little variance on

venture stage in the European sample for venture stage to have an impact.² Our exploratory study of the Asian VC industry used to ground this theoretical model showed that the same regression has no predictive power at all in Asia (reported in Appendix A – Table B).

Thus, the cognitive institution on the low status of the entrepreneur could potentially be an important factor in the interactions between a VC manager and an entrepreneur outside the U.S. The higher the status of the entrepreneur, the more VC managers desire to be associated with the entrepreneur. Not surprisingly, U.S. VC managers often cite a major reward of the profession as being able to spend time with bright entrepreneurs. Conversely, VC managers in low status countries would be expected to not value spending time with the entrepreneur.

In countries with weak legal institutions, VC firms can place little faith in financial information and other written data provided by the portfolio company. In weak legal systems, VC managers have to utilize personal contact more heavily to gather information necessary for monitoring. Further, VC managers have less formal power over the entrepreneur, and are more dependent on personal relationships to influence behavior. Thus, VC managers in weak legal protection countries can be expected to spend more time with their entrepreneurs, as evidenced in the exploratory study (Appendix A - Table A) where Asian VC managers were found to spend almost twice as much time with their entrepreneurs than their American counter-parts.

In a consistent manner, in those countries with a high degree of reliance on social networks such as Asia it is not just a matter of the economics of the contract between the CEO and the VC firm, but it is also the relationship it represents (Dore, 1983; Kao, 1993). Cognitive institutions lead the VC managers to view relationships with CEOs not as arms-

² Examining Sapienza et al.'s (1996) original data, venture stage was significant in the U. K. where there was sufficient variance, but not in France or the Netherlands. This difference further supports the focus on Continental Europe here.

length agency relationships, but as part of a relational contract (Bruton et al., 1999). Thus, the time spent by VC managers with CEOs will be relatively stable across relationships due to a high reliance on social networks rather than vary based on the economically efficient use of VCs' time. This might explain why in the exploratory study reported in Appendix A in the regression explaining the level of VC manager – CEO interaction has no predictive power in Asia.

As a result, it is proposed:

Proposition 3a: There is greater interaction between VC managers and CEOs in countries that place a high value on entrepreneurs and entrepreneurship.

Proposition 3b: There is greater interaction between VC managers and CEOs in regions with weak legal systems.

Proposition 3c: There is greater interaction between VC managers and CEOs in regions with strong reliance on social networks. The level of interaction does not vary with economic necessity.

Board of Directors

The Board of Directors is the formal governance mechanism utilized in most countries. Boards of Directors can vary widely in their size and operation. It could be expected that the boards of directors will be larger in societies where there are weak legal institutions and protections. The board in these settings needs to include not only investors in the firm, but also individuals that may prove useful in helping to overcome difficulties with outside forces such as regulators or to resolve contract disputes. Larger boards can also be expected where there are strong cognitive institutions such as strong social networks present; the board serving the function of officially connecting those individuals in the network that are important to the firm (Pfeffer & Salancik, 1978). The exploratory study indeed suggests that Asian boards are, on average, larger than U.S. boards, while Continental European boards are smallest. Asian boards have, moreover, the largest percentage of insiders (Appendix A – Table C).

Therefore, it is proposed:

Proposition 4a: Boards of directors will be larger in regions with weak legal systems.

Proposition 4b: Boards of directors will be larger in regions with strong social networks.

Value Added to Portfolio Company.

One of strengths of VC in the West is the value added to portfolio companies by VC firms (Bygrave, 1987; Fried & Hisrich, 1994). VC firms in the U.S. typically have several roles beyond providing financing. Sapienza et al. (1996) classified the various VC managers' roles as interpersonal with the CEO (mentor/coach, friend/confidant), strategic (sounding board, business advisor, financier), and networking (source of industry contacts, professional contacts, and management recruiter).

Since the VC industry started in the U.S. and VC firms largely perform the same basic economic function worldwide, VC managers' roles could be expected to be fairly similar worldwide. However, cognitive and regulatory institutions in different countries may have an impact on the relative importance of these roles. Our exploratory study shows indeed that VC firms were shown to have the same basic roles in all regions, but the relative importance of these roles varies (see Appendix A – Table D). Interpersonal roles are more important in the U.S. and Asia than in Europe. Strategic roles, other than financier, are much more important in the U.S. than in either Asia or Europe. On the other hand, the financier role is more important in Europe. Networking roles appear somewhat more important in Asia.

Interpersonal roles will be more important to VC managers in countries where cognitive institutions place a high value on entrepreneurs. VC managers in these countries view the entrepreneur as highly significant to the success of the portfolio company. As a result, they want to provide any necessary support to the CEO so that the CEO will perform to full potential. Non-financial benefits also accrue to VC managers by being a friend and coach to a successful entrepreneur.

Interpersonal roles should be relatively more important in countries with weak legal institutions since positive personal relationships are an alternative source of investor protection (Fried & Hisrich, 1995). Interpersonal roles will also be more important in countries with a high level of reliance on social network because maintaining the relationships associated with the network, not achieving specific goals, is a primary focus of network members.

The nature of the capital market will also impact the nature of the value added by VC managers. In countries with a bank centered capital market, the financier role will be relatively more important since the sources of capital available to the portfolio company are more limited. Often VC managers and their related bank entity in bank centered capital

markets are the sole source of capital for the firm. Further, VC managers may be more likely to see themselves as representatives of a capital provider rather than a partner in building a company (Hellman, et al., 2004). Finally, given that the training and experience of VC managers in bank centered capital markets is more bank-oriented rather than entrepreneurial, they will be better able to fulfill the financial role rather than the strategic and the interpersonal roles.

While VC firms are also a major source of capital in a stock market centered capital markets, they are often not the only source. Further, both VC firms and entrepreneurs see this capital as transitional capital. There is a strong focus on what the company must do to develop its business to the point where the VC firm can successfully exit the investment. Thus, VC managers in stock-market countries place more emphasis on the strategic roles of sounding board and business advisor.

Finally, in countries with strong social networks, networking roles are more important. The investment ties the portfolio company to the VC companies' networks. Further the maintenance of strong networks is important to both VC managers and entrepreneurs.

Therefore, we propose:

Proposition 5a: Interpersonal roles will be relatively more important in countries that place a high value on entrepreneurs and entrepreneurship.

Proposition 5b: Interpersonal roles will be relatively more important in countries with weak legal systems.

Proposition 5c: Financial roles will be relatively more important in countries with a bank centered capital market.

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Proposition 5d: Strategic roles will be relatively more important in countries with a stock market centered capital market.

Proposition 5e: Networking roles will be relatively more important in countries with strong social networks.

The expected relationships from the propositions are summarized in Table 1.

(Insert Table 2 About Here)

Discussion and Conclusion

This manuscript has numerous implications for institutional theory, future research on VC, and public policy. Each will be discussed in turn.

Institutional Theory

Prior VC research has often relied on agency theory and an economic analysis to understand the actions of VC firms. However, this research helps to extend the understanding of how institutional theory can also be a vital tool in understanding VC behavior around the world. Institutional theory argues that the actions within a given industry may not always be the most economically efficient but they are the responses that become accepted in the industry. Thus, the potential implications of pursuing an institutional

perspective versus purely economic based perspectives can be significant. This manuscript helps to establish that the institutional perspective has merit and deserves greater attention in analyzing VC behavior around the world.

The manuscript is also relevant for the use of institutional theory beyond VC. While the theory is noted for its potential to help explain some performance differences observed around the world, actual cross-cultural applications of the theory have been limited. This is particularly true for settings examining more than two distinct cultures. The preliminary evidence presented here helps to establish the benefits of the theory in analyzing behavior in such diverse settings.

This manuscript in particular expands the theoretical foundation for regulatory institutions. Prior studies have typically relied on the historical roots of a nation's legal system. In the development of the propositions here, we have deliberately avoided these classifications. While we agree that an understanding of whether a system is based on common law or civil law is vital to an understanding of how a legal system functions, from the standpoint of the VC firms the issue is primarily the extent of legal protection they receive as investors.

This approach recognizes that there are individual country differences between systems that may be in the same legal family. Additionally, focusing on the actual functioning of the legal system recognizes that a legal system can promise protection in principle, but not deliver protection in practice. Thus, our propositions help to focus theory development on the level of legal protection a system provides investors.

Future Research

The resulting propositions should help direct future VC research. This manuscript has laid a foundation that normative and cognitive institutions are important to VC around the world. Future research should gain insight on the intricacies of these normative and cognitive institutions. One major area of future inquiry is to examine the strength of the various

relationships predicted here. For example, our Propositions 5a, 5b, and 5c each predict that three different institutions (high entrepreneur status, weak legal systems, and high collectivism) will lead to an increased importance for interpersonal roles. Which of these institutions has the strongest impact? Do they interact? What is the countervailing strength of the normative institution that encourages industry homogeneity?

There is also a need to research institutional differences at a lower geographic level of analysis. This manuscript has discussed Asia and Europe broadly, but within both continents there are significant country differences that need to be explored. There are also regional differences within the United States (Elango et, al., 1995) and other large countries to explore. Further, institutions are changing quickly in many regions of the world. To illustrate, in Asia in markets such as China there is a rapid transition in legal institutions. Thus, the institutional setting in China is very different than in say Thailand or Singapore. There is a need to see how these differences between the various nations in each of these regions impact these institutions differences and institutional transitions on VC.

This manuscript discussed the VC industry in terms of the U.S., Europe, and Asia. While the industry is still extremely limited in Africa, venture capital is now becoming a significant factor in Latin America and Oceania. To date there is virtually no research on VC there. Future research should expand the examination of VC to these regions by examining how institutions shape the VC firms' actions in various Latin American countries, in Australia and in New Zealand. An underlying expectation of this research is that VC behavior in these countries is most similar to the VC behavior in countries with similar normative and cognitive institutions.

Major differences have been noted in the behavior of VC firms who are independent and those that are corporate sponsored (Block & MacMillan, 1993; Hurry, et.al., 1992). Less dramatic, but still important differences exist between VC firms who are independent and

those affiliated with a financial institution. Historically, independents have dominated the U.S. industry, with corporate venture investing almost disappearing in down markets, and affiliates of financial institutions often struggling to maintain top personnel. Thus, U.S. based VC research is primarily focused on independent firms. How affiliation impacts VC firms' behavior is an under-researched issue in the U.S. As one moves to countries where affiliates, not independents, dominate, the role of normative and cognitive institutions may be even more important since the financial rewards for VC managers are less connected to performance of the investments. This may both significantly weaken the VC managers desire to engage in economically efficient behavior and also change the VC's view of what is economically efficient behavior.

The implications of this paper for future research extend beyond the VC domain. We have demonstrated that the three-dimensional institutional framework proposed by Busenitz, et al. (2000) can be applied to VC research. Many of the institutions we identified may impact entrepreneurs as they deal with a variety of other management issues besides VC. For example, many entrepreneurs of high technology ventures were trained in institutions in the U.S., later returning to their home country. It could be expected that these entrepreneurs will sometimes attempt to copy the behavior of U.S. entrepreneurs, and then run into the countervailing force of the same institutions that impact VC firms in their country.

Public Policy

The propositions developed here have significant implications for economic development around the world. Entrepreneurship is a major driver of economic progress. VC is an important component of an entrepreneurial economy. Thus, the relationship between institutions and VC has important implications for regional economic development.

The impact of the social status of entrepreneurs on regional economic development is clear. VC will function better in countries that place a high status on entrepreneurs. VC

firms are more likely to fund early stage ventures and spend more time working with the entrepreneurs who run these ventures. For the same two reasons, stock market centered capital markets are also better for VC.

A moderate level of social networks is likely good for VC and a country's economy. However, a high level of social networks, particularly if these networks are hard to join, is a major barrier to VC. High social networks lead to serious capital allocation problems. No matter how worthy, entrepreneurs without membership in the appropriate social network will find it difficult, if not impossible, to receive funding. On the other hand, members of the social network may receive funding when not deserving.

Once funded, ventures in high social network countries may be under-managed. The entrepreneur may hire and promote members of his social network even if they are not the most qualified. Claessens, Djankov and Lang (2000) showed that more than two-thirds of East Asian firms are controlled by a single shareholder, and that managers of closely held firms tend to be relatives of the controlling shareholder's family. In addition, poorly performing managers are less likely to be demoted or fired if they are members of the social network (Bruton, et al., 2003). That extremely strong social networks are highly detrimental to successful venture investing is a point made by Peter Brooke, founder of Advent International and a major driving force in the spread of VC worldwide who said:

The family unit can be seen as a limiting factor in the growth of a Chinese business. And not just Chinese businesses in Asia. There are examples here in the United States. My favorite example is Wang Laboratories. I was a director of Wang from the beginning and participated in its growth and demise --- a demise caused by the fact that the founding father wanted the business managed by his family. He did not attract or give authority to those who were more competent. That underlying risk exists in every company in which you invest in Asia (as quoted in Gupta, 2000).

VC managers should be aware of such issues and ensure they are properly monitoring and adding value to portfolio companies in these environments.

The level of investor protection provided by a country's legal system is certainly a major factor in the development of the VC industry. Without strong legal systems, VC managers become too heavily dependent on prior relationships in selecting new ventures. As with strong social networks, a weak legal system serves as an unnecessary barrier to funding for promising ventures. Strong legal protection is particularly important from a governance standpoint. Without it, VC managers are forced to spend more time monitoring an investment. More seriously, it is unlikely that any amount of additional VC manager's monitoring time can truly compensate for strong legal protection.

In summary, it is clear that differences can be expected in VC around the world. The industry has been consciously built on a U.S. model, and frequently defines itself accordingly. However, how the industry implements its activities around the world varies (Wright et al., 2002). Using an institutional theory framework, we have developed a foundation for future research on VC around the world. A better understanding of the impact of institutions on VC will improve the worldwide performance of this critical industry

Table 1

The Institutionalization of Venture Capital

	Normative	Regulatory	Cognitive
U.S. & U.K.	Strong normative values in industry.	*Mature. *Common law provides high shareholder protection. *Strong public equity markets.	*Status of entrepreneurs is high. *Reliance on social networks relatively weak.
Continental Europe	Industry developed from U.S. Strong normative values from U.S. due to its origin, training and interconnections in the industry.	*Mature. *Civil law provides lower shareholder protection. *Bank centered financial markets.	*Status of entrepreneurs is lower than in the U.S. but higher than Asia *Reliance on social networks stronger than in U.S. but weaker than in Asia.
Asia	Industry developed from U.S. Strong normative values from U.S. due to training and interconnections in the industry.	*Generally poorly developed. *Often do not enforce laws/regulations.	*Status of entrepreneurs is low. *Reliance on social networks stronger than US or Europe.

Table 2

Summary of Expected Relationships

	Deal Selection	Interaction/Governance	Value Added
Status of Entrepreneurship/ Entrepreneur	* More early stage in high status	* More VC/entrepreneur contact in high status	* Interpersonal roles more important in high status
Capital Markets	* More early stage in stock market centered	* More VC/entrepreneur contact in stock market centered	* Financial more important in bank-centered * Strategic more important in stock market centered
Legal Protection	* Prior relations more important in weak legal systems	* More VC/entrepreneur contact in weak legal systems * Larger boards in weak legal systems	* Interpersonal more important in weak legal systems
Social Networks	* * Less early stage in strong social networks * Referral more important in strong social networks	* More VC/entrepreneur contact in strong social networks * Larger boards in strong social networks	* Networking more important in strong social networks

Appendix A Exploratory Study

As noted earlier, Sapienza, et al (1996) compared several aspects of VC practice in the U.S. and Europe. An exploratory study has been gathered that compares that data to Asian VC firms, which results in a three way comparison between Asia, Europe and the U.S.³ Asian data was collected through a mail survey of Asian VC managers⁴ using the same survey instrument as reported in detail in Sapienza (1992), Sapienza and Gupta (1994), and Sapienza and Timmons (1989). The measures of the various variables contrasted in the U.S., Europe, and Asia follows at the end of this Appendix. This exploratory study has significant implications for the theoretical model developed here so the principal issues associated with that study are summarized in this appendix.

Sapienza, et al. (1996) examined the three largest VC markets in Europe, the U.K., France, and the Netherlands. It is arguable that the U.S and the U.K. are culturally very close to each other. For example, Hofstede's (1980) research places the U.S. and U.K. in the same grouping when integrating the information on uncertainty avoidance and masculinity, well apart from most of Continental Europe. Further, the U.S. and U.K. have common law legal systems while the European Continent uses civil law. In addition, the U.K. has a true stock market centered capital market (like the U.S.) in contrast with other European countries. Therefore, in contrast to Sapienza et al. (1996), this exploratory study does not include the U.K. when examining European venture capital. Rather, respondents only from Continental Europe (France and the Netherlands) are examined.

This exploratory investigation examines VC firms from three Asian countries ---Japan, Korea and Taiwan. These three countries were selected since they represented the highest value obtained on the "Confucian Dynamism" variables among the 22 Asian nations surveyed by Hofstede and Bond (1988).⁵ Orru, et al. (1991) also used these three countries

³ The three samples occurred over different time periods. It is important to note that the three time periods in which each sample was taken reflect the same approximate level of maturity. The markets in all three locations during the sampling were not at the initial startup nor were the venture capital markets mature.

⁴ VCs in Asia were identified through the use of the *Guide to Venture Capital in Asia* (1996) and surveyed in 1997. Two waves of surveys were sent to the managing director of VC firms in the three countries. With a response rate of 32%, there were 40 responses. Tests for differences between respondents and non-respondents based on size of firm and stage of investment focus were not significant in any country; thus the potential of non-response bias is low.

⁵ Confucian Dynamism is a cultural characteristic identified by Hofstede and Bond which they argue is present in Asia but not the West. Hofstede and Bond argued that this dimension was the central reason for the rapid

for their investigation of organizational isomorphism in Asia; they argued that business in the three nations represented qualitatively different conceptualizations than that found in the West. The results from these three countries will then be compared to the results on the same instrument in the U.S., and Continental Europe.

Initially the study looks at what determines the amount of interaction between venture capital and portfolio company CEO. This is done by use of ordinary least squares multiple regression in which the independent variables and control variables were regressed against total time spent by venture capital with the CEO.⁶ The means, and standard deviations of variables in the regression are reported in Table A and the regression results for the three regions are reported in Table B.⁷

Insert Table A and B About Here

Further, the size and composition of the Board of Directors of the VC's portfolio companies is compared. The results are reported in Table C.

Insert Table C About Here

Also following, Sapienza, et al. (1996) the value VC managers place on the various roles they play in portfolio companies is compared. The results are reported in Table D.

Insert Table D About Here

An examination of the results from the exploratory study shows similarities, but also several differences. Particularly striking are the regression results in Table B. The model explaining the amount of VC manager/CEO interaction has very strong explanatory power in the U.S. where it was developed, more limited reasonable explanatory power in Europe, and

economic growth in Asia during the last half century. This cultural dimension is made up of a focus on thrift, perseverance, ordering of relationships, and a sense of shame.

⁶ Multicollinearity was deemed not to be a threat in the data due to tests for minimum tolerance. Tests to assure that common method variance did not undermine the validity of the data were based on Podsakoff and Organ's (1986) work. The factor structure of the dependent and independent variables demonstrate that common method variance was not a significant problem for this data set.

⁷ For space considerations, the correlations between the independent variables are not shown, but they all remain within acceptable limits. They can be obtained from the authors upon request.

no power to explain what occurs in Asia.⁸ It appears that the actual actions of VC managers differ in other countries even though there has been a conscious attempt to copy U.S. practice.

Hours of contact between VC and CEO

Total number of hours per year of personal contact between the VC manager and portfolio company CEO.

Time in Portfolio

The number of years the venture had been in the VC firm's portfolio, rounded to the nearest whole year.

VC Experience as a VC

0 if the VC manager had been in the industry five years or fewer years and 1 if more than five years.

VC Experience in the Portfolio Company's Industry

0 if the VC manager had two or fewer years experience in the industry of the portfolio company, and 1 if more than two.

CEO's Start-up Experience

0 if the CEO had no prior experience managing start-ups, and 1 with any such experience.

CEO's Industry Experience

Years of experience in the portfolio company's industry.

Venture Stage

0 if seed, start-up, or early stage venture, and 1 if later stage.

⁸ A Chow test showed significant differences in the three regressions (F-statistic 1.4, probability .10, log-likelihood ratio 36.6, probability .05)

Innovation

Consistent with Zaltman, Duncan, and Holbeck (1973), three measures of innovation were used: technical, product, and marketing innovation with the VC manager rating each relative to the portfolio company's competitors. 0 if equal to or less than competitors, 1 if greater than competitors.

Geographic Distance

Travel time in minutes between VC's office and headquarters of the portfolio company.

Roles of the VC managers

The potential roles for the VC manager were taken from Sapienza, Manigart, and Vermeir (1996). The roles are built on the prior research of Gorman and Sahlman (1989) and MacMillian, Kulow, and Khoylean (1989) and have been shown to have validity in the U.S. Respondents were asked to rate the importance of these roles on a Likert type scale (1=not important, to 5=of great importance). The eight roles and their descriptions are as follows:

Strategic

- Sounding board = Listens, responds objectively, frankly, and truthfully
- Financier = Provides or arranges funding in a timely manner
- Business advisor = Discusses plans, reviews targets, offers feedback, provides management assistance, notes threats

Interpersonal

- Mentor/coach = Provides encouragement, positive reinforcement, support, and motivation
- Friend/confidant = Is concerned for CEO, will go out of his way for CEO, listens to CEO's problems

Networking

- Source of professional contacts = Knows or can locate CPAs, lawyers, etc.
- Source of industry contacts = Helps generate orders, reach licensing agreements, locate key suppliers, etc.
- Management recruiter = Helps locate key members for management team.

TABLE A
Means and standard deviations of regression variables

	US		Continental Europe*		Asia**	
	Mean	SD	Mean	SD	Mean	SD
Hours Contact Between VC manager and CEO of Firm	194.05	187.76	77.16	62.32	347.34	747.76
Time in Portfolio	4.18	4.28	3.24	2.65	5.59	3.84
VC manager Experience as Venture Capitalist	0.38	0.49	0.38	0.49	0.36	0.48
VC manager Experience in Industry of Funded Firm	2.14	1.22	2.37	1.24	3.22	1.19
CEO's Industry Experience	10.69	9.01	12.80	7.89	10.62	6.70
CEO's Start-up experience	0.50	0.51	0.39	0.49	0.58	0.50
Venture Stage	0.55	0.50	0.87	0.33	0.58	0.50
Technological Innovation	0.43	0.50	0.61	0.49	0.78	0.42
Marketing Innovation	0.51	0.51	0.39	0.49	3.82	0.96
Product Innovation	0.65	0.48	0.72	0.45	0.70	0.46
Distance	138.41	172.58	73.61	54.26	534.70	1429.89

* *France and The Netherlands*

** *Japan, Korea and Taiwan*

TABLE B

Regression Results**Dependent variable = Hours contact between VC manager and CEO of portfolio company**

	Asia Coefficient	US Coefficient	Continental Europe Coefficient
Time in Portfolio	-0.00	-0.10+	-0.20+
Venture Capitalist Experience as Venture Capitalist	0.14	-0.65*	-0.30*
Venture Capitalist Experience in Industry of Funded Firm	-0.03	0.46*	0.17
CEO's Industry Experience	0.11	0.01	0.11
CEO's Start-up experience	-0.27	-0.43	-0.12
Venture Stage	0.11	-0.94**	-0.02
Technological Innovation	0.17	0.25	0.11
Marketing Innovation	0.01	-0.41+	0.15
Product Innovation	0.18	-0.06	0.10
Distance	0.12	-0.003*	-0.06
N	40	49	78
Adjusted R2	--	0.542	0.096

*Significance levels : + $p < .10$; * $p < .05$; ** $p < .01$*

TABLE C
Board of Directors
and p-values of t-tests between independent samples

Board Size	Total sample		Mean	Mean	Mean	p-value	p-value	p-value
	Mean	St. dev.	Asia	US	Cont. Europe	Asia vs. US	Asia vs. Europe	US vs. Europe
Board Total Size	5.37	2.35	6.40	5.71	4.63	0.15	0.00	0.00
Board Insiders as a Percentage of Board	0.41	0.26	0.51	0.35	0.39	0.00	0.03	0.41
<i>N</i>	167		40	49	78			

TABLE D
Mean Rankings of Venture Capitalist Roles Around the World
(1=not important, 5=very important)
and p-values of t-tests between independent samples

Importance of roles	Total Sample		Mean	Mean	Mean	p-value	p-value	p-value
	Mean	Standard Deviation	Asia	US	Cont. Europe	Asia vs. US	Asia vs. Europe	US vs. Europe
Sounding board	4.19	0.87	3.68	4.51	4.23	0.00	0.00	0.04
Financier	4.06	1.20	3.89	3.88	4.32	0.95	0.02	0.03
Business advisor	4.05	0.89	3.96	4.39	3.82	0.00	0.43	0.00
Mentor/Coach	3.67	1.01	3.60	3.92	3.49	0.08	0.59	0.01
Friend/Confidant	3.20	1.10	3.36	3.34	3.00	0.93	0.09	0.08
Source of professional contacts	3.07	1.00	3.11	2.91	3.18	0.33	0.66	0.12
Management recruiter	2.96	1.28	3.17	2.90	2.87	0.29	0.19	0.92
Source of industry contacts	2.88	1.28	3.45	2.63	2.74	0.00	0.00	0.62
<i>N</i>	167		40	49	78			

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