The Varying Role of Digital Media on Angels and Venture Capitalists

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Abstract

*How do different investors utilize digital resources to determine which new firms they should invest in? To address this question, we utilize a database of almost 20,000 entrepreneurs to investigate the different approaches to digital media used by venture capitalists (VCs) and angel investors when determining which ventures to invest in. While angel investors and venture capitalists look for certain commonalities (e.g., patents, higher levels of innovation), their utilization of digital media differs. Specifically, we find that for angel investors, the importance of firm innovativeness can be exacerbated by a strong social media and online presence. In contrast, venture capitalists were more reliant on data sources more directly tied to entrepreneurial activity, such as adherence to impact standards.*

How do different investors use digital media?

One of the key challenges for early-stage investors is determining the valuation of a technology-based startup prior to investment. This situation is riddled with high uncertainty and information asymmetries. While academics and practitioners have looked at how investors make these determinations in traditional settings, few have explored how investors use social media and digital resources to make these assessments. Specifically, there is a relative lack of understanding of how different types of investors utilize digital media to determine which new firms they should invest in. This
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is an important question because angel investors and venture capitalists are the most important owners in an entrepreneurial firm, ranked behind only the entrepreneurs themselves.

Both types of investors are key to firm growth because in addition to providing “smart money,” they monitor the progress of their firms and provide timely value-added services.

While both types of investors are important to entrepreneurial startups, the process by which both sets of investors make their investment decisions is relatively unknown. Previous research suggests that angel investors, who are often focused on early-stage ventures, rely on ‘gut feel’ more so than formal analysis. For example, “affective passion matters more to angel investors, while economic potential matters more to venture capitalists”.

However, it is unclear what motivates this gut-feel approach. One possibility is that angel investors more frequently utilize online or digital signals, as opposed to traditional signals, in order to determine which startups they would like to finance. Thus, a key contribution of this study is to demonstrate how angel investors and venture capitalists differ in utilizing social media, in combination with other data sources, to determine what firms they will invest in. In this study, we throw light on this topical issue by utilizing a database of almost 20,000 entrepreneurs to investigate the different approaches to digital media used by venture capitalists (VCs) and angel investors.

This paper exploring the role of social media in investor decisions is topical given the aftereffects of the pandemic and subsequent shift to hybrid work environments. During the pandemic there has been a growth frenzy in entrepreneurship; 4.4 million businesses were started in the U.S. during 2020, a 24% increase as compared to 2019. Digital media is one of the most easily accessible sources to cash strapped entrepreneurs that enables them to develop social proof, get on the radar of VCs and angel investors, share brand stories, and providing investor updates.

Emerging trends and research suggest that social media activity and ability to obtain funding may be positively correlated. Social media enables startups to signal information especially to angel investors who are looking for investment opportunities but lack the infrastructure of institutional investors and venture capitalists. Digital media and similar platforms allow startups to create a positive brand image that enhances further investments. The COVID-19 pandemic has also played a role in popularizing and normalizing the use of social media in large organizations and small startup settings. For example, a 2021 CMO survey reports that social media spending in marketing budgets increased by 74% between February 2020 to June 2020. Furthermore, the contribution of social media to overall company performance has risen sharply up 24% since previous years. Another study
reports that during COVID-19 pandemic 74% of U.S. financial advisors used social media for onboarding new clients or business relationships. During the pandemic, 55% of advisors who initiated new client relationship increased the use of social media. Thus, there is a widespread interest among researchers and practitioners on how to leverage social media for investment success. Our study contributes to this understanding by illuminating the different signals used by VCs and angel investors.

Our article provides empirical evidence that both venture capitalists and angel investors are influenced by a new venture’s relative innovation level. Interestingly, we find that digital media presence (e.g., the firm’s website, Twitter, and LinkedIn presence) has a statistically positive moderating effect on angel investors’ investment decisions; we do not find this moderating impact for VCs. In addition, our study investigates and provides additional insights regarding the role of impact standards in moderating the investment decision of venture capitalists. These results serve as crucial insights manifesting how venture capitalists and angel investors rely on different sources when considering which firms to invest in.

Investment decisions by angels: Soft factors and gut feel

Angel investors are individuals who invest their own money for their own reasons into a venture that is usually local and unlisted. Angel investing serves as one of the crucial funding sources for early-stage entrepreneurs. Angel investors are those who rely on their supportive mindset to benefit potential business ventures that could be friends, family, or strangers in initiating the new startup. Prior evidence has found that new ventures initially attempt to acquire money from their own personal networks. This approach to obtaining funding has been referred to as Three-F: Friends, Family, and Fools. However, the invested money from angels can be relatively lower when compared to the size of investment from venture capitalists; therefore it is normal that when a new venture expands, they may shift from receiving funding from angels to venture capitalists. Like any type of investors, angels are looking for potential ventures that can yield multiple returns in the future. According to prior studies, the decision process for angels can be perceived as a linear process that includes three stages prior to investment: familiarization, screening, and bargaining.

Although the decision process for angels is generally in line with the process implemented by venture capitalists, angel investors are orientated more toward soft factor or “gut feeling” decisions. For example, it is important to make a strong first impression when meeting with angels since this has been found to result in a higher chance of further negotiations. Angel investors have shown to make decisions based on gut feeling by manifesting
the positive correlation between an entrepreneur’s presentation skills, or oral “pitch,” and the potential investment decision. \(^4\)\(^2\) This result is in line with previous studies showing that entrepreneurs that are perceived as realistic, trustworthy, strategically ready, and passionate were favored by angel investors.\(^4\)\(^2\)\(^1\) In addition, angel investors consider intangible characteristics as a crucial factor when making investment decisions after an entrepreneur has passed the initial decision-making stage. \(^1\)\(^9\) More importantly, angel investors rely on external information and perceptions from their institutional environment (i.e. professional network) in making investment decisions.\(^2\)\(^2\) Further, the investment decisions made by angels have been found to be correlated with their in-network peers.\(^2\)\(^3\) Specifically, social trust plays an important role in influencing angel investment decisions.\(^2\)\(^3\) These findings are notable as investors of all types have begun utilizing digital resources and social media to remain connected with their personal and professional networks over the past decade. \(^6\) However, while angel investors and venture capitalists may have similar expected outcomes, the approach of selecting a venture to invest in might be different for angels than for the more established and systematic venture capitalist. Thus, we consider the factors that venture capitalists have historically favored.

**Investment decisions by venture capitalists: institutional factors**

The venture capitalist (VC) is a type of institutional investor who raises funds from various parties such as individuals, organizations, endowments, pension funds, banks, sovereign wealth funds, and insurance companies, to invest in high risk though high potential ventures. \(^2\)\(^4\)\(^2\)\(^5\) Like angel investors, VC investors emphasize their own processes, which includes thorough screening, contracting, monitoring, and deciding the exit. \(^1\)\(^5\)\(^\)\(^2\)\(^5\)\(^\)\(^6\) In addition, VC investors tend to be less personally and/or professionally involved with the invested ventures relative to the angel investor in strategic aim and operational practices. \(^1\)\(^9\)

When making the investment decision, VCs tend to utilize certain standards or benchmarks and emphasize the historical record of a new venture. For example, prior findings have argued that spin-offs are found to be amongst the important signals for VCs.\(^1\)\(^3\) Spin-offs are ventures initiated by the employee of an existing company; therefore, they receive more attention by VCs due to its perceived transferred experience. In addition, VCs emphasize experience manifested by entrepreneurs by investing in the ventures that are established by serial entrepreneurs.\(^2\)\(^4\) Within this line of argument, VCs may feel that experienced entrepreneurs have a specific process for development and have a better understanding of what standards must be met to grow a new venture (e.g. revenue benchmarks, legal
restrictions, etc.). Prior studies compared new entrepreneurs and serial entrepreneurs and found that the latter type shows a proportionally higher chance of receiving funding.\textsuperscript{13,24} These findings highlight that VCs feel more comfortable relying on industry standards when making investment decisions. Another source that historically has aided VCs for investment decisions is their network among other VCs. Prior research argues that VCs would prefer to invest with partners who have a useful network that enhances the odds of a successful investment.\textsuperscript{27} Therefore, it is evident that VCs considered past record and experience for making a more systematic investment decision rather than the “gut feel” approached favored by angel investors.

**Modernizing investment decisions: The role of digital media**

Recently, mass-media surveys have reported that digital and social media plays an increasingly key role in investors’ decisions. Digital usage among investors is ubiquitous where about 88% of investors are making decisions based on information they have learned online and almost 98% stated that they use digital sources to investigate and conduct research. For example, a recent study of 256 corporate and public pension funds, insurance companies, endowments, and foundations in the U.S., Europe and Asia indicated that almost 80% of institutional investors use social media as part of their regular workflow influencing the allocation of billions of dollars of investments around the world.\textsuperscript{28} Thus, it appears that social media has become a more popular tool that may directly influence investment decisions. We explore this topic further by aiming to develop a better understanding of how different types of investors, such as venture capitalists (VCs) and angel investors, utilize social media.

Based on prior literature, we expect to see some similarities and other differences across investor types. For example, we expect that both angel investors and venture capitalists will be more likely to invest in emerging ventures with higher levels of innovation, as indicated by higher numbers of patents. Patents have been typically used as signaling mechanisms to indicate firm value to potential investors to gain initial venture funding.\textsuperscript{4,29} However, we expect that the utilization of digital media will differ between the two groups of investors when determining their investment decisions.

We believe that firms with a strong digital presence will be preferred by angel investors. Given the aforementioned preferences, for utilizing soft factors and gut feel, and a historical reliance on in-network peers, we anticipate that angel investors will look to social media and a firm’s digital presence as a form of digital signaling. In contrast, for venture capitalists, we speculate that adherence to impact standards will play a role in the
investment decision. Impact standards or United Nations Sustainable Development Goals (SDG) Impact Standards are best practice standards for entities wanting to contribute positively to sustainable development and achieving sustainable development goals into their strategy so that they can create value for themselves and their stakeholders (people and planet).30

This argument stems from the prior literature that notes a preference for historical records and experience for VCs. We believe that impact standards serve as a signal to investors. By demonstrating an understanding of these impact standards, how they are measured, and how to integrate them into their venture, an entrepreneur can signal a certain level of knowledge and sophistication to outside investors. In fact, prior findings indicate that experienced entrepreneurs will have a better understanding of the existing standards and will have integrated them into their business development.31 Building off of this, we suspect that VCs will view a venture’s ability to meet certain standards as a signal for entrepreneurial competence and will thus be more likely to invest in such firms. Given these expectations, we detail the data collection and analysis below.

**Survey of entrepreneurs**

To explore this question, we utilized data from the Global Accelerator Learning Initiative (GALI), a collaboration by Emory University and the Aspen Network of Development Entrepreneurs (ANDE). This data was collected between 2013 and 2019 and includes responses from 19,419 entrepreneurs who had recently applied to an accelerator program. The entrepreneurs in the data set include those who eventually became part of an accelerator program and those who were not. All businesses in the data set were considered early-stage ventures. The respondents came from over 150 different countries and represented a wide variety of industries, including information technology, healthcare, and financial services. Respondents were asked a wide-ranging set of questions, including information on the firm’s digital presence, the firm’s operational model, and the sources of their outside equity (galidata.org).

VC investment and angel investment were both coded as binary data while level of innovation was captured by using the log-transformed value of number of patents. Digital media presence was measured using three items: whether the firm has a website, a Twitter profile, and a LinkedIn profile. Adherence to impact standards was measured by whether the firm adhered to Impact Reporting Investment Standards (IRIS), which integrates social and environmental factors into investment decisions alongside traditional measures, such as risk and return.30
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Survey results
We ran several probit models for our two dependent variables - VC investment and Angel investment – to test for the impact of innovation level, adherence to impact standards, and the moderating impact of digital media presence. First, we found that both types of investment are influenced by the new venture’s innovation level. According to our probit regression results, the level of innovation had a significant positive influence on the likelihood of VC investment as well as the likelihood of angel investment. These findings support our initial arguments.

Moving forward, we investigated the moderating role of digital media presence onto our main effects. First, we found that having a website, a presence on Twitter, and a presence on LinkedIn, all had a statistically significant moderating impact on the main effect of firm innovativeness onto angel investment. Interestingly, none of these moderating relationships existed for VC investment. Thus, we find support for the notion that angel investors utilize a firm’s social media and strong digital presence, in combination with a firm’s ability to earn patents, when making an investment decision. Interestingly, VCs do not heavily rely on these digital visibility metrics in combination with innovation level.

We also assessed the role of impact standards on both VC and angel investment. While we discovered a small effect of adherence to impact standards on VC investment, we found no such relationship onto angel investment. Thus, it appears that VCs are more aware and reliant on a firm’s ability to meet certain industry standards than are angel investors. This is notable as the average consumer is likely unaware of these standards, but an experienced entrepreneur is not only aware of these standards but more likely to aim at integrating these metrics into their firm processes and goals. Further, impact standards, such as IRIS, are more objective than qualitative measures of social media presence, thus these standards may be more appealing to VCs than to angel investors.

Why does this matter?
As proposed, we find that venture capitalists and angel investors rely on different sources when determining which firms to invest in. Specifically, we find that angel investors are more likely to utilize a web presence and social media when determining which firms to invest in. We do not find this result when testing for VC investment. Prior work has argued that angel investors are more likely to rely on a “gut feel” when determining which ventures to invest in.\(^3\) Thus, it is possible that angels go beyond more objective data, such as the number of patents a venture has, and utilize social media and other digital resources to get an understanding of how a venture is being received.
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The finding is in line with prior studies in arguing that angels spend less time on deep research for investment opportunities but rely more on the information signaled by the venture or shared by others.\textsuperscript{32,33,34} The information signaled through social media could reconcile any information asymmetries and provide angels with quick and updated information that may stimulate the decision making process.\textsuperscript{35} In other words, angel investors appear more likely to rely on “soft” information disseminated through digital means, despite the potential for this information to be biased. Given this result, it is more likely that angel investors gather information from various parties available on digital platforms (e.g., potential customers) when considering whether to invest in a venture. For firms, this means strong digital and social media presence is crucial to obtaining funding from angel investors. We recommend that small, early-stage firms consider hiring digital marketing consultants to increase their online presence when preparing to obtain funding.

Conversely, it appears that VCs are more likely to rely on more objective data. While VCs did not appear to be influenced by a venture’s digital presence, they were potentially influenced by the venture’s adherence to impact standards, such as IRIS. The results are consistent with a previous study arguing that the standard matrices, such as accounting benchmarks, influence the governance structure of investing decisions for VCs.\textsuperscript{36} Since VCs consider the responsibility of fund management for other investors, objective data, such as a venture’s adherence to impact standards, could attract their investment decision better than relying on the signals directly expressed by the entrepreneur and/or customers, such as qualitative information through social media. For later stage firms – that is, those focusing on obtaining VC funding - we recommend hiring compliance consultants who can help navigate the process of meeting impact standards and other objective measures. Unsurprisingly, both angel investors and VCs were influenced by the venture’s level of innovativeness. It appears that a venture’s innovativeness is a bit of a baseline; a firm must demonstrate some level of innovativeness, via their ability to gain patents, in hopes of gaining funding from either VCs or angel investors.

Conclusion
This study enhances the important knowledge for business leaders, investors, and entrepreneurs because social media has taken on a more prominent role than ever during the pandemic. Emerging trends suggest that consumers are using social media more than ever, to discover the latest brands (43\%), make purchases (36\%), and recommend brands to family and
friends (33%). Similarly, 63% of institutional investors use social media as their key research source. Only 48% turn to specialist publications.\(^7, 8, 9, 10\)

These findings may also have implications that deserve further research. Among different demographic groups, women of color are turning to social media and peers for investment know-how rather than their peers. A recent study by J.P Morgan Wealth Management found that when starting to invest, 78% of affluent Black women and Latinas used self-directed online educational resources as compared to 47% white women. Thus, to determine how to position their enterprises to be successful and explore strategies on how to invest in upcoming ventures, business leaders must understand how different types of investors and consumers consume social media. In this study we especially try to discern the differences in how angel investors and venture capitalists assess the potential firms to invest differently. We find that while both groups look for certain commonalities (e.g., patents, higher levels of innovation), their utilization of digital media differs. Specifically, we find that for angel investors, the importance of firm innovativeness can be exacerbated by a strong social media and online presence. Meanwhile, venture capitalists were more reliant on data sources more directly tied to entrepreneurial activity, such as adherence to impact standards. Given that startups are typically cash strapped, findings from our study provide encourage entrepreneurs seeking angel funding, to focus on different aspects of their business, as compared to those seeking venture funding. Thus, our study provides entrepreneurs and business leaders a better understanding of how different investors assess their firm valuation.

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Endnotes


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