

# SMARTER SYSTEMS:

## How Tweaking Your Diligence Process Can Unlock Overlooked Opportunities

### KEY INSIGHTS REPORT



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# Introduction

The gender financing gap persists. Women-led startups\* raise significantly less capital than startups led by only men. According to PitchBook Data, in 2021, 85.4% of global VC dollars went to startups with only men on the founding team.

That number has hardly budged over the past decade — despite the fact that data continues to suggest that women-led startups outperform startups with all-men founding teams. For example, a BCG study found that women-led companies generate more than twice as much additional revenue per dollar invested<sup>1</sup> (78 cents versus 38 cents) and a PitchBook study found that women-led startups reach their exit stage a full year earlier than all-male-founded startups (median 6.4 years versus 7.4 years).<sup>2</sup>

For investors, focusing on only a fraction of all entrepreneurs means they leave significant opportunities for returns on the table. For startups, this gender financing gap means promising innovations do not receive the resources they need to scale.

That is why Village Capital partnered with IFC, We-Fi, the World Bank, and researchers Amisha Miller and Saurabh Lall to identify and test several concrete ideas for how to help close the gender financing gap. With the support of a research coalition that also includes Visa Foundation, Moody's, ANDE's Advancing Women's Empowerment Fund, Sasakawa Peace Foundation, and ANDE's SGB Evidence Fund, we have identified several promising interventions.

Now we are sharing our results, and encouraging investors and accelerators to take action.

*\*Women-led startups include those with at least one woman on the founding team.*

## About the Gap

This report builds on over a decade of research around the cause of the gender financing gap in venture capital. In our past research specifically, we ruled out any possible substantive startup or founder differences as reasons to explain the gap.<sup>3</sup> As a result, and in line with other researchers studying evaluation processes in human resource management<sup>4</sup>, we hypothesized that the differences in how investors evaluate men-led and women-led startups - in some cases, possibly driven by unconscious attitudes towards a gender - may be part of the explanation behind the gender financing gap, leading to inconsistency in how investors evaluate startups. Inconsistently evaluating startups can cause investors to overlook promising opportunities and limit the funding available for women-led startups. We cannot expect to solve the world's biggest problems — or maximize our portfolios' returns — if we are overlooking a significant portion of the founder pool.

## Focus On Evaluation

Over the past two years, we worked with researchers to test how to reduce discrepancies in the evaluation process - the due diligence and interview frameworks and processes that investors use to assess potential investment opportunities - to influence more equitable allocations of capital between men and women. We found that adding three simple steps to the evaluation process decreased discrepancies and increased accuracy of evaluations by making them more consistent, comprehensive, and data-driven.

### Step #1

**Collect information** on each startup's risk and growth opportunities ensuring a comprehensive understanding of both;

### Step #2

**Assess a team's potential** by evaluating how much they have demonstrated an ability to improve their startup; and

### Step #3

**Predefine what criteria** will most heavily determine the assessment of a company

We avoided steps that focused on the individual investor and do not affect systemic change, as research has found that targeting change in organizational processes and structures is more effective at producing individual behavioral change.

We also avoided strategies that can result in unintended consequences, such as reinforcing gender stereotypes by portraying women-led startups as needing help or creating backlash. The purpose of these steps is also not to explicitly train investors or those involved in evaluating startups to be less biased, as research has found that bias training is not always effective and can, in some circumstances, be counter effective.

# A Call to Action

In addition to our research, we have developed two action-oriented implementation guides: one for individual and institutional investors<sup>5</sup> and one for incubator/accelerator leaders. The guides focus on concrete steps and tools investors and accelerators can use in their own investment processes and programs to help foster more consistent, comprehensive, and data-driven evaluations.

Entrepreneurs drive the innovation that is responding to the world's greatest challenges—around climate change, health equity, and more. As long as there are inconsistencies in startup evaluation processes, we will continue to see that many innovative, transformative ideas cannot access the funding and networks they need to scale. And investors will continue leaving significant profits on the table.

We hope that our research, combined with our toolkits, will help investors and accelerators target discrepancies in their evaluation processes, unlocking more capital for women-led startups and broader investment opportunities for investors.

Thank you for taking the time to read this report.



**Allie Burns,**  
CEO, Village Capital

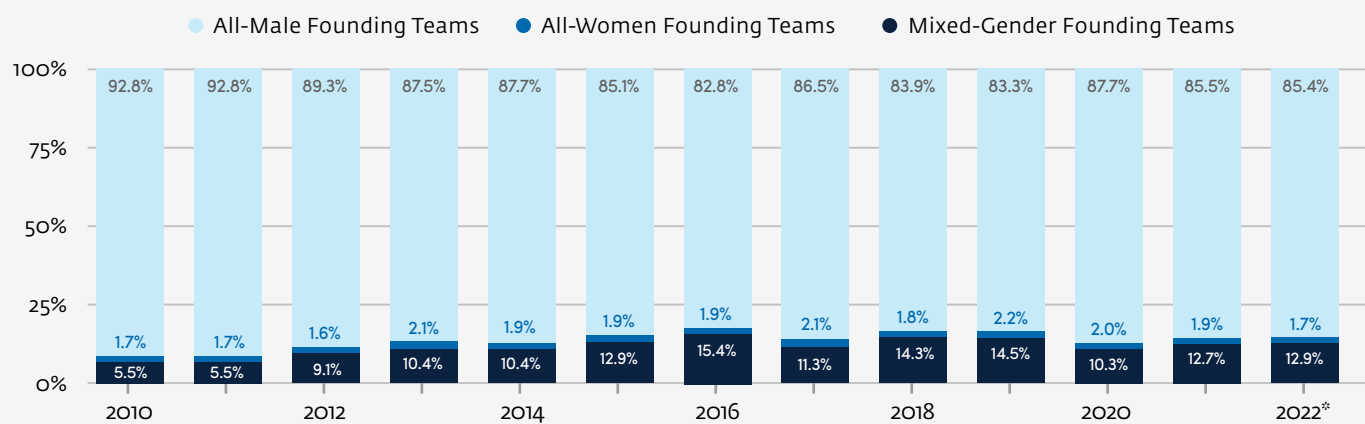


**William Sonneborn,**  
Global Director, Disruptive Technologies and Funds,  
International Finance Corporation

# The Problem

Investors inconsistently evaluate women-led and men-led startups of similar quality

Figure 1: Venture Capital Investments Between 2010-2022\*

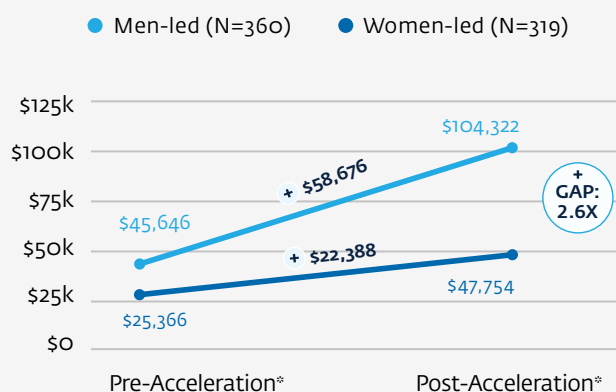


\* as of 06/30/2022 | Source: PitchBook Data, Inc

The amount of funding going to women-led startups has seen little change over the past 12 years. Investors have continued to miss out on opportunities by focusing only on a fraction of the founder pool.

Seeking to better understand the gender financing gap, in 2020 Village Capital and IFC [researched](#) the role of acceleration in the gap and found that it increases the amount of equity men-led startups raise 2.6 times more than women-led startups.

Figure 2: Post-Acceleration Equity Funding



We did not find any clear program design elements that overcome this gap. Moreover, differences between founders or startups could not explain this gap, **suggesting that investor behavior could play a role.** Building on this research, we focused on understanding why and how investors might be evaluating women-led and men-led startups differently. The table on the next page summarizes what we learned from existing research.

## Unconscious gender bias may lead to discrepancies in investor evaluations

**Investors score women-led startups lower than men-led startups of equal quality:** When presented with identical pitches, differentiated only by the gender of the voice narrating the pitch, 68.33% chose to fund ventures pitched by a male voice. <sup>6</sup>

Research has also found that evaluators adjust the characteristics they initially wanted to see in a successful candidate to fit the characteristics displayed by candidates of their preferred gender.<sup>7</sup>

**Investors inconsistently evaluate startups' risks and growth opportunities:** Women-led startups are asked significantly more risk-related questions.<sup>8</sup> This decreases the accuracy of evaluations as investors may focus too much, or too little, on one of the two criteria and overlook key risks or growth opportunities that could impact their assessments.

## Lacking structure in the evaluation process can exacerbate potential disparities in decision making

In a large-scale investor survey, **95% of VC firms cited founders as being one of the most important factors when deciding to invest in a startup.**<sup>9</sup>

Criteria for evaluating teams are usually **not comprehensive— omitting some factors that can influence decisions— leading to inconsistent evaluations.**

Lack of ample information on business trajectory leads investors to focus heavily on evaluating the **founding team's potential** to grow the startup in order to determine if an investment should be made.

Evaluations based on a team's **"potential" result in more favorable outcomes for men over women, likely due to the influence of gender bias.**<sup>10</sup>

Investors possibly associate men with "potential" more often than women because of two reasons: 1) Attributes typically associated with women are perceived as incongruent with those required to be a competent entrepreneur who shows potential for success<sup>11</sup>; and 2) Aiming to replicate past success, investors may seek out entrepreneurs who are similar to those they have previously invested in and have been successful with in the past, which are most often men.

In sum, evaluation processes that lack structure and consistency reduce the accuracy of evaluations and therefore lead to investors overlooking promising startups.



# How We Structured the Study\*



## Identifying Strategies to Test

- We reviewed existing literature on investor behavior.
- We tested preliminary strategies in a lab-in-field experiment.



## Setting up the Experiment

- The experiment was conducted in Village Capital accelerator programs, where startups — or trainee/proxy investors — score each other throughout the program to decide who gets an investment. Since these startups are being trained on how to think like an investor, when we adjust the evaluation framework we are able to clearly see the effect doing so has on the investor.
- We conducted a Randomized Controlled Trial (RCT) in eight Village Capital programs in four geographies to be able to collect globally applicable insights and recommendations.
- The RCT allowed us to identify any differences between each group as being driven by our interventions (any difference in scores is unlikely to be driven by any other factor).
- Village Capital's rigorous selection framework was used to choose 69 participants (startups/trainee investors) to ensure comparable quality and level of investment readiness across all startups.
- Participants were randomized into control or treatment group, ensuring parity across founder gender, startup characteristics, and program participation in each group.

\*Visit our [Methodology](#) to learn more about how the experiment was set up and conducted.





## Conducting the Experiment

- Each group scored startups four times. The two startups ranked with the highest scores in the last evaluation round in each program were invested in.
- In the first evaluation round — in both control and treatment groups — investors completed a pre-survey in which they were asked to give startups a single score without using any evaluation framework.
- In the subsequent three evaluation rounds, investors scored startups using [Village Capital's VIRAL framework](#) — designed to guide investors in consistently collecting objective data about startups — on our online Abaca platform. This framework evaluates categories that many investor evaluations typically include (e.g. business model, product, market). Investors in the control and treatment groups assigned a score for each of the eight categories. In the treatment group, however, we added three additional steps to the evaluation framework.



## Analyzing the Data

- We analyzed over 30,000 data points occurring over the course of 1,503 evaluations made by 65 investors on 69 startups.\*\*
- Investors ultimately invested a total of \$320,000 into 16 of 69 early-stage startups.

## Scoring in the Experiment

The platform automatically converts scores into z-scores, which indicate how much the score deviates from the mean score. A positive z-score indicates that the original score is above the mean, while a negative z-score indicates that the original score is below the mean. The z-score is the average of all z-scores calculated for each investor (i.e., across all of their decisions in each round), which helps control for investors who score generously or harshly. We measured changes in the z-score to determine the effectiveness of the strategies in producing more equitable evaluations.

\*\*We only analyzed the scores given by investors who participated in the four rounds of evaluations. 4 startups were not present in all four rounds of evaluations mainly due to COVID-19.



# Insights

Photo credit by Natalia Jidovanu

# Insight #1

Village Capital's standard investment evaluation framework reduced the overvaluation of men-led startups.



## We Found That Investors, on Average, Overestimate Men-Led Startups

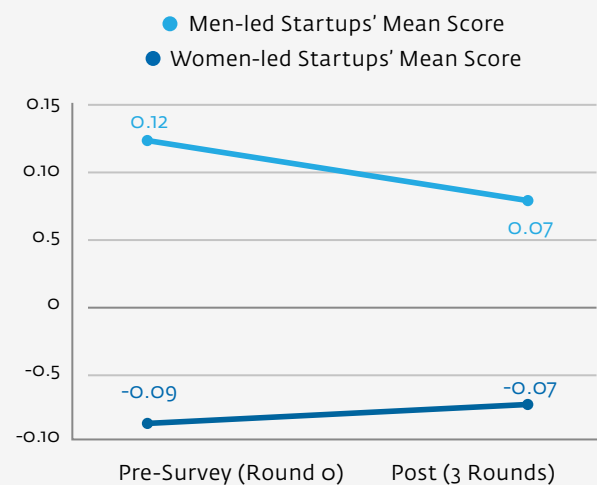
Figure 3 shows that the average score investors gave men-led startups in the control group directionally decreased in the three evaluation rounds in which they used Village Capital's standard evaluation framework, [VIRAL](#).<sup>\*</sup>

It is possible that in the pre-survey, investors overvalued men-led startups, effectively giving them a bonus- or increase in their scores- due to a lack of structured processes. In fact, men-led startups were asked significantly fewer risk-related questions than women-led startups, possibly because investors have a more positive perception of these ventures as involving less risk.

VIRAL was designed to create a common language to talk about the progress startups make across a range of categories investors often use in due diligence.

Having evaluated the startups more rigorously through [Village Capital's VIRAL framework](#), investors may have adjusted their scores to more closely reflect the startup's performance in each category in the framework. However, women-led startups' scores saw only a small improvement.

Figure 3: Mean Z-Score Over Time - Control Group



<sup>\*</sup>When running regressions with region, startup, and time controls, these results hold and are statistically significant at  $p < 0.05$ . Regional controls: Africa, India, LatAm and MENA. Startup controls: revenue, and number of employees at program entry. Time controls: round of evaluation.



## Implications

**Investment evaluation frameworks play a key role in accurate evaluations.** The change in men-led startups' scores after investors used an evaluation framework provides evidence that having an evaluation framework—or how investors collect data and conduct evaluations—**has an effect on decision-making** and does, in fact, play a role in explaining disparities in venture capital funding.

This finding also provides evidence that investment evaluation frameworks— even those designed to consistently evaluate all startups— are not as objective as many may think. This highlights the importance and need to improve evaluation frameworks to ensure that investors assess all startups more accurately and don't overlook promising opportunities. The [Investor Implementation Guide](#) and [Accelerator Implementation Guide](#) both provide recommendations on how to improve evaluation frameworks by incorporating the three steps we tested in this experiment. Learn more about the three steps and their impact on scoring in the next insight.

## Insight #2

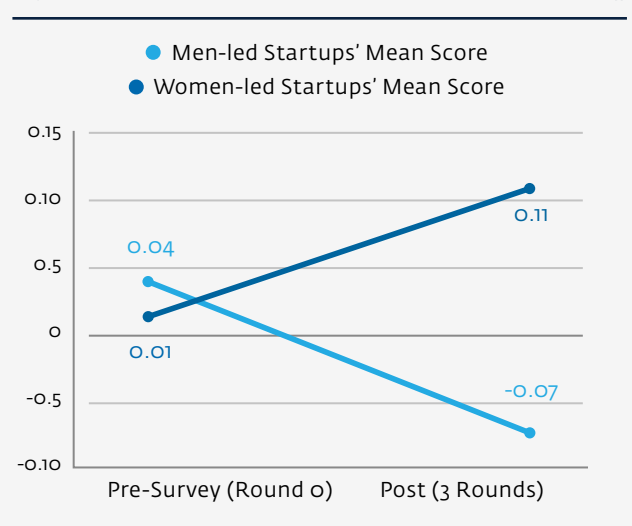
Adding more structure to evaluation frameworks can improve the evaluation of women-led startups.



### Adding More Structure to the Evaluation Framework Significantly Improved Women-Led Startups' Scores

In the treatment group, we incorporated **three new steps** into the evaluation framework, which **increased the accuracy of evaluations by reducing discrepancies in the evaluation process** on the investor in two parallel ways. First, they provided **more structure and consistency** to the process as a whole. And second, they reduced the investors' reliance on gut instincts by focusing their attention on the **founding team's proven competencies**.

Figure 4: Mean Z-Score Over Time - Treatment Group



Together, these three steps led to a **statistically significant improvement in women-led startups' scores as compared to men-led startups**.<sup>\*</sup> **The treatment group's increase was five times as large as observed in the control group.** The amount that women-led startups' average score increased during evaluation rounds (0.105) was substantial enough to move a startup, on average, from fifth place to fourth place in the ranking.<sup>\*\*</sup>

On the other hand, men-led startups' mean scores (0.04) in the pre-survey was equivalent to placing fourth in the rank. The amount by which their average score decreased (0.11) was enough to move their average place in the rank down to fifth. This sharper decrease in the score could be explained by the increased rigor of the three steps added to the evaluation process.

We found no difference between the behavior of men and women investors in the pre-survey or the subsequent three evaluation rounds. The treatment had the same effect on investors regardless of gender.

<sup>\*</sup>When running regressions with region, startup, and time controls, the result was statistically significant at  $p < 0.05$ . Regional controls: Africa, India, LatAm and MENA. Startup controls: revenue, and number of employees at program entry. Time controls: round of evaluation.

<sup>\*\*</sup>The full regression with controls shows us that the effect is even larger. The effect of the treatment on female scores was 0.3. (This is the coefficient on the treatment x female interaction).

# How we added more structure to the evaluation framework

## Step #1

Collect information on both risk and growth opportunities for each startup to ensure you have a comprehensive understanding of both

**WHAT:** During each evaluation round, investors in the treatment group were asked two additional questions: “What additional information would you want on this venture’s potential for growth?” and “What additional information would you want on how this venture will mitigate risks?” Their answers were shared with the startups.

**WHY:** Explicitly prompting investors to think about both risk- and growth-related questions sought to increase the consistency and accuracy of evaluations. Doing so can prevent investors from overlooking promising startups that are not as risky as perceived, and/or overestimating startups that pose more risks than perceived.

## Step #2

Assess a team’s potential by evaluating how much they have demonstrated an ability to improve their startup

**WHAT:** Two additional categories were added to the VIRAL framework in the treatment group to evaluate a founding team’s ability to improve their growth and risk-mitigation strategies.



## Step #2

Assess a team's potential by evaluating how much they have demonstrated an ability to improve their startup

**WHY:** A startup has potential if it seems likely they will be able to grow. To do so, the startup must be able to continually make improvements that allow it to grow.

Consequently, evaluating how a founding team improves their startup in the short-term helps the investor make a more accurate, performance-based assessment of the startup's future potential, by creating new data to assess how well the team will be able to continue making improvements to their company in the future.

As a relevant example, hiring research suggests that evaluating how well someone performs at something results in more equitable and objective hiring decisions that are not clouded by gender bias.<sup>12</sup>

## Step #3

Pre-define which evaluation criteria will most heavily influence your scoring and decisions

**WHAT:** Before each evaluation round, the investor had to predefine how much weight they would give to each criterion when scoring. In other words, they had to predefine which criteria would most strongly influence their scores.

**WHY:** Predefining the weight applied to each criterion prompts the investor to commit to evaluating all startups consistently, preventing the investor from redefining the criteria for success based on the gender of the founders.<sup>13</sup>

### Note:

We focused on targeting change in organizational processes and structures as research has found that doing so is more effective at producing individual behavioral change.<sup>14</sup>

We also avoided strategies that can result in unintended consequences, such as reinforcing gender stereotypes by portraying women-led startups as needing help or creating backlash. The purpose of these steps is also not to explicitly train investors or those involved in evaluating startups to be less biased, as research has found that bias training is not always effective and can be counter effective.<sup>15</sup>



## Implications

The movement we see in the scores also proves that **the treatment BOTH reduced the over-valuation placed on men-led startups and improved the evaluation of women-led startups.** This difference is meaningful enough to change the order of the ranking, which determines Village Capital's investment decisions. Existing research and the improvement in women-led startups' scores suggests that these startups may be undervalued by investors.

**Our findings suggest that investor evaluations can often fail at accurately scoring and identifying promising women-led startups. They also provide strong evidence that evaluation frameworks often lack accuracy and can, in fact, be improved in order to more accurately assess a startup's potential.**



## Insight #3

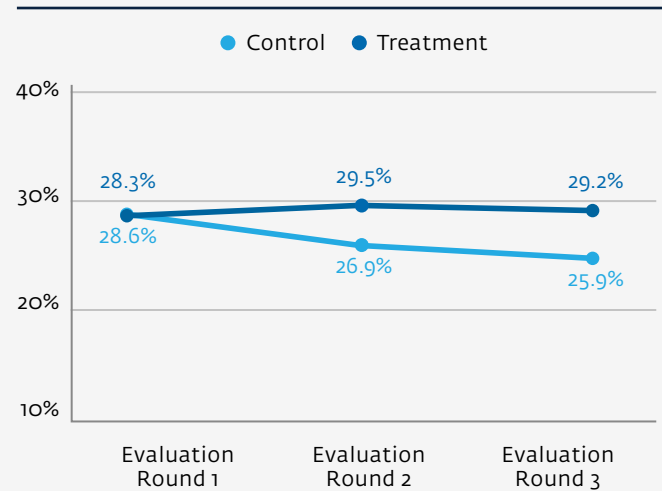
Women on gender-diverse founding teams presented their startup to investors more often after experiencing more equitable evaluation.



Figure 5 shows how often women co-founders presented their startups to investors in each of the three evaluation rounds.

In the meetings leading up to the first evaluation round, women presented their startups in front of investors at similar rates to men ( $p=0.84$  in a t-test comparing treatment and control). By the last evaluation round, however, we see a **statistically significant gap**, in which women presented their startups to investors more in the treatment group versus the control group ( $p=0.04$ ).

Figure 5: Participation of Women in Control and Treatment Groups (%)



Once women co-founders experienced more equitable evaluations (which resulted from the three strategies incorporated into the evaluation process) in the first round, the number of times they presented their startups in front of investors (instead of being replaced by a man co-founder) increased.

However, the opposite happened in the control group. In fact, women-led startups in the control group replicated behavior already observed in a previous study, in which 31% of startups who had a woman CEO in the first funding round replaced her with a man in the second funding round.<sup>16</sup> The original CEO could still be identified as a co-founder or co-CEO in half of these startups, “but was not identified as the lead executive on the second round of funding.”<sup>17</sup> Conversely, men CEOs who led the startup’s first funding round were only replaced by women CEOs in the second funding round 2% of the time.<sup>18</sup>



## Implications

It is possible that gender-diverse teams see men representing the startup in front of investors as more advantageous for a wide variety of reasons, including a conscious or unconscious awareness that investors are possibly often biased when evaluating startups. **As a result, this finding tells us that equitable evaluations are not only important for their impact in moving ventures further along in investor pipelines, but also because of their effect on how often women engage in the startup ecosystem.**

Women presenting their startups more often could lead to multiple, positive ripple effects in the startup ecosystem. For example, it could help reduce the perception that women are less competent entrepreneurs than men and shift the power dynamics in gender-diverse teams that prefer to have men represent the startup for strategic reasons, which in turn could help break down barriers and open up more opportunities for women entrepreneurs in the ecosystem.

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