Human Factors in Design, Engineering, and Computing, Vol. 238, 2026, 737–743
https://doi.org/10.54941/ahfe1008305

Constrained but Capable: Motivation, Persistence, and Early-Stage Attrition Among Nascent Women Entrepreneurs

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ABSTRACT

Women nascent entrepreneurs experience higher early-stage quit rates than men, yet longitudinal analysis suggests motivation does not explain this pattern. Using data from the Panel Study of Entrepreneurial Dynamics II (PSED II, N = 1,214), this study compares motivational orientation across gender and examines whether motivational variables predict early-stage quit behavior among women. Results confirm statistically significant gender differences in motivational orientation: women rate flexibility as a more important entrepreneurial driver than men and rate wealth-building as less important. However, motivational variables do not significantly predict whether women quit during the earliest startup wave. Women who remain in the startup process ultimately achieve business launch rates exceeding men by the final follow-up wave. These findings suggest that early-stage attrition among women reflects the constraint environment of the startup phase rather than motivational differences between genders, with implications for the design of human-centered entrepreneurial support resources.

Keywords: Women entrepreneurs, Entrepreneurial persistence, Gender differences, Startup attrition, Human-centered design

INTRODUCTION

Research on women entrepreneurs has devoted considerable attention to motivational orientation as a potential explanation for observed gender differences in business outcomes. Studies drawing on expectancy theory and achievement motivation frameworks have suggested that women's stronger orientation toward flexibility and work-life balance, relative to financial wealth accumulation, may contribute to lower rates of business survival and growth (Brush et al., 2006; Carter et al., 2003; McClelland, 1961; Venkataraman, 1997). This interpretation has informed the design of many entrepreneurial support programs, which tend to frame women's outcomes as a function of motivational or preference differences rather than structural or operational barriers.

The human factors and ergonomics literature offers a different analytical lens. Sociotechnical systems theory holds that system performance depends on the fit between system design and the human context in which the system operates (Baxter and Sommerville, 2011; Trist and Bamforth, 1951).

Received September 26, 2026; Revised October 30, 2026; Accepted November 6, 2026; Available online December 1, 2026

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When systems are designed around assumptions that do not reflect users' actual goals, constraints, and capacities, performance degrades and users disengage (Chapanis, 1996; Norman, 2013). Applied to entrepreneurship, this perspective raises the question of whether early-stage dropout among women reflects motivational deficits or a poor fit between existing support resources and the operational realities women face during the startup phase.

This study uses longitudinal data from the Panel Study of Entrepreneurial Dynamics II (PSED II) and international data from the GEM 2024/2025 Women's Entrepreneurship Report to examine this question empirically. The analysis tests whether gender differences in motivational orientation predict early-stage dropout among women nascent entrepreneurs, examines longitudinal outcome patterns across six waves of follow-up data, and discusses the implications for human-centered entrepreneurial support design.

BACKGROUND AND LITERATURE REVIEW

Gender Differences in Entrepreneurial Motivation

Gender differences in entrepreneurial motivation have been documented across multiple datasets and national contexts. Women entrepreneurs consistently report stronger motivations related to flexibility and work-life integration relative to men, while men more frequently cite financial gain and growth as primary entrepreneurial drivers (Brush et al., 2006; Burke et al., 2002; Carter et al., 2003). Carter et al. (2003), using data from the Panel Study of Entrepreneurial Dynamics, documented that women nascent entrepreneurs were significantly more likely to cite intrinsic and family-related career reasons for starting a business, while men were more likely to cite financial and independence-related reasons. These differences have been interpreted through multiple theoretical lenses, including genuine preference differences, constrained choice under structural inequity, and the influence of socialized gender roles on career decision-making (Ahl, 2006).

The GEM 2024/2025 Women's Entrepreneurship Report documents considerable regional variation in this pattern. Across 51 countries, women most frequently cited job scarcity (71.1%) and wealth-building (57.3%) as primary startup motivations. In North America specifically, 68.5% of women reported wealth-building as a primary motivation alongside making a difference (64.3%). In 34 of 51 countries, women were as likely or more likely than men to cite making a difference as a primary motivation. These findings indicate that women's motivational profiles vary substantially by region and economic context (GEM, 2024).

Minniti and Nardone (2007), using GEM data from 37 countries and a bootstrapping equalization procedure, found that when men and women were placed in identical socioeconomic conditions, the gender gap in propensity to start a business persisted. However, when perceptual variables including self-confidence in one's skills, fear of failure, and opportunity perception were equalized, the gender gap almost entirely disappeared. Langowitz and Minniti (2007) extended this line of inquiry, finding that women's lower entrepreneurial propensity relative to men was

substantially explained by women's less favorable self-assessments of their own skills and opportunity perception rather than by objective differences in capability or motivation.

Constraints, Human-Centered Design, and Entrepreneurial Persistence

A separate body of research examines structural and operational barriers to women's entrepreneurial persistence. Capital access disparities, time scarcity associated with caregiving responsibilities, and role overload have been identified as factors that differentially constrain women's startup activity relative to men (Brush et al., 2006; Burke et al., 2002). These constraints operate independently of motivational orientation and may more directly predict dropout behavior during the startup phase.

From a human-centered design perspective, the presence of unaddressed constraints in the startup environment represents a user-system misfit problem (Norman, 2013). Systems designed without accounting for the actual goals, constraints, and cognitive demands of their users produce predictable failures: users disengage not because they lack motivation but because the system does not support their actual situation. Ahl (2006) argues that entrepreneurship research has systematically framed women's outcomes relative to male norms, producing an incomplete picture of what women actually need from entrepreneurial support resources.

METHODOLOGY

Dataset and Sample

This study uses the Panel Study of Entrepreneurial Dynamics II (PSED II, ICPSR 37202), a longitudinal nationally representative dataset that followed nascent entrepreneurs from initial startup activity through business launch or abandonment across six waves of data collection from 2005 to 2011 (Reynolds and Curtin, 2011). The Wave A analytical sample consists of 1,214 nascent entrepreneurs, including 453 women (37.3%) and 761 men (62.7%). Gender was identified using variable AH1_1, with no missing values in the full sample.

Measures

Motivational orientation was measured using four items from the PSED II motivation battery, each rated on a five-point scale from 1 (no extent) to 5 (a very great extent): flexibility motivation (AW2: to have flexibility for personal and family life), financial security motivation (AW6: to give family financial security), wealth-building motivation (AW12: to build great wealth or very high income), and personal vision motivation (AW13: to fulfill a personal vision). Responses coded 8 (Do not know) were treated as missing.

The outcome variable for the logistic regression was constructed from BA50, which records business status at Wave B, the first follow-up interview. Respondents were coded 1 if they had quit or disbanded the startup effort

and 0 if they had launched a new firm or remained actively engaged in the startup process.

Analytical Approach

Welch independent samples t-tests were used to compare motivational orientation between women and men. The Welch variant was selected because group sizes were unequal (453 versus 761) and equal variance could not be assumed. All tests were two-tailed with alpha set at 0.05. Binary logistic regression was used to examine whether motivational orientation predicts Wave B quit behavior among women, with all four motivation variables entered simultaneously as predictors. Longitudinal outcome patterns were examined descriptively across Waves B through F, with rates calculated from wave-specific respondent counts to account for attrition.

RESULTS

Gender Differences in Motivational Orientation

Welch t-tests identified statistically significant gender differences in two of four motivational dimensions. Women rated flexibility motivation significantly higher than men (women M = 3.85, men M = 3.62, p = 0.002). Women rated wealth-building motivation significantly lower than men (women M = 2.69, men M = 2.94, p = 0.003). No significant differences were found in financial security motivation (women M = 3.68, men M = 3.76, p = 0.274) or personal vision motivation (women M = 3.61, men M = 3.57, p = 0.513).

These findings are consistent with prior PSED-based research documenting women's stronger orientation toward flexibility (Carter et al., 2003). The wealth-building difference extends prior findings by identifying a statistically significant gap on this dimension within a US nascent entrepreneur sample. As documented by GEM (2024), North American women report wealth-building as a primary startup motivation at relatively high rates, suggesting that the lower relative rating in PSED II reflects priority ordering among multiple motivations rather than an absence of wealth-building interest.

Motivational Predictors of Early-Stage Dropout

Binary logistic regression examining whether the four motivation dimensions predict Wave B quit behavior among women with valid Wave B outcomes (N = 375, of whom 102 quit and 273 persisted or launched) revealed that none of the four motivational variables significantly predicted early-stage dropout. The model fit was poor, indicating that motivational orientation accounts for a negligible proportion of variance in early-stage quit behavior among women in this sample.

This result holds despite the statistically significant gender differences in motivational orientation documented above. Women and men differ meaningfully in how they rate flexibility and wealth-building as entrepreneurial motivations, but those differences do not predict which women exit the startup process during the earliest follow-up period.

Longitudinal Outcome Patterns

Descriptive analysis of business status across Waves B through F shows that women experienced higher quit rates than men in the earliest follow-up waves. At Wave B, 27.2% of responding women had quit compared to 21.6% of responding men. The gap narrowed across subsequent waves. By Wave E, launch rates were nearly equivalent (women 36.0%, men 35.0%). By Wave F, women's launch rates exceeded men's (women 40.9%, men 36.6%) among respondents remaining in the study. This pattern is subject to survivorship bias, as only 132 of the original 453 women remained at Wave F.

DISCUSSION

The results of this study indicate that motivational orientation does not explain why women nascent entrepreneurs quit the startup process at higher rates than men during the earliest follow-up period. Women and men differ significantly in how they rate flexibility and wealth-building as entrepreneurial motivations, consistent with prior research (Burke et al., 2002; Carter et al., 2003). However, these motivational differences do not predict dropout behavior within the women's sample, suggesting that frameworks attributing women's entrepreneurial attrition to motivational misalignment are not empirically supported by these longitudinal data.

This interpretation is consistent with Minniti and Nardone (2007) and Langowitz and Minniti (2007), both of whom found that perceptual variables were the primary drivers of gender gaps in entrepreneurial activity. Taken together, these findings suggest that women's entrepreneurial challenges are rooted in constraint environments and self-perception patterns rather than motivational deficits, and that support resources designed around motivational assumptions are unlikely to address the actual barriers women face.

The longitudinal outcome pattern reinforces this interpretation. Women who remain engaged through the early startup phase ultimately achieve launch rates equaling or exceeding men's. This is more consistent with a user-system misfit interpretation: existing entrepreneurial support resources are not designed to account for the constraint environments women navigate during the startup phase (Norman, 2013; Ahl, 2006).

These findings point toward a concrete direction for human-centered design intervention. If motivation does not drive early-stage dropout but constraint environment does, then the appropriate design response is not motivational programming or financial literacy resources but constraint-aware decision support that helps women navigate the startup phase given their actual configuration of structural, operational, and cognitive constraints. This means designing entrepreneurial support resources that begin by identifying an individual entrepreneur's specific constraint profile, selecting strategies appropriate to that profile, and sequencing implementation in ways that account for real-world resource limitations. Future research should focus on developing and validating such constraint-aware frameworks, with empirical grounding in the constraint profiles that most strongly predict early-stage dropout among women.

CONCLUSION

This study finds that women nascent entrepreneurs experience higher early-stage quit rates than men, that gender differences in motivational orientation are statistically significant on two of four dimensions examined, and that motivational variables do not significantly predict early-stage dropout among women. Women who persist through the early startup phase ultimately achieve launch rates exceeding men, though this finding is subject to survivorship bias. The results are more consistent with a structural and operational explanation for early-stage attrition than a motivational one. From a human factors perspective, this reframes early-stage dropout as a user-system misfit problem rather than a motivational deficit problem, pointing toward constraint-aware, human-centered decision-support frameworks as the appropriate design response.

LIMITATIONS

Several limitations should be noted. The PSED II motivation battery does not include a job scarcity or necessity-driven motivation item, which GEM data identify as the most commonly cited startup motivation among women globally (GEM, 2024). The analysis does not control for education level or prior work experience, which prior research has identified as factors that may attenuate observed gender differences in motivational orientation (DeMartino and Barbato, 2003). The longitudinal attrition rate is substantial, and findings from later waves reflect outcomes among persistent respondents rather than the full original cohort. The PSED II data were collected between 2005 and 2011 and may not fully reflect the current context facing nascent women entrepreneurs.

ACKNOWLEDGMENT

The authors acknowledge the Inter-university Consortium for Political and Social Research (ICPSR) for providing access to the Panel Study of Entrepreneurial Dynamics II dataset. IRB approval for use of this data was obtained through the University of Illinois at Chicago.

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