



AGAINST ALL ODDS: THE UNEXPECTED PATHS OF FEMALE TECH ENTREPRENEURS

New Research on Australian Female Tech Entrepreneurs



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1. FEMALE ENTREPRENEURSHIP IS ON THE RISE

The number of female tech entrepreneurs is very slowly but steadily increasing. Since Startup Muster conducted its first survey in 2011, the proportion of Australian female tech entrepreneurs has **increased from 16% to 19% in 2013**¹. Many theories have been posited as to why women are disproportionately underrepresented in this area of endeavour but until now, no research has attempted to answer this question.

Terem Technologies have surveyed Australian female tech entrepreneurs and compared their responses to data on female tech entrepreneurs from around the world to uncover insights around why this might be.



**PROPORTION
OF FEMALE TECH
ENTREPRENEURS
IN 2013**

"I can't believe it's not more than 19%! I feel surrounded by armies of amazing women running their own businesses."

– Amelia Lee,
Managing Director,
Undercover
Architect

2. WHY THEY'RE DOING IT

So why are women becoming tech founders if the odds are stacked against them? The reasons in each case will be particular to the individual women. But our research and data from local and overseas surveys of female entrepreneurs suggest a few possible reasons.



A great idea. A number of the Australian tech entrepreneurs we surveyed pointed out that they had greater insight into challenges faced by the female half of the population and were driven to create a product that caters to that broad group.



Lack of advancement opportunities in corporate roles. Women who reach a glass ceiling may be looking laterally for a way to continue their climb to the C-suite. Despite comprising half of the Australian population, **only 3.5% of ASX200 companies have female CEOs and only 3% of boards had a female chair**². In the analogous

developed, Western economy of the USA, these figures are only slightly better: **only 4.8% of Standard & Poor's 500 have female CEOs**³. A survey by the Centre for Entrepreneurship found that **69% of female C-suite executives are very or extremely interested** in starting a business in the next three years, compared to **29% of their male counterparts**⁴.



Redressing the gender pay gap. The Centre for Entrepreneurship also finds that the rewards are high for women who go down this path: in a reversal of the usual gender imbalance, the female founders took home twice as much pay as the men.

1. Startup Muster, Who's Starting Startups?, 2014

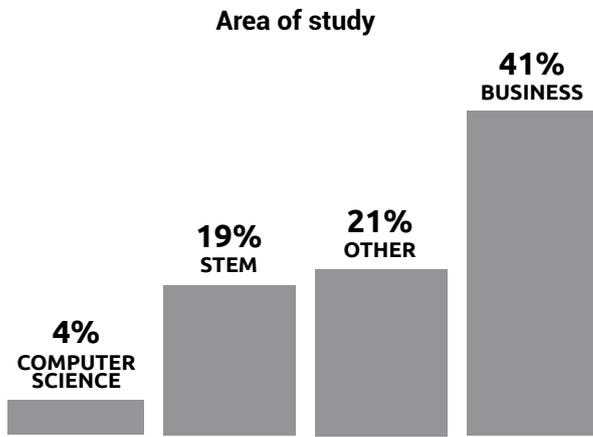
2. ABS, Australian Social Trends, Dec 2012

3. Newsweek, Why Are There So Few Women Entrepreneurs?, 2015

4. Centre for Entrepreneurs, Shattering Stereotypes: Women in Entrepreneurship, 2015

3. HOW THEY ARE DOING IT

Only 19% of our sample had a **STEM background** and only 4% were from **computer science backgrounds**. But 41% had a degree in **Business, Commerce or Economics**.

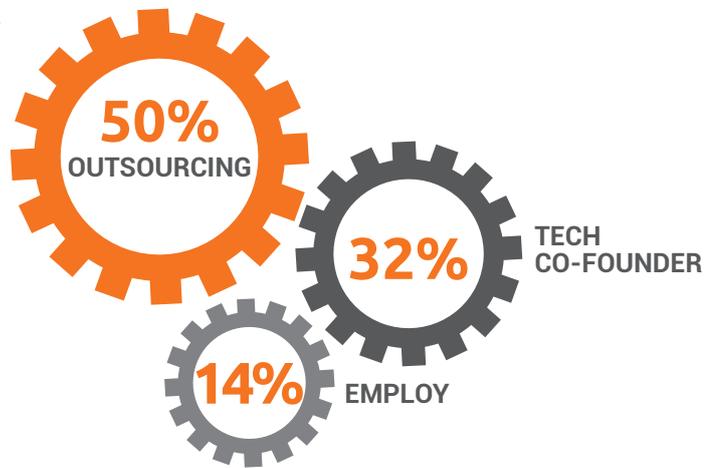


“Because of a lack of tech experience, women can look at a problem and think laterally about the solution without worrying about how hard/easy the tech will be to support the idea.”

– Fiona Anson, Founder, Workible



Without personal expertise in software development, the majority are managing tech teams. The most common work-around was outsourcing, followed by finding a tech co-founder, then employing technical staff.



However this process was not without challenges. 56% admitted that it was hard or difficult finding the right tech partner.

“Finding someone you can trust is difficult. There a lot of suppliers and providers out there but it becomes very clear very quickly whether they are genuinely trying to help you or sell you something you don’t actually need.”

– Rebecca Mason, Founder & CEO, The Time Masons

The educational background of entrepreneurs is far from intuitive. A study by the US-based Kauffman Foundation found that entrepreneurship was highest among those who had not finished high school and then declined with each successive increase in educational attainment ⁵.

5. Kauffman, Index of Entrepreneurial Activity, 1996-2013



4. WHAT'S HOLDING THEM BACK

Respondents to our survey named the top two challenges facing female tech entrepreneurs: 34% said 'lack of expertise' and 30% said 'lack of confidence'.

27% of women in our survey said they felt they **didn't have access to the same network advantages that their male counterparts do.**



“My experience is that many girls do not consider this path at all - writing IT off as a field for boys and nerds! When that perception starts early in school, it is hard to turn it around.”

– Founder, Jane Cay, Birdsnest

A US study⁶ by Women Who Tech found that **only 7%** of investor money goes to **women-led startups** and that **86%** of venture-funded businesses had **no women in the management team at all.**

A study of 500 women in the tech sector around the world found that women-led private technology companies are more capital-efficient, achieve 35% higher return on investment, and, when venture-backed, bring in 12% higher revenue than male-owned tech companies⁷.

Studies have speculated that the superior performance of female-led tech ventures is due to the fact that women are better calculated risk takers, who are less prone to overconfidence. A study by the Centre for Entrepreneurship found that women are more likely to take financial risks (87% of women to 73% of men) but more restrained in their estimation of business performance. Despite the

fact that an analysis of the companies in question showed that the companies led by female entrepreneurs were performing more strongly than those of the men surveyed, only 42% of female leaders described their business as prospering, versus 62% of the men⁸.

These findings were borne out in our survey of Australian female tech entrepreneurs, who said they wouldn't feel comfortable pitching an idea they weren't very sure of. Our respondents told us that they felt women were less confident in their abilities than men and more aware of their own limitations or lack of expertise.

“Women are naturally more humble and less likely to “hustle” to get their businesses going. That typically means that it takes more time for a women-led business to get the attention it needs” – Fiona Anson, Founder, Workible

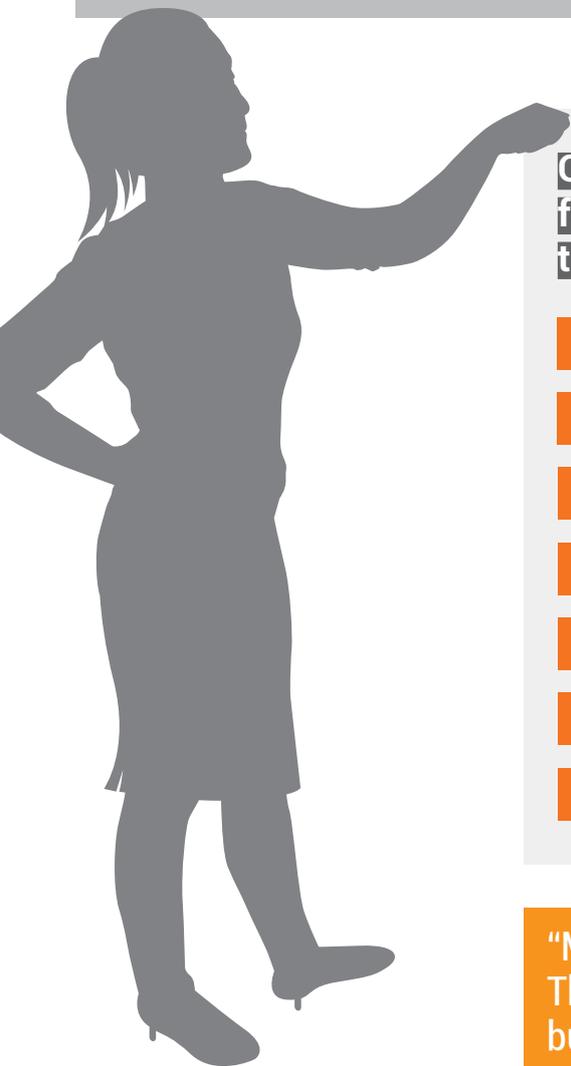
6. Tech.Co, Only 7 Percent of Investor Money Goes to Women-Led Startups, 2015

7. Vivek Wadhwa, Women in Technology: Evolving, Ready to Save the World

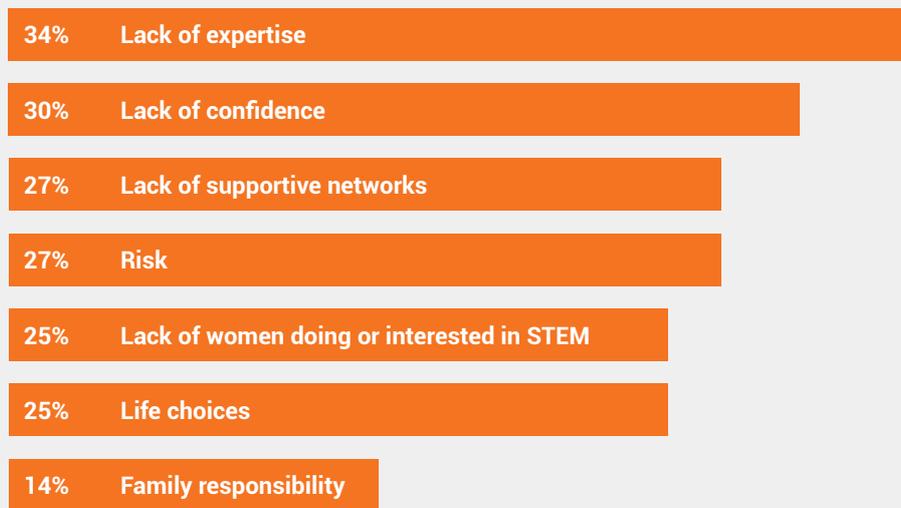
8. Centre for Entrepreneurs, Shattering Stereotypes: Women in Entrepreneurship, 2015



“The start up space rewards competitive traits, and requires self-promotion - two traits women are not as comfortable with as men.” – Prue Gilbert, CEO, Grace Papers



Only 19% of startups in Australia are founded by women. Why do you think that this number isn't 50%?⁹



“Most successful entrepreneurs are around thirty five. This is the time a lot of women are starting to think of building a family. It is incredibly difficult to reconcile both priorities. I am planning kids now and it is stopping me from quitting my day job and working on my startup full time. I would feel too guilty quitting my job instead of saving money for when we have kids.”

- Zoe Cooper, Founder, Kid Social

“Women entrepreneurs start much later than men because they believe they don't have the best experience or perfect skill set to deliver on the promise. Whereas men will have a go if they feel they can meet 65% of the skills required.”

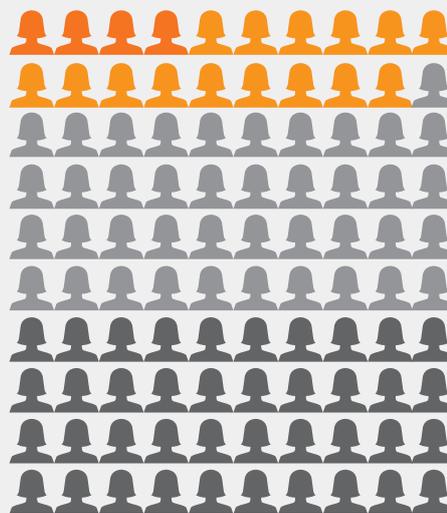
– Michelle Gallaher, Creative Director/Co-Founder, The Social Science



5. BEATING THE STEM MYTH

A surprising finding of our analysis of female entrepreneurs was that only **19% had studied a STEM discipline** and even less – **just 4% - had studied software engineering**. It should be regarded as encouraging that while policy makers and educators are grappling with the problem of encouraging women into STEM degrees, women are just getting on with it, often building highly successful tech ventures.

The most common degrees held by those we analysed were in business disciplines – 41% were qualified in Business, Commerce, Economics or Marketing.



"Women are hard on themselves and can think of a million reasons why they may fail and shouldn't start a business before they think of why they can and will succeed."

– Jane Lu, CEO, Showpo

"Funding companies are generally run by men, so unless you have a male focused company it is difficult to get funding"

– Kristy Chong, Founder, Modibodi

"There is a perception or at least has been a perception in the past that you needed to have technical skills in order to run a startup. I don't believe that is the case and not all startups require cutting edge technology. I believe that the number of women led startups in Australia will increase dramatically in the next 5 years."

– Alexandra Kinloch, Founder & Director, The Inside Academy

6. WHAT LIES AHEAD

The good news is that we will not need to wait until policy makers have managed to bring coding to a new generation of primary school children or until changing social and cultural expectations have made STEM courses more appealing to women to see more women make their mark as tech entrepreneurs.

The current generation of women is finding a lateral way to enter this male-dominated field, using their domain experience and leadership skills to solve problems with unique products. They will be role models and, it is to be hoped, become mentors to other women with technical ideas to be realised.

7. ABOUT THIS REPORT

Terem Technologies analysed publicly available education data on 113 of the estimated 228 Australian female tech entrepreneurs and received qualitative survey responses from 44. The qualitative survey asked the women about their education and professional history, how they have managed the technical side of their enterprises, and their perceptions on the challenges and attitudes particular to female tech founders.



Note from Scott Middleton, CEO of Terem Technologies

It is well-known that women are significantly underrepresented in the fields of science, technology, engineering and mathematics but, despite this, we found ourselves working more and more with an impressive collection of successful and up-and-coming female technology entrepreneurs.

Finding that there was no research on Australian female tech entrepreneurs that attempted to offer insight into the determined growth of this group, Terem Technologies decided to conduct a survey.

Hopefully this survey highlights to those thinking about jumping in that they can: the women we surveyed are overcoming all kinds of hurdles to succeed and thrive. We hope that they will inspire many more like them and that the numbers of female entrepreneurs will climb rapidly as role models become more visible.

In the future, we're looking forward to building on the knowledge we've gained, expanding the scope of the survey and beginning to analyse trends over time.

About Terem Technologies

Terem Technologies helps companies develop new software ideas, products and platforms. Terem has built software for enterprises like Rio Tinto and the Federal Government to mid-market companies like Amaysim and Birdsnest.com.au through to startups like Workible.

Terem looks to build long-term relationships with its clients, focusing on becoming an extension of the team, with a view to injecting new ideas and helping deliver more, faster.

www.terem.com.au

