



# Gender Differences in Startup Investment Efficiency and Business Survival

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## Abstract

Women are becoming more active in entrepreneurship, but businesses linked with women tend to get a smaller share of startup investment. This study compared women-founded, women-owned, or women-led businesses with businesses associated with men. A structured comparative review of ten quantitative studies was completed. Five studies focused mostly on investment efficiency or broader financial performance, and five focused on business survival. The findings did not show a clear performance advantage for either gender. Women-associated businesses tended to receive less funding and started with fewer assets or smaller teams. Only one study directly measured revenue per dollar invested and found higher revenue efficiency among women-linked startups. The other financial results were mixed, while survival findings also changed according to industry, location, business size, and statistical controls. When a gender difference became smaller after funding or experience was controlled, this did not necessarily mean gender had no influence, because those factors may themselves be linked with unequal opportunities. Overall, resources, experience, and business context appear important, while gender may indirectly influence access to these advantages.

## Keywords

Women entrepreneurs; startup performance; investment efficiency; business survival; gender differences; venture funding.

## Introduction

Startups have an influence on economic development because they give new products to consumers and make competition for existing companies. To define it, “a start-up is a young, innovative company that develops new products, services, or business models and is typically in an early growth phase” (Otto Beisheim School of Management, 2026). Startups give a means for new ideas and research to become a practical reality in an industry, and they have added benefits as well, such as offering employment. The OECD, for example, points out that young firms “account for about 20% of total employment but create almost half of all new jobs across OECD countries” (OECD, 2020, p. 1). Not all startups succeed though, so researchers look at their performance to work out what makes growth and survival or vice-versa. The findings help all those involved in them from the entrepreneurs to investors, so funding decisions and strategies for success can be more effective.

Women are more active in entrepreneurship than before, but they remain underrepresented among founders of high-growth and venture-funded businesses. Data from 30 countries document this increase, from an average of 6.1% (2001–2005) to 10.4% (2021–2023), but still in 2023, only approximately one in ten women started a business, compared with one in eight men (Elam et al., 2024, p. 10). Venture capital has a gender gap that is even bigger; for instance, startups in the U.S. with all-female founding teams added up to only 6.5% of venture-capital deals and 1.9% of total deal value in 2024 (Donegan, 2026). Startups by their nature need capital for various tasks, such as developing their ideas or recruiting skilled employees, so investment matters to help them survive and then succeed.

Labeling a startup a success or a failure is subjective, because the relevant measures are multidimensional and cannot be reduced to one indicator (Ben Saad, 2024). This variety is shown in Mayer-Haug et al.'s (2013) study as it lists a number of potential measures, including the amount of investment a company receives, the revenue or profit it generates, its employment growth, or its ability to remain operational over time (p. 1252). That list is not exhaustive; other studies listing factors like acquisition or initial public offering as a successful outcome (Gangwani et al., 2023). The measures can lead to different conclusions about the same startup; for example, a startup could receive substantial funding without becoming profitable, but then another one could survive for many years without achieving rapid growth. It motivates researchers to think about using more than one indicator when trying to test a startup's performance. This study does that because it defines startup success through investment efficiency and business survival, which means it can assess financial performance and long-term continuity together.



Investment efficiency is the amount of business revenue generated relative to the amount of investment received. Some research (e.g., Ang et al., 2022) views success by the amount of investment a startup gets, but this study considers efficiency of investment usage as more important. It gives weight to startups that receive less investment but use those resources more effectively and generate more revenue for each dollar received. As an example, Abouzahr et al. (2018) found that startups founded or co-founded by women generated \$0.78 per dollar invested, which was better than those made entirely by men at \$0.31. Revenue, though, should not be confused with profit, as revenue is income generated through business activities, but profit is the amount remaining after costs and expenses have been deducted. That means the measure here is looking at capital efficiency as opposed to overall profitability. Only Abouzahr et al. (2018) directly measures revenue for each dollar invested in the studies used here; the other financial studies look at broader measures such as sales, profit, employment growth, or risk-adjusted performance.

Business survival focuses on a company's ability to keep its operations going for a certain amount of time from when it started. What it means to be alive in business is explained by Eurostat, as it says the definition means remaining active through employment, turnover, or investment during the years following the company's creation (Eurostat, 2024). The length of time depends on a researcher's prerogative, so it could be three years or ten years, for example. There also might be a consideration to measure the percentage of an original group of businesses that remains active at each point. There are other studies that look at related factors like average operational lifespan or the risk of failure during a given period. An example showing this is the U.S. Bureau of Labor Statistics, as it follows groups of newly established businesses from year to year to measure their survival and longevity (U.S. Bureau of Labor Statistics, n.d.). However, results based on different observation periods cannot be compared directly because survival normally decreases as the follow-up period is getting longer.

The research completed in this area already gives a mixed picture about the performance of startups linked with women compared to the ones started by men. Abouzahr et al. (2018) has received substantial media attention. That study found that startups founded or co-founded by women received considerably less investment, but that they used it with greater revenue efficiency. It gave evidence of lower funding not meaning weaker financial efficiency. Survival studies are less consistent. One of the recent studies by Millán et al. (2026) found that women-led startups had a much lower risk of failure than men-led startups. This does not continue a clear pattern, however, because Couture and Houle (2020) reported that women-owned Canadian startups had a lower overall survival rate than men-owned and equally owned startups. There is other research in the area that seems to show evidence of the differences reducing when the businesses being compared have characteristics that are alike. An example of this is Farhat and Mijid (2018) who found no gender difference in survival, profit, sales, employment, or asset growth after matching firms according to industry, owner experience, education, age, and working conditions. There is certainly research in the literature, but there is a struggle to find consistency. This underscores the multidimensional nature of business performance: startup performance seems to depend on the sample, country, industry, business size, and definition of female involvement. Looking at this existing data also gives more credibility to the need to use more than one measure of success when trying to find conclusions in this area.

A tendency of the previous research is for it to look at just one of the many dimensions of startup performance. An example of this is research that looks at venture funding by comparing investment and revenue, but then it does not consider if the businesses survive in the long term (e.g., Abouzahr et al., 2018). Then, other studies focus on closure rates, but they do not measure how efficiently startups convert investment into revenue (e.g., Millán et al., 2026). The comparisons of studies can be complicated too, because there can be inconsistencies with classifications, such as researchers varying between women-founded, majority women-owned, or women-led businesses. This study tries to close that gap by considering investment efficiency and survival together, and by recording each study's gender definition.

This study's purpose is to compare existing quantitative evidence on the performance of startups associated with women and men. The research question asked is: How does the performance of women-founded, women-owned, or women-led startups compare with that of businesses associated with men in terms of investment efficiency, broader financial performance, and business survival? Considering the previous research, it is hypothesized that businesses associated with women will generally receive less investment. Their broader financial performance may be similar, stronger, or weaker depending on factors such as funding, experience, industry, and business size. Revenue generated per dollar invested is treated as one specific measure from one study as opposed to being something all five financial studies can test. Differences in survival are expected to be smaller and less consistent, as they may depend on factors such as industry, country, company size, funding level, and the way female ownership or leadership is defined.



## Methods

The study design is a structured comparative review of quantitative research. Data is taken from published studies that compared businesses connected with women and men. The selected studies were organized into two main categories of startup success. The first category was investment efficiency and financial performance, which included measures such as revenue, profit, sales growth, and return on investment. The second category was business survival, including survival rates, closure rates, and risk of failure. This method made it possible to compare findings from different countries, industries, samples, and research designs.

Studies were identified through searches of several databases, including Google Scholar, ScienceDirect, and SAGE Journals. The searches were conducted in July 2026 using key search terms, such as “women-founded startup performance,” “female-owned business survival,” “gender differences startup success,” “women-led startup revenue,” “female founder investment efficiency,” and “male and female business survival rates.” At stage one of the process, titles and abstracts were screened to see if they appeared relevant to the research question. Those passing this stage had the full article examined. The reference lists of relevant studies were also checked to identify other research that had not appeared in the original searches. After the title and abstract screening, 43 potentially relevant studies went forward to full-text review.

Selected studies met the criteria of quantitative data that directly compared businesses associated with women and men. A second requirement was for them to examine startups or relevant business-survival samples as well as having at least one measure of financial performance or survival. To be selected, the study needed to report the sample and the way gender involvement was defined. Sources had to be peer-reviewed journals or reports issued by recognized research organizations. Studies were excluded if they were based on opinions or lacked comparison of the two genders. Studies that had the same general dataset were retained only if they had different methods that made a meaningful difference in the outcomes. The 43 full-text studies were then checked against these requirements. Sources were removed when they lacked a direct gender comparison, usable financial or survival data, or enough information about the sample and research method. Ten studies provided the clearest evidence for the research question. Five mainly examined investment efficiency or broader financial performance, while five mainly examined business survival. This division was used to give similar attention to both parts of the research question, not because the studies were equal in quality. When a study covered both areas, it was placed in the category connected most closely to its main analysis. Some of the included studies used broader business samples and not just strict startups, including proprietorships and manufacturing establishments with at least ten employees. They were kept because they still gave relevant gender comparisons, but this makes the studies less directly comparable.

A standardized research table was used as the main tool for collecting information from each study. The same categories were recorded for every source, including the author and publication year, country and setting, sample size, gender definition, measure of success, women-linked result, men-linked result, main conclusion, and an important limitation. Numerical findings were checked against the original article or an official publisher, university, government, or research-organization source when possible. The wording used by each study was also retained, because women-founded, women-owned, women-led, and woman-controlled businesses do not mean exactly the same thing. Recording each definition separately helped prevent the results from different studies being compared in an inaccurate way.

The first outcome category covered investment efficiency and financial performance. Measures in this group included revenue generated per dollar invested, the amount of financial capital received, sales and total revenue, net profit, return on sales, employment growth, and risk-adjusted performance. The second category focused on business survival and included survival after a fixed period, closure or exit rates, operational duration, estimated risk of failure, and hazard ratios. These indicators were grouped under two broad categories, but they were not treated as mathematically identical measurements. This was important because only Abouzahr et al. (2018) directly measured revenue generated for each dollar invested.

Examination of the extracted findings used narrative comparative analysis. Studies were compared according to whether they showed stronger performance among women-associated businesses, stronger performance among men-associated businesses, no statistically significant gender difference, or results that changed depending on factors such as industry, country, location, or statistical controls. Percentage-point differences and ratios were calculated only when the original studies provided directly comparable numerical results. The findings were not combined into one numerical average because the studies used different samples, gender definitions, time periods, and statistical measures. For example, a hazard ratio cannot be averaged with a ten-year survival percentage, while logged turnover cannot be



directly compared with revenue per dollar invested. Both raw and adjusted findings were considered, especially when controls for experience, funding, industry, or company size changed the results.

The studies were not treated as equally strong evidence. The research studies that had larger or more representative samples, clear outcome definitions, appropriate comparison groups, and statistical controls were weighted more heavily. However, sample size was not the only consideration because a smaller study could measure a specific outcome more directly, but then a very large study could still use a broad sample or a different definition of gender involvement.

The study does have limitations. It only used English-language sources. The definitions of women's involvement had big variation from women-founded, women-owned, women-led, and woman-controlled firms. Publicly available studies may be more likely to report striking findings, and some full datasets could not be checked because they were not publicly available. Despite these limitations, a consistent extraction process made it possible to identify patterns and disagreements across the ten studies. The studies also covered very different countries and time periods, with most of the evidence coming from North America and Europe and from adult owners or founders. None of the included studies focused on East Asia or young or student founders, so the results may not apply directly to those groups.

## Results and Discussion

### 1. Results

Ten studies met the selection criteria for this comparative review. To make the findings easier to compare, the studies were separated into two groups according to their main measure of startup success. Group 1, as presented in Table 1, has five studies that examined investment efficiency or broader financial performance. Only Abouzahr et al. (2018) directly measured revenue per dollar invested. The other four studies looked at related financial outcomes such as capital, sales, profitability, employment growth, and risk-adjusted performance.

Table 1. Investment efficiency and broader financial performance findings.

| Study & Setting                                                                               | Gender Definition & Sample                                                                                                          | Success Measure                                                                              | Women-linked Result                                                                                                | Men-linked Result                                                                           | Main Finding                                                                                                                                                 | Notable Limitation                                                                                                                                |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Abouzahr et al. (2018) 350 MassChallenge accelerator alumni (multiple locations).             | At least one woman founder/co-founder versus all-male founding team 92 women-linked and 258 male-founded startups.                  | Average external funding raised / five-year cumulative revenue / revenue per \$1 of funding. | \$935,000 funding / \$730,000 revenue / \$0.78 revenue per \$1 funded.                                             | \$2.12 million funding / \$662,000 revenue / \$0.31 revenue per \$1 funded.                 | Women-founded or co-founded startups received less than half the funding but generated 10% more revenue and about 2.5 times more revenue per funding dollar. | Accelerator alumni only / mixed-gender teams grouped with women-founded firms / survey-based data; revenue is not profit or investor return.      |
| Alsos et al. (2006) newly registered Norwegian firms followed for 19 months.                  | Founder gender descriptive results: 318 firms (61 women-founded, 257 men-founded) Capital analysis: 360; turnover analysis: 327.    | Financial capital (debt + equity) and sales turnover, reported as ln(NOK + 10,000).          | Capital: 10.57 at registration, 11.00 after 19 months / turnover: 11.81.                                           | Capital: 11.32 at registration, 11.84 after 19 months / turnover: 12.61.                    | Women-founded firms obtained significantly less capital and had lower unadjusted turnover; the turnover gap disappeared after controlling for capital.       | Short follow-up; surviving firms only / self-reported data; logged values are not actual NOK amounts.                                             |
| Gottschalk & Niefert (2013) Founded German firms (2005–2008) / followed for up to four years. | Female-only versus male-only founding teams / mixed teams separate. 4,654 firms: 503 female-founded, 3,766 male-founded, 385 mixed. | Relative and absolute employment growth; annual sales; return on sales.                      | Relative growth: 0.203; absolute growth: 1.24 full-time equivalent (FTE); sales: €237,000; return on sales: 10.0%. | Relative growth: 0.265; absolute growth: 1.66 FTE; sales: €360,000; return on sales: 14.4%. | Women-founded firms performed worse unadjusted. After controls, growth gaps disappeared, but sales and profitability remained significantly lower.           | Different sample sizes by measure; short observation period; no data on working hours, family responsibilities, risk attitudes, or self-efficacy. |



| Study & Setting                                                                                                                      | Gender Definition & Sample                                                                                                | Success Measure                                                                                      | Women-linked Result                                                                                        | Men-linked Result                                                                | Main Finding                                                                                                                                                                                     | Notable Limitation                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Driga & Prior (2010) Spanish manufacturing small and medium-sized enterprises (SMEs) founded in 2000–2004 and observed through 2005. | Woman-controlled if the CEO was a woman 4,450 firms: 533 woman-controlled and 3,917 man-controlled.                       | Average annual sales and employment growth; Sharpe ratio based on net profit and profit variability. | Sales growth: 39.70%; employment growth: 19.25%; Sharpe ratio: 0.0349.                                     | Sales growth: 45.20% / employment growth: 21.24% / Sharpe ratio: 0.0838.         | Woman-controlled firms had significantly lower sales growth and risk-adjusted performance / employment growth was not significantly different. Lower startup resources partly explained the gap. | Manufacturing firms only / CEO gender rather than founder gender / surviving firms only, creating possible survivorship bias. |
| Jaiswal (2020) US ventures founded in 2004 and followed through 2011.                                                                | Female-majority versus male-majority owner teams 4,928-firm cohort, with 2,756 majority-owned firms used in the analysis. | Annual survival, total revenue, and net profit.                                                      | No significant disadvantage in survival, revenue, or profit; average same-industry experience: 9.44 years. | No significant overall advantage; average same-industry experience: 12.85 years. | No overall gender performance gap. Men's 3.4 additional years of industry experience explained 47% of the explained net-profit gap.                                                              | One US founding cohort; equal-gender teams excluded / revenue and profit analyses may have survivorship bias.                 |

The second group has five studies that are linked with business survival. These studies measure success through outcomes such as long-term survival rates, closure rates, business exit, and the estimated risk of failure. Their findings are summarized in Table 2.

Table 2. Business survival findings.

| Study & Setting                                                                                                                   | Gender Definition & Sample                                                                                                                     | Success Measure                                                                           | Women-linked Result                                                                                | Men-linked Result                                                                                            | Main Finding                                                                                                                                        | Notable Limitation                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Millán et al. (2026) Chilean high-growth startups founded in 2010–2014, all receiving CORFO support and followed for eight years. | Gender of startup team leader 888 firms: 107 women-led and 781 men-led.                                                                        | Time to business cessation using Cox proportional-hazards models.                         | Eight-year survival: 49.2%; Model 2 hazard ratio: 0.5743 (42.57% lower failure risk).              | Eight-year survival: 31.4% / reference group in the Cox model.                                               | Women-led startups had higher survival. However, gender was not significant in the full model including funding and the gender–funding interaction. | Publicly funded Chilean startups only / few women-led firms; binary gender measure; possible selection effects.                         |
| Couture & Houle (2020) Canadian startup corporations entering from 2005–2013.                                                     | Majority women-owned (51%+), majority men-owned, or equally owned 534,494 firms: 99,328 women-owned, 333,385 men-owned, 101,781 equally owned. | Ten-year Kaplan–Meier survival for the 2005 cohort; Cox proportional-hazards exit models. | 57.1% survived ten years; 14.9% higher exit risk than men-owned firms.                             | 61.3% survived ten years; Cox-model reference group.                                                         | Women-owned firms had lower overall survival; equally owned firms had the highest survival at 67.0%. Results varied substantially by industry.      | Canadian-controlled private corporations with fewer than 100 employees only; ownership gender was unavailable for some firms.           |
| Kalnins & Williams (2014) Texas sales-tax-collecting proprietorships founded in 1990–2003 and followed through 2006.              | Owner gender inferred from first names 1,004,636 proprietorship establishments.                                                                | Survival duration using Weibull hazard models across 402 industries and 1,664 ZIP codes.  | Longer survival in 24 industries and 76 ZIP codes; strongest geographic advantage in large cities. | Longer survival in 95 industries and 177 ZIP codes; aggregate and broad-sector models generally favored men. | No universal gender advantage: survival differences depended strongly on industry and location.                                                     | Texas proprietorships only; gender inferred from names; survival only; no data on firm size, education, hours worked, or profitability. |



| Study & Setting                                                                                  | Gender Definition & Sample                                                                                                             | Success Measure                                                             | Women-linked Result                                                                            | Men-linked Result                                                                | Main Finding                                                                                                                                       | Notable Limitation                                                                                                                                              |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Farhat & Mijid (2018) US firms from the 2004 Kauffman Firm Survey cohort, followed through 2011. | 430 women-owned firms matched with 430 men-owned firms on owner and business characteristics.                                          | Survival, assets, employment, profit, sales growth, and capital injections. | Same survival and performance-growth rates; firms started and remained smaller.                | Same survival and performance-growth rates; firms were larger in size and sales. | After matching comparable firms, no gender gap appeared in survival or business-performance growth.                                                | One US founding cohort; matched sample may exclude unmatched firms; women-owned firms remained smaller despite similar growth.                                  |
| Shiferaw (2009) Ethiopian private manufacturing establishments observed annually from 1996–2002. | Female-owned if women represented at least one-third of owners establishments with 10+ employees, increasing from 471 to 686 annually. | Observed exit rate and discrete-time proportional-hazards risk of exit.     | 12% observed exit rate; adjusted exit risk about 0.75 times that of male-owned establishments. | 18% observed exit rate; hazard-model reference group.                            | Female-owned establishments had significantly better survival after controlling for size, productivity, ownership structure, and industry factors. | Not limited to startups; firms below 10 employees excluded; “exit” could mean closure, falling below the cutoff, or changing industry; possible selection bias. |

## 2. Discussion

### 3. Investment Efficiency and Broader Financial Performance

Table 1’s five studies do not show a consistent financial advantage for either the women-associated or the men-associated startups. The most direct evidence of investment efficiency was Abouzahr et al. (2018). As shown in Table 1, women-linked startups received less funding but generated approximately 2.5 times more revenue per funding dollar than the all-male-founded group. This gives one direct example of women-associated startups using investment efficiently even when they received less funding, but it is only one study. This result must be interpreted carefully, because the study examined only companies linked to the MassChallenge accelerator, so the businesses had already passed a competitive selection process. Another point is that companies with one woman and several men on the founding team were grouped as businesses founded by women. The study measured revenue rather than profit. High revenue can coincide with high costs, so the result does not show that women-linked companies were more profitable.

Alsos et al. (2006) show why access to financial resources matters. The women-founded businesses in Norway received less capital at the registration stage and over the 19 months that followed. Unadjusted sales turnover was lower for the women-founded businesses as well; however, the gender difference in turnover disappeared after the researchers controlled for the amount of capital the businesses had received. This shows that capital was important to the original difference in turnover. However, it does not prove that gender had no influence, because access to capital may itself be connected with gender. This supports the argument that unequal access to capital can make differences in performance at a later time.

Research from Germany by Gottschalk and Niefert (2013) reported less favorable results for women-founded startups. Before controls were added, women-founded businesses had lower annual sales and return on sales. Once founder and business characteristics were considered, the employment-growth differences disappeared, but the gap in sales and profitability stayed large. Explaining these results, the authors note issues, such as women having less education and experience in their industries; moreover, they tended to form small founding teams (Gottschalk & Niefert, 2013).

The findings from Gottschalk and Niefert (2013) connect in some ways with those by Driga and Prior (2010) who looked at Spanish manufacturing firms. Women-controlled businesses had lower sales growth and risk-adjusted performance, but the difference in employment growth was not statistically significant. Continuing the investment pattern, women-controlled firms started out with fewer assets and employees, so it points to them coming into the market in a weaker position. It brings attention to the point that performance differences cannot be looked at without thinking about the conditions businesses started out from.

Jaiswal (2020) found no overall disadvantage for female-majority-owned ventures in survival or net profit. The difference that did appear was related to the amount of related industry experience each group had. Male-majority owners had more industry experience, and this explained 47% of the part of



the net-profit gap accounted for by the model. This result points to experience being important, but it does not prove that gender had no influence. Opportunities to gain industry experience may themselves be related to gender.

Taken together, the financial studies only partly support the hypothesis. Repeatedly, the data showed women-associated businesses starting out with fewer financial resources. Abouzahr et al. (2018) also provide direct evidence of higher revenue efficiency in their particular sample. The other studies do not consistently show women-associated firms as generating stronger financial results. Some found lower raw sales or profitability, and then others found that the gaps disappeared or became smaller after funding, experience, industry, and business characteristics were considered. Therefore, it would be inaccurate to conclude that startups associated with either women or men are always more financially successful.

#### **4. Business Survival**

The business-survival studies in Table 2 also produced mixed results. The number of studies favoring each outcome, however, was not treated as a measure of evidentiary strength because the samples and research designs differed substantially. The results still support the expectation that survival differences would be less consistent than differences in access to investment.

Millán et al. (2026) reported stronger survival among women-led Chilean startups in its earlier analysis, as summarized in Table 2. However, it should also be noted that the full model pointed to no gender advantage when funding and the interaction between gender and funding was considered. The result should not be overlooked because it suggests that any survival advantage may be connected to the relationship between leadership and access to financial support, more so than gender operating independently. The study was also limited to startups that had received support through Chile's CORFO program, so the findings seem to be excluding the companies without government assistance.

Shiferaw (2009) also reported a lower adjusted risk of exit among female-owned establishments after business size, productivity, ownership structure, and industry were considered. This result gives support to the idea that women-owned firms can be at least as sustainable as those owned by men. It should also be noted that these were manufacturing establishments with at least ten employees and that some were not completely new startups. An exit could also mean that a company had fallen below the employment requirement or moved to another industry, so it was not just about complete closure.

Couture and Houle (2020), however, found lower overall survival among majority women-owned Canadian startups, and equally owned firms had the strongest survival. This suggests that mixed ownership may provide benefits that are not available to businesses controlled mainly by one gender. It was found as well that the results had large differences in outcomes across industries, so the types of businesses that women and men entered appear relevant.

Farhat and Mijid (2018) add support to the final interpretation from Couture and Houle (2020). Their study matched 430 women-owned firms with 430 men-owned firms that had similar owner and business characteristics. After this matching process, there was no gender difference in survival, profit, or growth rates. Women-owned firms started smaller and continued to have lower total sales, but their rate of development was similar to that of the matched male-owned companies. It points to simple comparisons of all women-owned and men-owned businesses can exaggerate gender differences when the groups differ in industry, experience, starting size, or working conditions. At the same time, the matched sample only compares firms that already looked alike on these characteristics. It does not show whether gender played a role in why firms had different sizes, industries, or levels of experience before the matching happened.

The idea that business context alters results continues in the Kalnins and Williams (2014) study. A very large sample of Texas proprietorships showed men-owned businesses to have stronger survival in broad aggregate comparisons. However, women-owned businesses performed better in some industries and locations, particularly in large cities, showing that overall statistics can hide important patterns within particular markets. A location or industry that provides strong networks, customers, or support for women may produce a different outcome from the overall national or regional result.

The survival studies as a collective do not show a universal advantage for either gender. Women-associated firms performed better in some samples, men-associated firms performed better in another, and several findings changed when controls or narrower industry and location categories were used. The evidence therefore supports the second part of the hypothesis. Survival differences appear to be smaller and more dependent on context than a basic comparison of women and men would suggest.

It would be unwise to treat each study equally; for example, Couture and Houle (2020) and Kalnins and Williams (2014) used several hundred thousand or more than one million businesses, so their findings



provide stronger evidence about broad survival patterns than smaller specialized samples. Farhat and Mijid (2018) used a much smaller sample, but its matched design made the comparison between women-owned and men-owned firms more controlled. Abouzahr et al. (2018) directly measured revenue per dollar invested, but its accelerator sample of 350 businesses limits how widely the result can be applied. Therefore, the conclusions were based on study quality and relevance as opposed to counting how many studies supported each outcome.

## **5. Factors Explaining the Different Findings**

The recurring pattern across the two tests in this study is that additional factors beyond gender need to be looked at. One of these that is critical is access to resources. The financial studies repeatedly show that women-associated firms are usually starting with issues like less investment and a smaller number of employees. Lower starting resources equates to less assets, and it can affect all parts of the business from product development to factors like marketing and expansion. It makes it harder for companies to grow through sales even when the business uses its available capital effectively. Alsos et al.'s (2006) findings support this because the turnover gap disappeared once financial capital was controlled.

Experience seems to be of great importance as well. Jaiswal (2020), for example, showed that male-majority owners had more related industry experience, so this had an influence on the net-profit difference between the genders. Previous experience stretches wide as it can give knowledge of customers, suppliers, regulations, and management. It may also help founders build networks that support financing and growth. The importance here is that what might seem like a gender difference may partly be connected to unequal previous opportunities to gain business experience.

Industry and location are further explanations. Some industries require substantial capital and are more likely to attract venture investors, while others operate at a smaller scale. Couture and Houle (2020) supported this point with the survival results changing depending on the industries; moreover, Kalnins and Williams (2014) showed big differences in the industries and geographical areas. Comparing all startups together can be misleading if women and men are concentrated in different parts of the economy.

However, funding, networks, and industry experience should not be treated as completely separate from gender. Gender inequality can affect access to important things like investors and mentoring as well as earlier opportunities for leadership and business experience. It means that when a performance difference becomes smaller after funding or experience is controlled, this does not mean that gender had no influence. These resources may be pathways through which gender indirectly affects startup outcomes. This interpretation still recognizes the importance of business resources without overlooking the unequal opportunities that may shape how those resources are obtained.

The definitions used by the studies had an impact on what the comparisons showed. Some research examined the gender of the founder, but then there were other studies using terms like majority ownership or the main startup leader. A company with one woman and several male founders may have been treated as women-linked in one study but as mixed-gender in another. These categories describe different types of involvement and should not be treated as identical.

## **6. Context and Limitations**

There are some important limits to how widely these results can be applied. The ten studies cover different countries and time periods, and most of the evidence comes from North America and Europe and from adult business owners or founders. None of the included studies examines East Asia or student or young founders. Venture funding, gender norms, and economic conditions vary across countries and over time, so the studies should not be treated as if they came from one setting.

Some of the samples go beyond a strict definition of startups. Kalnins and Williams (2014) studied Texas proprietorships and inferred owner gender from first names, and the Shiferaw (2009) study looked at manufacturing establishments with at least ten employees. The review only used English-language sources, the studies used different definitions of women's involvement, and no formal statistical meta-analysis was completed. These issues do not make the studies unusable, but they do limit how confidently one result can be applied to all startups.

## **7. Practical Implications and Future Research**

The mixed findings can have some practical meaning. Investors and accelerators should be careful about assuming that founder gender by itself predicts whether a startup will perform well. Several studies showed women-associated businesses starting with less capital, fewer assets, or less industry experience, so support programs may need to think about access to funding, mentoring, networks, and earlier experience. At the same time, the evidence does not show that women-founded businesses will



always perform better once they receive funding. Future research could follow the same businesses over time and measure both revenue efficiency and survival, instead of studying these outcomes in separate samples. It would also help to use clearer definitions of women-founded, women-owned, and women-led businesses and to include more research from East Asia and from young or first-time founders.

## **8. Comparison of the Two Success Measures**

The results show why startup success should not be judged through one measure alone. Investment efficiency explains how effectively a business turns financial resources into revenue, but it does not show if a company is going to stay active over the long term. Similarly, survival does not guarantee that financial performance is strong. A business can keep operating for a number of years, while showing little growth or profit. The evidence gives partial support to the hypothesis. Women-associated businesses usually received fewer resources, and one study showed much greater revenue per dollar invested. The broader financial performance across all five studies was mixed though. The survival evidence was also inconsistent and depended strongly on the sample and statistical controls. The most reasonable conclusion from the results is not that women or men are naturally better at creating successful startups. Instead, gender is connected with differences in funding, experience, industry, starting size, location, and ownership structure. These conditions appear to play an important role in influencing financial performance and long-term survival, and some may also be pathways through which gender has an indirect effect.

## **Conclusion**

This study asked how women-led startups compare with businesses associated with men in terms of investment efficiency, broader financial performance, and business survival. As opposed to one gender outperforming the other, the findings are mixed across the measures in the studies included in this research paper. The clearest pattern was that women-associated businesses tended to receive less investment and therefore started with fewer assets and smaller teams. That weaker starting position can affect later outcomes, including financial results and survival.

The most direct evidence on claims of greater investment efficiency among women-linked startups is Abouzahr et al. (2018). It found that women-linked firms generated more revenue for every dollar of funding in that particular accelerator sample. The other four financial studies did not directly test revenue per dollar invested; they looked at broader measures such as capital, sales, profitability, employment growth, or risk-adjusted performance. Some showed lower sales or profitability among women-associated businesses, while others found that the differences disappeared or becoming smaller when controls were considered. The mixed outcome carried over to the survival results as well.

Women-associated businesses survived longer in some studies, men-associated businesses had stronger survival in another, and other research found no clear difference between the groups.

Rather than treating the two groups as competitors, the results point to funding, previous industry experience, business size, industry, and location as important parts of explaining startup performance. These factors should not be treated as completely separate from gender, because access to funding, networks, and experience may itself be influenced by unequal opportunities. It was clear too that there is a lot of variation between studies when it comes to defining a women-associated startup. Some studies use women-founded or women-owned, while others use the broader category of women-led. These are not identical categories, which limits how far the studies can be combined into one claim.

This study has several limitations. First, it included only English-language sources. There was also the fact that some studies examined established small businesses, proprietorships, or manufacturing establishments, so they were not actually strict startups. The samples came from different countries and time periods, most were based on adult founders, and none focused specifically on East Asia or young founders. The samples and success measures varied considerably, and there was also no formal statistical meta-analysis completed. Despite these limitations, the evidence suggests that startup success is shaped by resources, experience, and business context, while gender may indirectly influence access to those resources and opportunities.

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