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Voluntary disclosure of corporate venture capital investments ☆

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ABSTRACT

In this paper, we investigate drivers of corporate venture capital investment announcements. Consistent with voluntary information disclosure theories, we find that a public announcement is less likely to be made when the start-up firm is in the seed stage but more likely when the parent company is large, active in concentrated markets and in non-high-tech industries; spends heavily on internal R&D and capital expenditures; has low leverage ratio; and faces more information asymmetry problems. In addition, corporate venture capital programs managed externally disclose more often than internal programs. We find that parent companies facing more severe asymmetric information problems enjoy the highest abnormal returns in response to announcements. This study contributes to the literature on voluntary information disclosure in that it evidences that larger corporations use disclosure of some of their investments in innovative startups strategically as a way to convey valuable information to the market.

1. Introduction

In innovation-driven industries, corporations invest heavily in research and development (R&D) to maintain leadership in their current market or to become a leader in new markets in the future. Corporations are often silent about their current R&D projects in an effort to provide as little information to competitors as possible. Doing so could otherwise affect their future competitive position in the market. In contrast, other corporations issue clear announcements as a way to strategically communicate to investors their corporate objectives and thereby influence anticipations (Narayanan et al., 2000).

So far, little is known about the factors that affect voluntary disclosure of investments in innovation, though a few studies examine strategic disclosure of other relevant corporate information, such as loans (Maskara and Mullineaux, 2011) and dividend cuts (Chemmanur and Tian, 2012, 2014).[2] Chemmanur and Tian (2014) show that companies strategically disclose information to "prepare" the market. Disclosing privately valuable information can provide clear signals to the market, even though some of this information may also be valuable to competitors. Bhattacharya and Ritter (1983) show that under certain conditions, the gain resulting from a lower cost of capital outweighs the potential disadvantage of disclosure. One such cost factor results from disclosing information that is useful to competitors, especially under strong industry competition (Maksimovic and Pichler, 2001). On the gain side, Balakrishnan et al. (2013) find that voluntary information disclosure affects liquidity of shares and, thus, the cost of equity capital. These different findings suggest that disclosing information on investments in innovation is likely strategic.

In this paper, we examine what drives information disclosure of investments in innovative ideas in the context of corporate venture capital (CVC).[3] CVC programs have become integral parts

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[2] The literature in the area of accounting offers some insights into corporate voluntary disclosure (see Verrecchia, 2001, for a detailed discussion). These studies, however, involve disclosing financial accounting ratios (e.g., Skinner, 1994), the adoption of specific reporting standards and management earnings guidance.

[3] For example, Intel Capital, Intel's CVC program, officially announced on September 6, 2005, its $16 million investment in Grisoft, a leading manufacturer of the AVG antivirus program (Source: Intel News Release "Intel Capital To Acquire $16M Stake In Grisoft, A Leading Security Software Company" at http://www.intel.com/pressroom/archive/releases/2005/20050906corp.htm, accessed May 2, 2013). According to Intel's official press release, "Intel will work to help Grisoft improve security on computing platforms for small businesses and consumers."

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of innovation activities of many large corporations, such as 3 M, Adobe Systems, AT&T, Cisco, Dell, General Electric, Intel, Johnson & Johnson, Microsoft, Novartis, Oracle, Siemens, Walt Disney, Xerox, and many more.[4] They allow corporations to access innovative ideas outside their firm boundaries, next to developing their own R&D projects internally. CVC programs make direct equity investments into start-up firms (Cumming, 2006), mostly in business areas that are similar to or not too distant from those of the parent company (Dushnitsky, 2012). Many studies have shown that a CVC program can generate gains to parent companies, making it an important part of the innovation strategy of large companies (e.g., Gompers and Lerner, 1998; Hellmann, 2002; Masulis and Nahata, 2009; Basu et al., 2011; Chemmanur et al., 2014; see also Da Rin et al., 2010, for a comprehensive survey of recent research).

Several theories help explain what may drive corporations that run a CVC program to announce their CVC investments publicly. These theories argue that information disclosure may be strategically motivated and, thus, that specific factors affect the costs and benefits of issuing an announcement. One crucial factor we investigate is the extent to which the parent company faces information asymmetry in the market with its current activities (Fishman and Hagerty, 2003; Ferreira and Rezende, 2007), as disclosing information of other investment opportunities (here, CVC investments) may help reduce the information asymmetry with current assets or commitments. For example, Ferreira and Rezende (2007) argue that parent companies may disclose information on their ongoing innovation projects as a way to signal credible commitment to these projects, to induce future suppliers to make relationship-specific investments early. Should they fail to stick with the announced projects, parent companies would lose credibility for future announcements. We also explore whether the parent company's dependence on debt affects announcement decisions. According to Perotti and von Thadden (2005), companies that rely more on bank debt are less likely to disclose critical information, because banks can collect this information by monitoring the borrower. In contrast, companies that rely more on equity will disclose more, because they are more dependent on equity investors, who rely on corporate disclosure to price shares. Another factor arising from voluntary disclosure theories is firm size (Diamond and Verrecchia, 1991); larger corporations likely benefit more from disclosure because they rely more on the participation of institutional investors for whom liquidity of shares is more important. Quick and comprehensive disclosure improves liquidity of stocks. In contrast, shares of smaller firms tend to be held proportionately more by retail investors, who value liquidity less than institutional investors.

Other theories offer predictions regarding costs of disclosing innovation. One prominent factor affecting disclosure costs is industry competiveness (Maksimovic and Pichler, 2001). Parent companies in more competitive industries bear greater costs from revealing valuable information to competitors. For example, Chemmanur et al. (2010) find that firms in more concentrated industries are more likely to go public, because the costs associated with greater disclosure imposed to public firms are lower. Similarly, high-tech parent companies face higher costs of investment disclosure, because a greater fraction of their investments are in innovation and thus have more value to competitors.

We further expect that the structure of CVC programs and syndication affect the probability of announcement. Investments should be more often announced when the CVC program is externally managed and when independent, private venture capital (VC) firms participate in the deal. Both effects are consistent with increased benefits of disclosure for either the external CVC program or the private VC firm from greater visibility about its investment activities.

To perform the analysis, we select a sample of CVC investments made by US public corporations during the 2002–2012 period. Using the Factiva database, which aggregates corporate information from various sources (see Section 3 for more details), we then manually collect information on which of these investments were publicly announced and on which exact date. We find that approximately two-thirds of the investments were publicly announced. Of note, we observe little differences between the sample of announced investments and unannounced CVC investments; the only statistically significant difference pertains to seed investments, as such investments are present more often in the sub-sample of unannounced investments. This finding is consistent with the prior discussion that these announcements are more difficult to assess by outsiders and are "riskier" signals. Similarly, we find little differences between the two sub-samples in terms of characteristics of the parent companies.

We find that several characteristics of investments and parent companies shed light on the motivations of parent companies to publicly announce their CVC investments. Consistent with our predictions, we find that companies facing severe information asymmetry problems derive greater benefits from communicating any good news to the market and thus are more likely to disclose their CVC investments. Next, larger parent companies (measured in market capitalization) are more likely to issue announcements. This is consistent with Diamond and Verrecchia's (1991) theoretical prediction that larger firms benefit more from disclosing private information because they rely more on market liquidity than smaller firms. We further document that parent companies that invest more in internal R&D or have larger capital expenditures (in dollar amounts, not as a fraction of total assets) are more likely to announce. This is consistent with the idea that they may have competitive advantages and thus fear competition to a lesser extent. Along similar lines, parent companies active in high-tech industries are less likely to disclose, suggesting that costs are higher in these industries. Parent companies operating in competitive markets also disclose less often, as costs related to disclosure are likely to be higher in those markets.

Next, we examine the impact of syndication and structure on the disclosure probability. In many cases, the CVC parent company is not the sole investor but co-invests (syndicate) with independent VC firms. Because each investor may have its own incentives that affect its disclosure policy, we test our main predictions on the sub-sample of investments that are not syndicated (i.e., those for which the parent company is the sole investor). In this reduced sample of 122 deals, we find that the impacts of information asymmetry, firm size, and leverage of the parent company are even greater than those in the full sample. Moreover, the three effects are present in the other sub-sample of syndicated investments, though weaker than what we observe in the non-syndicated sub-sample. In terms of syndicate structure, we find that information is more likely to be disclosed when independent VC firms participate in the syndicate, in line with the idea that they need to communicate more because they depend on regular fundraising.

Finally, we investigate how the stock market reacts to these announcements. This extension helps understand whether disclosure affects stock prices, based on the sample of disclosed deals (but controlling for self-selection). We find that parents companies facing severe information asymmetry problems benefit most, with an average cumulative abnormal return (CAR) of 1.22% over the [−2,+2] window following a one-standard deviation increase in the information asymmetry measure used.

[4] Dushnitsky (2012) offers a comprehensive survey of research on CVC, as well as a discussion on the different forms of CVC. In terms of importance of the phenomenon, Basu et al. (2011) report that approximately 17% of *Fortune* 500 companies (the top 500 U.S. companies annually ranked by revenue) relied on CVC investments during the 1990–2000 period. Taking an international perspective, Da Gbadji et al. (2015) find that 29% of the *Fortune* Global 500 companies had active CVC programs during the 2008–2011 period.