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Second Research Agenda on BAs and CIs

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1. Introduction

This second research agenda builds on the results of the BAC4SHC project and aims at completing and updating the first research agenda provided in D1.3. The focus is on research gaps and challenges emerged in the first literature review (updated with other recently published articles) and on the research questions suggested by the activities carried out in other BAC4SHC work packages, such as the BAs and CIs surveys and the workshop held.

Business angels are high-net-worth individuals who provide private investments to early-stage or startup companies, typically in exchange for equity or ownership stakes (Freear et al., 1994). Crowd investors are individuals who invest relatively small amounts of money in early-stage or startup companies or projects alongside many other investors through crowdinvesting platforms; they usually have less control in the invested companies compared to BAs (Block et al., 2018; Cumming et al., 2019).

Building on the empirical evidence emerging from BAs and CIs survey findings (WP2), the results of the previous literature review D1.3, and the academic discussion held during the WP6 consortium workshop discussions, future research directions have been outlined. In particular, seminar discussion has shed light on three underexplored research directions: 1) gender dynamics on the supply side within this specific portion of the entrepreneurial finance market, 2) the sustainability and impact of business angels and crowd backers, and 3) comparative analyses across investor types.

As already highlighted in the literature review in D1.3, Business Angels (BAs) and Crowd Investors (CIs) are mostly known due to their role in filling the equity gap in the very early stage of a firm's life cycle (Bonini et al., 2018). While research on these actors has been developing considerably, there is still a call for more empirical evidence on BAs and CIs contribution to new enterprises. In particular, it is widely recognized that a significant gap exists with respect to the connection between investors' human capital (HC) and the growth and performance of startups. Within entrepreneurial finance literature, Human Capital studies have predominantly considered the importance of entrepreneur's HC in attracting early-stage financing and fostering startup survival and success (Aljazeeri & Hamdan, 2023; Baptista et al., 2007, 2014; Castrogiovanni, 2011; Davidsson & Honig, 2003; Lee, 2019; Moog, 2002). As part of Work Package 1, this work aims to update the literature review, mapping the most relevant novel insights from recently published research outputs on BAs and CIs human capital.

The report is structured as follows, section 2 explains the methodology adopted to complement the literature review, section 3 presents the main contents of extant publications. Finally, section 4 points out the scope for future research.

2. Literature review methodology

The methodological approach adopted for this Second Research Agenda follows the same structured and comparative framework used in the First Research Agenda. A systematic search was conducted across major academic databases to identify peer-reviewed publications released after the completion of the First Research Agenda. This process yielded 29 relevant academic articles published in 2025 and 2026, all published in reputable academic journals. Of these, 17 contributions focus primarily on BAs, examining issues such as investor characteristics, decision-making dynamics, contextual influences, and social or psychological factors. The remaining 10 articles address CIs, with particular attention to sustainability-oriented crowdfunding, gender dynamics, and the determinants of campaign success across economic, social and environmental dimensions. Two further contributions address both investor types and are treated as transversal. These 29 recent contributions are discussed alongside a broader body of 28 foundational works on BAs, CIs, and general human capital published prior to 2024, which are retained as the reference base for each thematic area.

Consistent with the methodological choices of the previous agenda, the selected contributions were analysed through a thematic process aimed at identifying recurrent patterns, emerging themes, and points of divergence from the earlier literature. Each article was examined with respect to investor attributes, human capital dimensions, behavioural mechanisms, contextual variables, investment objectives, and outcome implications. This approach enabled a structured comparison with the themes mapped in the First Research Agenda.

3. Thematic areas

The updated review confirms the relevance of the thematic areas identified in the First Research Agenda while highlighting several important developments. As in the previous phase, the thematic structure is organised separately for Business Angels (BAs) and Crowdinvestors (CIs), reflecting the distinct nature of these two groups of investors.

3.1 BAs

We identified five main thematic areas: Investment behaviour, Value adding contribution, BA networks and groups, Gender dynamics and Green Investing.

Investment behaviour

Business angels’ investment behaviour represents a central stream within literature. Across extant contributions, investors’ human capital has been primarily investigated within the domain of investment decision-making, where human capital components are considered key drivers of the selection criteria through which investors evaluate opportunities, select ventures, and ultimately make investment decisions. In this perspective, a substantial body of literature has explored the determinants of business angels’ investment behaviour. Building on the evidence mapped in the First Research Agenda, existing studies have examined the motivations underlying investment decisions (Mason et al., 2017; Mason & Stark, 2004), the role of prior experience in shaping investment preferences and selection processes (Croce et al., 2020; Botelho et al., 2023; Croce et al., 2023), and the factors driving the rejection of investment opportunities (Croce et al., 2017; Iqbal et al., 2019; Mason et al., 2017; Mason & Botelho, 2016; Mason & Harrison, 1996; Maxwell, 2009; Wesemann & Antretter, 2023). Furthermore, recent evidence suggests that individual characteristics, including psychological traits, also play a relevant role in shaping investment success (Altmeier & Fisch, 2024; Singh et al.,2025).

Moreover, the investment context itself plays a relevant role, as affiliation with angel networks and participation in syndicates influence how opportunities are screened and evaluated, shaping both individual and collective decision-making processes (Bonini et al., 2018; Butticè et al., 2021).

At the same time, a growing stream of literature highlights the cognitive dimension of investment behaviour. Investment decisions are shaped by the combined use of costly signals, such as financial, social, human, and intellectual capital, and costless signals, including verbal cues like passion and concreteness, which interact in influencing investor evaluations under conditions of uncertainty. Investment decisions follow a configurational logic, where trust acts as a necessary condition and other signals combine in multiple ways, reflecting how human capital shapes evaluation processes (Arroyo-Revilla et al., 2025). In line with this perspective, prior experience operates through learning processes that affect risk perception and evaluation criteria (Croce et al., 2020; Botelho et al., 2023).

Business angels develop context-specific knowledge throughout the investment process through multiple learning mechanisms (Siefkes, 2025). Recent evidence suggests that the impact of business angels' human capital on investment behaviour depends not simply on the presence of prior entrepreneurial experience, but on its configuration and transferability across contexts. While entrepreneurs tend to focus on early-stage investments and adopt a more founder-friendly approach, entrepreneurial experience does not automatically lead to superior selection or outcomes. Instead, its value depends on factors such as repeated experience, prior success, and industry relatedness, which enhance the ability to generalize knowledge across ventures. By contrast, venture capital experience is associated with more structured evaluation processes and stronger syndication capabilities. Overall, these findings highlight that the effects of human capital are heterogeneous and context-dependent, challenging the assumption that entrepreneurial background is inherently superior (Pelucco and Vismara, 2025).

Recent empirical evidence shows that social impact business angels complement traditional investment evaluation with impact-specific assessments, including the verification of impact authenticity, the screening of greenwashing risks, and the integration of impact considerations into due diligence and final decision-making (Viglialoro et al., 2025). Finally, recent empirical evidence suggests that investment choices reflect a hybrid decision-making process in which financial considerations coexist with emotional and introspective factors, providing further support to existing research on the role of investors' human capital in shaping evaluation and decision-making processes (Sanjuan et al., 2026). Investment decisions are also shaped by social proof, as business angels rely on the observable decisions of other investors under uncertainty, with less experienced individuals more prone to herding and experienced investors engaging in more selective imitation (Wesemann Lekkas et al., 2025).

Investors evaluate startups relative to multiple referents, including both incumbent firms and peer ventures. While distinctiveness from incumbents enhances evaluations, excessive differentiation from both incumbents and peers may increase perceived uncertainty, highlighting the importance of achieving an optimal level of distinctiveness (Shen et al., 2025).

In this perspective, recent evidence suggests that investors' emotional states influence how information is interpreted and risk is perceived, representing an additional dimension through which human capital shapes decision-making across pre- and post-investment phases (Kaiser & Kuckertz, 2024).

Value-adding contribution

New perspectives conceptualise BAs as socially embedded actors who contribute not only capital and expertise but also moral leadership, community support, and local empowerment. In addition, recent evidence shows that business angels' post-investment involvement also affects entrepreneurs at the individual level by shaping their well-being through relational dynamics and the satisfaction of psychological needs such as autonomy, competence, and relatedness (Schmidt et al., 2025). Research exploring the ethical and community-oriented dimensions of BA involvement (e.g., Pascucci et al., 2024) expands the thematic by positioning BAs as multifaceted contributors within entrepreneurial ecosystems.

Recent evidence suggests that the impact of business angels' human capital extends beyond individual attributes to include relational dimensions, as the alignment between investors and founders plays a critical role in shaping venture outcomes. In particular, personality similarity within the investor–founder dyad has been shown to influence follow-on funding, highlighting the importance of human capital fit in post-investment collaboration (Altmeier & Fisch, 2026).

Moreover, business angels' value-adding contribution may also extend to facilitating access to subsequent sources of finance, as their involvement can prepare ventures for future fundraising and improve their ability to attract external investors (Capizzi et al., 2025). More specifically, this effect is associated with business angels' ability to reduce information asymmetries perceived by external financiers, as well as with their active post-investment involvement, particularly through soft monitoring practices and the application of their entrepreneurial experience (Capizzi et al., 2025).

At the post-investment stage, impact-oriented business angels also address impact-related risks and support the achievement of social or environmental outcomes, although this dimension remains underexplored (Viglialoro et al., 2025). Building on this perspective, recent evidence suggests that business angels' human capital operates across both investment selection and post-investment involvement. In particular, sustainability-related competences shape not only how opportunities are evaluated, but also the nature of value-adding activities provided to ventures. Sustainability-oriented investors tend to deliver more structured and impact-focused support, whereas less specialized investors provide more conventional forms of involvement (Siefkes et al., 2025; Viglialoro et al., 2025).

BA networks and groups

Viglialoro et al. (2025) show that social impact business angels appear less likely to rely on generalist BA organisations and more likely to source investment opportunities through specialized impact-oriented ecosystems, such as dedicated angel groups, social incubators, and mission-driven entrepreneurial communities.

In addition, affiliation with business angel networks strengthens the certification role of investors, as network-backed ventures benefit from more structured screening processes and stronger reputational signals. This enhances their credibility and increases the likelihood of securing follow-on funding, particularly in contexts characterized by high information asymmetries (Altmeier & Fisch, 2025; Capizzi et al., 2025). Evidence from business angel groups indicates that, despite increasing organisational structuring, due diligence activities remain largely individualised, with investors conducting their own evaluations independently and only subsequently sharing information within the group, resulting in limited collective action (Arundale & Mason, 2024).

Finally, recent evidence indicates that business angel investment increasingly extends beyond local boundaries, with networks functioning as key connectors between investors, ventures, and territories. This evolution mitigates local bias and reinforces the importance of relational ties in shaping investment patterns (Cowling & Brown, 2024).

Green investing

When evaluating socially or environmentally oriented ventures, business angels complement conventional economic screening with impact-specific assessments. This highlights how sustainable investing requires not only motivation, but also specific evaluative competences and dedicated due diligence practices (Viglialoro et al., 2025).

In addition, recent evidence highlights the heterogeneity among investors in sustainable contexts, showing that business angels differ in terms of sustainability-related competences, motivations, and level of post-investment involvement, leading to different forms of support provided to ventures (Siefkes et al., 2025).

Gender

Recent research shows how group composition, perceptions of minority status, and stereotype-related pressures affect involvement in investment activities, due diligence, and investment amounts. In particular, female business angels operating in male-dominated groups tend to exhibit lower participation and invest smaller amounts compared to those in female-only environments, while these differences are reduced with greater investment experience (Cohen et al., 2025). More broadly, these gender differences are driven by a combination of mechanisms related to entrepreneurs' characteristics, investors' characteristics, venture attributes, and contextual factors (Koziol et al., 2025). Parallel work highlights persistent gender-based disparities in the allocation of angel funding. In particular, women entrepreneurs are less likely to receive large investments from male business angels, while this bias does not emerge when women investors finance male-led ventures, suggesting the presence of taste-based discrimination rather than information asymmetries (Bellucci et al., 2025).

3.2 CIs

We identified four main thematic areas: Crowdinvestors' investment behavior, Value-adding contribution, Sustainability orientation and Gender dynamics.

Crowdinvestors' investment behavior

Consistent with the findings of D1.3, crowdinvestors' decision-making behaviour continues to be shaped by a combination of individual, social, and informational factors. As documented in the previous research agenda, human capital attributes influence how backers interpret available information and evaluate investment opportunities.

At the individual level, investment decisions are not driven purely by financial return expectations: motivations vary significantly depending on the nature of the campaign, and backers increasingly incorporate value-based and impact-oriented considerations into their evaluation process (Bartoli et al., 2025). Similarly, prosocial motivation has been shown to influence crowdfunders' lending decisions, with more pro-socially motivated individuals being more likely to support disadvantaged borrowers, although this tendency is moderated by contextual factors such as cultural distance, prior experience, and borrower characteristics (Xie et al., 2025). Investors' human capital not only affects their preferences, but also shapes how they attend to, filter, and interpret available information, influencing the construction of signal sets during evaluation (Butticè et al., 2022).

Beyond individual motivations, investment behaviour is also shaped by social dynamics. Crowdfunders tend to follow the decisions of previous co-investors and rely on their networks to reduce uncertainty, although these patterns are partially driven by homophily, that is, the tendency to interact with and imitate investors who share similar characteristics (Cai & Polzin, 2025). However, social influence does not always improve the quality of collective decision-making: research on crowdlending shows that the crowd can effectively screen borrowers only when objective financial information is available, whereas the presence of prosocial project characteristics leads investors to converge on similar decisions, reducing overall screening accuracy (Gafni & Jeppesen, 2025). This finding adds nuance to the earlier evidence in D1.3 on the role of signals in guiding collective behaviour, suggesting that prosocial framing may actually impair rather than support informed decision-making.

In this context, the availability and credibility of information signals become crucial. One important source of such signals is the prior involvement of professional investors: ventures that have already received backing from business angels, especially selective and network-affiliated ones, are more likely to attract crowd participation, as angel involvement acts as an indirect quality certification that helps reduce information asymmetries (Capizzi et al., 2025). The characteristics of campaign founders also matter: while D1.3 highlighted that entrepreneurial and investment experience increase campaign success, the updated evidence introduces an important distinction between general and specialized human capital. General human capital, such as broad professional experience and educational background, enhances campaign success by signaling credibility to potential backers, while more specialized human capital does not directly improve fundraising outcomes but becomes relevant for post-campaign performance, particularly in sustainability-oriented ventures (Del Sarto & Bellavitis, 2025). Finally, in syndicated equity crowdfunding, the internal social capital of lead investors, meaning the strength of their ties within their immediate network, supports fundraising success, whereas external social capital, that is, the breadth of their connections beyond their core network, shows no significant effect, and the combination of both may in fact produce negative outcomes (Zhang et al., 2025). This last finding partially challenges the earlier emphasis in D1.3 on the unambiguously positive role of lead investors' experience and credibility, suggesting that the relationship between social capital and campaign success is more complex than previously assumed.

Value-adding contribution beyond investment

CIs increasingly contribute beyond capital provision by fostering community mobilization, visibility and diffusion of innovative ideas. In this context, platforms are no longer passive infrastructures but act as active intermediaries (Bartoli et al., 2025). Seminal contributions have documented how crowd investors engage with funded ventures through both low-involvement activities, such as word-of-mouth and purchase recommendations, and high-involvement activities, including strategic advice and knowledge transfer (Garaus et al., 2023; Di Pietro et al., 2018; Agrawal et al., 2014). Despite the relevance of these early insights, the value-adding contributions of crowd investors beyond capital provision remain a relatively underexplored area, with no significant new empirical evidence emerging in recent literature.

Sustainability orientation

One of the most notable developments concerns crowdfunding for sustainability. The updated literature reveals substantial differences in the configuration and performance of campaigns depending on whether the objective is economic, social or environmental (Bartoli et al., 2025). These findings elevate sustainability to a distinct thematic cluster, expanding the scope of CIs research beyond conventional economic considerations. Lindlar et al (2025) show that prior crowdfunding experience shapes investors' reactions to failure signals, with experienced crowd investors becoming significantly less willing to invest in failed environmental campaigns compared to commercial ones. The authors interpret this pattern as a "double loss" perception, whereby investors experience not only the loss of financial returns but also the failure to achieve the expected environmental impact.

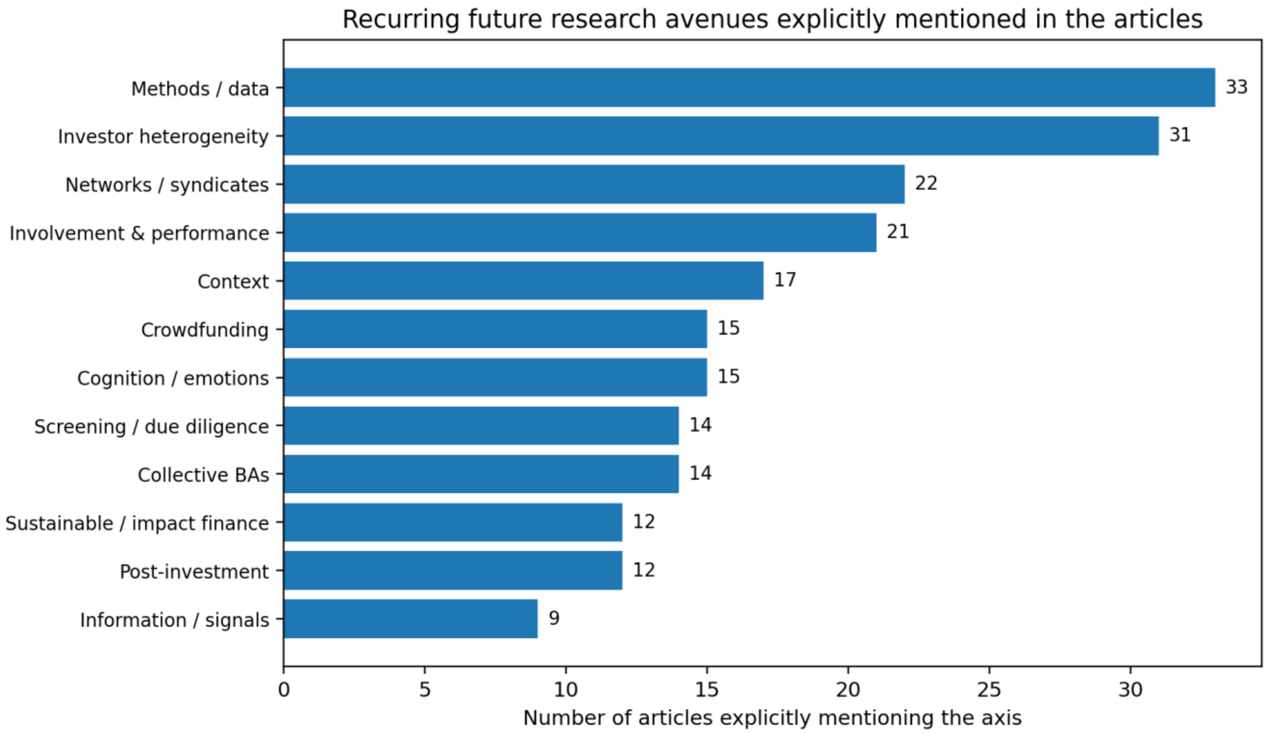
Gender dynamics

Crowdfunding investors differ from traditional capital providers in that their decisions are shaped not only by financial considerations but also by prosocial motivations, perceived trustworthiness, and gender-related preferences, which contribute to less pronounced, but still present gender disparities (Li et al., 2025). Such disparities in crowdfunding are rooted in structural and contextual barriers, including biases, gendered communication constraints, and smaller and less influential professional and investment networks (Chandna & Axelton, 2025). In this context, female investors are more likely to support female-led ventures, consistent with gender homophily, and display greater sensitivity to sustainability-related aspects in participation decisions, although this does not extend to the amount invested (Bonvino et al., 2025).

4. Future research directions

The picture emerging from the updated literature review points to a set of recurring and interconnected research gaps. To systematically map these gaps, Figure 1 presents a graphic summary of the future research avenues explicitly mentioned across the articles reviewed, ordered by the number of contributions that call for further investigation in each area. Note that the categories overlap: one article may be counted under several axes when it explicitly mentions multiple future research directions, which explains why the sum of articles across categories exceeds the total corpus of the contributions reviewed. The most frequently mentioned avenue concerns methodological improvements and data quality, cited by 33 articles, reflecting a broad recognition that the field needs richer, more reliable datasets and more robust empirical designs. Investor heterogeneity follows closely with 31 articles, confirming that the comparative analysis of investor profiles, in terms of experience, human capital, gender, and motivations, remains one of the most pressing priorities in the literature. Networks and syndicates (22 articles) and investor involvement and performance (21 articles) point to persistent gaps in understanding how collective investment structures and post-investment activities translate into venture outcomes. Context-related factors are cited by 17 articles, while crowdfunding mechanisms and cognitive and emotional dimensions of decision-making each appear in 15 articles, signalling growing but still underexplored attention to the psychological black box of investment decisions. Screening and due diligence processes (14 articles) and business angels as collective actors (14 articles) reflect continued interest in the internal dynamics of investment evaluation. Sustainable and impact finance and post-investment activities are each cited by 12 articles, pointing to the need for deeper investigation into how impact-oriented investors make decisions and create value beyond capital provision. Finally, information flows and signals (9 articles), gender and EDI (8 articles), public policy (7 articles), and investor learning (2 articles) round out the landscape, with gender and sustainability emerging as particularly aligned with the specific focus of this research agenda. Building on this evidence, the following sections outline the specific research directions identified for BAs and CIs respectively.

Figure 1. Graphic summary of recurring future research avenues explicitly mentioned in the articles



Moreover, building on the WP6 consortium workshop discussions, three complementary research avenues emerge for advancing the literature: 1) gender dynamics on the supply side within this portion of the entrepreneurial finance market, 2) the sustainability and impact of business angels and crowd backers, and 3) comparative analyses across investor types.

A first avenue concerns the role of gender in shaping investment behavior and orientations toward impact. Possible research questions include:

- What are the distinctive characteristics, roles, and constraints of women business angels within entrepreneurial finance ecosystems?
- Do female and male investors differ in how sectoral and professional backgrounds influence their orientation toward impact investing and their involvement after investment?
- To what extent do female BAs place greater emphasis on altruistic or prosocial motivations relative to financial returns?
- Does prior experience in male-dominated, or high wage-inequality industries affect the likelihood of engaging in impact investing, and does this vary by gender?
- Can investor training mitigate gender-related stereotypes in investment decisions?

A second highlighted strand relates to the integration of environmental and social considerations into early-stage investment decisions. The growing relevance of ESG criteria in entrepreneurial finance raises important questions about how different types of investors approach impact.

Key questions include:

- Do BAs and CIs differ in their concern for environmental and social issues, and in how these concerns translate into investment choices?
- How do investors assess and value sustainability certifications and impact indicators?
- How does investor human capital, such as education, entrepreneurial background, and investment experience, influence preferences for and engagement in impact investing?

Lastly, the third avenue identified focuses on systematically comparing BAs and CIs.
Relevant research questions encompass:

- How do BAs and CIs differ in their demographic characteristics and human capital profiles?
- In what ways do their investment experience and decision-making criteria diverge, particularly regarding risk, returns, and non-financial objectives?
- To what extent do they differ in their attitudes toward ESG considerations and gender-related dimensions in investment decisions?

4.1 BAs

Investment behaviour

The literature has produced rich evidence on how human capital shapes evaluation criteria, signal interpretation, and decision-making processes, yet the chain from decision to outcome remains largely unexamined. We know that entrepreneurial experience leads to founder-friendly approaches and early-stage preferences, and that VC experience produces more structured evaluation, but whether these different styles translate into differential startup success rates is empirically unaddressed, the field essentially stops at the investment decision and rarely follows through to ask whether a given human capital configuration actually produced better ventures. This gap is compounded by the configurational logic introduced by Pelucco and Vismara (2025), who show that repeated experience, prior success, and industry relatedness all moderate the value of entrepreneurial background, yet this configurational reasoning has not been extended to outcomes: future research should ask whether specific combinations of human capital systematically predict portfolio company performance, and under what boundary conditions. The cognitive and emotional dimensions of investment behaviour present a further unresolved gap. Kaiser and Kuckertz (2024) show that emotional states influence risk perception and information interpretation, while Arroyo-Revilla et al. (2025) document that trust acts as a necessary condition in a configurational decision logic, but the performance implications of both findings remain untested, whether BAs with greater emotional regulation make better investments in terms of outcomes, or whether the configurational signal logic predicts venture success better than simpler heuristics, are questions the literature has not yet pursued. A parallel gap concerns herding behaviour: Wesemann Lekkas et al. (2025) show that less experienced BAs are more prone to social proof and imitation, yet whether herding leads to systematically worse investment outcomes compared to independent evaluation has not been examined, despite the plausible mechanism that herding concentrates capital in already-visible deals rather than undervalued opportunities.

Value added contribution beyond investment

Despite well-developed evidence that BAs contribute through mentoring, network introductions, and soft monitoring, the literature rarely connects these activities to hard performance metrics, leaving the causal chain from BA human capital to post-investment behaviour to startup outcome largely theoretical. Which specific value-adding activities, delivered by which human capital profiles, produce measurable improvements in survival, growth, or follow-on funding attraction remains unknown. The relational dimension introduces a further unresolved tension: Altmeier and Fisch (2026) show that investor-founder personality similarity influences follow-on funding, but whether similarity or complementarity drives performance is theoretically ambiguous — a founder may benefit more from a BA whose experience mirrors their own or from one whose human capital fills specific venture gaps, a distinction with significant practical implications that current research cannot resolve. The soft monitoring mechanism, highlighted by Capizzi et al. (2025), raises similarly underspecified questions about whether the information asymmetry reduction effect holds equally across different BA experience profiles. A further overlooked pathway is psychological: Schmidt et al. (2025) show that BA involvement shapes founder well-being, opening a plausible indirect route from BA relational human capital to startup success through founder psychological states, a mediation chain not yet empirically tested.

BA Networks and Groups

While network affiliation has been shown to affect deal flow and certification effects, the human capital composition of networks, their internal diversity in terms of industry backgrounds, functional expertise, and entrepreneurial histories, has not been linked to the performance of ventures they collectively back. The observation by Arundale and Mason (2024) that due diligence remains largely individualised despite group formalisation is particularly consequential: it suggests that collective human capital is systematically underutilised during the most critical evaluation phase, yet whether this produces worse investment outcomes than genuine collective deliberation is entirely unknown. The geographic expansion of networks documented by Cowling and Brown (2024) deserves reinterpretation as a human capital phenomenon — cross-regional networks aggregate more heterogeneous expertise, but whether this diversity improves investment quality and venture outcomes in underserved areas is unexamined. The certification mechanism itself also remains underspecified: whether it is driven by aggregate member prestige, specific domain expertise of lead investors, or structural network features has not been disentangled, yet this distinction matters for understanding how BA human capital operates collectively.

Sustainability

A foundational gap is the absence of a clearly defined construct of impact human capital: while sustainability-oriented BAs are acknowledged to bring different competences and evaluative practices, these have not been theorised into a measurable multi-dimensional construct, without which systematic testing of the human capital-to-outcome relationship in sustainable investing is not possible. Related to this is the unresolved question of whether sustainability-specialised human capital produces better impact outcomes at the cost of financial returns or whether the two are complementary. Siefkes et al. (2025) document heterogeneity in sustainability competences but do not link it to performance, leaving the field without evidence on whether deeper impact human capital produces stronger social, environmental, or financial outcomes. The greenwashing detection capacity identified by Viglialoro et al. (2025) raises an entirely unaddressed human capital question: whether this skill is learnable and transferable across sustainability domains, and whether BAs more competent at detecting greenwashing produce ventures with more authentic and durable impact profiles. Post-investment involvement represents a further gap whether the more structured and mission-aligned support provided by impact BAs translates into measurably better outcomes, and whether this depends on sustainability-specific rather than general entrepreneurial human capital, remains unknown.

Gender

A conceptually important gap is the conflation of two distinct mechanisms: gender may proxy for different human capital profiles, women investors bringing different industry backgrounds and evaluative frameworks or it may operate as a social identity variable producing stereotype threat and discrimination, as documented by Cohen et al. (2025) and Bellucci et al. (2025). Disentangling these pathways matters because if gender differences reflect genuine human capital differences the performance implications differ substantially from those driven by social dynamics, yet current research has not separated them. The taste-based discrimination finding of Bellucci et al. (2025) is compelling as an equity result but leaves downstream performance consequences unexamined whether systematically underfunded female-led ventures underperform their potential, suggesting a market inefficiency, or find compensatory funding paths, remains unknown. At the group level, the behavioural suppression of female BAs in male-dominated settings documented by Cohen et al. (2025) implies systematic underutilisation of human capital, yet whether more gender-diverse groups produce better portfolio performance through fuller human capital utilisation has not been tested. A further gap concerns intersectionality: gender is consistently treated in isolation, yet it intersects with experience, education, and industry background in ways that may compound or mitigate its effects on both investment behaviour and venture outcomes.

4.2 CIs

Investment behaviour

Despite recent advances in understanding crowdinvestors' decision-making behaviour, several important gaps remain. First, while human capital attributes such as experience and expertise are recognized as relevant drivers of investment evaluation, the specific mechanisms through which they shape information processing and signal interpretation remain insufficiently understood. In particular, it is unclear how different configurations of human capital, combining domain-specific knowledge, value orientations, and sectoral background, interact with campaign characteristics to influence investment decisions across different crowdfunding contexts.

Second, although prosocial motivations have been shown to influence lending decisions (Xie et al., 2025), their interaction with investors' human capital attributes remains largely unexplored. It is unknown whether more experienced or knowledgeable investors are better able to balance prosocial and financial considerations, or whether human capital moderates the extent to which prosocial framing impairs collective screening accuracy (Gafni & Jeppesen, 2025).

Third, while social dynamics such as herding and homophily are documented (Cai and Polzin, 2025), the role of human capital in moderating these social influence mechanisms is not yet understood. Specifically, it remains unclear whether investors with richer human capital are less susceptible to herding behaviour and more capable of independent evaluation.

Fourth, the distinction between general and specialized human capital introduced by Del Sarto & Bellavitis (2025) opens important questions about how different types of human capital translate into differential evaluative capacities across campaign types, sustainability dimensions, and stages of venture development.

Value added contribution beyond investment

Despite early seminal contributions documenting how crowd investors engage with funded ventures through both low- and high-involvement activities beyond capital provision (Di Pietro et al., 2018; Garaus et al., 2023), the role of crowd investors' human capital in shaping these post-investment contributions remains substantially underexplored. In particular, it remains unclear whether and how specific human capital attributes of crowd investors, such as domain expertise, professional background, and prior investment experience influence the nature and intensity of their post-investment engagement, and whether these contributions ultimately affect startup performance and success. Furthermore, it is unknown whether heterogeneity in crowd investors' human capital translates into differential capacities to deliver value-adding activities, and whether more experienced or specialized investors are more effective in supporting venture development beyond the financing stage. Addressing these gaps would significantly advance our understanding of crowd investors as multidimensional actors whose human capital may represent an underutilized resource for startup growth.

Sustainability orientation

Recent literature on sustainable crowdfunding has begun to shed light on the role of crowd investors' human capital in shaping the financing outcomes of sustainable startups, yet several important gaps remain. Bartoli et al. (2025) provide a systematic comparison of crowdfunding campaigns across economic, social, and environmental sustainability dimensions, but leave largely unexplored how specific human capital attributes of investors such as prior experience, educational background, and sustainability-related competences,, translate into differential evaluative capacities across sustainability dimensions, and whether these differences ultimately affect the performance and survival of funded ventures. Similarly, while Lindlar et al. (2025) demonstrate that prior crowdfunding experience moderates investors' reactions to failure signals in sustainable campaigns, the underlying human capital mechanisms through which experience shapes these reactions remain insufficiently understood. In particular, it remains unclear how the composition of investors' human capital including domain-specific knowledge, value orientations, and sectoral background, interacts with campaign sustainability signals to influence not only initial funding decisions but also post-failure reinvestment behavior, with consequent effects on the long-term financing prospects of sustainable startups. These gaps point to the need for further research systematically examining how the heterogeneity of crowd investors' human capital affects their ability to support sustainable ventures across different stages and sustainability goals.

Gender

Several aspects remain insufficiently explored in the analysis of gender dynamics among crowd investors. Although existing studies identify a range of determinants of female participation, they provide limited insight into the underlying decision-making mechanisms, particularly in terms of how investors interpret information, perceive risk, and respond to investment signals.

Moreover, the role of investors’ human capital has not been systematically examined in explaining gender differences in crowdfunding behaviour. Sustainability orientation appears to influence women’s likelihood to participate without affecting the amount invested, leaving unresolved how value-based preferences translate into actual financial commitment.

While structural and contextual barriers, such as gender bias, communication constraints, and unequal access to networks, are well documented, their interaction with individual-level characteristics remains insufficiently understood. It also remains unclear whether the factors driving participation differ from those influencing the level of investment across gender groups.

These gaps point to the need for further research on the characteristics and constraints of female investors, and on whether sectoral and professional backgrounds shape gender differences in impact orientation and post-investment involvement. Additional work is needed to assess the role of prosocial motivations, the effect of prior experience in male-dominated or high wage-inequality industries, and whether investor training can mitigate gender-related biases in investment decisions.

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