Advancing Women Entrepreneurs in Fashion Technology Venture Creation: Overcoming Funding Barriers for Women

Ashley Stevens Chenn, The Hong Kong Polytechnic University

Keywords: Funding barriers for women, female entrepreneurs, fashion technology ventures

Introduction

Technology plays a large role in advancing the fashion industry toward sustainable practices. The innovative business models of companies such as Vestiaire Collective, Poshmark, Rent the Runway, and Stitch Fix have disrupted, redefined, and led the industry toward more sustainable fashion consumption. These companies also share a common characteristic in that all were founded by women.

After hitting a paltry all-time high of 2.8% in 2019, venture capital (VC) funding for female founders precipitously dropped to 1.9% in 2022 (Davis, 2023). VC plays an important role in the fashion tech ecosystem by providing ample funding, mentorship, and support for entrepreneurs as they navigate inevitable setbacks and challenges. This alarming imbalance of VC funding exists despite evidence that female founders generate nearly double the revenue of their male counterparts (Abouzahr et al., 2018) and are more likely to focus on societal contributions through human-centered business models and building good relationships with employees (Shmailan, 2016).

While women overwhelmingly comprise the fashion industry in terms of its customers, fashion school graduates, and workforce (Webb & Shoaib, 2023), yet the 'femaleness of fashion' may prove a significant hindrance to the technological advancement of the fashion industry because women are less likely to pursue high-growth entrepreneurial endeavors (Donaldson et al., 2023) and tech entrepreneurship (Bittner & Lau, 2021). Increasing financing for female fashion tech founders can advance innovation in the fashion industry—particularly toward more sustainable business practices. Therefore, this study investigates what hinders women from securing funding for their fashion tech ventures.

Literature Review

Scholars have shown that women are more likely to establish sole proprietorships than co-found new ventures (Fabowale et al., 1995). Moreover, past research has found that investors tend to prefer founding teams comprised of multiple members rather than a sole founder (Morawczyński, 2020) and that the composition of the founding team can influence whether or not an investor funds a venture (Bernstein et al., 2017). However, these dynamics have not been studied in the context of fashion tech ventures. Therefore, the following hypotheses are proposed:

H1: Women are significantly more likely to act as solitary founders when launching a fashion tech venture rather than act as co-founders.

H2: Founding teams of fashion tech ventures comprised of a solitary founder are significantly less likely to secure one or more funding rounds than teams of two or more founders.

H3: Founding teams of fashion tech ventures with a heterogeneous gender composition are significantly more likely to secure one or more funding rounds.

Data & Methodology

As the fashion industry is global, Crunchbase, a global database of investment deals and start-ups (Dalle et al., 2017), was used to test the hypotheses. Start-ups founded in 2000 or later were included to encompass the meteoric rise in tech and digital innovation following the economic phenomenon known as the 'dot-com bubble' that began in the late 1990s (Menzel et al., 2017). A chi-square test of independence was performed to examine the relation between gender and the number of founders (H1). To test H2 and H3, founder status and gender composition of the founding team were regressed using a negative binomial regression model (Greene, 2008) as the dependent variable was overdispersed around the mean ($\chi2 = 3.073$, $p < .001$). The VIF scores of all independent variables were below three, indicating multicollinearity is also low.

Results

The relation between gender and the number of founders was significant $\chi2$ (1, N = 6045) = 74, $p < .001$. Women were more likely to engage in fashion tech venture creation as a sole founder, rather than a co-founder, supporting H1. A significant negative relationship was found between having one founder and securing one or more funding rounds ($b = -.777$, $SE = .06$, $z = 172.03$, $p = <.001$), supporting H2. However, no significance was found between the gender composition of a team and securing one or more rounds of funding ($b = -0.35$, $SE = .061$, $z = .328$, $p = 0.567$), failing to support H3.

Discussion

The entrepreneurial context often underutilizes the intrinsic aptitude for fostering relationships and connections of women. In certain industries—including fashion—feminine characteristics may explain why female-owned businesses outperform their male counterparts (Kalnins & Williams, 2014). Yet, women remain underfunded by investors.

This research sheds light on how helping women to organize with other founders—regardless of gender—as the gender makeup of the founding team was not found to influence the number of funding rounds—may improve funding rates in women-founded businesses. Moreover, this study's findings indicate women may lack sufficient opportunity to put their relational skills to use in an entrepreneurial context, given the traditional barriers women have faced in launching new ventures (Elam et al., 2019).

Pedagogically, this study's findings can guide entrepreneurship educators to expose female students to women entrepreneurs as well as guide students to work in groups and teams to improve their entrepreneurial self-efficacy. The start-up community will greatly benefit from the perspectives and talents of women, and entrepreneurship can reciprocally create positive changes for women and their communities (Sen, 2014).

References

Abouzahr, K., Krentz, M., Harthorne, J., & Taplett, F. B. (2018). Why Women-Owned Startups Are a Better Bet. https://www.bcg.com/publications/2018/why-women-owned-startups-are-better-bet

Bernstein, S., Korteweg, A., & Laws, K. (2017). Attracting early-stage investors: Evidence from a randomized field experiment. The Journal of Finance, 72(2), 509-538. https://doi.org/10.1111/jofi.12470

Bittner, A., & Lau, B. (2021). Women-led startups received just 2.3% of VC funding in 2020. Harvard Business Review. https://hbr.org/2021/02/women-led-startups-received-just-2-3-of-vc-funding-in-2020

Dalle, J.-M., Den Besten, M., & Menon, C. (2017). Using Crunchbase for economic and managerial research. https://doi.org/10.1787/18151965

Davis, D.-M. (2023). Women-founded startups raised 1.9% of all VC funds in 2022, a drop from 2021. TechCrunch. https://doi.org/https://techcrunch.com/2023/01/18/women-founded-startups-raised-1-9-of-all-vc-funds-in-2022-a-drop-from-2021/

Donaldson, C., González-Serrano, M. H., & Moreno, F. C. (2023). Intentions for what? Comparing entrepreneurial intention types within female and male entrepreneurship students. The International Journal of Management Education, 21(2), 100817. https://doi.org/10.1016/j.ijme.2023.100817

Elam, A. B., Brush, C. G., Greene, P. G., Baumer, B., Dean, M., Heavlow, R., & Association, G. E. R. (2019). Women's entrepreneurship report 2018/2019.

Fabowale, L., Orser, B., & Riding, A. (1995). Gender, structural factors, and credit terms between Canadian small businesses and financial institutions. Entrepreneurship Theory and Practice, 19(4), 41-65. https://doi.org/10.1177/104225879501900404

Greene, W. (2008). Functional forms for the negative binomial model for count data. Economics Letters, 99(3), 585-590. https://doi.org/10.1016/j.econlet.2007.10.015

Kalnins, A., & Williams, M. (2014). When do female-owned businesses out-survive male-owned businesses? A disaggregated approach by industry and geography. Journal of Business Venturing, 29(6), 822-835. https://doi.org/10.1016/j.jbusvent.2013.12.001

Menzel, M.-P., Feldman, M. P., & Broekel, T. (2017). Institutional change and network evolution: explorative and exploitative tie formations of co-inventors during the dot-com bubble in the Research Triangle region. Regional Studies, 51(8), 1179-1191. https://doi.org/10.1080/00343404.2016.1278300

Morawczyński, R. (2020). Venture capitalists' investment criteria in Poland: Entrepreneurial opportunities, entrepreneurs, and founding teams. Administrative Sciences, 10(4), 77. https://doi.org/10.3390/admsci10040077

Sen, A. (2014). Development as freedom (1999). *The globalization and development reader: Perspectives on development and global change*, *525*.

Shmailan, A. B. (2016). Compare the characteristics of male and female entrepreneurs as explorative study. Journal of Entrepreneurship & Organization Management, 5(4), 1-7.

Webb, B., & Shoaib, M. (2023). Debunking The Dream. Vogue Business. https://www.voguebusiness.com/tag/debunking-the-dream