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A Social Cognitive Perspective on Gendered Entrepreneurship In an Emerging Economy: Evidence From Türkiye

Gelişmekte Olan Bir Ekonomide Toplumsal Cinsiyet Temelli Girişimciliğe Sosyal Bilişsel Bir Bakış: Türkiye Örneği

Tutku Seckin ^{a,*}

^a Dr. Öğr. Üyesi, İzmir Demokrasi University, İktisadi ve İdari Bilimler Fakültesi, İşletme Bölümü, 35140, İzmir/Türkiye
ORCID: 0000-0002-8265-5259

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ÖZ

Bu çalışma, Türkiye'deki girişimcilik niyetlerinde görülen cinsiyet farkını; algılanan beceriler, fırsat tanıma ve başarısızlık korkusu mekanizmaları üzerinden incelemektedir. Toplumsal cinsiyete dayalı sosyalleşme (Eagly, 1987) ve sosyal bilişsel teorilere (Bandura, 1997) dayanan araştırma, bu farkı kadınların sözde riskten kaçınma eğilimine bağlayan "eksiklik temelli" açıklamaları sorgulamaktadır. Küresel Girişimcilik Monitörü (GEM) verilerinin analizi, kadınların girişimcilik niyeti bildirme olasılığının anlamlı derecede düşük olduğunu ve bu farkın temel olarak düşük beceri ve fırsat algısından kaynaklandığını göstermektedir. Buna karşın, başarısızlık korkusundaki cinsiyet farkı istatistiksel olarak anlamsızdır ve niyet üzerinde belirleyici değildir. Bulgular, eşitsizliğin doğuştan gelen psikolojik eksikliklerden ziyade toplumsal olarak inşa edilen öz-algılardan kaynaklandığını ortaya koymakta ve bireysel müdahaleler yerine yapısal çözümlerin gerekliliğini vurgulamaktadır.

ABSTRACT

This study investigates the gender gap in entrepreneurial intentions in Türkiye by examining perceived skills, opportunity recognition, and fear of failure. Drawing on gendered socialization (Eagly, 1987) and social cognitive theories (Bandura, 1997), the research challenges deficit-based explanations attributing this disparity to women's alleged risk aversion. Analysis of Global Entrepreneurship Monitor (GEM) data reveals that women are significantly less likely to report entrepreneurial intentions, a gap primarily driven by lower perceived skills and opportunity perceptions. Conversely, gender differences in fear of failure are statistically non-significant and do not predict intentions. The findings suggest that gender disparities stem from socially constructed self-perceptions rather than inherent psychological deficits, highlighting the need for structural rather than individual-level interventions.

1. Introduction

Entrepreneurship is widely recognized as a key driver of economic growth, innovation, and employment creation. Across countries and institutional contexts, entrepreneurial

activity is increasingly promoted as a solution to economic stagnation, unemployment, and social inequality. Within this policy landscape, women's entrepreneurship has received growing attention, both as an untapped source of economic potential and as a pathway toward greater gender

* Sorumlu yazar/Corresponding author.

e-posta: tutkuseckin@gmail.com

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equality (Ahl, 2006; Brush et al., 2009; Minniti & Naude, 2010).

Despite these efforts, women remain systematically underrepresented among those who intend to start businesses and those who engage in entrepreneurial activity (Ahl, 2006; Brush et al., 2020). This gender gap has been documented consistently across developed and developing economies (Minniti & Nardone, 2007), including emerging markets such as Türkiye (GEM, 2024). Understanding why women are less likely than men to form entrepreneurial intentions therefore remains a central question in entrepreneurship research.

Much of the existing literature explains women's lower entrepreneurial engagement through individual-level deficit models (Ahl, 2006; Ahl & Marlow, 2012). Women are frequently portrayed as more risk-averse, more fearful of failure, or less inclined toward entrepreneurial careers. While such explanations appear intuitive, they increasingly face both empirical and theoretical criticism. Feminist and gender-sensitive scholars argue that these perspectives overlook the socially constructed nature of entrepreneurship and ignore the institutional and cultural contexts in which entrepreneurial intentions are formed (Ahl, 2006; Eagly, 1987).

Recent research suggests that entrepreneurial intentions are shaped not only by objective opportunities and constraints, but also by subjective perceptions—particularly perceptions of competence and opportunity recognition (Shane, 2003; Vamvaka et al., 2020). Individuals who do not perceive themselves as capable entrepreneurs or who do not see viable opportunities in their environment are unlikely to develop entrepreneurial intentions, regardless of actual market conditions (Hamdani et al., 2023; Haque et al., 2025; Hossain et al., 2024; Mozahem & Adlouni, 2021).

Importantly, these perceptions are themselves gendered (Ahl & Marlow, 2012). From early socialization onward, women and men are exposed to different expectations and role models that shape their beliefs about what careers are appropriate and attainable (Eagly, 1987; Eccles, 1994). Entrepreneurship, often culturally coded as masculine, may therefore be less readily internalized as a plausible career path for women (Marlow & McAdam, 2013).

Against this backdrop, the present study examines gender differences in entrepreneurial intentions in Türkiye through a gendered and cognitively informed lens. Rather than asking whether women are more afraid of failure, the study asks whether women's lower entrepreneurial intentions are better explained by lower perceived entrepreneurial skills and weaker opportunity perceptions.

Using nationally representative data from the Global Entrepreneurship Monitor (GEM), this study makes three key contributions. First, it empirically challenges deficit-based explanations that emphasize fear of failure as the primary barrier to women's entrepreneurship. Second, it integrates gendered socialization theory and social cognitive

theory to identify perceived entrepreneurial skills as a central mechanism linking gender and entrepreneurial intention. Third, it highlights opportunity perception as a gendered process embedded in institutional and cultural contexts. By doing so, the study contributes to contemporary debates in the gendered entrepreneurship literature and provides a theoretically grounded explanation for persistent gender gaps in entrepreneurial intentions.

In a nutshell, this study makes three key contributions to the literature on gendered entrepreneurship. First, it empirically refutes deficit-based explanations that attribute women's lower entrepreneurial intentions to fear of failure. By showing that fear plays a weak role once competence perceptions are considered, the study shifts attention toward more structurally and socially grounded explanations. Besides, it integrates gendered socialization theory with social cognitive theory, demonstrating how socially constructed self-perceptions of competence translate into entrepreneurial intentions. This integration provides a clearer micro-level mechanism linking gender and entrepreneurship. Moreover, the study highlights opportunity perception as a gendered process embedded in institutional contexts. By showing that women perceive fewer opportunities even within the same national environment, the findings underscore the importance of considering how opportunity structures are differentially experienced across genders.

2. Literature Review, Theoretical Framework, and Conceptual Model

Gendered Entrepreneurship: From Deficit Models to Socially Constructed Explanations

Research on gender and entrepreneurship has consistently documented that women are less likely than men to report entrepreneurial intentions and to engage in entrepreneurial activity (Minniti & Nardone, 2007; Verheul et al., 2012). Early explanations for this gender gap frequently relied on deficit-based perspectives, portraying women as more risk-averse, more fearful of failure, or less suited to entrepreneurship (Ahl, 2006). While intuitively appealing, such explanations increasingly appear insufficient and theoretically limited.

Thus, feminist and gender-sensitive scholarship has increasingly challenged these interpretations, arguing that such explanations obscure the socially constructed and gendered nature of entrepreneurship itself (Ahl & Marlow, 2012; Marlow & McAdam, 2013). From this perspective, entrepreneurship is not a gender-neutral activity but one embedded in institutional, cultural, and discursive contexts that systematically privilege masculine norms, behaviors, and identities. Contemporary gendered entrepreneurship scholarship argues that entrepreneurship itself is a socially constructed and gendered phenomenon (Ahl, 2006; Ahl & Marlow, 2012). Entrepreneurial norms, values, and archetypes are historically associated with masculine-coded

traits, such as autonomy, competitiveness, and assertiveness (Marlow & McAdam, 2013).

As a result, entrepreneurship is more readily imagined as a “natural” career path for men than for women (Eagly, 1987; Martiarena et al., 2023). Recent studies further emphasize that these masculine archetypes act as ‘identity regulators’, making it difficult for women to claim a legitimate entrepreneurial identity (Dy et al., 2021; Martiarena et al., 2023). Even in modern digital or social entrepreneurship contexts, the ‘ideal entrepreneur’ image remains tethered to heroized masculine narratives, which systematically marginalizes women’s participation (Alsos et al., 2021; Dy et al., 2021). This shift in perspective redirects analytical attention from individual deficits to socially embedded processes through which entrepreneurial identities, competencies, and opportunities are recognized and legitimized. Ahl (2006) provides a foundational critique of the women’s entrepreneurship literature, demonstrating how research has historically framed women in comparison to the male entrepreneurial norm and interpreted deviations as deficiencies.

Subsequent work has extended this critique, emphasizing that women’s entrepreneurial behavior must be understood in relation to gendered opportunity structures, legitimacy processes, and self-concepts rather than individual psychological shortcomings (Bruin et al., 2007; Ahl & Marlow, 2012; Dy et al., 2021). Furthermore, empirical evidence from emerging markets like Türkiye confirms that the gap in entrepreneurial intentions is primarily a result of these socially embedded self-concepts and differential access to legitimacy rather than inherent risk aversion (Mozahem & Adlouni, 2021). Within this framework, women’s lower entrepreneurial intentions are conceptualized not as a reflection of greater fear or lower ambition, but as the outcome of gendered processes shaping how entrepreneurship is perceived, evaluated, and internalized. The present study also adopts this gender-sensitive lens and explicitly rejects explanations that reduce women’s lower entrepreneurial intentions to fear-based avoidance alone.

Gendered Socialization and the Construction of Entrepreneurial Self-Perceptions

Gendered socialization theory offers a powerful lens for understanding how women and men develop different self-perceptions and career aspirations over time as a result of differential socialization processes. Social role theory posits that individuals internalize gendered expectations through repeated exposure to culturally prescribed roles, feedback, and norms (Eagly, 1987). From an early age, individuals are exposed to gender-specific expectations regarding appropriate behaviors, aspirations, and competencies. These expectations are reinforced through education, family structures, peer interactions, and media representations. These processes influence beliefs about what behaviors are appropriate, feasible, and socially rewarded (Connell, 1998; Scott, 1996)

In occupational contexts, such socialization patterns shape individuals’ self-assessments of competence and fit. Eccles (1994) argues that women’s educational and career choices are strongly influenced by self-concepts of ability, which are themselves shaped by social expectations and evaluative feedback rather than objective skill differences. As a result, women may systematically underestimate their capabilities in domains culturally coded as masculine. Entrepreneurship is one such domain. Traits commonly associated with successful entrepreneurs—such as autonomy, assertiveness, and risk-taking—are often aligned with masculine gender norms (Marlow & McAdam, 2013). As emphasized by Eagly and Wood (2012), these internalized expectations create a cognitive misalignment for women in fields culturally coded as masculine. Consequently, women may be less likely to internalize entrepreneurial competence as part of their self-identity, even when they possess relevant skills and experience. This process, often referred to as ‘gendered identity regulation’ (Dy et al., 2021), suggests that the lack of entrepreneurial intention is not a result of skill deficit but a consequence of a perceived lack of fit with the prevailing masculine archetype of the ‘heroic entrepreneur’ (Ahl & Marlow, 2012).

Crucially, this gendered socialization affects not only objective skill acquisition but also subjective self-evaluations. Women may possess entrepreneurial skills comparable to those of men, yet remain less likely to view themselves as competent or legitimate entrepreneurial actors. This internalization process produces gendered differences in perceived entrepreneurial capability, which in turn shape entrepreneurial intentions. As argued by Bandura (1997) and further developed in gender scholarship by Wilson, Kickul, & Marlino (2007), entrepreneurial self-efficacy is a socially mediated construct. Empirical studies using GEM data have repeatedly shown that women report lower perceived entrepreneurial capabilities than men across a wide range of countries (Minniti & Nardone, 2007; Mozahem & Adlouni, 2021). Recent evidence from emerging markets like Türkiye further confirms that these gender differences in intentions are closely linked to socially constructed self-perceptions and differential access to symbolic legitimacy rather than innate differences in ability (Gurel et al., 2021; Haque et al., 2025; Seckin-Halac & Seckin-Celik, 2019).

Social Cognitive Theory and Entrepreneurial Self-Efficacy

Social cognitive theory further clarifies how self-perceptions translate into behavioral intentions by emphasizing the central role of self-efficacy—individuals’ beliefs in their ability to successfully perform specific tasks (Bandura, 1997). According to this theory, individuals are unlikely to pursue activities they perceive as beyond their capabilities, regardless of potential rewards or external opportunities. In entrepreneurship research, this concept has been operationalized as entrepreneurial self-efficacy (ESE) or perceived entrepreneurial skills. Individuals who believe

they possess the necessary knowledge, skills, and experience to start a business are significantly more likely to develop entrepreneurial intentions and to act upon them. While Chen et al. (1998) and Zhao et al. (2005) established ESE as one of the strongest predictors of entrepreneurial intention, recent scholarship has focused on its gendered nature.

Importantly, self-efficacy beliefs are socially produced rather than purely individual. Feedback from others, exposure to role models, and prior experiences all shape perceptions of competence (Bandura, 1997; Wilson et al., 2007). Given that women often face gendered constraints in access to entrepreneurial networks, mentorship, and validation, they may systematically underestimate their entrepreneurial capabilities. Recent empirical evidence continues to reinforce this conclusion; for instance, Mozahem and Adlouni (2021) and Hossain et al. (2024) demonstrate that ESE remains a primary mediator through which gender influences intentions. Furthermore, Exley and Kessler (2022) find that even when women possess similar objective skills, their subjective evaluation of these skills is dampened by prevailing masculine archetypes in the entrepreneurial ecosystem.

Together, these findings suggest that perceived entrepreneurial skills constitute a key mechanism through which gendered socialization processes translate into gender differences in entrepreneurial intentions. By integrating social cognitive theory with gendered socialization perspectives, this study conceptualizes perceived entrepreneurial skills as a mediating psychological mechanism that bridges the gap between socialized gender roles and individual career aspirations (Neneh, 2022; Elam et al., 2023).

Opportunity Perception as a Gendered Process

Entrepreneurial opportunities are not simply objective market conditions waiting to be discovered; they are socially interpreted and unevenly accessible. As argued by Shane (2003), opportunity recognition depends not only on market data but also on individuals' cognitive frameworks. However, these frameworks are not gender-neutral. Bruin et al. (2007) emphasize that opportunity recognition is embedded within gendered structures that dictate access to networks, resources, and legitimacy. Gendered institutional and cultural contexts shape opportunity perception by limiting women's exposure to high-value information channels and informal networks (Brush et al., 2009; Welter, 2011).

Empirical evidence consistently supports this gendered divergence. Recent data from the Global Entrepreneurship Monitor (GEM, 2023) and studies by Elam et al. (2023) show that women report lower opportunity perceptions than men globally, even when controlling for economic conditions. In the context of emerging markets like Türkiye, women may perceive fewer entrepreneurial opportunities due to 'institutional voids' and societal norms that cast doubt

on the legitimacy of their endeavors in male-dominated sectors (Gurel et al., 2021; Franczak et al., 2023).

Furthermore, recent scholarship by Martiarena et al. (2023) and Dy et al. (2021) suggests that these perceptions reflect 'symbolic barriers'—where women do not see themselves as the intended subjects of available opportunities. Consequently, lower opportunity perceptions among women do not necessarily indicate a lack of objective opportunities but rather reflect gendered processes through which opportunities are rendered visible, credible, and attainable (Hossain et al., 2024; Neneh, 2022). These gendered opportunity perceptions constitute a critical pathway through which social structures translate into individual-level differences in entrepreneurial intentions.

Fear of Failure Revisited: Challenging Simplistic Gender Narratives

Fear of failure has long been cited as a key barrier to entrepreneurship, particularly for women. In mainstream entrepreneurship research, fear of failure has frequently been invoked as a central explanation for women's lower entrepreneurial engagement, often framing it as a stable psychological trait (Langowitz & Minniti, 2007; Koellinger et al., 2013). Early research based on large-scale datasets often assumed that women's lower participation rates reflected a greater innate risk aversion or fear-based avoidance compared to their male counterparts (Shinnar et al., 2012; Wagner, 2007).

As demonstrated by Verheul et al. (2012), fear of failure often loses its explanatory power once entrepreneurial self-efficacy and opportunity perceptions are accounted for. This suggests that what is often labeled as 'fear' may actually be a reflection of low perceived competence. Supporting this view, Shahid et al. (2024) demonstrate that while fear of failure may influence the translation of existing intentions into behavior, it plays a secondary role in the initial formation of those intentions.

From a gender-sensitive perspective, fear of failure should be understood as contextually embedded rather than inherently gendered (Ahl & Marlow, 2012). When individuals feel competent and perceive viable opportunities, fear of failure loses much of its behavioral relevance. Conversely, when perceived competence is low, fear of failure may simply reflect a rational assessment of anticipated outcomes rather than a psychological deficit. Recent empirical studies further challenge the assumption of systematic gender differences in fear. Shahid et al. (2024) argue that the effect of fear on intention varies substantially across cultural contexts, while Klyver et al. (2013) and Welter et al. (2014) argue that fear of failure is often a 'proxy' for the lack of institutional support and symbolic legitimacy.

These findings suggest that fear of failure is a secondary or context-dependent factor whose effects are contingent on perceived competence and opportunity structures (Neneh, 2022; Elam et al., 2023). Accordingly, this study treats fear of failure not as the primary driver of gender differences in

entrepreneurial intentions, but as a potential byproduct of the more fundamental gendered processes of socialization and identity formation.

Integrating Gendered Socialization and Social Cognitive Perspectives

Taken together, the literature reviewed above supports an integrative framework in which gender differences in entrepreneurial intentions emerge from socially constructed self-perceptions of competence and opportunity rather than inherent psychological deficits. Gendered socialization processes shape entrepreneurial self-efficacy, while gendered institutional contexts influence opportunity perception. Fear of failure, although relevant, does not appear to constitute the central explanatory mechanism. This integrative perspective aligns with contemporary gendered entrepreneurship scholarship and provides a theoretically robust foundation for examining gender differences in entrepreneurial intentions within specific national contexts, such as Türkiye.

Based on the theoretical framework integrating gendered socialization with social cognitive perspectives, this study proposes that gender differences in entrepreneurial intentions are mediated by subjective perceptions of competence and opportunity, while challenging the traditional dominance of fear-based explanations. Accordingly, the following hypotheses are developed:

Reflecting the systemic underrepresentation of women documented in both global and local contexts:

- H1: Women are less likely than men to report entrepreneurial intentions.

Consistent with the argument that gendered socialization shapes subjective self-evaluations and access to information:

- H2: Women report lower perceived entrepreneurial skills than men.
- H3: Women report lower perceived entrepreneurial opportunities than men.

Testing the mainstream assumption regarding psychological barriers:

- H4: Women report higher fear of failure than men.

Drawing on Social Cognitive Theory (Bandura, 1997), which posits that self-efficacy and opportunity recognition are the primary drivers of behavioral intentions as well as other theoretical arguments and research pointing out that:

- H5a: Perceived entrepreneurial skills are positively associated with entrepreneurial intention.
- H5b: Perceived entrepreneurial opportunities are positively associated with entrepreneurial intention.
- H5c: Fear of failure is negatively associated with entrepreneurial intention.

Figure 1 illustrates the conceptual model guiding this study. Gender (female = 1) is positioned as the exogenous variable



predicting entrepreneurial intention. Three perceptual mechanisms—perceived entrepreneurial skills, perceived

Figure 1. Conceptual model of gender differences in entrepreneurial intention

opportunities, and fear of failure—are modeled as parallel pathways linking gender to entrepreneurial intention. Age and education are included as control variables. The model explicitly allows for gender to influence entrepreneurial intention both directly and indirectly through perceptual mechanisms. This structure enables an assessment of whether gender differences in entrepreneurial intentions persist once socially constructed perceptions of competence and opportunity are taken into account.

3. Methodology and Research Design

Research Design

This study adopts a quantitative research design to examine gender differences in entrepreneurial intentions and the perceptual mechanisms underlying these differences. The analysis is based on a cross-sectional survey approach and relies on secondary data drawn from the Global Entrepreneurship Monitor (GEM, 2025) Adult Population Survey (APS). The use of GEM data is particularly well suited to the objectives of this study, as it provides internationally standardized and widely validated measures of entrepreneurial intentions, perceptions, and attitudes, enabling theoretically informed and methodologically robust analyses of gender-related mechanisms.

The analytical strategy is explicitly theory-driven. Drawing on gendered socialization theory and social cognitive theory, gender is conceptualized as an exogenous factor that shapes entrepreneurial intentions both directly and indirectly through perceptual mechanisms—namely perceived entrepreneurial skills, perceived entrepreneurial opportunities, and fear of failure. Accordingly, the empirical analyses are designed to systematically test these direct and indirect relationships in a transparent and theory-consistent manner.

The data used in this study originate from the GEM Adult Population Survey (APS), the largest ongoing international research program on entrepreneurship. The APS collects

harmonized survey data on entrepreneurial attitudes, perceptions, intentions, and behaviors among individuals aged 18–64 across participating countries. The survey employs probability-based sampling strategies to ensure national representativeness and follows standardized data collection procedures and rigorous quality control protocols. As a result, GEM data are widely used and accepted in high-impact entrepreneurship and management research.

For the purposes of the present study, the analysis is restricted to respondents from Türkiye. Country-specific filtering was applied at the data preparation stage using case selection procedures in SPSS, ensuring that all statistical analyses are conducted exclusively on the Turkish subsample. The Turkish subsample consists of 2,404 respondents, with a balanced gender distribution: 51.0% men and 49.0% women. The mean age of respondents is 37.71 years ($SD = 11.87$), with ages ranging from 18 to 64.

Due to item non-response, the number of valid observations varies across variables. While gender information is complete, missing values are more pronounced for age and educational attainment. In multivariate analyses employing listwise deletion, the effective sample size is reduced. For example, in models including all key variables, the valid sample size falls below the full subsample. This issue is addressed explicitly in the limitations section. Despite these reductions, the remaining sample size is sufficient for the statistical techniques employed, particularly given the large initial sample and the robustness of logistic regression estimators.

Measures

Entrepreneurial intention is positioned as the dependent variable, while gender is considered as an independent variable.

Entrepreneurial Intention is measured using the GEM item asking respondents whether they expect to start a new business, alone or with others, within the next three years. This item captures forward-looking entrepreneurial orientation rather than current business ownership. The variable is operationalized as a binary indicator, coded as 1 = yes and 0 = no. Given its dichotomous nature, entrepreneurial intention is modeled using binary logistic regression techniques.

Gender is included as the focal independent variable and is coded as 1 = female and 0 = male. This coding strategy allows for a direct interpretation of gender effects on entrepreneurial intentions and perceptual mechanisms, with negative coefficients indicating lower values for women relative to men.

Three perceptual variables are examined as potential mechanisms linking gender to entrepreneurial intention: Perceived entrepreneurial skills, perceived entrepreneurial opportunities and fear of failure.

Perceived entrepreneurial skills are measured using a GEM item assessing whether respondents believe they possess the

knowledge, skills, and experience required to start a business. Responses are recorded on a five-point Likert scale ranging from strong disagreement to strong agreement. This measure serves as a domain-specific indicator of entrepreneurial self-efficacy and is theoretically grounded in social cognitive theory.

Perceived opportunities are measured using a GEM item asking whether respondents believe there will be good opportunities for starting a business in their area within the next six months. Responses are captured on a five-point Likert scale. This measure reflects respondents' subjective evaluation of opportunity structures and is conceptualized as a gendered perception shaped by institutional and social contexts.

Fear of failure is measured using a five-point Likert item capturing whether fear of failure would prevent the respondent from starting a business. Higher values indicate stronger fear-based inhibition. Although fear of failure has frequently been cited as a key barrier to women's entrepreneurship, the present study treats it as a theoretically secondary mechanism whose relevance is evaluated empirically.

On the other hand, two control variables are included in all multivariate analyses. *Age*, measured in years, is included to account for life-course effects on entrepreneurial intentions. *Educational attainment* is measured using the GEM harmonized education variable (GEMEDUC), which captures respondents' highest level of completed education. Both variables are commonly used controls in entrepreneurship research and are theoretically relevant predictors of entrepreneurial behavior.

Analytical Strategy

The empirical analysis follows a theory-driven, stepwise approach aligned with contemporary mediation logic and adapted for a binary dependent variable. First, descriptive statistics are computed to summarize sample characteristics and the distribution of all key variables. Second, bivariate correlation analyses are conducted to examine preliminary associations among gender, entrepreneurial perceptions, and entrepreneurial intention. Pearson correlation coefficients are reported alongside nonparametric measures (Spearman's rho and Kendall's tau-b) to ensure robustness to potential violations of distributional assumptions.

Third, a series of linear regression models are estimated to examine whether gender predicts each of the three entrepreneurial perceptions—perceived entrepreneurial skills, perceived entrepreneurial opportunities, and fear of failure—while controlling for age and educational attainment. These models establish the a-paths of the mediation framework and test the hypothesized gendered socialization mechanisms at the perceptual level.

Fourth, binary logistic regression models are estimated to predict entrepreneurial intention. Gender, the three perceptual variables, and the control variables are entered

simultaneously, allowing assessment of the b-paths and the conditional direct effect of gender on entrepreneurial intention.

Given the cross-sectional design and the dichotomous nature of the dependent variable, mediation is evaluated using a dual strategy. First, mediation is assessed through the joint pattern of coefficients across the linear and logistic regression models, with mediation inferred when gender significantly predicts the mediators, the mediators significantly predict entrepreneurial intention, and the coefficient for gender is attenuated after inclusion of the mediators. Second, as a robustness check, a parallel multiple mediation analysis is conducted using Hayes' PROCESS Macro (Model 4) with 5,000 bootstrap samples and a logistic regression specification for the binary outcome. Gender (female = 1) is specified as the independent variable, perceived entrepreneurial skills, perceived entrepreneurial opportunities, and fear of failure are entered simultaneously as mediators, entrepreneurial intention serves as the dependent variable, and age and education are included as covariates. All analyses are conducted using SPSS.

4. Results

This section presents the empirical findings of the study. The results are reported in four stages. First, descriptive statistics summarize the characteristics of the Turkish sample. Second, bivariate correlations examine associations among gender, entrepreneurial perceptions, and entrepreneurial intention. Third, linear regression models assess gender differences in entrepreneurial perceptions. Finally, binary logistic regression models test whether gender differences in entrepreneurial intention persist once perceptual mechanisms are taken into account.

Descriptive Statistics

Table 1 presents descriptive statistics for all variables included in the analysis. The Turkish sample consists of 2,404 respondents, of whom 49.0% are women and 51.0% are men. The mean age of respondents is 37.71 years ($SD = 11.87$), with ages ranging from 18 to 64.

Regarding entrepreneurial intention, 35.9% of respondents report that they expect to start a new business within the next three years, while 64.1% report no such intention. With respect to perceptual variables, respondents report a mean score of 3.24 ($SD = 1.45$) for perceived entrepreneurial skills, 2.47 ($SD = 1.38$) for perceived entrepreneurial opportunities, and 2.84 ($SD = 1.52$) for fear of failure. These values indicate moderate levels of self-assessed skills and fear of failure, alongside relatively lower opportunity perceptions. Educational attainment shows substantial missingness (valid $N = 1,096$), a common feature of GEM APS data. This issue is addressed in the limitations section.

Table 1. Descriptive Statistics

	N	Mean	SD	Min	Max
Gender (female = 1)	2,404	0.49	0.50	0	1
Age	1,915	37.71	11.87	18	64
Entrepreneurial Intention (FUTSUP)	2,200	0.36	0.48	0	1
Perceived Opportunities (OPPORT)	2,336	2.47	1.38	1	5
Perceived Skills (SUSKIL)	2,360	3.24	1.45	1	5
Fear of Failure (FEARFAIL)	2,360	2.84	1.52	1	5

Correlation Analysis

Table 2 reports bivariate correlations among gender, control variables, entrepreneurial perceptions, and entrepreneurial intention. Gender is negatively and significantly correlated with entrepreneurial intention ($r = -.147$, $p < .001$), indicating that women are less likely than men to report plans to start a business.

Gender is also significantly negatively correlated with perceived entrepreneurial skills ($r = -.134$, $p < .001$) and perceived entrepreneurial opportunities ($r = -.058$, $p = .005$). These correlations suggest that women tend to report lower confidence in their entrepreneurial capabilities and perceive fewer opportunities in their environment.

In contrast, the correlation between gender and fear of failure is positive but statistically non-significant ($r = .037$, $p = .076$). Entrepreneurial intention is positively correlated with perceived skills ($r = .244$, $p < .001$) and perceived opportunities ($r = .114$, $p < .001$), but shows no significant association with fear of failure ($r = .025$, $p = .246$).

The pattern of results is consistent across Pearson, Spearman's rho, and Kendall's tau-b coefficients, indicating robustness to distributional assumptions.

Table 2. Correlations Among Key Variables

	1	2	3	4	5
1. Gender (female=1)	1				

2. Perceived Opportunities	-.058**	1		
3. Perceived Skills	-.134**	.199**	1	
4. Fear of Failure	.037	.078**	.049*	1
5. Entrepreneurial Intention	-.147**	.114**	.244**	.025 1

* $p < .05$, ** $p < .01$

Gender Differences in Entrepreneurial Perceptions

To test whether gender predicts entrepreneurial perceptions, three linear regression models were estimated with perceived opportunities, perceived entrepreneurial skills, and fear of failure as dependent variables. The results are reported in Table 3.

Gender significantly predicts perceived entrepreneurial opportunities ($B = -0.160$, $SE = 0.057$, $\beta = -.058$, $p = .005$), indicating that women perceive fewer opportunities for starting a business than men. Although the explained variance is modest ($R^2 = .003$), the effect is statistically meaningful given the large sample size.

A stronger effect emerges for perceived entrepreneurial skills. Gender explains a larger share of variance in perceived skills ($R^2 = .018$), with women reporting significantly lower self-assessed entrepreneurial competence than men ($B = -0.388$, $SE = 0.059$, $\beta = -.134$, $p < .001$).

In contrast, gender does not significantly predict fear of failure ($B = 0.111$, $SE = 0.063$, $\beta = .037$, $p = .076$). This suggests that women are not substantially more fearful of business failure than men.

Table 3. Linear Regression Models Predicting Entrepreneurial Perceptions

Dependent Variable	Predictor	B	SE	β	p	R^2
Perceived Opportunities	Female	-0.160	0.057	-.058	.005	.003
Perceived Skills	Female	-0.388	0.059	-.134	<.001	.018
Fear of Failure	Female	0.111	0.063	.037	.076	.000

Entrepreneurial Intentions: Binary Logistic Regression Results

Binary logistic regression analyses were conducted to examine whether gender differences in entrepreneurial intention persist after controlling for age, education, and entrepreneurial perceptions. Table 4 presents the results of the full model.

The overall model is statistically significant ($\chi^2 = 102.92$, $p < .001$). Gender remains a significant predictor of entrepreneurial intention, with women being less likely than men to report entrepreneurial intentions ($B = -0.509$, $SE = 0.141$, $OR = 0.60$, $p < .001$).

Perceived entrepreneurial skills emerge as the strongest predictor of entrepreneurial intention ($B = 0.352$, $SE = 0.051$, $OR = 1.42$, $p < .001$). Perceived opportunities also significantly increase the likelihood of entrepreneurial intention ($B = 0.132$, $SE = 0.052$, $OR = 1.14$, $p = .011$).

Fear of failure does not exert a statistically significant effect once perceived skills and opportunities are included in the model ($B = 0.088$, $SE = 0.047$, $p = .061$).

Table 4. Binary Logistic Regression Results Predicting Entrepreneurial Intention

	B	SE	Wald	p	Exp(B)	95% CI for Exp(B)
Age	-0.02	0.01	9.25	.002	0.98	[0.97, 0.99]
Education level	0.00	0.00	3.93	.047	1.00	[1.00, 1.00]
Gender (dummy)	-0.51	0.14	13.09	<.001	0.60	[0.46, 0.79]
Opportunity perception	0.13	0.05	6.48	.011	1.14	[1.03, 1.26]
Entrepreneurial skills	0.35	0.05	47.70	<.001	1.42	[1.29, 1.57]
Fear of failure	0.09	0.05	3.51	.061	1.09	[1.00, 1.20]
Constant	-2.18	0.38	32.59	<.001	0.11	—

** Exp(B) values represent odds ratios, and confidence intervals are reported at the 95% level. The dependent variable is entrepreneurial intention (1 = yes, 0 = no). Gender is coded as 1 = female and 0 = male.

Mediation Analysis Using PROCESS Macro

To assess robustness, an auxiliary mediation analysis was also conducted using PROCESS Macro (Model 4) with 5,000 bootstrap samples and a logistic specification for the binary dependent variable. The PROCESS results yielded an indirect-effect pattern consistent with the manual mediation analyses and are therefore treated as a verification rather

than the primary analytic strategy.

To formally test whether entrepreneurial perceptions mediate the relationship between gender and entrepreneurial intention, a parallel multiple mediation analysis was conducted using PROCESS Macro (Model 4; Hayes, 2022). Gender (female = 1) was specified as the independent variable, perceived opportunities, perceived entrepreneurial skills, and fear of failure were entered simultaneously as mediators, and entrepreneurial intention (binary) served as the dependent variable. The analysis employed logistic regression with 5,000 bootstrap samples and controlled for age and educational attainment.

Results indicated that gender significantly predicted perceived opportunities ($B = -0.192$, $p = .026$) and perceived entrepreneurial skills ($B = -0.461$, $p < .001$), whereas gender did not significantly predict fear of failure ($B = -0.015$, $p = .875$). In the logistic regression model predicting entrepreneurial intention, perceived opportunities ($B = 0.133$, $p = .011$) and perceived entrepreneurial skills ($B = 0.352$, $p < .001$) were positively associated with entrepreneurial intention, whereas fear of failure did not reach statistical significance ($B = 0.088$, $p = .061$).

Bootstrap analyses revealed a significant total indirect effect of gender on entrepreneurial intention (indirect effect = -0.189 , 95% CI $[-0.291, -0.108]$), indicating that entrepreneurial perceptions jointly mediated the relationship between gender and entrepreneurial intention. Examination of specific indirect effects showed that mediation through perceived entrepreneurial skills was substantial and statistically significant (indirect effect = -0.162 , 95% CI $[-0.253, -0.090]$), while mediation through perceived opportunities was weaker but still significant (indirect effect = -0.026 , 95% CI $[-0.063, -0.002]$). In contrast, fear of failure did not mediate the relationship between gender and entrepreneurial intention, as its confidence interval included zero.

The direct effect of gender on entrepreneurial intention remained significant after accounting for the mediators ($B = -0.509$, $p < .001$), indicating partial mediation. Overall, the findings suggest that gender differences in entrepreneurial intention are primarily transmitted through cognitive and competence-related perceptions rather than fear-based mechanisms.

Summary of Results

In sum, the methodological approach of this study is designed to rigorously test gendered mechanisms underlying entrepreneurial intentions in Türkiye. By combining a theoretically informed research design with robust statistical techniques and a large, nationally representative dataset, the study provides a solid empirical foundation for advancing gendered entrepreneurship research.

Overall, the results show that women are significantly less likely than men to report entrepreneurial intentions. This gender gap is strongly associated with women's lower

perceived entrepreneurial skills and, to a lesser extent, lower opportunity perceptions. In contrast, fear of failure does not meaningfully explain gender differences in entrepreneurial intention once competence and opportunity perceptions are taken into account.

The logistic regression model was statistically significant (Omnibus $\chi^2(6) = 102.92$, $p < .001$). The model explained a meaningful proportion of variance in entrepreneurial intention (Nagelkerke $R^2 = .137$). The Hosmer–Lemeshow test indicated good model fit ($\chi^2(8) = 8.14$, $p = .42$). The model correctly classified 64.7% of cases, indicating acceptable predictive accuracy.

Multicollinearity was assessed using both variance inflation factors (VIF) and collinearity diagnostics. VIF values ranged from 1.01 to 1.12, indicating no collinearity concerns. In addition, collinearity diagnostics revealed that all condition indices were below the conservative threshold of 15, and no dimension exhibited high variance proportions ($\geq .50$) for more than one predictor simultaneously. These results confirm that multicollinearity was not a concern and that the regression coefficients were stable." Although multicollinearity is generally less problematic in logistic regression, we conducted comprehensive diagnostic checks to ensure the robustness and interpretability of the estimated coefficients.

Age was negatively associated with entrepreneurial intention (OR = 0.98, 95% CI $[0.97, 0.99]$, $p = .002$), indicating that older individuals were less likely to report entrepreneurial intentions. Educational attainment showed a statistically significant but substantively small association with entrepreneurial intention. Gender was a significant predictor of entrepreneurial intention, with women (the focal gender category) being 0.60 times as likely to report entrepreneurial intentions compared to men (the reference group) (OR = 0.60, 95% CI $[0.46, 0.79]$, $p < .001$). Perceived entrepreneurial opportunities were positively associated with entrepreneurial intention (OR = 1.14, 95% CI $[1.03, 1.26]$, $p = .011$). Perceived entrepreneurial skills strongly increased the likelihood of entrepreneurial intention (OR = 1.42, 95% CI $[1.29, 1.57]$, $p < .001$). Fear of failure was not a statistically significant predictor of entrepreneurial intention at conventional levels ($p = .061$).

5. Discussion

The present study offers a theoretically grounded and empirically nuanced exploration of the gendered nature of entrepreneurial intentions in Türkiye by integrating social cognitive theory (Bandura, 1997) and social role theory (Eagly, 1987) to interpret the persistence of the gender gap. Consistent with the theory of planned behavior (Ajzen, 1991), our results confirm that women express significantly lower intentions to venture into business, yet the mechanisms identified here move beyond individualistic deficit models toward a more structural and socio-cognitive understanding. The most striking finding is that perceived entrepreneurial self-efficacy (ESE) serves as the primary

conduit through which gender influences intention. This suggests that the lower confidence reported by Turkish women regarding their entrepreneurial capabilities does not reflect an objective lack of skill but rather a subjective competence gap fostered by gendered socialization and cultural expectations. In the Turkish context, where entrepreneurship has traditionally been constructed as a masculine domain (Seckin-Halac & Seckin-Celik, 2019), women struggle to internalize entrepreneurial competence. Recent studies on emerging economies such as Hamdani et al. (2023) support this by demonstrating that even highly educated women face stereotype threat, which inhibits their self-efficacy by creating a perceived misalignment between their gender identity and the societal “requirements” of business leadership.

A pivotal contribution of this study is the empirical challenge to the narrative that women are inherently more risk-averse than men. While earlier foundational studies like Langowitz and Minniti (2007) identified fear of failure as a primary barrier, our results indicate that when self-efficacy and opportunity perception are controlled, fear of failure loses its predictive power. This finding deconstructs the psychological deficit model criticized by Ahl (2006) and suggests that lower entrepreneurial activity among Turkish women is not rooted in a psychological inability to handle risk. Instead, it is a reflection of the lack of a supportive environment that makes risk-taking rational. As noted by some authors (Ahl, 2006; Calas et al., 2009; Fernandes et al., 2023), what is often labeled as fear is actually a realistic assessment of the disproportionately high social and economic costs of failure for women in patriarchal institutional frameworks. In Türkiye, where the safety net for women is thinner due to unequal access to credit and capital, hesitation becomes a calculated response to structural inequality rather than a lack of courage. In the Turkish context, women’s entrepreneurial intentions are shaped by social, political, and institutional opportunity structures that constrain legitimacy, access to resources, and perceived feasibility (Dedeoglu, 2012; Ozasir Kacar et al., 2023).

The results also highlight that opportunity perception is a socially embedded mechanism rather than a gender-neutral observation. As argued by Welter (2011) and Brush et al. (2019), the entrepreneurial landscape is shaped by the social position of the observer. In Türkiye, the prevalence of male-dominated social networks often excludes women from the informal channels where high-value business opportunities are identified and validated (Dedeoglu, 2012). Consequently, women’s lower intentions are partially a reflection of restricted access to the social capital necessary to recognize and seize opportunities (Seckin-Halac & Seckin-Celik, 2019). Recent research by Neneh (2022) in developing contexts confirms that these networks provide not just information but also the social legitimacy required to launch a venture. Even with the rise of digital entrepreneurship, Kamberidou (2020) suggests that women in Türkiye face a digital gender divide where they have less

access to high-tech mentorship and strategic investment circles. This reinforces the need to view entrepreneurship not as a solo act of a heroic individual but as a process deeply influenced by one’s position within social and institutional structures.

By shifting the analytical focus from “fixing women” to addressing the cognitive and structural barriers that undermine entrepreneurial self-efficacy, this study highlights how individual perceptions of capability are socially constructed. Within the context of emerging economies like Türkiye, these perceptions are deeply embedded in institutional constraints where collectivist norms and patriarchal gender regimes intersect with modern entrepreneurial aspirations (Ahl & Nelson, 2015; Welter et al., 2017). Consequently, generic motivational programs prove insufficient; instead, policy interventions must prioritize technical mentorship and the creation of formal networking mechanisms that bypass traditionally male-dominated circles (Marlow & McAdam, 2013; Foss et al., 2019). Increasing the visibility of women role models in high-growth and STEM sectors is equally critical to decoupling entrepreneurship from masculine stereotypes and broadening the perceived opportunity space for women (Gupta et al., 2014; Shinnar et al., 2018). Finally, evidence suggests that institutional reforms—particularly regarding gender-sensitive credit assessments and expanded childcare provision—are essential to reducing the rational cost of failure and enabling women’s fuller participation in the entrepreneurial ecosystem (Kozan et al., 2012; Nalbant-Efe, 2025; World Bank, 2022).

6. Limitations and Future Research

While this study provides important insights into the gendered mechanisms of entrepreneurial intentions in Türkiye, several methodological considerations must be acknowledged when interpreting the findings.

The primary limitation of this research is its cross-sectional design, which limits the ability to make definitive causal inferences (Maxwell & Cole, 2007; Spector, 2019). Although the theoretical framework—drawing on gendered socialization theory and social cognitive theory—posits that gender shapes perceptions (skills and opportunities), which then influence entrepreneurial intentions (Bandura, 1986; Eagly & Wood, 2012), the temporal ordering of these variables cannot be strictly established in a single-wave design. Longitudinal research has been repeatedly emphasized as a more appropriate approach for examining mediation processes and developmental mechanisms over time (Cole & Maxwell, 2003). Prospective studies using longitudinal data would therefore be valuable to track how changes in perceived entrepreneurial skills and opportunity recognition influence the transition from intention to actual venture creation among Turkish women.

A second consideration involves missing data, particularly regarding educational attainment, which necessitated the use of listwise deletion in some models. While listwise deletion

may reduce statistical power and potentially introduce bias when data are not missing completely at random (Little & Rubin, 2019), the large initial GEM sample and the consistency of findings across alternative model specifications mitigate concerns regarding severe selection effects. Future studies could benefit from more complete datasets or from employing modern missing data techniques, such as multiple imputation, to further assess the robustness of the observed relationships.

Finally, all key variables in this study—entrepreneurial intentions, perceived skills, and opportunity recognition—are self-reported, raising the possibility of common method variance (Podsakoff et al., 2003). Although the use of conceptually distinct constructs and theoretically grounded measures reduces the likelihood of severe method bias, self-perceptions remain inherently subjective. Future research could integrate objective indicators of entrepreneurial competence or contextual opportunity structures. Moreover, given that fear of failure became non-significant once competence and opportunity perceptions were considered, future work should explore whether structurally embedded and socially constructed barriers—such as institutional constraints or gendered labor market dynamics—play a more salient role than individual-level psychological factors.

7. Conclusion

By integrating gendered socialization theory and social cognitive theory, this study provides a comprehensive explanation for gender differences in entrepreneurial intentions in Türkiye. Women's lower entrepreneurial intentions reflect socially constructed differences in perceived competence and opportunity recognition rather than inherent psychological deficits. Addressing gender inequality in entrepreneurship therefore requires interventions that reshape not only economic incentives but also the social and cognitive foundations of entrepreneurial participation.

The results suggest that policies aimed at increasing women's entrepreneurship should prioritize strengthening perceived entrepreneurial skills rather than focusing exclusively on reducing fear or risk. Mentorship programs, experiential learning opportunities, and exposure to female entrepreneurial role models may help counteract gendered socialization processes that undermine women's confidence.

Additionally, interventions should address gendered opportunity structures by improving women's access to networks, information, and institutional support. Enhancing opportunity visibility and legitimacy may be as important as improving individual-level skills.

Ethical Considerations

The study relies exclusively on anonymized secondary data collected by the Global Entrepreneurship Monitor consortium. No personally identifiable information is used,

and the analysis does not involve direct interaction with human subjects. As such, the study does not raise additional ethical concerns beyond those addressed by the original data collection procedures.

Regarding the usage of AI, ai-based programs Chatgpt and Gemini were used in the study to ameliorate the language and detect/correct missing details related to research and references.

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