Global Impact Investors’ Assessment of Early-Stage Social Ventures Through Digital Signals

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Abstract

Over the past decades, social impact investment has become popular because of its potential to solve pertinent world problems by financing social enterprises. This study focuses on assessing the influence of digital signals towards impact investors' decision-making process when evaluating early-stage social ventures using digital media, by conducting exploratory qualitative research (semi-structured interviews) with 14 global impact investors (equity) who are investing in social ventures from pre-seed to series A stage.

The result suggests that impact investors use digital signals to shortlist social ventures based on impact investors' business, impact, and founders criteria during the deal sourcing stage. However, the assessment using digital media within the screening process is mostly applicable to assess only the authenticity of the founding team and some of the business criteria, though there are some nuances that indicate impact investors look into customer reviews to evaluate the social impact through digital narratives. However digital signals do not independently influence the selection process of a social venture. Impact investors will use other means to verify the information found on digital media to make decisions.

Our findings contribute to the nascent literature in impact investing by identifying the investment criteria assessed when impact investors use digital signals in the deal sourcing and screening stage which influence the discoverability and investability of social ventures. The results also reflected nuances that exist based on the different structure of investment teams i.e. centralised or dispersed in all regions of focus. Additionally, the study also has practical implications in the field of impact investing for both investors and social ventures.

Keywords: Impact Investing, Impact Investor, Social Venture, Social Entrepreneurship, Investment Decision Making, Digital Signalling, Early Stage Venture

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1. Introduction

Since the early 2000s, social entrepreneurship has attracted growing attention from academic researchers and the general public (Certo & Miller, 2008; Austin, Stevenson, & Wei-Skillern, 2006; Weerawardena & Mort, 2006). Social ventures were traditionally funded by government programs, grants or subsidies in the form of short-term financing (Rajan, Koserwall & Keerthana, 2014), however, over the past decades, social impact investment has become popular because of its potential to solve pertinent world problems by financing social enterprises (Islam, 2022). The popularity of impact investment is also in line with the increase in market share of the global impact investment market. According to Global Impact Investing Network (GIIN), the 2022 market was estimated to be at USD 1.164 trillion (Hand, Ringel, & Danel, 2022).

1.1 Background

The term impact investing was introduced in 2007 by Rockefeller Foundation as an investment that focuses on social motives in addition to the financial return objectives (Monitor Institute, 2009). Due to the emergence of impact investment activities, past studies have tried identifying investors' criteria when screening these ventures, which involves assessment of the founder's authenticity and background, the venture's social and financial goals, the solution's innovativeness, the community network, and the growth of the market and its impact (Miller & Wesley, 2010; Agrawal & Hockerts, 2021; Block, Hirschmann & Fisch, 2021). However, information asymmetry often occurs between capital providers and founders because of the knowledge gap between the needs of both parties, which leads to founders facing difficulty in securing funding (Glücksman, 2020). Additionally, there is a mismatch between demand and supply of impact investment that could be found across geographies, sectors, and business sizes (Islam & Scott, 2022), thus it could make it difficult for social ventures to get funding. Furthermore, due to the high risk of early-stage startups, many investors try to mitigate failure by limiting the investment options and considering startups with referrals from a trusted network or investing in a startup that is geographically close by (Kang, Jiang, & Tan, 2017). Despite a potential oversupply of investment in some areas, it is difficult for global investors to invest in a new area because of the increased information asymmetry on geographical context, laws and regulations (Chung, Sul & Wang, 2021).

1.2 Problem Definition

In recent years, entrepreneurs are engaging online not only for personal reasons but also for business networks (Fischer & Reuber, 2014; Drummond, McGrath & O'Toole, 2018). By having an online presence, the founders' and business credibility could be seen from the public engagement and the quality of posts, providing positive signals for investors (Smith, Smith & Shaw, 2017). The digital era opens opportunities for social ventures to broaden their network, and engage with entrepreneurial communities beyond geographical boundaries (Ryder & Vogeley, 2018), thus bridging the gap between investors and founders. However uncertainty is inevitable for investors, thus ventures should focus on sending strong signals in the earlier phase (Ko & McKelvie, 2016). Signalling on digital media can help investors get more rhetorical signals about the startups thus enabling them to make better investment decisions (Steigenberger & Wilhelm, 2018).

Despite the emergence of digital media usage for entrepreneurial activities (Smith, Smith, and Shaw, 2017), such as in marketing, business networking, informational searches, and crowdfunding (Olanrewaju et al, 2020), the discussion on digital signalling topics in the prior studies is concentrated on increasing investors' trust towards entrepreneurs and credibility establishment of a general early-stage venture. There are limited scholarly articles discussing the criteria impact investors employ to evaluate social ventures explicitly through digital platforms. Many of the available articles related to investors' online evaluation are within the crowdfunding theme, for example, Kromidha and Robson's (2020) study about the role of social identity in fundraising, or Ahlers et. al's (2015) examination of signalling in equity crowdfunding. Considering social ventures' dual identity in entrepreneurship that operates not only to make a profit but also to generate social or environmental impact (Yang, Kher & Newbert, 2019), there is still a gap within the existing literature about the important signals that impact investors seek, specifically in early-stage social ventures because existing studies mainly examine traditional for-profit ventures.

Within the area of impact investment, academic scholars have previously shed some light on defining the impact investors' criteria by looking into the duality of social ventures, combining the assessment of both traditional and social entrepreneurship (Miller & Wesley, 2010) and further gaining an understanding of each variable's degree of importance in the screening process (Block, Hirschmann & Fisch, 2021). However, with the increased adoption of digital media over the past decades for entrepreneurs (Smith, Smith, & Shaw, 2017), it is unclear how the information available online is being used during the investment decision-making process and to what stage of venture evaluation this information contributes.

Currently, the available literature is within the area of crowdfunding, which contributes to understanding the influence of digital signals towards small investors' decision-making process, but a gap still exists to understand the criteria employed by bigger institutional investors specifically when evaluating social ventures. The literature available on the screening process of early-stage ventures is also very nascent and lacks sufficient evidence in academia.

Therefore by developing an understanding of how impact investors use digital signals from social ventures in digital media platforms, this study contributes to filling the knowledge gap and providing insights into the significance of digital signalling in the investment process. We used the existing framework on impact investor assessment criteria by Block, Hirschman and Fisch (2021), to understand how these criteria relate to the assessment of social ventures' signals in digital media. This study contributes to developing a framework for impact investors that might use digital media passively or in an unstructured approach to utilise digital platforms more effectively. Additionally, given the early-stage social ventures' difficulty in raising funds, a better comprehension of impact investor's assessment criteria would contribute to theorising the role of early-stage social ventures' digital presence towards impact investors' evaluation and whether it positively affects the ventures' chance in acquiring funds.

1.3 Research Questions

This study is aimed at developing a better understanding of the decision-making processes of impact investors when they evaluate early-stage social ventures by using extant literature (Colquitt & Zapata-Phelan, 2007). In this research, we want to explore the use of digital signals available on digital media platforms during the process of evaluating social ventures. We add digital media as an additional variable to confirm if the previous theories in the area apply to the digital environment as well.

How do impact investors use digital media to assess early-stage social ventures' signals in the deal sourcing and screening phase of the investment process?

Block, Hirschmann and Fisch (2021) have developed an understanding of the initial screening criteria of impact investors for early-stage social ventures. The criteria include business, social impact and founding team, which is used as the baseline for this study. Further details on these criteria are discussed in the following chapters.

Additionally, in order to answer the questions and ensure the external validity of the study, the research is conducted on a homogenous group of global impact investors by using purposive and theoretical sampling to ensure they operate in similar environments. Due to the limited number of past studies, abductive reasoning is used to analyse data, and find key themes to develop a framework for this research. This study uses a qualitative research approach with semi-structured interviews to discover new findings that might be identifiable during the interviews (Bryman & Bell, 2011).

2. Theoretical Review

In this chapter, past literature is evaluated to develop definitions and theoretical frameworks, starting with the definition of social ventures and impact investment, the decision-making process of impact investors, the information asymmetry between the investor and entrepreneur and the role of digital media signals in the initial screening of social ventures. The section ends with a baseline framework for this research.

2.1 Social Venture

Social Entrepreneurship has been a field with many varying definitions over the years. As mentioned by Mair and Marti (2006), three different schools of thought exist when defining a social venture. While one group referred it as a not-for-profit with alternative funding strategies to create social value (Austin, Stevenson, & Wei-Skiller, 2003; Boschee, 1998), the second group comprehended it as a socially responsible way of doing commercial business (Sagawa & Segal, 2000; Waddock,1988), and the third group referred to it as a means to alleviate social problems and transform social landscape (Alvord et al., 2004). After evaluating multiple pieces of research done over the years, it could be inferred as a hybrid concept (Leborgne‐Bonassié, M., Coletti, M. & Sansone, G., 2019) that combines the characteristics of public, private and not-for-profit organisations (Doherty, Haugh & Lyon, 2014) and balances the social phenomenon with an economic one (Dacin, Dacin & Tracey, 2011).

With the growth of social entrepreneurship, social ventures that were traditionally funded by government organisations started to look into other types of financing opportunities (Boschee, 1995; Tracey & Jarvis, 2007; Miller & Wesley, 2010). However, social ventures often face challenges in the early stage due to the lack of legitimacy and perceived high uncertainty (Ko & McKelvie, 2016). Similar to traditional investors, social venture capitalists and impact investors have little information to evaluate organisational quality and success, however evaluating social ventures is more complex because of the dual purpose they fulfil (Tyebjee & Bruno, 1984; Miller & Wesley, 2010). This thesis will further discuss the impact of investment in early-stage social ventures to provide a better understanding of the issue.

2.2 Impact Investment

Investment with additional motives outside financial return has existed for a long time, for example, Emerson (2003) discussed ‘blended value’, the intersection between financial investing and social return. However, the term ‘Impact Investing’ could be traced back to 2007 at a conference by Rockefeller Foundation, which was further explained as an investment with not only financial goals but also social and environmental goals (Monitor Institute, 2009). Since the growing attention on impact investment and social entrepreneurship in the 2000s (Certo & Miller, 2008; Austin, Stevenson, & Wei-Skillern, 2006; Weerawardena & Mort, 2006), academic scholars further discuss the different definitions and terminologies around this topic. Höchstädter and Scheck (2014) review that the typical explanation revolves around both financial objectives and non-financial impact, including social and environmental. Additionally, the terms ‘Social finance’, or ‘Social investment’ are often used interchangeably with impact investing.

Block, Hirschmann and Fisch (2021) synthesised and classified the impact investors' financing type into 3 categories, which are equity, debt, and donor.

> Equity: Investment that aims for market-rate financial returns from the valuation upon exit. Investors typically invest through impact-investment funds or venture capital. Equity type generally funds in the early stage but unlikely in a very early on outlining the idea’ phase.
>
> Debt: Made in the form of a loan to build social ventures, the interest rate of social financing could be below the market’s interest rate. Debt investors commonly fund late-stage businesses.
>
> Donor: They provide funding or grants and support for entrepreneurs focused on social goals, without asking for financial return. The donor usually funds an early-stage startup that is active in the establishment phase.

2.3 Decision-making Criteria of Impact Investors for Early-Stage Social Ventures

Miller and Wesley (2010) define the investment criteria by looking into the duality of social ventures, combining a total of 8 assessment criteria from the traditional entrepreneurial and social sectors. The traditional entrepreneurial sector criteria include the assessment of (1) innovation capabilities, (2) management experience, (3) the social venture's goal to generate income, (4) educational prestige, and (5) the strength of the venture's performance management methodology, while the social sector includes the assessment of (6) focus on a social mission, (7) perceived passion for social change, and (8) size of the social entrepreneur's community-based social network. Miller and Wesley (2010) concluded that although Social Venture Capitalists (SVCs) may be motivated by the returns of traditional ventures, they evaluate a venture's probable effectiveness more favourably from its social goals. This article contributes to the social entrepreneurship research subject by identifying the decision-making process of SVCs when funding a venture. Over the years, a few researchers have built upon the assessment criteria, suggesting a more holistic decision-making process (Agrawal & Jespersen, 2023), and evaluating the degree of importance of the assessment criteria in the early screening stage of impact investment (Block, Hirschmann & Fisch, 2021).

From a longitudinal study by Agrawal and Jespersen (2023), the model of impact investors' decision-making includes context, investment focus, venture analysis, and investment decision which could be seen in Figure 1. In their research, Agrawal and Jespersen (2023) derived their contextual category from the stakeholder theory (Freeman, 1984; Mason et al., 2007) and the hybrid organisation framework (Pache & Santosa, 2010; Thornton et al., 2012; McCallum & Viviers, 2020), suggesting that the impact investors' founding principles and the socioeconomic location of investee influence the decision-making process. The investment focus and venture analysis category is in line with Miller and Wesley's (2010) article on the social venture's entrepreneurial and social sector assessment criteria. Finally, the investment decision explains common goals between both impact investors and investees, social impact measurement, investment structure and exit strategy (Agrawal & Jespersen, 2023). It could be inferred from the study that the decision-making process is influenced by not only the venture's internal condition such as its team, goal, or financial projection but also external conditions including the investors' and the socioeconomic and geographical context.

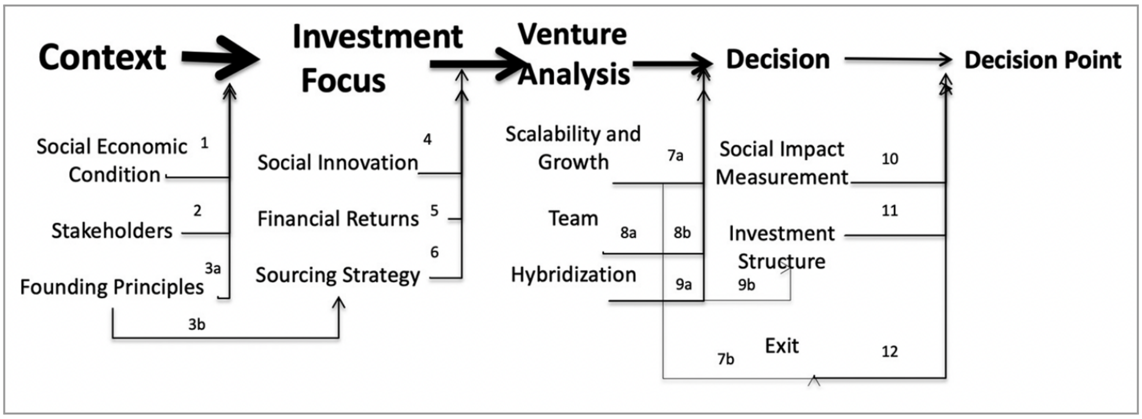


Figure 1 - Impact Investors' Decision-Making Model by Agrawal and Jespersen (2023)

Block, Hirschmann and Fisch (2021) tested the criteria which have previously been theorised by Miller and Wesley (2010). Despite using the same assessment criteria, Block, Hirschmann and Fisch (2021) categorise them based on social impact, founding team, and business criteria. In comparison to the previous Miller and Wesley's approach which separates social and entrepreneurial sectors, this category is built on blended sectors, assessing social venture through categories that represent its mission, team, and performance. In their study, Block, Hirschmann and Fisch (2021) identified the degree of importance of each criterion when impact investors screen an early-stage social venture, and found that the authenticity of the founding team and the social goals are the most important criteria for impact investors. Additionally, the findings conclude that all types of impact investors (debt, equity and donor) rank different assessment criteria similarly. However, in comparison to debt and equity investors, the importance of a 'societal problem' for donors is considerably higher. Their result is displayed in Table 1.

Rank	Attribute	Relative importance	Lowest relative importance	Highest relative importance	Main results (qualitative summary)
1	Authenticity of the founding team	25.7%	25.2% (DOs)	29.0% (DEs)	No major differences across the three types of impact investors.
2	Importance of the societal problem	24.0%	18.2% (EQs)	26.1% (DOs)	Major differences across impact investor types: less important to equity and debt investors, and more important to donors.
3	Financial sustainability	16.9%	15.5% (DOs)	21.4% (DEs)	Minor differences across impact investor types: less important to donors, and more important to equity investors.
4	Scalability	14.2%	9.5% (DEs)	16.4% (EQs)	Minor differences across impact investor types: less important to debt investors, and more important to equity investors.
5	Proof of Concept	9.7%	9.9% (DOs)	10.7% (EQs)	No major differences across the three types of impact investors.
6	Degree of innovation	8.2%	6.9% (EQs)	8.8% (DOs)	No major differences across the three types of impact investors.
7	Founding team background	1.4%	0.7% (EQs)	3.4% (DEs)	Minor differences across impact investor types: social background is less important to equity investors, and more important to debt investors.

Table 1 - Importance of Attributes from Impact Investment Criteria by Block, Hirschmann and Fisch (2021)

2.4 The Gap between Impact Investors and Early-Stage Social Ventures

Past studies on impact investor's decision-making criteria (Miller & Wesley, 2010; Agrawal & Jespersen, 2023; Hirschmann & Fisch, 2021) have shed some light on the emerging impact investment phenomena by uncovering the decision-making criteria, the degree of importance of criteria, and also the contextual attributes that influence them.

However, other studies in impact investing have also identified gaps between impact investors and early-stage social ventures. A mismatch of demand and supply of impact investment exists across geographies, sectors, and business sizes (Islam & Scott, 2022). For instance, although investment demand tends to come from early-stage social ventures for business growth and survival, the supply is low in comparison to more mature companies which are not in need of investment. Another example is the mismatch between investor supply and demand in different geographic areas (Islam & Scott, 2022). This gap exists because of the high risk of investing in early-stage ventures and the preference of investors to invest in startups that are in close proximity geographically (Kang, Jiang, & Tan, 2017). Furthermore, investing in new markets is difficult for global investors because of the increased information asymmetry (Chung, Sul & Wang, 2021).

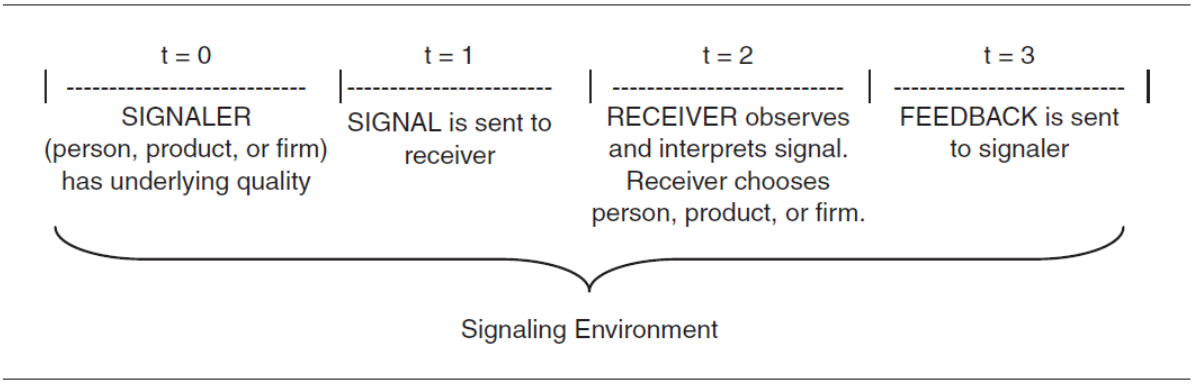
Information asymmetry is a problem in the financing industry because of the unequal access to information by lenders and borrowers because borrowers know more about their business than lenders (Claus, 2011; Ko & McKelvie, 2016; Agrawal & Jespersen, 2023). Azam, Hunjra and Taskin (2023) propose that information asymmetry can affect firms' investment decisions negatively. Investment efforts of ventures also fail because of the inherent information asymmetries between the entrepreneur and investor and the difficulty in evaluating the startup and entrepreneur (Amit, Glosten, & Muller, 1990; Colombo 2021). These problems in venture financing can lead to failure unless the entrepreneur finds a way to communicate venture qualities (Shane & Cable, 2002; Connelly et al, 2011, Oskar, 2021).

Investors with wider networks in an industry or geographic area can better assess the authenticity of ventures, making investments within the same geographical area more lucrative for them (Sorenson & Stuart, 2001). Belleflamme, Omrani, and Peitz (2015) also state that funders share information with each other to maintain social relations and also to get information when they need it, this results in reduced information asymmetry for them. Global or geographically distant investors have to rely on third-party connector organisations to gain information on social ventures in a different geographical context. However, they can also leverage indirect social ties through remotely located advocates to remove the local bias and mitigate risk (Kang, Jiang & Tan, 2017; Ryder & Vogeley, 2018). On the other hand, early-stage ventures also face problems related to uncertainty, lack of information and resource crunch to take mitigating measures for reducing information asymmetry for the investors (Singhal & Kapur, 2023).

2.4 Role of Signals to Assess Social Ventures for Investment

Ko & McKelvie (2016) found that the level of information asymmetry might be less with professional investors but they still make some decisions that are based on uncertainty and that is why ventures should focus on sending strong signals in the earlier phases. The signalling theory elucidates the impact of information on markets, explaining how signals are sent by a sender and then are received by receivers who then interpret it according to their cognitive understanding (Spence, 1973; 2002). Signalling reduces information asymmetry (Spence, 2002), and it also has been applied to the startup financing industry, to observe and find solutions to information asymmetry problems for the startup and investors (Yang, Kher & Newbert, 2019).

Entrepreneurial financing could fail because of information asymmetries between entrepreneurs and prospective investors (Colombo, 2021). The information asymmetry can be mitigated by controlling the quality of signals sent to investors (Islam, Fremeth & Marcus, 2018; Colombo 2021; Connelly et al, 2011). Ko and McKelvie (2016) found that founders' education and experience have significant signalling effects on the investors, which is also consistent with Hsu (2007). Within the international landscape, Virues, Velez and Sanchez (2019) also suggest entrepreneurs to signal their abilities and interpersonal skills to establish trust. However, not all investors evaluate the signals uniformly, making the value of signals dependent on their interpretation by the receiver (investor), especially for social ventures (Yang, Kher & Newbert, 2019; Wesley et al, 2022). According to Wesley et. al. (2022), this difference occurs because investors use experience-based prototypes to interpret entrepreneurs' signals (Baron, 2006). The signalling process is comprehensively documented by Connelly et. al. (2011) in Figure 2.



Note: t = time.

Figure 2 - Signalling process by Connelly et al (2011)

In recent years, scholarly articles have started to discuss the role of signalling in digital media for startups. There is emergent use of digital media such as in marketing, business networking, informational search, and crowdfunding (Olanrewaju et. al., 2020), and some studies have explored how digital presence would influence the perception of the venture, for example, the social media followers and engagement signals are a better indicator than the website for internationalisation (Kromidha & Robson, 2020). Furthermore, Jin, Wu, and Hitt's (2017) research show evidence that an active social media presence and influence (followers, mentions, impressions, and sentiments) are positively associated with more investment. The authors also indicated that digital presence improves the venture's probability to be discovered by geographically distant investors who have limited information on the venture's quality.

However, the study on digital signals and the focus on social ventures is still very nascent. Although the decision-making process of impact investors mentioned in section 2.3 has provided a better understanding of how impact investors screen social ventures, it is unclear how digital media influences their decision-making process, such as what platforms are used by investors when they look for digital signals, or how do they assess these digital signals.

2.5 Global Investors, Social Ventures, and Signalling in the Digital Era

Digital media platforms are communication channels available to organisations for communicating any information to their target audience which includes consumers, businesses, investors or any other stakeholders (Pires et. al., 2022). These platforms include social media channels such as Twitter, LinkedIn and Facebook (Singhal & Kapur, 2022), the company website, and information-based platforms such as Crunchbase, or other credible websites. Digital media platforms have been previously used to market products or services by organisations and ventures, and to reach a broader target audience. However over time, the role of digital media platforms has extended beyond communication, customer awareness and sales (Jinn, Wu & Hitt, 2017; Olanrewaju et. al., 2020; Pires et. al., 2022). Modern-day digital media platforms are being used for crowdfunding, networking, information search, knowledge management (Olanrewaju et. al., 2020) and an intersection between startups and capital investment markets (Jinn, Wu & Hitt, 2017).

The growing usage of social media and accessibility of the internet provides a unique opportunity to bridge the communication gap between early-stage entrepreneurs who cannot provide concrete information like cash flow histories and assets, and global investors who are geographically distant (Jin, Wu & Hitt, 2017). The impact of social media is stronger for startups that are outside the geographies of venture capital clusters or where the relations between early-stage and late-stage investors are not strong (Jin, Wu & Hitt, 2017).

It can also be evaluated through research that investors are professionals who may have experience with highly sophisticated technological ventures but they lack the experience to evaluate ventures that do not have a developed structure, this is where digital signals can help them (Stevenson, et. al., 2019; Singhal & Kapur, 2023). Aggarwal et. al. (2012) studied the impact of electronic word of mouth specifically through blog mentions on venture funding and found that startup mentions on credible blogs do impact their financing.

This research is designed to develop an understanding of the global impact investors' use of digital signals, information published online by social ventures, available on different digital media platforms while assessing early-stage social ventures in the deal sourcing and screening phase. We have developed a conceptual framework for our research in Figure 3.

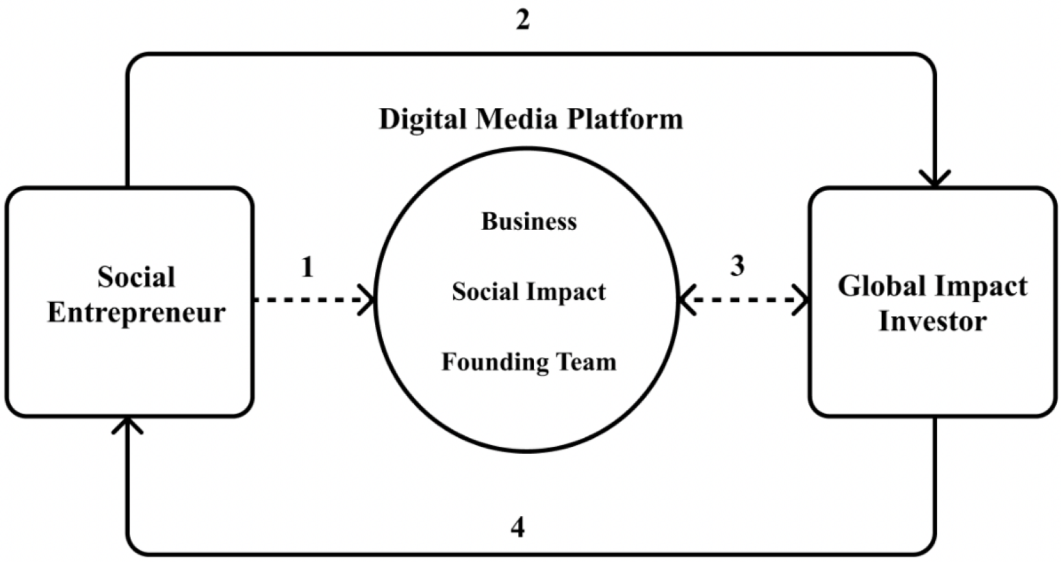


Figure 3 - Conceptual Framework

We developed Figure 3, by using the impact investors' decision-making criteria, while evaluating early-stage social ventures, as elaborated by Block, Hirschmann and Fisch (2021). It includes business criteria (financial sustainability, degree of innovation, proof of concept), social impact criteria (importance of societal problems, scalability) and founding team assessment (authenticity, background). In addition to the decision-making criteria, we add the digital environment as an additional variable to understand the role digital media plays in the startup assessment process. In this research, we evaluate the decision-making criteria from the Global Impact Investors' perspective.

In the figure, (1) is the act of information dissemination (signalling) about the social venture on digital platforms, (2) reflects the digital media, the environment which shows information about the venture, and (3) is the activity of impact investors seeking deals (outbound), and receiving deals (inbound) through digital media and see the ventures' signals, finally (4) is the action the global impact investor take after assessing the social venture based on the digital signals.

3. Research Methodology

In this research, the role of digital media while evaluating startups in the deal sourcing and screening stage of the investment process is explored. This study aims to evaluate the use of different digital signals and their influence on impact investors' decision-making. In this section, the research design is elaborated in detail and how it contributes to developing findings for our research question, along with the methodology, sampling technique, data collection strategy and data analysis in the coming sections.

3.1 Research Design

The literature on impact investing for social enterprises is not developed, and there is plenty of room to dive further into the area (Agrawal & Hockerts, 2021). Thus this research is conducted with an exploratory approach to find and develop concepts on the factors important in the decision-making process of impact investors when evaluating digital signals and how they make sense of these digital signals.

This research benefits from a qualitative research methodology as a cross-sectional study by conducting semi-structured interviews with global impact investors. A qualitative approach is deemed the best fit for our research because it brings together real-world views from people to interpret the problem and contribute to the field of research (Denzin & Lincoln, 2011, Creswell, 2013). A mix of inductive and deductive reasoning was employed to synthesise our findings based on the theoretical framework but also to be conscious of the emergent new themes and patterns that evolve from the data. A cross-sectional study approach was employed to collect data from 14 different cases at one point in time, which was then analysed to draw patterns of association (Bryman & Bell, 2011).

According to Saunders, Lewis & Thornhill (2016), semi-structured interviews might lead to interviewer bias where they disregard some information while overemphasise some other information. They also discuss the threat of interviewee bias in semi-structured interviews because with open ended questions they might choose to conceal or disregard some part of reality that has not been asked directly. However this is mitigated by conducting all of the interviews together, so that if one of the researchers misses something important the other person can cover it.

This study made use of the decision-making criteria identified by Block, Hirschmann and Fisch (2021) to evaluate their application in the screening phase of early-stage impact investment when using digital signals from social ventures. Following a qualitative research methodology approach we collected rich and detailed data from impact investors who are investing in more than one location and are employing mitigating measures to reduce information asymmetry (Kang, Jiang & Tan, 2017; Ryder & Vogeley, 2018).

As part of our research methodology, we conducted semi-structured interviews with 14 global impact investors online through Zoom and Google Meet. Semi-structured interviews were chosen because they fit our exploratory research objectives. These interviews not only helped us in finding answers to our defined research question but also helped us to look for potential new areas and information that are important for this field of research (Gill et. al., 2008). The number of interviews was based on data saturation until we stopped getting any new codes or themes from our data (inductive thematic saturation) (Saunders et. al, 2018). For analysis, we inductively created patterns and themes from our data set till we developed a comprehensive set of themes (Creswell, 2013). Then we deductively evaluated them to understand the decision-making process of an investor with regard to digital signals. Thus we used an inductive-deductive logic to develop our finding. (Creswell, 2013)

3.2 Sampling

For this study we used a mix of purposive and theoretical sampling (Bryman & Bell, 2011; Creswell, 2013) to get a homogenous group of global impact investors who have operated in similar environments and have faced similar constraints. We have selected global impact investors (investors who invest in more than one country), because they face more information asymmetries due to their geographical distance (El Ghoul et. al. 2013), and have to rely on mitigating measures to make investment decisions (Ryder & Vogeley, 2018). Zook (2002) explains in his research that venture capitalists prefer to invest in geographically closer companies to gain more information about them and monitor their progress. By conducting in-depth interviews with global impact investors we can develop an understanding of the role of digital signalling in mitigating information asymmetry and increasing access to information for global impact investors.

Purposive sampling was employed to develop robust theoretical knowledge and theoretical sampling was used to enable us in iterating on our sample based on the insights we received

(Bryman & Bell, 2011). Our sample included 14 impact investors that match our definition mentioned in Chapter 2.

To increase the external validity of our sample we kept our sample more homogenous (Bryman & Bell, 2011) at both organisation and individual levels. To keep the sampling homogeneous at the organisation level we shortlisted impact investors who fit our criteria mentioned below:

(i) Invest in early-stage social ventures. Early-stage ventures have been defined differently in different research. Chaplinsky and Gupta-Mukherjee (2016) define early-stage ventures as seed, startup and early stage while Giardino et. al. (2015) define it as ventures from idea conceptualization to first-time to market. In this study, early-stage ventures are those that have not reached the growth stage, because these are the ventures that face the most challenges in raising funding due to the higher risk associated with them (Chaplinsky & Gupta-Mukherjee, 2016). These early stage ventures fall between Seed to Series A stage as categorised by Y Combinator (2023). However, investors typically have a range of funding portfolios and do not exclusively invest in one size of funding. Therefore, to keep the sample homogenous, the respondents included in this research invest in at least the seed stage, with their investment portfolio ranging from pre-seed to series A round.

(ii) Invest in more than one country in the past 2 years. As the digital era allows social ventures to reach investors beyond geographical boundaries (Ryder & Vogeley, 2018), we will look at how global impact investors utilise digital media as part of their investment process and how it influences their decision-making.

(iii) Provide equity financing. This research excludes exclusively donor investors to keep the homogeneity of the sample, as unlike equity and debt investors, donors are more focused on the social impact and not concerned with the market return (Block, Hirschmann & Fisch, 2023). Furthermore, we have narrowed down the sample to equity investors only, as through the pilot interviews with debt and equity investors, we found that exclusively debt investors focus more on the business or founder assets, and are not focusing much on social impact. Additionally, given their interest in financial sustainability and returns, they mostly invest in later-stage ventures (Block, Hirschmann & Fisch, 2021). However, the financing structure of impact funds could vary and they might offer a range of finances. Therefore, we will ensure that we ask the interviewees to provide answers relevant to equity financing only.

Additionally, at an individual level, the interviewee needs to be directly involved in the investment decision-making process of the venture's screening stage. It means that the respondent could be a head of the organisation in the case of smaller funds, or an investment team member i.e. investment officer/associate for larger funds. Table 2 includes more details about the research participants.

Profile	**Role**	**Portfolio Company / Industry**	**Investment Stage**	**Funding Structure**	**Portfolio Location**	**Interview Minutes**
A	Senior Investment Associate	Sustainable Ocean Production, Waste Management, Coastal Eco Tourism.	Seed - Series A	Equity, Debt	South East Asia, Latin America	40
B	Impact Manager	Off Grid Power	Pre Seed - Pre Series A	Equity	Africa, South East Asia	30
C	Director of Impact and Sustainability	Economic Growth, Healthcare, Sustainable Living	Pre Seed - Series A	Equity, Debt	Cambodia, Myanmar, Pakistan, India	60
D	VC Investor	All Impact and Tech Innovation	Pre Seed - Seed	Equity	Eastern Europe	40
E	Senior Manager, Investments & Venture Services	Aging and Brain Health Innovation	Pre Seed - Series A	Equity	Canada, USA, Nordic	30
F	Investor/ Partner	Socio Economic Growth, Health and Wellbeing	Pre Seed - Seed	Equity	Europe	40
G	Portfolio Specialist	Socio Economic Growth, Education	Seed - Pre Series A	Equity, Debt	Latin America, Africa, Asia	30
H	Investment Associate	All Impact and Innovation	Seed - Series A	Equity, Debt	Africa	60
I	Cofounder & CEO	Ocean Impact	Pre Seed - Seed	Equity, Donor	Africa	40
J	General Partner and Co Founder	Climate Tech	Pre Seed - Seed	Equity	Europe, USA, Africa	30
K	Impact Investment Manager	17 United Nations Sustainable Development Goals Area	Seed - Series A	Equity, Debt	All UN Member Countries	40
L	Investment Manager	Healthcare	Seed - Series A	Equity, Debt	Emerging Countries	40

M	Venture Investment Associate	Agriculture Tech	Pre Seed - Series A	Equity	Canada, USA, Ireland	60
N	Investments and Portfolio Manager	Socio Economic Growth, Education	Seed - Pre Series A	Equity, Debt	Latin America, Africa, Asia	60

Table 2 - Research Sample - Participants Details

3.3 Data Collection

Interviews have been widely used to explore qualitative research because of the flexibility they offer to the researchers while collecting data (Bryman & Bell, 2011). For this research, we used a semi-structured interview approach through a cross-sectional methodology to achieve our research objectives because it allowed us to tweak the interview guide as we interviewed and dived deeper into areas that we did not consider while developing our questions (Bryman & Bell, 2011).

For this research, we used the decision-making criteria by Block, Hirschmann and Fisch (2021) to develop an understanding of the initial screening process of impact investors and how they use information present on digital media (digital signals) in the context of these criteria. Block, Hirschmann and Fisch (2021) used three important criteria to evaluate the impact investors' decision-making process including the authenticity of the founding team, the importance of the social problems targeted by the venture and their financial sustainability. The authenticity of the founding team refers to the commitment of founders to the cause, the social problem targeted by the venture refers to the impact on the problem area that the social venture commits to solving, and financial sustainability means the social venture's ability to be economically viable (Block, Hirschmann & Fisch, 2021).

We have developed the interview guide (Appendix-A) by referring to the methodology and tool used by Block, Hirschmann and Fisch (2021) because we aim to understand the application of the decision-making criteria identified by them when digital signals are also available to investors. We have adjusted the questions for our interview guide to incorporate the role of digital signals in the screening process and how different digital signals are perceived by equity impact investors. After devising a preliminary interview guide we also conducted two interviews with impact investors to evaluate the relevance of those questions and the information we gained from them. We then adjusted our interview guide based on the insights we received. To maintain the homogeneity of our sample, we evaluated the investment preferences, portfolios and geographic location of the investors before conducting the interview.

The first part of our interview guide included a brief overview of the research and questions to get more details about the organisation and interviewee. In the second part like Block, Hirschmann and Fisch (2021), we understood the investment decision-making process and preferences. Our format slightly varies from Block, Hirschmann and Fisch (2021) because we are doing a qualitative study while they conducted surveys to build the framework, however, the questions are adapted from their research tool to get the desired information. In part 3, we focused on the venture screening criteria and our questions probed information relevant to the investment criteria of Block, Hirschmann and Fisch (2021) and their applicability in our research context i.e. digital environment. In section 3, we also explored the use of digital signals by impact investors and the digital platforms used.

We found our target audience through digital channels like LinkedIn or impact investor listing forums. We established connections with our target sample, global impact investors, through LinkedIn and emails. Once the connection was established we conducted in-depth interviews with them through Zoom and Google Meet. The interviews were conducted for a duration of 30-60 minutes to get an in-depth understanding of their decision-making processes. We evaluated our findings briefly after each interview to understand the common themes and identify areas we need to emphasize in future interviews. We also used snowballing technique for sampling and asked our interviewees to refer more impact investment professionals from their network.

3.4 Data Analysis

We used a mix of inductive and deductive approaches to analyse the data from the interviews. The data obtained was transcribed after each interview to do an initial analysis and find out if any changes are required in the interview process and if the data is nearing saturation.

We then used thematic analysis to analyse the data because it offers the flexibility, applicability and potential to develop detailed analysis (Braun & Clarke, 2006). This thematic analysis methodology also allowed us to synthesize data by giving equal attention to each code, which not only led to the development of concrete themes based on the theoretical framework but also aided in identifying new thematic areas.

Further analysis of data was done based on the different steps of thematic analysis by Braun and Clarke (2006), and the process could be seen in Figure 4. In the first phase of data analysis we familiarised ourselves with the data by transcribing it and re-reading it to take notes and identify potential codes. In this phase we paid special attention to keep the data true to its nature so that we do not miss its real meaning. In the second phase we started developing codes for the data. These codes were developed keeping the criteria by Block, Hirschman and Fisch (2021) in mind but we did not ignore the codes outside of this criteria to get new information as well. We developed as many codes from a data extract as possible on Excel to ensure we do not miss out or ignore any important data point or piece of information.

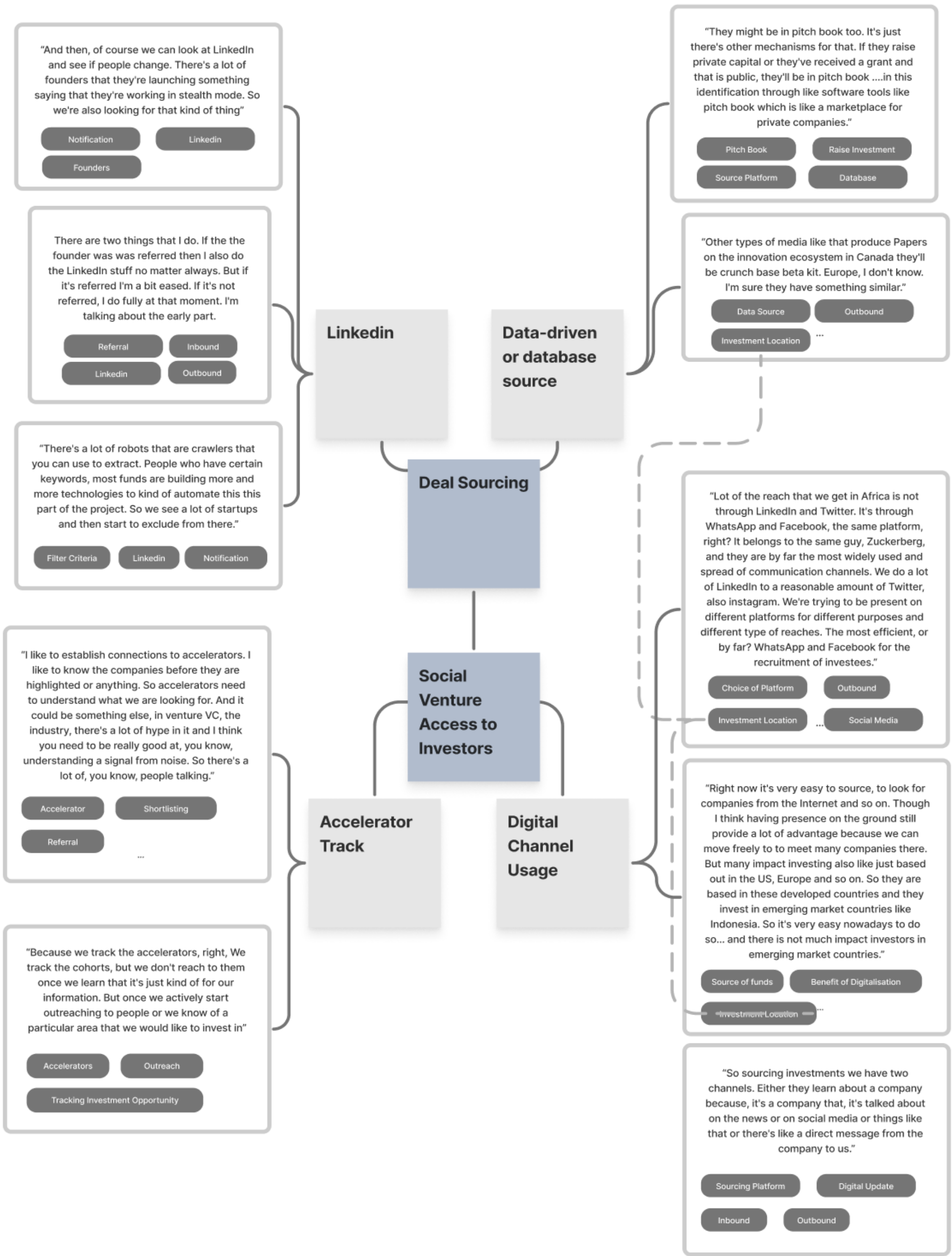


Figure 4 - Thematic Mapping Process

Phase three involved the development of common themes based on the codes generated in Phase 2. We used the platform Figma Jam to visualise data and develop mind maps so that we can clearly draw associations between different codes. The codes were attached to each quote, and then connected to the developed themes which are shown in grey notes. Once the theme was developed, in phase 4 we identified overlapping themes, main themes and sub-themes, that needed to be further broken down or fused together to develop a better understanding, which is marked in different colours. During the process, we reviewed the data set at the coding level and thematic level to ensure that the themes and data set go well together. In phase five, we defined the themes further by evaluating the thematic maps developed. We also reviewed if the themes had any further sub-themes that needed to be separated to develop a better understanding of the data. Additionally, if we found more connections between codes within different themes that we had generated, we connected them with a 'dash' type of line first as we tried to find a pattern and interpret its connection with the other available themes. We also refined the names of each theme in this phase to make them clear and concise for the reader. And in the final phase, we analysed the themes and developed a report by synthesising the narratives on the use of digital signals by impact investors and their significance in different phases of analysis.

4. Research Findings

In this chapter, we explain the findings we have collated based on the analysis of data from 14 interviews with global impact investors who are investing in social ventures from the pre-seed to series A stage. We start by explaining the different types of team structures and fund sources and how they impact the investment analysis process. Then we discuss the different stages of impact investment and how digital platforms are used in each stage, how the assessment criteria are related to Block, Hirschmann and Fisch's (2021) decision-making model and additional criteria involved in the assessment of social ventures, how investors conduct analysis and reference check, and finally how a venture's digital presence influences investors' decision making. We have illustrated our holistic findings in Figure 5.

We developed our findings (Figure 5) by applying different steps of thematic analysis proposed by Braun and Clarke (2006) on our data set to synthesize the findings for this research. Our findings include a systematic analysis of the impact investment assessment process, the use of digital media throughout the process and varying choices of portfolio and industries.

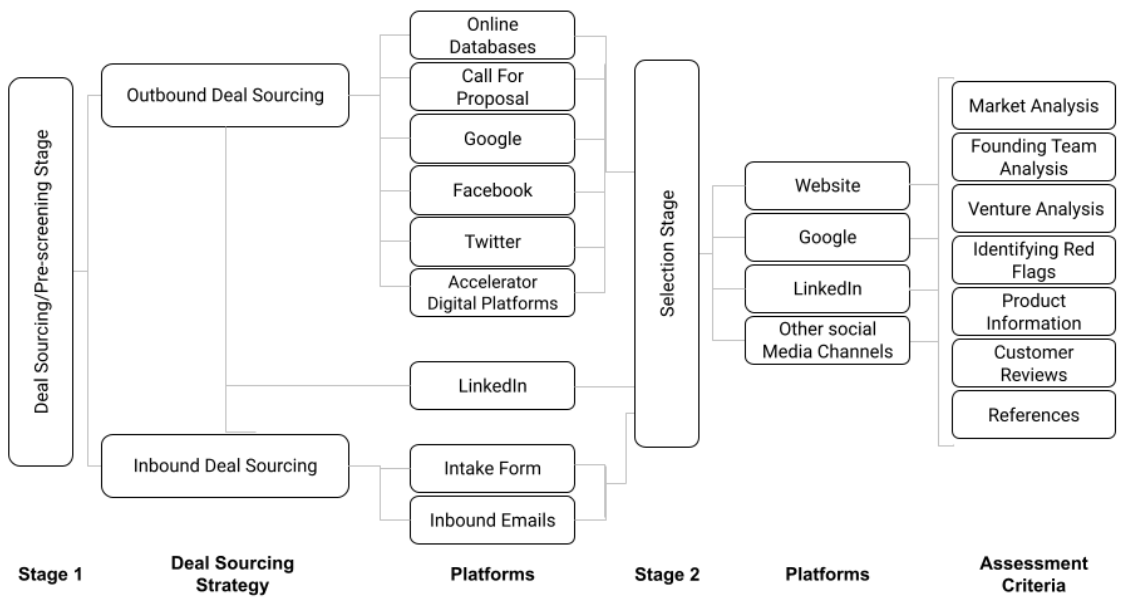


Figure 5 - Research Findings - Impact Investors' Evaluation of Early-Stage Social Ventures

We also found that the impact investment process is mostly uniform across different investors and includes 4 steps (Figure 6); deal sourcing (pre-screening), deal selection (screening), due diligence, and finally deal closing.

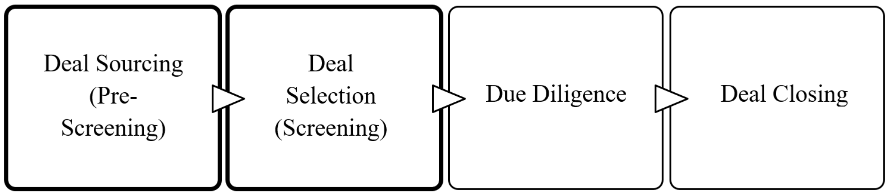


Figure 6 - Social Venture Evaluation Process

Based on the insights that we have received from the industry, digital media is mostly used in the deal sourcing and deal selection phase when investors are sourcing and evaluating potential ventures they want to invest in, however, nuances exist. In this stage, investors do initial screening based on the company's preferred industry, impact criteria, overall business offering and the founding team. We explain the decision-making process specific to deal sourcing and deal selection in more detail in the next sections.

4.1 Impact Funds, Investment Teams and Choice of Investment Portfolio

Our analysis suggest that impact funds that invest in multiple countries have different operation strategies. Some investment funds choose to employ local teams or have representatives in each country they invest in, while others have centralised teams. For instance, an investment company that invests with a grass-root approach operates locally closer to its beneficiaries. These investors specialise in a few regions and are very well-connected with the local community. They have a team in each designated region with end-to-end responsibilities of deal sourcing till recommendations for due diligence deal closing and monitoring the deals. They do learn and share knowledge from other teams but the headquarters or centralised teams are only involved in the last part of the decision-making process to finalise the deal.

> *"So the investment team, for example in Cambodia, screen, shortlist and they're going to give the go no go to the social venture in the country. The chief investment officer CIO from Singapore then comes in to evaluate the go no go, and if he says go then the investment team will start writing an investment brief."* (Investor C)

Another type of approach employed by global investors is more centralised where they source the deal from across the world within their investment thesis, and they would either visit the venture to verify further details or have several meetings online and detailed due diligence before closing the deal.

“Right now it's very easy to source, to look for companies from the Internet and so on. Many impact investing is also based out in the US, Europe and so on. So they are based in these developed countries and they invest in emerging market countries like Indonesia, and there is not much impact investors based there.” (Investor A)

The portfolio selection across impact funds is not determined solely by the management of these impact funds, but also by the source of funds. Most funds usually come from government organisations, private companies, family offices, and individual investors. The criteria of the portfolio is adjusted based on the social impact sectors important for these stakeholders. Thus, when investors are looking for potential ventures, they would think whether the industry and mission of the venture fit the impact investors’ portfolio and financial goals.

“Our investors include the World Bank and other types of financial institutions who support the agendas of diversity and inclusion, and climate change. So they incentivize us to invest in startups that basically serve this purpose.” (Investor D)

Additionally, each fund usually has its own preference for the business model of companies they would like to invest in. Therefore when they seek to invest, there are already certain levels of industry criteria they would consider.

“We only invest in a company that has a financial, an impact, a social impact embedded in their business model.” (Investor C)

4.2 Deal Sourcing (Pre-screening)

Our findings reflect that investors’ usage of digital platforms to source social ventures depends on their enthusiasm for sourcing new portfolios, and the size of the venture fund or the social venture. There are various platforms that investors use as a channel to find potential ventures for inbound and outbound deal sourcing.

Pre-screening is a relatively quicker phase of evaluation (Block, Hirschmann and Fisch, 2021). In this phase impact investors are looking for quick no’s based on their pre-set criteria and exclusion and inclusion lists that help them quickly pre-screen applicants. While pre-screening, investors quickly look through the social venture’s website, venture’s social media, or pitch deck that is submitted through an intake form.

"Our criteria is straightforward. You need to be corporated. You need to be in Africa, you need to work, you know in the ocean impact space, impact for profits, you know simple stuff, have technology, be scalable. Some stuff but the basics." (Investor I)

4.2.1 Outbound Deal Sourcing

Outbound deal sourcing is used extensively by newer funds and those that operate in very niche industries like Aging Brain Health. Platforms majorly used for outbound deal sourcing include online databases (i.e. Pitchbook or Crunchbase), Google, Linkedin and in some cases Facebook and Twitter. Some funds use custom Customer Relationship Management (CRM) tools to monitor and find potential startups while others send out 'call for proposals' through digital channels like LinkedIn or through partner organisation's digital channels.

Database and Repositories

There are several databases that are used by investors to discover potential ventures, for example, PitchBook and Cruchbase, where investors look into the overall venture funds, the investors, and the stakeholders involved with the venture. However, some also use online reports and venture listings like the UN's Catalytic Impact Initiative report. Few investors also mention GitHub for finding digital tech startups.

"We can use PitchBook and then we can search from there, what kind of company you want to invest in, let's say seafood companies, and then we can sort the geography based on our coverage." (Investor A)

"We use other types of media that produce papers on the innovation ecosystem, in Canada they'll be crunch base beta kit." - (Investor E)

It is also very easy for investors to see certain industry trends and find ventures from that industry, which fall under their investment criteria through these databases. Although these are strong tools and preferred by investors, the ventures available on these platforms are limited, as it is less likely to find ventures from certain developing countries or those that have not acquired seed funding.

"…it's probably too early for a lot of the companies even to be in PitchBook. So when it's early stage investing it's a lot about relationship" (Investor C)

"Pakistan, or developing country in general, ... you won't really find a lot of deals in PitchBook data for example, ... you would see that a lot of data is just not online." (Investor G)

LinkedIn

Another common platform used to do outbound deal sourcing is LinkedIn, where many founders can be found sharing stories and updates about their businesses. With its comprehensive premium feature, some investors use LinkedIn to help them discover ventures as they could follow some topics, track the changes in job titles, specify certain geographical areas, and other filters that can be set which can then later notify investors about potential founders or ventures.

"So we have LinkedIn searches, Sales navigator, ... it alerts us whenever somebody changes their profile to founders. Obviously, it depends on geography. We have multiple searches, but we try to be up to date because we want to be competitive on finding the deals first. ... I have like 80 searches every day, and I get an email if there's a new person caught in the filter. I have one hour daily allocated to that." (Investor D)

Investors also use LinkedIn premium tools to track keywords and hashtags which are adjusted according to their preference to find potential social ventures to invest in.

"There's a lot of founders launching something saying that they're working in stealth mode. So we're also looking for that kind of thing." (Investor F)

"There are also little quirks when you're looking for new founders. So I mean not only to look at like a founder or co-founder, but we also added to those filters like people who write like building something new or building at X, the company's name. So they find all these interesting names. And if you cannot find them because your filter was not good enough, that's your fault, right? So we try to be creative and basically catch those a bit new filters every day." (Investor D)

Another perspective that we received during our interviews was that for some investors, having a social media hype might not always be desirable, because it might indicate non-seriousness of the founder.

"I'm talking about small and medium companies, mostly small. And then you see the founder all over the place just receiving awards and going to events and so on and so forth. And then you approach them ... they barely come up with information ... for me it would be a yellow flag at that early stage." (Investor K)

Investors also follow some entrepreneurial ecosystem stakeholders such as accelerators or incubators, and look through potential investees from there.

"I track accelerators for example and every time they release a cohort I basically like I look through it, I see what's relevant to us." (Investor M)

Search Engine

When investors are looking to search for a specific industry or want to venture into new markets, they use search engines like Google where they find online databases and region specific venture lists that help them evaluate the feasibility to move into a new industry or market.

"When I really want to focus on a certain topic, for example, this one of Waste Management, which was quite new for the organization that I work, I tried to do a Google search of what does it mean, which companies are there doing something similar. And then you arrive to certain conclusions that either the market is not strong or maybe it's still early." (Investor K)

Websites

Websites are important part of the pre-screening process because they are the venture's first interface for the investor. While most investors say they can still consider a venture if they do not have a good website, they do agree that having a website does puts a good impression.

"Website determines whether or not I'm going to send them a message, right? ... good website with well defined product page, definitely a big turn on. So we like to look at those and that influences our decision to look at the startup in a more detailed way." - (Investor D)

They also look at information about the founding team on the website and note their competencies to see if the team is fit to accomplish what they promise, before deciding to research them further.

> *"How does the website look? Anyone, you know? You need 3-4 maybe good people in your business. You need a hipster, a hacker and a hustler, right? And in the ocean space, you need a scientist. It's important. All of them are important."* (Investor I)

> *"We get to look at the team from the website to see who is the team behind this business and just looking at their profile of this team to see if are they capable"* - (Investor A)

Other Social Media Platforms

Some investors also use alternative social media platforms to keep an eye on startup industry news, for example, Facebook and Twitter are used to stay alert on trending topics. Although it may not be a common platform for deal sourcing, these platforms provide signals on potential areas to look at and keep up to date with the market. Twitter can be an unintentional source of venture discovery if potential startups are highlighted in some discussion or are part of something interesting discourse.

> *"I don't do it for deal sourcing in particular, but it's more like taking part in interesting discussions. ... I think in Twitter's more like connecting with relevant people who can bring you insights. ... I don't use Twitter for strategic, but maybe you can follow some hashtags or do some searches, but right now it's very casual."* (Investor F)

> *"It's really funny, but Twitter is one of the main channels that I personally and one of my colleagues look at. I would definitely look at what other investors are investing in and if there are prize competitions."* (Investor L)

Facebook and Whatsapp are also useful in locations where LinkedIn and Twitter are not actively used. Therefore investors focusing on those locations would also look at these platforms. For instance, funds investing across Africa had better response recruiting through Facebook.

> *"Lot of the reach that we get is not through LinkedIn and Twitter. It's through WhatsApp and Facebook ... We're trying to be present on different platforms for*

different purposes and different types of reach. The most efficient by far? WhatsApp and Facebook for the recruitment of investees." (Investor I)

Another investor also shared that they had sourced ventures from Facebook that were actively engaging in Facebook communities.

"I would look for success stories online. This company in agriculture I found is very active on Facebook, where they post photos of their engagement with farmers and maybe they write success stories on how farmer from certain problems has improved and started supplying to the company." (Investor C)

Call For Proposals

For investors who are looking to invest in multiple countries but have centralised teams, it gets difficult to individually reach out to ventures in each location. For such ventures, 'call for proposals' is a good way to increase their reach through word of mouth and partnerships. These investors then use their LinkedIn pages, digital ads, website, and email and collaborate with their partners to advertise the call for proposals who then publish it on their digital platforms.

"So what we do is that we open a call for proposals, we do source ourselves and then when we see a company that we like and we know that they're investible, we ask them to submit a proposal" (Investor K)

"... after we market it, we get like hundreds of applications from around the world. And then we go through a regular VC process screening applications, talking to founders, and data room references. Then it all culminates in kind of a Shark Tank like final." (Investor M)

4.2.2 Inbound Deal Sourcing

For inbound deal sourcing most investors use intake forms on their own website and they get leads through LinkedIn messages and referrals from their connections as well. Additionally, they also get direct emails from startup founders.

Intake Forms

Most investors have detailed intake forms on their website that can be filled out by startups who are seeking investment from them. These forms include fields for all the important information that the investors need for preliminary evaluation. Intake forms help investors to make decisions quickly during pre-screening.

> *"They would just submit an intake form, which is pretty standard. They just go on the website and say we're interested in chatting with you and they submit an intake form and then an analyst or so he reviews it. If it's applicable, we reach out."* (Investor E)

> *"So we have questions dedicated to impact and how you know what type of impact, how is it measured, can they qualify, can this quantify with like you know a level of certainties coming from them self assessed of the entrepreneur's perspective."* (Investor I)

Some investors also think the intake form is a quick and cost-effective solution to evaluate ventures and helps them in analysing ventures and making decisions quickly.

> *All we do is screen online, that's kind of the beauty of the model because it's very cheap and kind of very fast where you can get to fast no's because we get so much information on the initial intake form.* - (Investor M)

Inbound Emails

Direct emails are also a channel for investors to get inbound deals from the venture founders themselves. But inbound emails are more relevant for impact investors that have been in the industry for a longer time and more people know about them.

> *"And also just direct emails from founders. So I think just being out there marketing the company and they know us in this space, and this is what they do, has been really helpful in terms of us getting Founders"*(Investor H)

LinkedIn

LinkedIn is important for inbound deal sourcing as well because it is a platform that allows startup founders to directly contact investors, make introductions and explore possibilities of investment.

> *"People know us so they would reach out via e-mail or they are introduced by other people, or on Linkedin…"* (Investor C)

Some investors also believe that being in the market and being a part of investment challenges highlights them in the news and helps them in getting organic deals.

> *"People just start seeing our name more often on LinkedIn, on social network and what not and we get influx of the deals coming. So it's like the more we do challenges, the more organic deal flow we get because we're just in the news."* (Investor M)

Linkedin also helps investors in the pre-screening stage to scan for probable scams from the companies that have submitted proposals or applications but do not exist in reality.

> *"So in that case there are a lot of things that I do. One is look for the person in any news related for corruption or whatever and so on just to see and I try to check actually if the company does exist. Believe me, you get companies that apply for money and they don't exist."* (Investor K)

4.3 Selection (Screening)

The selection process for investors is very rigorous, and detailed and involves multiple checks and evaluations. Most investors have a very diverse set of expertise within the teams that help them evaluate and select startups from multiple industries. The selection process includes in-person meeting with the teams, complex financial evaluations and market analysis. However digital media does come into play at certain points in the selection process where investors want to evaluate the venture and founding team, and find trusted referrals associated with the venture to confirm its authenticity and to understand the market. Digital media also helps them in the identification of any red flags in the process.

4.3.1. Market Analysis

Once the venture has passed the pre-screening phase, investors carry out desk research to understand the market, the product market fit and the risks involved in investing in an industry or in a particular geography.

> *"For example a solar water pump. ... When I have that type of investment to evaluate, the first thing I usually try to do is to look at the kind of academic literature on this on solar water pumps. What is we know, what are they? What are they used for? Has*

there been any sort of already rigorous evaluation of their impact, to try and see what are the potential benefits, what are the potential risks of investing in terms of impact in these solutions?" (Investor B)

Information on social media also helps to identify the market sentiments and evaluate the perception of the product offerings from the venture's target audience.

"I do not use Facebook to deal source but it has been used to understand user sentiments and understand what are the people talking about that industry. So for example as a part of my previous company I invested in a gold loan company that provides gold loan at your doorstep. So to understand how people look at gold loans like I did a sort of analysis on what are people talking about gold in, in like Twitter and Facebook and how?" (Investor N)

4.3.2. Venture Analysis

Investors will do an analysis that will help them to identify previous accomplishments of the venture, and the accolades received by the team and also aid in evaluating their ability to work with partners. Some investors also share the information collected about the venture with the venture team itself to get a holistic picture and stance from them.

"We research a lot about the company. We built the whole page which we share with the founders, like about the company, everything to do about the founders and we share it with them. Like this is what we're thinking about and please add and edit and comment so that we get the same story." (Investor J)

Impact investors also use LinkedIn to get more information and check the authenticity of ventures. LinkedIn offers a good platform to monitor previous activities of the venture, their achievements and affiliation with any accelerator or incubator.

"So it's more like a signal. So we want to know if there's people doing that, then I think we would just have a look at what they're doing. And try to understand what's the background. it's not like a single thing. It's more like something we can take a look and try to understand if there could be anything interesting." (Investor F)

While Screening investors also google the names of ventures to know if they have signed any MoUs previously or have won any competitions. In this phase, investors usually evaluate the venture through the news presented on local news outlets and on social media. They also try to look for any negative news around the venture that they should know before sending them to the next stages.

> *"We would Google the name of the company and also name of newspapers that's in Cambodia. There are things in Cambodia we would check. Maybe the company had signed an MoU with the Ministry of Agriculture last year or launched or won the accelerator with his NGO 2 months ago. So yeah, we would do it."* (Investor C)

Investors also go through venture's website during the screening phase to know more about the company, get information on the product or look for customer reviews.

> *"We just check their websites, check their product, the management team and then we make contacts and they flop or gather more information as we build the relationship with them ... also we look at customer reviews because some of them are listed there. We can actually see what the customers are saying about the product that this business is selling to them."* - (Investor H)

Not having a website or digital presence for ventures that are already in the market does raise red flags for some investors and might impact the venture negatively.

> *"But if they came to us at a very late stage, then you know, the marketing presence matters more because they're in the market generating revenue as opposed to prior to being in the market."* (Investor E)

4.3.3. Founding Team Background Check

In the selection stage, founders verification and background check is done extensively over the call or through direct conversation with references and previous affiliates that can be found within their offline network, the venture's documents, or through LinkedIn connection. Online assessment through LinkedIn and Google is again carried out in this stage to see if the investor can uncover any other important information about the founding team. In this stage, investors also evaluate the skills and experience of the founding team and how it relates to the venture.

> *"I'm just looking at the history of this founder. What has his experience been before if that information is available and just going to check where did he go to school? Who*

are his networks? When did he found this company, Did he found, other companies before and what was the experience? Yeah. So we just use it as like an initial screening to just get a sense or a feel of whom we are dealing with." (Participant H)

The background checks through the social media accounts of the founding team help the investors to uncover potential red flags that might have been left behind because of the quick nature of pre-selection. During the process, investors try to look at multiple news outlets and all social media channels of the founder and people around the founder to get in depth information.

"I think that we do late in the process when we scan for things that could be really shitty. ... We did that once for a company and with the founder and it was like super randomly we were like, ohh, we can find their research on Facebook. And then he was married to like multiple people in the team. ... But, like, it's a bit funny that you're not telling these. And then when we asked him in a nice way, we said, are any of the founders, like, related or like, you know, dating, married?... and he was like, Nope, not at all. You see, he was lying, right?" (Investor J)

An additional layer of founding teams evaluation is done through Google, to find news about their previous accomplishments and affiliations and their current activities.

"When we Google their name, what do we see? Do we see their accomplishments? Do we see their blogs? Maybe they're writing there. YouTube channel that they're sharing information on what type of person they are. ... let's say the founder, they are really, really driven person, maybe the second time founder and they're building like a startup that's not great in terms of idea. You still want to take a look at it, right, Because our bet is founder driven." (Investor D)

Investors also look for news from the region, the startup is coming from to find out about any malpractice charges against the founders in the past.

"*So in that case there are a lot of things that I do. One is look for the person in any news related for corruption"* (Investor K)

4.3.4. Digital Reference Check

Referrals and reference checks are an important screening criteria for most investors because it helps them evaluate the potential of a venture more comprehensively. Investors try to find connections between the founders and themselves to get references and background checks.

> *"I think we use LinkedIn to find people that are not the names in the reference you know, box at the end, but still part of the organisation to get other types of feedback about the people and the company."* (Investor I)

> *"For example, the meeting that I will have after this, they contacted me via LinkedIn. I don't know who these guys are, but you know, we, we tried to get to know them right through the meetings and we also what we can usually do is to do reference check."* (Investor C)

In some cases when investors do not know the entrepreneur, they look through social media channels like LinkedIn, look into mutual networks or if they have participated in incubators or accelerators they know to find a second or third connection.

> *"They could be strangers, but … there's some sort of connection I can find there. Or second or third connection, definitely, even if they're in another country… Most of the time it's like it's not a complete total stranger, but we don't know each other. So it's like a second connection or third connection on LinkedIn."* (Investor D)

Investors also do not completely rely on information available on the venture's digital channel and look for validation on that information through references. They would trust that information after confirming it through direct interaction with a referee or partner organisation.

> *"We would find a way to get all the reference check. We would find a way even if they're on their own. Like getting the reference check that's holding down, It's quite true. We wouldn't invest in that it's a complete stranger."* (Investor C)

> *"The website gives us an indication of where we should look. But all of that information, unless it's coming from a source where it's published, we would validate it. ... For every investment that we work with, we talked to five to seven different stakeholders."* (Investor L)

4.3.5. Social Impact and Digital Presence

The importance of the digital presence of social ventures' varies between different investors. But for most investors, it depends on the stage of the venture and the industry it operates in. For instance, investors investing in water and agriculture will not require a digital presence in the beginning because their impact is more important, but they would consider digital presence important when it is a tech venture or offers digital services.

> *"... like this water company we invest in Cambodia, I don't even know if they have a website, but it doesn't matter. What they do is incredible, bringing water to people. It's not also their goal to be on the website because they're serving a market of people that might not even have their hand to look at their website. So in that case, it's not important. If it's a fintech company though, let's say that provides digital loans, then you need online presence also as part of your ability just to check how good is their practice online, what we call customer acquisition."* (Investor C)

Another example is the healthcare sector, which will focus on looking at the innovation and the structure ready first, instead of focusing on their impact narratives digitally.

> *"Healthcare sector wouldn't care much about the narrative online, but more about their progress towards legal, certification, the innovation progress"* (Investor E)

Every impact investors also have their own thesis and methods to assess impact. While the information on the digital media can signal the specific impact a venture is working towards, it is not enough for assessing its degree of impact.

> *"[Look and track impact metrics digitally] No. So that's why we do the due diligence, ... So you're just screening the name of the company, does that fit our mandate or not."*(Investor A)

There are a lot of interactions needed in understanding the social venture, and uncovering their business and financial model, in order to confirm that the impact is aligned with the investors' mandate. Additionally, equity investors do not only see the present impact, they are forward-looking on how it potentially evolves over time and whether it will still be relevant with their investment objective.

> *What we realized was even though there was an impact with smallholder farmers that the company was creating, overall it was a bit costlier for the company to work with small holder farmers than to lease the land and do it on their own. So this is one example where the company can choose later on to not work with smallholder farmers and still like they would anyways be hiring laborers in their farms ... because our focus is on small farmers overall ... we had to let the opportunity go.* (Investor N)

Although the impact story on digital media can also be appealing and informative, impact investors would not be able to judge and draw conclusions from the narrative shown on the website, due to the chances that it tells the best version instead of the real condition.

> *If like, say, the company is writing about their impact on digital media, Of course the way they write it also matters, but it can definitely be 100% of the picture is not always shown in digital media, right? Because like what's happening in the background can be very different than the reality ... so if say a company saying that we are growing by 13,000 customers every month ... maybe that's the best month that they had ... So it all depends upon the perspective and with what intention of what topic the article is written about.* (Investor N)

Therefore, as long as the venture has proven performance of working towards a mission that is aligned with the investment thesis and has the impact embedded within the business model, having an unflashy digital presence would not impact the investment decision.

> *"the branding comes after, but if the company has a great impact, pays good operations and has a good team who cares if their website sucks? So you can still hire someone to fix the website later on"* (Investor C)

5. Discussion

This chapter discusses the findings of our research in the context of our theoretical framework. The section starts with a discussion on the role and usage of digital media by impact investors within the deal sourcing and screening phase, and how the social ventures are assessed by impact investors using digital signals which is structured based on Block, Hirschmann and Fisch's (2021) criteria. Finally, we discuss the applicability of digital signals analysis across different geographies, industries and venture sizes..

5.1 Digital media role in impact investment process

Impact investors did agree that digital media presence and digital signals would increase social ventures' chances of being discovered (Jin, Wu & Hitt, 2017). However, unlike Ryder and Vogley's (2017) analysis that digital narratives impact decision making, all of our 14 impact investors participating in the study opined that they do not rely on digital media for decision making.

Digital media is used for initial data gathering of a potential social venture, getting signals about the authenticity of social ventures and finding referrals to gather further information (Jin, Wu & Hitt, 2017). Additionally, as Jin, Wu and Hit (2017) suggest in their research, the availability of information on various online channels, can help investors spend less time and resources on the initial investment steps as deals can be sourced and assessed online. This also increases their access to receive information about potential ventures by subscribing to or following relevant topics across different channels, such as setting up LinkedIn Premium to get notified about updates on certain keywords or job changes published by their network (Investor D). They can also stay up to date by following accelerators' posts which highlight different social ventures (Investor M) and cross check their relevance with the impact thesis.

In line with Kang, Jiang, and Tan (2017) findings, we also found that although an impact fund may invest globally, some of them build investment teams across the world and dedicate these teams to invest in ventures near their base location. This is because investors have wider networks and local knowledge within the geographic location, which makes investment more effective for them (Sorenson & Stuart, 2001), this is also a mitigating measure that they employ to reduce information asymmetry (Yang, Kher & Newbert, 2019). However, there are also global impact investors who only have a centralised or limited team located in a few countries while investing in a broader region. In line with Ryder and Vogeley (2018), this research also finds that the digital era allows the engagement of entrepreneurial communities beyond the geographic focus. Nowadays, some part of the screening can be done over an online call, such as an initial meet-up with founders after getting in contact with them via email or LinkedIn (Investor A), which can help investors to make notes prior to visiting the social venture office and meeting them.

Although a great digital signal would positively increase a social venture's likelihood to be discovered and passing the initial stage (Jin, Wu & Hitt, 2017), the absence of digital presence will be unlikely to impact the final decision of investors as they would gather social venture's information and verify it through other means. As entrepreneurs broaden their engagement online with their business networks (Fischer & Reuber, 2014; Drummond, McGrath & O'Toole, 2018), our research results show that this engagement helps investors to get pathways to check the legitimacy of a social venture.

When it comes to information regarding an early stage social venture on digital media, a lot of it is user-generated by the venture team, thus it will not necessarily signal the founder's legitimacy but it does give the investor a lead about who they can contact. For example, investors can ask feedback from someone within their network who has worked with the entrepreneur (Investor I), or get in contact with the accelerator program, that had been highlighted on the venture's digital media, where the venture participated in the past (Investor M). Virues, Velez & Sanchez (2019) discuss a similar concept in their research stating that interpersonal signals are very important in international entrepreneurial settings.

Thus, instead of enabling impact investors to make better investment decisions as Steigenberger and Wilhelm (2018) suggested, the result shows that information available on digital media signals impact investors and leads them towards a referee or organisation where they should look in order to make decisions.

5.2 Social Venture's Criteria Assessment through Digital Media

The interview result suggests that impact investors use digital media to assess all of the criteria used by Block, Hirschman and Fisch (2021) for deal sourcing, and some criteria is also assessed further in the screening process (Table 3). However, the usage varies across investors and its significance varies based on the investors' social venture criteria. The following section discusses further about each criterion.

<table>
<tr><th>Criteria</th><th>Deal Sourcing (Pre-Screening)</th><th>Screening Process</th></tr>
<tr><td rowspan="3">Business</td><td>Financial Sustainability</td><td></td></tr>
<tr><td colspan="2">Degree of Innovation</td></tr>
<tr><td colspan="2">Proof of Concept</td></tr>
<tr><td rowspan="2">Social Impact</td><td>Importance of Societal Problems</td><td rowspan="2"></td></tr>
<tr><td>Scalability of Impact</td></tr>
<tr><td rowspan="2">Founders</td><td colspan="2">Team Authenticity</td></tr>
<tr><td colspan="2">Founders Background</td></tr>
</table>

Table 3 - Digital Media Usage to Assess Investment Criteria

5.2.1 Business Criteria (financial sustainability, degree of innovation, proof of concept)

Impact investors assess business criteria when screening social ventures through digital media. However, it is also observed that for an early-stage social venture, financial sustainability is the least assessed through digital media than the other variables because it cannot give much information about startup financials and future projections. This assessment is typically conducted by getting financial data directly from the venture and by doing due diligence in the later investment process. In the previous study by Block, Hirschmann and Fisch (2021), financial sustainability was not that important when screening for donor type of funds, while it matters for debt and equity.

The result of this study adds further insights to the research by adding that though it is part of the impact investors' screening process, it is not evaluated through digital media. Information that is provided online is limited to the financial overview which could be seen in online databases like Pitchbook, in the social ventures' report if published on the website, and from news outlets or digital channels of incubators and accelerators about venture investment or founder accomplishment. Instead of assessing the financial aspect by looking into the information available in digital media, this data usually acts as the very first filter to find potential investees that are suitable for the investment stage the investor seeks (Investor A).

On the other hand, the degree of innovation and the proof of concept is briefly assessed when investors evaluate early-stage social ventures digitally. Good storytelling, design and presentation of a website helps investors to better understand the product (Jin, Wu & Hitt, 2017) (Investor D, H), which could explain the innovativeness of the solution. Investors can also get reviews from the website, as well as evidence of happy customers with whom the venture has engaged, which would provide a positive signal to the investors about the potential proof of the quality of a venture. Aligned with previous research by Smith, Smith, and Shaw (2017), engagement with the public in relation to product usage, and quality content such as reviews and updates on the product, would signal investors regarding the ventures' credibility. Having a great story about the product in the digital space is likely to help social ventures pass the deal sourcing stage, and then investors would proceed with other means of evaluation such as conducting multiple interviews, providing them with a customised question form to fill in, and visiting the venture's facility.

5.2.2 Social Impact Criteria (Importance of societal problems, scalability of impact)

Social impact of a venture is taken into consideration through digital media in the deal-sourcing stage. Investors would like to see the relationship of a social venture with the community and also their stories of impact as have been previously discussed by Miller and Wesley (2010). According to our findings, when customer engagement is visible on digital media, it sends a positive signal regarding the social venture to investors (Investor C) and it will attract impact investors to get to know them.

In the previous study, Block, Hirschmann and Fisch (2021) have identified that the importance of social impact criteria is highly valuable for the initial investment process, and this research also shows similar results as investors seek to understand the social impact of the venture when looking at the digital signals. Impact investors have dual objectives to make profits and make a non-financial impact (Höchstädter and Scheck, 2014), and though the profitability is not assessed using digital media, the social impact can be highlighted in the digital media narrative.

However, the narrative acts as a signal that provides very preliminary knowledge about the impact area the venture is working on. In order to screen the venture further, investors usually employ a robust process after they have sourced the potential ventures. A lot of the assessment is done through direct interaction and evaluation of the documents according to the investors' impact metrics, especially when they have specific criteria beyond the industry area. They may not only assess the present impact, but also how it potentially changes in the future (Investor N), and such a screening process cannot be done by looking at the information available on digital media. Hence, social impact is assessed through digital media narratives initially in the deal sourcing stage but in the successive stages investors need more concrete evidence to track a venture's social impact because it is a complex process to assess their dual identities (Miller & Wesley, 2010).

5.2.3 Founders Criteria (team's authenticity, background)

According to Kang, Jiang, and Tan (2017) one of the ways for investors to mitigate the high risk of financing early-stage ventures is by limiting the investment to their trusted network and from referrals. However, impact investors participating in this study indicated that they are open to investing in new ventures that are outside of their networks, even though relationships are important, it is something that they can build as they get to know potential investees. For instance, some impact funds are very open to sharing their emails and getting in contact with new people, while some would set alerts through online tools and software to get notified when there is a new founder that fits their targeted keywords or hashtags on LinkedIn or any other similar platform (Investor D).

In the case of screening a venture digitally, similar to previous studies which have been done in the crowdfunding field, the digital social identity as discussed by Kromidha and Robson (2020) also has a role in attracting impact funds to invest in social ventures. This could be in the form of mutual connections on social media like LinkedIn, or the social venture's participation in incubators, accelerators, or challenges that relate to the investors' network and impact space.

Although early stage social ventures face challenges due to their perceived high uncertainty and risk (Ko & McKelvie, 2016), the increased adoption of digital media, by both social ventures and investors, has increased the likelihood for investors to consider new ventures as they can do reference checks faster. Impact investors could review the relevance and accomplishments of the founding team through LinkedIn and the company's website to look at their educational background and past experience.

According to our findings, when looking at the founders' criteria, impact investors usually use digital media to get signals on the background and the authenticity of the team. In this case, investors could evaluate the founders' past experience (Hsu, 2007) in relation to the social impact area to evaluate their authenticity, or from the content that they post on digital media, which will depend on the use of digital media by the founders. Jin, Wu and Hitt's (2017), research suggests similar findings, sharing that founders with previous startup and management experience and an active digital media presence are more likely to get a larger second round of funding.

However, despite strong signals about their capabilities through digital media, investors would still get confirmation through direct interaction with the founders, or through reference checks, as mentioned by Kang, Jiang and Tan (2017), to reduce information asymmetry. Digital media platforms like LinkedIn can help investors in finding references that may not be listed in the social venture's application form, such as founders' past employers (Investor I) or mutual networks (Investor D) to get to know more about the founders.

5.3 Importance of digital signals usage with reference to geographies, industries, and social venture sizes

Although a great digital signal would positively increase a social venture's chance to pass the initial screening stage, the absence of digital presence will not impact the final decision of investors in most cases, after they have completed their due diligence. In their research, Agrawal and Jespersen (2023) suggested that the founding principles and the socioeconomic location of investee influence impact investors' decision-making process. In our study, the data also indicated that geography will affect the significance and roles of digital media platforms in the impact investment process. It could be derived from this study that investors mostly look at websites to gather initial information, and for social media LinkedIn is the most used platform, which is contrary to Jin, Wu and Hitt (2017) who identified Twitter as the most used platform by startups and investors.

However this is not applicable to all countries, for instance instead of using LinkedIn, investors in Africa use Facebook to source some deals, because Facebook communities are popular (Investor I). Hence, they could discover new social ventures from the posts in those communities by the startups themselves or other stakeholders from within the industry. Furthermore, in the case of risky investments in a few developing countries, investors would google to find more rhetorical news related to the venture (Steighnberger & Wilhein, 2018) to get more information about the venture and its connection with the local authorities and government (investor C).

The different utilisation of digital media could also be seen between the two types of investors, as some global impact investors have extended teams in the targeted investment countries and some do not. Those with local teams prefer to get in touch with the social ventures and get some referrals from the industry early on. The decisions are also location specific in the pre-screening and screening phases and highly depend on the local teams in each country. While in the centralised teams, the decisions are more flexible and they are open to looking at new geographies as long as the venture is interesting for them. Ventures with centralised teams utilise VC databases like PitchBook or Crunchbase more because they are not physically present in the countries (Investor A). Jin, Wu and Hitt (2017) argue that when a venture is geographically distant, social media impact would be stronger as it bridges the communication gap with investors. While in our study it could not be inferred that the impact is stronger as digital media is usually used as an initial screening tool, there are nuances where geographically distant global impact investors would utilise more digital media to source and screen social ventures in comparison to those with allocated teams geographically close by. However, they would still find references outside of social media.

In addition to geography, there are also nuances with regards to the different sizes of venture. Previously the study by Block, Hirschmann and Fisch (2021) identified the different levels of criteria importance when impact investors screen an early-stage social venture. While the results from our study find no different level of importance across criteria specifically related to the digital signals, nuances exist for different degrees of importance of digital presence regarding venture size which are tightly related to the industry. For example, when assessing a digital tech-based company, a strong digital presence and a great website would be more significant during assessment in comparison to other industries such as water and agriculture, as it is not necessarily crucial for them to be present on digital mediums (Investor C).

Thus, for some industries such as technology ventures, websites could be an indicator for assessing the credibility of a venture as a signal of proof of concept, while for other industries like the healthcare sector, digital media presence would only impact the discoverability of the venture by investors (Jin, Wu & Hitt, 2017), because in healthcare certifications and proof of concept are more important for early-stage ventures (Investor E). Therefore, digital presence is not a deal breaker for social ventures to acquire funding, however, having a good digital presence might increase their chances to be more discoverable and pass the initial screening.

6. Conclusion

This study aimed to further the understanding of the impact investors' use of digital signals, communicated through different digital platforms, to evaluate investment opportunities within the deal sourcing and screening phase. In this chapter, the research contributions are elaborated and recommendations for future research are presented.

Digital media is used in multiple ways by different global impact investors to source and screen social ventures. However, based on previous research and findings from this research we can conclude that digital media is usually used for gathering initial information regarding the authenticity, background and accomplishments of social ventures and the founders.

In the deal sourcing stage, impact investors use digital media to do outbound deal sourcing or get inbound deals. They also use digital media platforms to do a quick scan of the overall information to decide whether to spend more time researching the venture or getting to know them further. In the screening stage, digital media is used as a pathway to find information regarding authenticity of the venture, such as identifying ventures' network or finding information which can be evaluated further through interaction with the founders and the related stakeholders. However, there is no systematic way to use digital media for venture evaluation. It varies across impact funds and even for investors within the same team.

Finally, although information on digital media provides signals to impact investors regarding the quality of a venture, it is not used as a single source to make decisions. Hence, although digital media helps social ventures to become more discoverable and offer different data points for assessment in the investment process, impact investors do not rely solely on digital media to make their final decision.

The findings from this study contribute to the theoretical knowledge of the impact investment landscape and offer practical contributions for both impact investors and social ventures.

6.1 Contributions

6.1.1 Theoretical contributions:

This qualitative research study was conducted to understand the decision-making processes of early-stage global impact investors, who invest in multiple geographies, in relation to the digital signalling by early-stage social ventures. Through this research, we evaluated not only the decision-making criteria of impact investors based on Block, Hirschman and Fisch (2021) but also understood how they apply the information available on digital media platforms to develop investment decisions. This adds to the limited literature available on impact investors' decision-making while using signalling theory to understand the importance and relevance of digital signals in the decision-making process.

We also found that active digital media presence increases the discoverability of ventures in line with Jin, Wu and Hitt (2017), however contrary to their findings it does not increase their chances of getting investment. The investors will do verification, and evaluate documentation and financial projections in the due diligence and deal closing phase to analyse investments. Furthermore, we also see that investors do analyse digital news and media outlets to get more rhetorical signals about the ventures and understand their presence in the market (Steighnberger & Wilhein, 2018).

The previous literature does not provide insights into the use of digital media channels by impact investors in the screening stage of early-stage social ventures. This exploratory study contributes to identifying the process employed and the areas evaluated by impact investors on digital media platforms. Based on the insights that we received from impact investors mentioned in Table 2, we conclude that there is no structured way of using digital media for decision-making by impact investors and it varies from investor to investor or sometimes even within the same team. However, the signals they seek from digital media include the authenticity of the founding team, the professional background of the founding team, the authenticity of the social venture and previous accomplishments of the social venture (customer reviews, previous grants/competitions won). Investors also assess the relevance of the venture's impact through digital media, but it is on a very preliminary level. We also see that investors increasingly rely on referrals and background checks from their networks (Ryder & Vogeley, 2018) and cross-check all information received from digital media.

Our research validates the findings of Ko and Mckelvie (2016), that startups should send signals to investors in the early stages. Based on our findings we see that investors make use of digital signalling by startups in the early stages of pre-screening and screening while in the later stages, they use more concrete information like financial projections and business documentation. In line with Ko and Mckelvie (2016) and Hsu (2007), we also found that the education and experience of founders are important for impact investors when evaluating digital signals.

6.1.2 Practical contributions

This study also contributes to the practice of impact investing. The insights provide a better understanding and develop a structured approach to the use of digital media by different global impact investors in the deal sourcing and screening stage of investment. As the assessment criteria might differ between investment funds due to different industries and geographic focus, investors can consider employing different approaches to use digital signals, as mentioned in this study and implement what is most applicable for them.

In addition to the impact investors, this study also contributes to providing social entrepreneurs with a clearer understanding of using digital media signalling to increase their venture's discoverability and in turn chances of raising investment. Despite running a potentially high-impact and scalable venture, financing has always been a challenge especially for an early-stage venture due to the information asymmetry which often occurs between entrepreneurs and investors (Glücksman, 2020). Therefore, by understanding the impact investment criteria and how it is assessed in the deal sourcing and screening stage through digital media channels, entrepreneurs can strategise to provide stronger signals by highlighting information that matters more to investors through their social media channels or website. However, entrepreneurs also need to be transparent in showing authentic information as it will be verified further by investors.

6.2 Limitations

While all criteria are carefully evaluated and backed by research decisions, there are some areas in this research which might be limited by the research environment constraints. One of these limitations is the bias that comes with qualitative research because it is highly dependent on the perception of interviewees which might result in missing important themes during analysis and could impact the research findings (Bryman & Bell, 2011). However, by conducting a thematic analysis of the method explained by Braun and Clarke (2006) we contributed to maintaining the rigour of this research.

Another constraint faced in this research is the size of the funds interviewed. Some impact investment funds might be too large while others might be small and their criteria to evaluate startups might differ based on the level of risk they are willing to take, thus impacting the research outcomes. Another important factor is the geography and industry of the funds included in our research. There might be nuances between the interviewees because of their industry and geography impacting the validity of the study. Also, funds differ from each other based on the location of their teams, some have centralised teams while others have teams at each location they invest in, which might make the process of deal sourcing and deal screening different. However, we will employ mitigating factors to ensure that the sample is homogeneous (chapter 3.2) and is as similar to each other as possible.

We used a semi-structured guide to conduct these interviews. According to Saunders, Lewis & Thornhill (2016), semi-structured interviews might lead to interviewer bias where they disregard some information while over-emphasising some other information. They also discuss the threat of interviewee bias in semi-structured interviews because with open-ended questions they might choose to conceal or disregard some part of reality that has not been asked directly. However, this is mitigated by conducting all of the interviews together, so that if one of the researchers misses something important the other person can cover it.

The recruitment of participants is mostly done through LinkedIn, which might have influenced the result with regard to the high usage of LinkedIn within the investment process. Additionally, the interviews are all done through digital platforms like Zoom and Google Meet which might have added a bias to the interviews because the interviewers might have missed some important physical cues that they would have perceived in in-person interviews.

6.3 Future Research

This exploratory research was conducted to understand the decision-making process of impact investors (equity) while evaluating early-stage social ventures through digital signals. Thematic analysis was applied to develop the findings and then conclusions were analysed. Since it was an exploratory study, we found various nuances among investors who invest across diverse industries and geographies. For future research, it will be insightful to focus on investors with similar portfolios.

Our findings reflect that different industries have different priorities for assessment criteria and they use different digital platforms to evaluate them. For future research, we recommend conducting in-depth research on the decision-making criteria of impact investors in one industry to develop a theoretical understanding of the interplay of digital media within that industry.

Additionally, the focus of this research was on equity investors, for the future, it will be interesting to learn about the venture evaluation process of donor and debt investors as well. The investors interviewed in this research had 2 different types of teams i.e. centralised and geographically dispersed. Based on the differences in the location of these teams investors employed different digital media platforms to use digital signals. For future research it will be beneficial to look at impact investors with one kind of team, to develop an in-depth understanding of their startup assessment process.

The sample for this research includes all sizes of funds which impacts the assessment criteria they employ to evaluate social ventures. It will be insightful to conduct research with impact investors that have a similar portfolio size because it will lead to a better understanding of the specific use of digital platforms and their significance in similar venture funds.

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Appendix 1 - Interview Guide

Section 1 - Introduction and understanding the organization

In the introduction, we will start by explaining briefly the research goals, and key structure of the interview, and then ask questions specific to the interviewee, their organisation and their investment process.

- Please give a brief introduction of your organisation and how would you categorize your organization's investment type (donor, equity and debt). What size of startups do you invest in?
- Please explain your role in the organisation

Section 2 - Understanding investment preferences and process

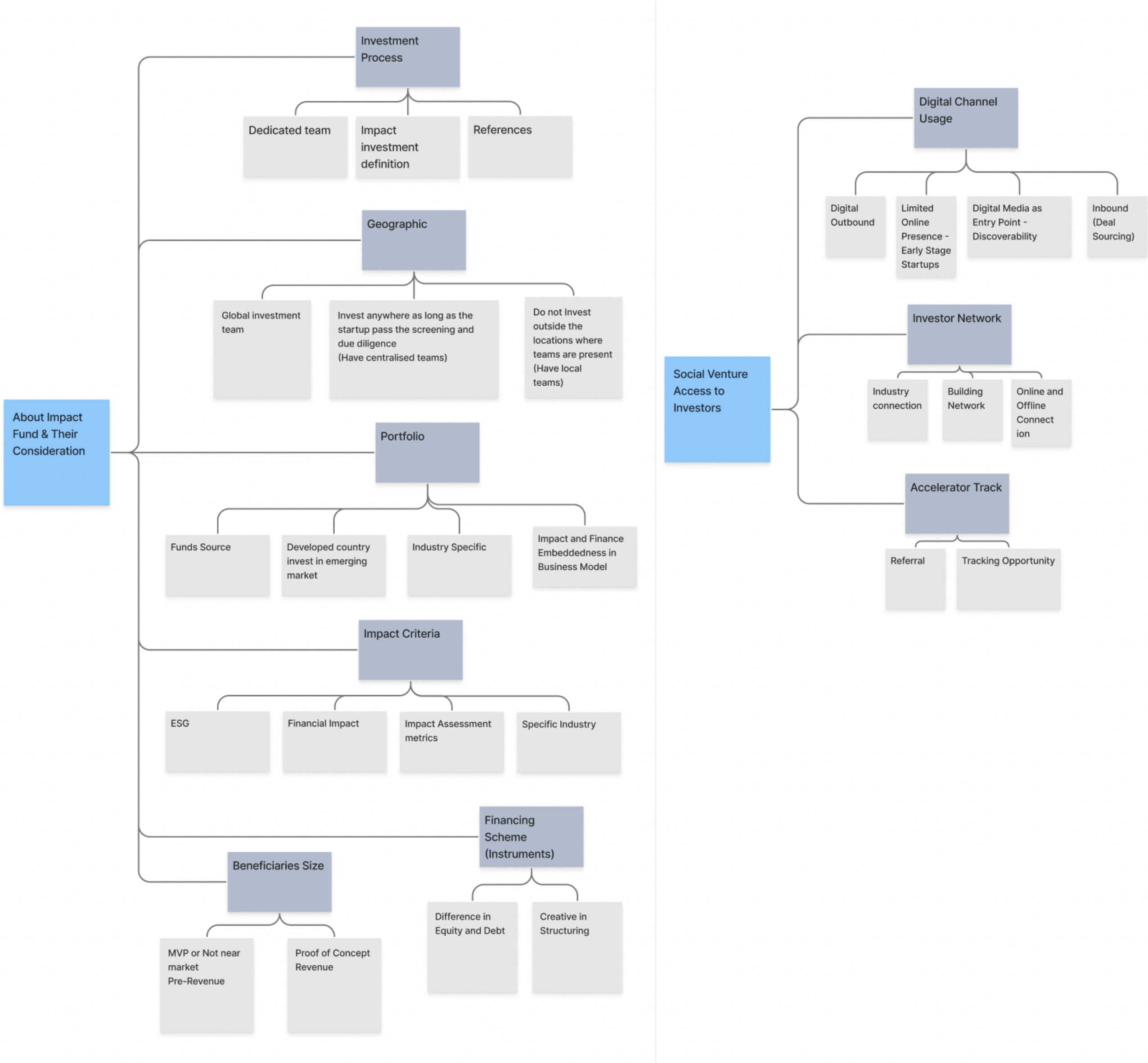
- Can you explain your process of startup evaluation from deal sourcing to deal closing?
- What does social value mean to you and how important is it in your investment decision making?
- In which regions are your investee organizations located?
- At which stage do you usually invest in startups?
- What industries/impact areas do you usually invest in?

Section 3 - Venture Screening Criteria

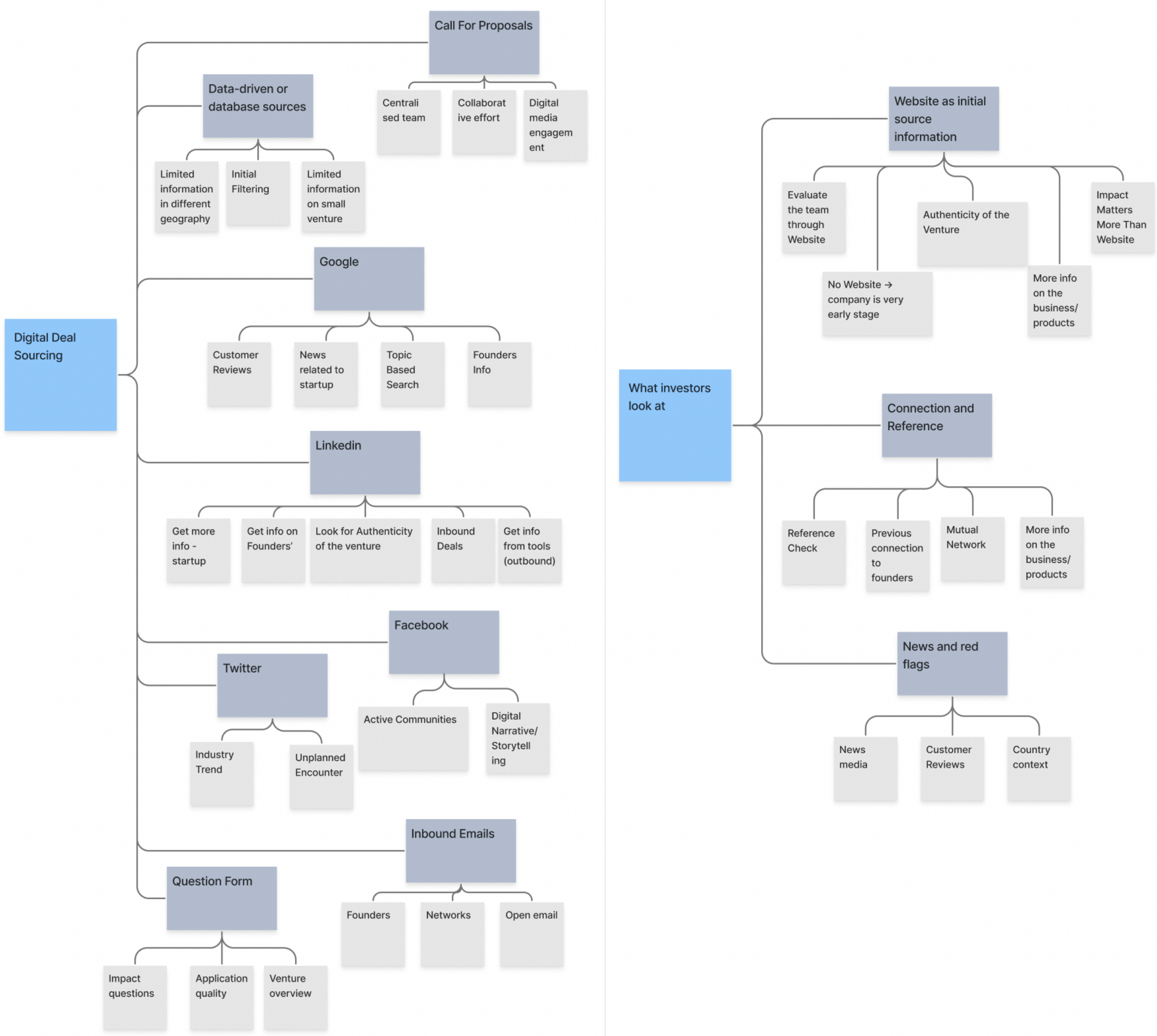
- How do you usually find social ventures to invest in?
- What are your screening criteria for startups? Who leads that screening?
- How does digital presence impact your decision-making in the screening process?
    - Which mediums do you generally look at to get more details on the startup?
- Which digital media characteristics/information influence your decision-making when screening startups?

Appendix 2

2.1 - Themes and Group Mapping 1



2.2 - Themes and Group Mapping 2



2.3 - Themes and Group Mapping 3