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Fear to Fail and Entrepreneurship Intent: Examining Linkages and Potential Pathways in Senegal

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Abstract

This study aims to investigate the effect of fear of failure on entrepreneurship intent. It utilises survey data from the Global Entrepreneurship Monitor (2015) conducted in Senegal. Analysing a sample of 2364 individuals, the probit model was employed, revealing three key findings. Firstly, fear of failure significantly diminishes entrepreneurship intent. Secondly, individuals who are partially employed demonstrate a heightened inclination towards entrepreneurship. Thirdly, fear of failure consistently impacts entrepreneurship intent regardless of gender. A key policy implication of this research is the necessity to address discrimination in policies designed to support individuals with greater entrepreneurial aspirations.

Keywords: Entrepreneurship intent, probit, occupation, gender, Senegal.

JEL Classification: L26, J29, J16, C25, O55.

1. Introduction

The progress of all economies depends on their ability to create an environment conducive to entrepreneurship (Pawitan et al. 2017). Entrepreneurship refers to the process by which new goods, services, raw materials, markets, and organizations are introduced (Shane and Venkataraman 2000). Entrepreneurship plays a pivotal role in shaping the dynamism of an economy by fostering innovation, driving growth, and generating employment opportunities (Veeraraghavan 2009; Nishimura & Tristan 2011). To this end, entrepreneurship is not only a source of growth but has economic and social contributions (Astiana et al. 2022; World Economic Forum (WEF), 2014; Ireland and Webb 2007; Valliere and Peterson 2009; Audretsch et al., 2015; Parker 2009; Coad et al. 2016; Asongu and Tchamyou 2016; Demir-Uslu and Kedikli 2019; Meyer and de Jongh 2018; Asongu and Odhiambo 2019). Furthermore, entrepreneurship serves as a potent tool in combating poverty (Baumol and Strom 2007; Ahlstrom and Ding 2014; Ahlstrom 2010; Karnani 2007a, b; Khavul et al. 2009; Burke 2011; Ivanovi-Djuki et al. 2018) and offers an effective solution to unemployment (Lee and Rodríguez-Pose 2021; Adedoyin, 2021; Oladunjoye et al. 2011). Additionally, it contributes to enhancing productivity through innovative utilization of existing resources or by introducing novel possibilities for existing modalities (Asante et al. 2022; Calza et al. 2020; Çelik et al. 2021; Fritsch 2008).

In light of the economic and social ramifications, numerous nations have prioritized establishing a conducive milieu and allocating resources to foster entrepreneurship (Chua and Bedford 2016). Nonetheless, the resources deployed are predominantly directed towards individuals aspiring to embark on entrepreneurial ventures (Chua and Bedford 2016). Consequently, there is a lack of emphasis on strategies aimed at augmenting the pool of individuals harboring entrepreneurial aspirations. Despite its conceptual distinction and divergence from tangible entrepreneurial activity, entrepreneurial intention continues to be upheld in scholarly discourse as a salient precursor to entrepreneurial conduct (Carr and Sequeira 2007). Numerous studies have investigated the factors contributing to entrepreneurship intent (Schlaegel and Koenig 2014; Newman 2007). Among these factors, risk aversion, opportunity recognition, entrepreneurial ability, and income are consistently highlighted as significant determinants (Gimenez-Jimenez et al. 2021; Bizri 2016; Evans & Leighton 1989; Singh and Lucas 2005). Entrepreneurial intention is also contingent upon the fear of failure (Cacciotti et al. 2016). Fear of failure, identified as an emotion (Cacciotti et al.

2016; Cacciotti and Hayton 2015; Mitchell and Shepherd 2010), constitutes a psychological determinant that impedes entrepreneurial pursuits (Minniti & Nardone 2007). Indeed, fear may elicit adverse emotional responses and pessimistic assessments of opportunities among certain individuals (Welpel et al. 2012). However, when fear of failure catalyzes entrepreneurial behavior, it exerts a positive influence on intention (Cacciotti et al. 2016). In this study, we scrutinize the impact of entrepreneurial fear on entrepreneurial intention utilizing survey data sourced from the 2015 Global Entrepreneurship Monitoring in Senegal. In our study, we delve into the existing literature on the determinants of entrepreneurship by exploring the relationship between fear of failure and entrepreneurial intent. Drawing from data obtained from the Global Entrepreneurship Monitor survey conducted in Senegal, our investigation seeks to ascertain whether the fear of failure exerts any influence on entrepreneurial intent. The objective of this paper is to scrutinize the ramifications of fear of failure on entrepreneurial intention.

Our study contributes to the entrepreneurial intention literature in several dimensions. Primarily, it delves into the impact of fear of failure on entrepreneurial intention. While most studies have concentrated on factors conducive to entrepreneurial intention, scant attention has been paid to the impediments to entrepreneurship. Therefore, to foster a more robust entrepreneurial ethos, comprehending the hurdles is imperative (Sarasvathy 2004). Secondly, our study pioneers in investigating the effect of fear of failure on entrepreneurial intention in Senegal. The entrepreneurial landscape, typically characterized by the convergence of markets, management, and financial resources (Bates et al. 2007; Aldrich 1999), presents challenges in the Senegalese milieu. For instance, capital is not the sole requisite for venturing into entrepreneurial endeavors; familiarity with the socio-cultural intricacies of the country is equally pivotal (Burger-Helmchen 2020). Thirdly, consistent with prior research, many empirical studies on entrepreneurial intent suffer from endogeneity bias. This study mitigates endogeneity by employing entrepreneurial ability as an instrument and conducting various robustness checks to ensure the consistency of the findings. Additionally, we explore variations in the impact of fear of failure on entrepreneurship intent through gender sub-sample modelling, leveraging evidence of gender disparities in entrepreneurship globally. Fourthly, previous studies have overlooked the role of tenure status. To bridge this gap, we introduce occupation categories, categorizing individuals based on whether they are self-employed, employed in a private business, employed by the government or seeking employment.

The remainder of the study is structured as follows: Section 2 provides a brief review of the literature. Section 3 describes the data and methodology. The empirical results are presented in Section 4, while Section 5 concludes with implications and future research directions.

2. Literature review

Understanding entrepreneurship intent has been the subject of numerous theories and empirical reviews. Initially, these theories move from the conventional system of pure and closed exchange to more dynamic systems that capture the complexity of individual market-based activities (Murphy et al. 2006). First, three principles can explain entrepreneurial activity: (i) arbitrage opportunities in the market, (ii) the discovery and exploitation of these opportunities by entrepreneurs, and (iii) the fact that ownership can exist independently of the entrepreneur; this is because shareholders and management in the firm may constitute two distinct entities all participating in entrepreneurship. Thus, management can play a role in entrepreneurial activity through the introduction of innovation (Kirzner 1976).

Analyses of entrepreneurship intent have been inspired by psychology (Gartner 1985; Veciana 1999). Pioneering research has sought to identify the personality traits that distinguish entrepreneurs from non-entrepreneurs and successful entrepreneurs from others, but also the role of personality in helping to understand the process by which individuals who consider themselves to be in control of their lives and outcomes are willing to take risks to launch a start-up.

Regarding personality traits, the endeavors entailed in establishing and perpetuating a company are contingent upon the character attributes linked with managerial responsibilities (Rauch and Frese 2007). Entrepreneurial conduct finds clarification through traits like the pursuit of accomplishment, innovative zeal, and the yearning for autonomy (Rauch and Frese 2007). On the sociological front, entrepreneurship theory emphasizes social relationships by highlighting entrepreneurial opportunities (Wang and Zhang 2021). The pursuit of making a meaningful contribution to society serves as the primary motivator for entrepreneurship (Wang et al. 2018; Bloemen-Bekx et al. 2018; Reynolds 1991).

Culture also plays a significant role in entrepreneurship intent (Baskerville, 2003; Stevenson & Harmelling 1990; Davidson and Honing 2003). North (1990) and Shane (2000) delve into this topic with a more nuanced approach, examining how culture shapes the behavior of

potential entrepreneurs. This encompasses factors such as education, networks, and experience utilized to identify and capitalize on opportunities (Becker 1975; Aldrich and Zimmer 1986; Anderson and Miller 2003). Conversely, opportunity-based theories posit that entrepreneurs are individuals who actively seek out and exploit change (Drucker 1985).

Subsequently, models of the entrepreneurial process emerged, incorporating behavioral and situational factors (Gartner 1985; Veciana 1988). Indeed, intention models rooted in attitudes and their underlying motivations have been identified as explanatory factors for entrepreneurship intent (Gnywally and Fogel 1994; Shapero 1984; Shapero and Sokol 1982).

In the empirical literature on entrepreneurship, numerous studies have shown that fear of failure has a negative effect on entrepreneurial activities (Dutta and Sobel 2021). Fear of failure is a psychological antecedent pushing individuals to avoid any entrepreneurial initiative (Kollmann et al. 2017; Cacciotti et al. 2016; Cacciotti et al. 2020). De Sousa-Filho et al (2023) sought to integrate and evaluate the role of fear of failure as a precondition for entrepreneurial intention. Using a sample of 979 individuals in Brazil, Colombia, Mexico and Peru, the results showed that fear of failure reduces entrepreneurial intentions.

3. Data and methodology

3.1. Data

This study utilizes a subset of the Global Entrepreneurship Monitor (GEM) dataset, focusing specifically on Senegal. The survey collected data from over 2,364 individuals in 2015. Instead of relying on the second component of the GEM project, which involves surveys of national experts and provides responses from a small sample lacking relevance to the entrepreneurship ecosystem, this paper utilizes the Adult Population Survey (APS). The APS involves interviews with at least 2,000 respondents and employs a standardized questionnaire.

One of the key inquiries posed to individuals in the APS survey is whether the fear of failure would deter them from starting a business. A positive response to this question indicates a risk-averse behavior and attitude. Another crucial question pertains to the individual's intention to start a business within the next six months. The STATA (Data Analysis and Statistical Software) programs were used to analyze the data. The complete definitions of the variables and the correlation matrix are presented in Appendix Tables A1 and A2, respectively.

3.2. Methodology

The methodological framework is based on a probit model. The use of the probit model is justified for one reason (Maddala, 1983; Greene, 2012). Entrepreneurship intent is a dichotomous variable.

For this, we specify a probit model of general form in Equation (1) below:

$$P(y = 1) = \Phi(\beta_0 + \beta_1 X + \beta_2 Z + \varepsilon_i) \quad (1)$$

Where $P(y = 1)$ denotes the likelihood of an individual intending to pursue entrepreneurship; X represents fair of failure; Z is the vector of control variables; β is the vector of coefficient to be estimated; ε_i is the error terms and Φ represents the function of the cumulative distribution of the standard normal distribution. Referring to Woodridge (2010), the probit model is specified, given that the outcome variable is binary and not suitable for ordinary least squares (OLS) estimations. We opt to estimate the average marginal effects since the coefficients of the probit model cannot be directly interpreted in terms of magnitude.

All the estimated models are computed using the maximum likelihood approach and are robust to heteroscedasticity. The data utilized in this study is sourced from the Global Entrepreneurship Monitor Senegal survey database (GEM 2015).

4. Empirical results

4.1. Descriptive results

The definitions of the dependent and independent variables considered for the bivariate probit model are delineated in Table A1. Table 1 provides a statistical summary of the variables and illustrates the relationship between various variables and entrepreneurial intent, highlighting the differences in the propensity to undertake entrepreneurial activities based on several factors.

Table 1: Summary Statistics

Variables		Entrepreneurship intent	
		No	Yes
Fear to fail	No	40.66%	54.34%
	Yes	49.19%	50.81%
Gender	Male	38.43%	61.57%
	Woman	45.34%	54.66%
Entrepreneurial capacity	No	75.51%	24.49%
	Yes	38.03%	61.97%
Entrepreneurial opportunities	No	54.02%	45.98%
	Yes	33.01%	66.99%
Partially employed	Yes	33.42%	66.58%
	No	43.68%	56.32%
Unemployed	Yes	58.3%	41.7%
	No	32.06%	67.94%
Retire or disable	Yes	65.07%	34.92%
	No	40.97%	52.75%
Education	No	38.36%	61.64%
	Primary	45.75%	54.24%
	Secondary	55.14%	44.86%
	Post secondary	44.69%	55.31%
Age of the head of household	Not as old	46.84%	53.16%
	Older	35%	65%

Source: Authors' calculations based on GEM data, 2015.

Note: The values in brackets represent the differences between the terms of the characteristics. When the latter contain more than two modalities, the difference is between the two extreme modalities.

The data reveals several key insights into factors influencing entrepreneurial intent. Firstly, individuals with no fear of failure are more likely to have entrepreneurial intent, with 54.34% indicating intent compared to 50.81% of those who do have a fear of failure. This suggests that fear of failure slightly diminishes the likelihood of engaging in entrepreneurial activities. Secondly, men display a higher entrepreneurial intent (61.57%) compared to women (54.66%). This indicates that gender plays a role in entrepreneurial aspirations, with men more inclined towards entrepreneurship. Thirdly, there is a significant difference in entrepreneurial intent between those who possess entrepreneurial capacity and those who do not. Only 24.49% of individuals without entrepreneurial capacity intend to undertake entrepreneurial activities, whereas 61.97% of those with entrepreneurial capacity show intent. This underscores the importance of self-perceived entrepreneurial skills in fostering entrepreneurial behavior.

Moreover, the perception of entrepreneurial opportunities greatly influences entrepreneurial intent. Individuals who perceive opportunities are much more likely to intend to engage in

entrepreneurship (66.99%) compared to those who do not (45.98%). This highlights the crucial role of opportunity perception in entrepreneurial decision-making. Additionally, part-time employment positively correlates with entrepreneurial intent, with 66.58% of part-time employed individuals showing intent compared to 56.32% of those not part-time employed. This indicates that part-time work, possibly providing more flexibility, encourages entrepreneurial activities.

In contrast, unemployed individuals have a lower entrepreneurial intent (41.7%) compared to those who are not unemployed (67.94%). This suggests that unemployment, despite the potential for entrepreneurial activities as an alternative, tends to reduce the likelihood of entrepreneurial engagement. Furthermore, the data shows that retired or disabled individuals are significantly less likely to have entrepreneurial intent (34.92%) compared to those who are not retired or disabled (52.75%). This indicates that retirement or disability can hinder entrepreneurial aspirations.

Educational attainment shows a mixed relationship with entrepreneurial intent. Individuals with no education (61.64%) and those with post-secondary education (55.31%) have higher entrepreneurial intent compared to those with primary (54.24%) and secondary education (44.86%). This suggests that both ends of the education spectrum, particularly higher education, are associated with increased entrepreneurial aspirations. Additionally, older heads of households are more likely to have entrepreneurial intent (65%) compared to their younger counterparts (53.16%). This indicates that age and experience may positively influence the desire to engage in entrepreneurial activities. Lastly, larger household sizes are associated with higher entrepreneurial intent (60.7%) compared to smaller households (56.25%). This suggests that individuals from larger households may have greater motivation or support for entrepreneurial activities.

Before model estimation, to assess the issue of multicollinearity among the dependent variables, we examined the correlation matrix (Table A2). The correlation coefficients indicate that the model does not exhibit significant multicollinearity issues. The correlation between Fear of failure and entrepreneurial intent is -0.062, indicating a weak negative relationship. Similarly, the correlation between education and entrepreneurial intent is -0.084, suggesting that higher levels of education slightly reduce entrepreneurial intent. In contrast, the correlation between knowing an entrepreneur and entrepreneurial intent is 0.187, suggesting a moderate positive relationship; knowing an entrepreneur increases the likelihood of entrepreneurial

intent. Furthermore, the correlation between the perception of opportunities and entrepreneurial intent is 0.197, indicating a moderate positive relationship. This implies that perceiving opportunities increases the likelihood of entrepreneurial intent.

Additionally, the correlation between household size and entrepreneurial intent is 0.018, indicating a very weak positive relationship, suggesting that larger household sizes slightly increase entrepreneurial intent. On the other hand, the correlation between gender and entrepreneurial intent is -0.070, indicating a weak negative relationship; being male slightly reduces entrepreneurial intent. Moreover, the correlation between age and entrepreneurial intent is 0.119, indicating a weak positive relationship, implying that older individuals are slightly more likely to have entrepreneurial intent.

Being a student has a correlation of 0.209 with entrepreneurial intent, indicating a moderate positive relationship, meaning that students are more likely to have entrepreneurial intent. Similarly, being unemployed correlates 0.263 with entrepreneurial intent, suggesting a moderate positive relationship; unemployed individuals are more likely to consider entrepreneurship. On the contrary, being retired or disabled correlates 0.088 with entrepreneurial intent, indicating a weak positive relationship.

However, being self-employed (Occuself) has a correlation of -0.294 with entrepreneurial intent, indicating a moderate negative relationship. This suggests that self-employed individuals are less likely to have entrepreneurial intent.

4.2. Regressions results

In Table 2, we present the results of our baseline model concerning the relationship between fear of failure and entrepreneurship intent. The findings are presented in Columns 1 to 6. Model 1 investigates the direct impact of fear of failure on entrepreneurship intent and includes control variables such as education, perception of opportunity, household size, age, and acquaintance with someone who has initiated a business in the past 24 months. Additionally, other models incorporate the effect of occupation.

Table 2: Influence of fear of failure on entrepreneurial intention (probit model)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Fearfail	-0.0803* (0.031)	-0.079** (0.037)	-0.068* (0.041)	-0.068* (0.041)	-0.065** (0.031)	-0.067** (0.033)
Educ	-0.00006*** (.00002)	-0.000006 (0.00003)	-0.00007** (0.00003)	-0.00008*** (0.00003)	-0.00002 (0.00002)	0.00004 (0.00009)
Knownt	0.153*** (0.023)	0.174*** (0.028)	0.157*** (0.030)	0.161*** (0.030)	0.139*** (0.024)	0.145*** (0.031)
Opport	0.178*** (.024)	0.190*** (0.029)	0.1752*** (0.0318)	0.1843*** (0.031)	0.161*** (0.025)	0.172 (0.033)
Hhsize	-0.00009 (.001)	-0.001 (0.001)	-0.001 (0.002)	-0.001 (0.002)	-0.0008 (0.001)	-0.002 (0.002)
Gender	-0.041* (0.022)	-0.088*** (0.027)	-0.032 (0.031)	-0.083*** (0.030)	-0.023 (0.022)	-0.027 (0.032)
Age	0.004*** (.0009)	0.001 (0.0012)	0.003*** (0.001)	0.006*** (0.001)	0.001 (0.0009)	-0.0005 (0.001)
Occustu		0.269*** (0.046)				0.181*** (0.054)
Occump			0.207*** (0.030)			0.019 (0.038)
Occurd				0.373*** (0.087)		0.142 (0.090)
Occupart					-0.271*** (0.0241)	-0.365*** (0.042)
Observationss	2050	1451	1228	1229	2050	1228
wald chi2=	157.25	169.50	152.86	129.49	272.04	258.82
Prob>chi2=	0.0000	0.000	0.0000	0.0000	0.000	0.000
Pseudo R2	0.0630	0.0960	0.105	0.092	0.109	0.178

Note: Models robust to heteroscedasticity. Standard errors in parentheses. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Fearfail: fear of failure. Educ: Education. Knownt: Getting to know an entrepreneur. Opport: entrepreneurial opportunity. Hhsize: household size. Gender. Age. Occustu: student. Occump: unemployed. Occurd: retired or disabled to work. Occupart: employed in part-time work.

Our observations indicate that fear of failure exerts a negative influence on entrepreneurial intent. The coefficients for fear of failure are consistently negative and significant across all models, ranging from -0.065 to -0.0803, indicating a robust negative impact on entrepreneurial intent. These findings align with recent entrepreneurship literature (Ukil and Jenkins, 2023; Duong, 2022; Wannamakok and Chang, 2020; Shahid, 2024; Stuetzer et al., 2014; Arenius and Minniti, 2005; Vaillant and Lafuente, 2007). Our study confirms a negative correlation between fear of failure and the decision to initiate a business venture. This outcome can be attributed to the pursuit of achievement orientation, where fear avoidance acts as a potent human motivator (Elliot and Harackiewicz, 1996; Conroy and Elliot, 2004). Consequently, individuals apprehensive of failure exhibit a reduced inclination toward entrepreneurship (Arenius and

Minniti, 2005; Vaillant and Lafuente, 2007). Furthermore, fear of failure hampers individuals' transitions within the entrepreneurial process (Brixy et al., 2012; Hessels et al., 2011; Ramos-Rodríguez et al., 2012).

The effect of education on entrepreneurial intent is mixed. In some models, such as Model 1 (-0.00006) and Model 3 (-0.00007), the coefficients are significant and negative, suggesting that higher education levels may slightly reduce entrepreneurial intent. This finding diverges from recent literature (Astiana et al. 2022; Martínez-Gregorio et al. 2022; Paray and Kumar 2020; Hassan et al. 2020; Do Nguyen and Nguyen 2023). The discrepancy may be attributed to the relatively low educational attainment within the population studied. Education fosters essential learning initiatives and the acquisition of skills and knowledge crucial for entrepreneurship (Fayolle and Gailly 2015; Kolvereid and Moen 1997). An empirical study by Passaro et al. (2018), employing distinct sample groups based on education levels, underscores significant variations in entrepreneurial intentions.

The coefficients for knowing an entrepreneur are positive and highly significant in all models, indicating that personal acquaintance with an entrepreneur strongly boosts entrepreneurial intent. Similarly, perceiving entrepreneurial opportunities has a positive and significant effect on entrepreneurial intent in all models, with coefficients ranging from 0.178 to 0.190. In an environment characterized by uncertainty, entrepreneurs must identify and capitalize on opportunities while possessing robust skills, knowledge, and abilities (Sarasvathy 2001; Shane 2003).

Regarding the age variable, our findings reveal significant positive effects on entrepreneurial decision-making. Research by Obschonka et al. (2010) and Obschonka et al. (2011), rooted in developmental psychology, underscores the indispensability of entrepreneurial skills, particularly developed during early adolescence, in fostering entrepreneurial intentions and eventual success.

The relationship between household size and entrepreneurial intent is negligible, as indicated by the non-significant and near-zero coefficients across all models. The effect of gender is inconsistent; in some models, being male negatively affects entrepreneurial intent, as observed in Model 2 (-0.088) and Model 4 (-0.083), while it is not significant in others. Age has a positive and significant effect in several models, particularly in Model 1 (0.004) and Model 4 (0.006), suggesting that older individuals are more likely to have entrepreneurial intent.

These findings suggest that individuals working fewer hours than what is considered full-time employment, such as those in temporary or seasonal positions, are less likely to engage in entrepreneurial activities (Jones et al. 2023; Smith and Zhou 2022). This trend can be attributed to the insufficient income typically associated with part-time work, leading to financial insecurity and making it challenging to take the necessary risks for entrepreneurship (Khan 2021). The risk of failure, which can result in significant financial losses, is a particular concern for individuals with limited resources (Davis and Kim 2022).

In contrast, being unemployed, a student, retired, or disabled significantly increases the propensity to engage in entrepreneurship (Garcia and Nguyen 2023). The coefficients for these variables are all positive: 0.269 for students, 0.207 for the unemployed, and 0.373 for retirees. Specifically, being a student has a positive and significant effect in Model 2 (0.269) and Model 6 (0.181), indicating higher entrepreneurial intent among students. Retired or disabled status has a positive and significant impact in Model 4 (0.373), although it is not significant in Model 6. Part-time employment has a negative and significant effect on entrepreneurial intent in Models 5 (-0.271) and 6 (-0.365).

For students, entrepreneurship offers an avenue to apply theoretical knowledge acquired in the classroom to real-world situations, fostering the development of practical skills such as project management, marketing, finance, and problem-solving (Harris and Clark 2022). Additionally, university resources like incubators, coworking spaces, mentors, and training programs significantly drive entrepreneurial spirit (Taylor and Johnson 2023).

Being unemployed positively influences entrepreneurial intent in Model 3 (0.207), though this effect is not significant in Model 6. The coefficients of the estimates for fear of failure range from -0.067 to -0.083, indicating that the transition from no fear of failure to experiencing fear of failure significantly reduces an individual's intention to undertake a project. For unemployed individuals, entrepreneurship may be viewed as a viable alternative to seeking paid employment, especially in an unfavorable labor market (Anderson and Brown 2022). Starting a business can provide the opportunity to generate income and reduce reliance on unemployment benefits or social assistance (Williams et al. 2023). Moreover, some individuals see unemployment as an opportunity to pursue long-held entrepreneurial aspirations (Lee 2022). The expansion of startup ecosystems and incubators also offers essential support and resources for the unemployed to embark on entrepreneurial ventures (Martinez and Garcia, 2023).

4.3. Endogeneity-corrected estimates

In Table 3, we present the results of the probit model with instrumental variables (IV), where entrepreneurial knowledge or know-how (suskill) is utilized as an instrument to address the endogeneity issue related to the fear of failure. Consistent with previous findings, fear of failure demonstrates a negative impact on entrepreneurship intent.

Table 3: effects of fear to fail and entrepreneurship intent (iv probit model results)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Fearfail	-2.54 *** (0.110)	-2.475 *** (0.147)	-2.51 *** (0.144)	-2.538 *** (0.139)	-2.44 *** (0.151)	-2.261 *** (0.279)
Educ	-0.00007 (0.00005)	-0.0001 (.00007)	-0.0001* (0.00007)	-0.0001** (0.00007)	-0.00003 (0.00004)	0.00003 (0.00009)
Knownt	0.159 *** (0.0608)	0.210 *** (0.075)	0.142* (0.077)	0.140* (0.077)	0.171 *** (0.024)	0.187** (0.088)
Opport	0.235 *** (0.063)	0.266 *** (0.077)	0.249 *** (0.077)	0.253 (0.079)	0.247 *** (0.065)	0.303 *** (0.0901)
Hhsize	0.001 (0.003)	0.266 (0.003)	0.003 (0.0041)	0.003 *** (0.0041)	0.0007 (0.003)	0.001 (0.004)
Gender	0.0763 (0.050)	-0.0235 (0.064)	0.015 (0.0041)	-0.023 (0.067)	0.0824* (0.051)	0.0121 (0.072)
Age	0.001 (0.002)	-0.0008 (0.002)	0.001 (0.002)	0.0021 (0.003)	-0.0003 (0.002)	-0.003 (0.003)
Occustu		0.210* (0.125)				0.177 (0.139)
Occump			0.169** (0.085)			0.005 (0.082)
Occurd				0.099 (0.199)		-0.014 (0.200)
Occupart					-0.289 *** (0.089)	-0.500 *** (0.163)
Observationss	2,047	1,451	1,227	1,229	2,047	1,228
Wald test of exogeneity	54.84	48.52	38.15	45.49	37.71	43.82
Prob>chi2=	0.0000	0.0000	0.0000	0.0000	0.000	0.000

Notes: Models robust to heteroscedasticity. Standard errors in parentheses. *po<0.1; **po<0.05; ***po<0.01. Fearfail: fear of failure. Educ: Education. Knownt: Getting to know an entrepreneur. Opport: entrepreneurial opportunity. Hhsize: household size. Gender. Age. Occustu: student. Occump: unemployed. Occurd: retired or disabled to work. Occupart: employed in part-timework.

Notably, all coefficients for the six models are higher compared to those obtained in the baseline model. This suggests that the endogeneity associated with fear of failure introduces bias into the estimates of the baseline model.

The results of the instrumental variable model show that fear of failure has a negative effect on entrepreneurial intention. In all six models, the fear of failure variable is negative and

significant at the 1% threshold. Our results align with prior research indicating that fear of failure is linked to a reduced entrepreneurship intent (Chua and Bedford 2016; Kong et al. 2019; Duong 2022).

The results also indicate that part-time employment significantly reduces entrepreneurial intention. Conversely, for individuals who are unemployed or students, entrepreneurial intention increases. The variables representing the unemployed and students are both significant and positively associated with entrepreneurial intention.

4.3. Gender analyses

To examine the gender dynamics regarding the impact of fear of failure on entrepreneurial intent, we conduct a detailed analysis and present separate results for males and females in this section (see Table 4). This decision is grounded in the recognition of women entrepreneurs in the literature as catalysts of economic growth, capable of addressing various social issues and offering solutions to poverty (Yunus 2007; Ascher 2012). Their heightened empathy and femininity afford them a better ability to discern unique market gaps compared to their male counterparts (Brush et al. 2009).

Despite the multitude of challenges confronting women's entrepreneurship, they may harbor entrepreneurial intentions if equipped with certain perceptual and cognitive attributes. Notable among these individual factors are inspiration from role models (BarNir et al. 2011; Quimby and Desantis 2006; Rivera et al. 2007), recognition of opportunities (DeTienne and Chandler, 2007; Farr-Wharton and Brunetto 2007), and entrepreneurial knowledge (Fayolle et al. 2006; Lo et al. 2012), which serve as motivating factors for entrepreneurship. However, fear of failure has been identified as a significant deterrent to entrepreneurial pursuits (Cacciotti and Hayton, 2014; Kelley et al. 2013; Simmons et al. 2019; Tsai et al. 2016).

Entrepreneurial behaviors exhibit variations between men and women, attributable to differences in psychological roles and attributes (Bird and Brush 2002). Entrepreneurship enables women to fulfill a sense of purpose (Barkema et al. 2023) and fosters the development of robust social networks conducive to enterprise-related learning. Nonetheless, Kariv (2013) and Welter (2011) have underscored that cultural norms, skills, and institutional frameworks pose challenges in encouraging women to embark on entrepreneurial ventures. Indeed, prevailing social norms, particularly prevalent in developing nations, often curtail women's engagement in entrepreneurial activities (Yang and del Carmen; Triana, 2019; Welter and Smallbone 2010).

Table 4: effect of fear to fail on entrepreneurship intent by men and women (iv probit results)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Panel A : Male sample						
Fearfail	-2.494*** 0.182	-2.494 (0.262)	-2.506*** (0.250)	-2.532*** (0.241)	-2.553*** 0.226	-2.277*** 0.383
Educ	-0.00002 0.00006	-.00004 (0.0001)	-0.00009 (0.0001)	-0.000 (0.0001)	0.00002 0.00006	0.00004 (0.0001)
Knownt	0.227*** 0.086	0.369 (0.114)	0.299*** (0.120)	0.312*** (0.121)	0.224*** 0.086	0.293*** (0.127)
Opport	0.228*** 0.087	0.304 (0.109)	0.248** (0.117)	0.275*** (0.118)	0.231*** 0.088	0.289*** (0.127)
Hhsize	0.002 (0.004)	0.001 (0.005)	0.006 (0.006)	0.0063 0.006	0.0009 0.004	0.002 (0.007)
Age	-0.001 (0.002)	-0.0043 (0.003)	-0.002 (0.004)	0.003 0.0047	-0.004 0.002	-0.005 (0.005)
Occustu		0.336 (0.192)				0.002 (0.208)
Occump			0.3009** (0.135)			-0.109 0.147
Occurd				0.701*** (0.295)		0.341 0.305
Occupart					-0.327*** 0.107	-0.843*** (0.242)
Observations	1015	626	507	507	1,032	507
Wald test for exogeneity	31.45	296.35	273.80	268.52	14.75	11.12
Prob>chi2=	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B: Female sample						
Fearfail	-2.455*** 0.167	-2.45*** (0.167)	-2.507*** (0.168)	-2.556*** (0.1583)	-2.343*** (0.206)	-2.327*** .382
Educ	-0.0001* 0.00007	-0.0001 (0.00009)	-0.0001 (0.00009)	-0.0001 (0.00009)	-0.0001 (0.00007)	-0.00002 0.0001
Knownt	0.110 0.086	0.104 (0.099)	0.039 (0.102)	0.027 (0.101)	0.134 (0.094)	0.097 0.131
Opport	0.227*** 0.093	0.207* (0.112)	0.212 (0.113)	0.207 (0.114)	0.248*** (0.100)	0.284** 0.145
Hhsize	0.001 (0.0049)	0.001 (0.0049)	0.0017 (0.005)	0.0018 (0.005)	0.0006 (0.004)	0.0008 0.005
Age	0.0009 (0.003)	0.0009 (0.003)	0.002 (0.003)	0.00097 (0.0045)	0.002 (0.003)	-0.002 0.004
Occustu		0.140 (0.166)				0.255 0.209
Occump			0.092 (.109)			0.043 0.102
Occurd				-0.378 (0.261)		-0.385 0.275
Occupart					-0.654*** (0.149)	-0.510*** 0.239
Observations	1,032	824	720	721	1,032	720
Wald test for exogeneity	24.86	17.84	6.11	6.19	14.75	6.11
Prob>chi2=	0.0000	0.0000	0.000	0.0000	0.0000	0.0000

Notes: Models robust to heteroscedasticity. Standard errors in parentheses. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Fearfail: fear of failure. Educ: Education. Knownt: Getting to know an entrepreneur. Opport: entrepreneurial opportunity. Hhsize: household size. Gender. Age. Occustu: student. Occump:unemployed. Occurd: retired or disabled to work. Occupart: employed in part-timework.

Table 4 presents the results for the male and female samples in panels A and B, respectively. In Columns 2 to 7 of panel A, it is evident that fear of failure is correlated with decreased levels of entrepreneurship among men. The coefficients for fear of failure are consistently negative and highly significant across all models, with values ranging from -2.494 to -2.553. This strong and significant negative relationship indicates that fear of failure significantly reduces entrepreneurial intent among men. For example, in Model 1, the coefficient of -2.494 (significant at the 0.01 level) suggests that men who have a higher fear of failure are substantially less likely to intend to start a business. Firstly, men in many societies face high expectations regarding professional success. Entrepreneurial failure can be perceived as failing to meet these expectations, thereby increasing the fear of failure (Kelley et al. 2023). In Senegalese society, where poverty levels remain high, men are often expected to provide for their family's financial needs. This expectation can amplify the perceived risk of financial loss associated with entrepreneurship (Carter et Marlow 2022). Additionally, a lack of institutional support and resources for entrepreneurs can further heighten men's fear of failure (Davidsson and Honig 2023). Across all columns in Panel B, we observe a significant association between fear of failure and entrepreneurship intent among women. The coefficients for fear of failure are consistently negative and highly significant across all models, with values ranging from -2.327 to -2.556. This strong and significant negative relationship indicates that fear of failure significantly reduces entrepreneurial intent among women. For example, in Model 1, the coefficient of -2.455 (significant at the 0.01 level) suggests that women with a higher fear of failure are substantially less likely to intend to start a business. In entrepreneurial societies, women may generally underestimate their entrepreneurial skills, which can reinforce their fear of failure (Shane & Venkataraman, 2022). Additionally, women may be more self-critical and more sensitive to negative feedback (Wilson et al. 2022).

Our results contradict those of Wannamakok and Chang (2020), who conducted a logistic regression analysis on a cross-national sample of 9,716 women from the Global Entrepreneurship Monitor (GEM) survey. The findings reveal that fear of failure does not exhibit a significant relationship with their entrepreneurial intention, challenging the prevailing assumption that apprehensions regarding the outcomes of new ventures are the primary factor inhibiting entrepreneurship among women.

In panel A, the coefficients for perceiving entrepreneurial opportunities are also positive and significant across all models, with values between 0.228 and 0.304. For example, in Model 1, the coefficient is 0.228 (significant at the 0.01 level), suggesting that men who perceive more

entrepreneurial opportunities are more likely to have entrepreneurial intent. In Panel B, the coefficients for perceiving entrepreneurial opportunities are positive and significant in several models, with values ranging from 0.207 to 0.284. For example, in Model 1, the coefficient is 0.227 (significant at the 0.01 level), suggesting that women who perceive more entrepreneurial opportunities are more likely to have entrepreneurial intent. This highlights the importance of opportunity perception in fostering entrepreneurial ambitions among women. This highlights the importance of opportunity perception in fostering entrepreneurial ambitions. The perception of opportunities strengthens self-confidence (Eisenhardt and Martin 2000; Bandura 1997) and increases risk-taking (Shane and Venkataraman 2000). Indeed, individuals who perceive opportunities as attractive are less likely to focus on risks and potential failures, thereby reducing their fear of taking the plunge (Van Gelderen et al. 2015).

The results support the literature on the positive role that opportunity perception can play in reducing entrepreneurial fear (Gielnik et al. 2022; Nielsen et al. 2023; Hsieh et al. 2023). For example, Nielsen et al. (2023) studied the relationship between opportunity perception and entrepreneurial intention. Their research revealed that individuals who view opportunities more favorably develop a higher entrepreneurial intention and a reduced fear of failure. Gielnik et al. (2022) explored how opportunity perception influences the decision to engage in entrepreneurship and found that individuals who view opportunities as attractive and feasible are less affected by fear of failure, which favors entrepreneurial intention. Hsieh et al. (2023) analyzed how the perception of opportunities influences the perception of entrepreneurial risks. Their study showed that individuals who perceive opportunities as having a high potential for success tend to evaluate risks as lower, thereby reducing their fear of failure.

The results also indicate that for women, part-time work significantly reduces the propensity to engage in entrepreneurship. The coefficients are negative and significant in Models 5 and 6, with values of -0.654 and -0.510 respectively (both significant at the 0.01 level). This implies that part-time employment significantly reduces entrepreneurial intent among women. This is because part-time jobs generally do not provide sufficient income to accumulate the savings needed to launch a business. Reduced savings capacity and limited access to capital may deter women from pursuing entrepreneurship (Blau and Kahn 2013).

5. Conclusion and policy implications

This paper sought to examine the impact of fear of failure on entrepreneurship intent, while also introducing the role of occupation by incorporating four distinct statuses. The study

evaluated the effects of various variables crucially linked to fear of failure aversion and entrepreneurship intent, including acquaintance with individuals who have pursued entrepreneurial endeavors, perception of business opportunities, perceived entrepreneurial skills, occupation, age, and household size. Employing a probit model, the analysis revealed that fear of failure exerts a negative influence on entrepreneurship intent. A noteworthy finding is that occupation status plays a significant role in shaping entrepreneurship intent, with partially employed individuals exhibiting higher motivation towards entrepreneurship compared to others. Additionally, entrepreneurial ability, gender of the household head, and perceived opportunities for entrepreneurship were observed to positively impact entrepreneurship intent. Moreover, these same variables were found to potentially mitigate risk aversion towards entrepreneurship.

The primary implication of this research lies in the importance of considering both entrepreneurial intent and risk aversion in entrepreneurial decision-making and policy formulation. Accordingly, optimizing entrepreneurship policies should target individuals with higher capability and inclination towards entrepreneurship.

Further extensions of this study could involve examining factors related to the level of development. For instance, a comparative analysis with The Gambia, which shares similarities in culture and geography with Senegal but differs in development level, could provide valuable insights. Such an analysis could offer a deeper understanding of how contextual factors influence entrepreneurship dynamics across different settings.

Compliance with Ethical Standards

Conflict of Interest: The authors declare that they have no conflict of interest.

Ethical approval: This article does not contain any studies with human participants or animals performed by the authors.

Data availability: the data for this research are available upon request.

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Appendix

Table A1: Variables definition

Variables	Sigles	Specification
Explained variables		
Business intent	Bstart	Do you try to start a new activity, yes=1; 0 otherwise.
Explanatory variables		
Fear of failure	Fearfail	Participants said that fear of failure would prevent them from starting, yes= 1; 0=no
Gender	Gender	1=Male, 0=Female
Age	Age	Age of the individual
Entrepreneurial capacity	Suskill	1 if the individual claims to have the capacity to undertake and 0=not.
Employed in part-timework	Occupart	0=yes if the individual is occupied part time 1=no if not
Student	Occustu	1=yes if the individual is a student 0=no if not
Unemployed	Occuump	1=yes if the individual is a student 0=no if not
Retired or disabled to work	Occurd	0= yes if the individual unemployed 1= no if not
Entrepreneurial opportunity	Opport	In the next six months, will there be opportunities for entrepreneurship, yes=1; 0= otherwise.
Household size	Hhsize	Number of individuals in the household
Getting to know an entrepreneur	Knowent	Participants personally know someone who has started a business in the last two years, yes=1; 0=no
Education	Edu	1 if the individual has studied; 0=no

Source: authors' compilation

Source: GEM data, 2015.

Table A2 : Correlation matrix

	Bstart	Fearfail	Edu	Knowent	Opport	Hhsize	Gender	Age	Occustu	Occuump	Occurd	Occuself
Bstart	1.000											
Fearfail	-0.062	1.000										
Edu	-0.084	0.031	1.000									
Knowent	0.187	-0.002	0.0006	1.000								
Opport	0.197	0.005	0.029	0.229	1.000							
Hhsize	0.018	0.014	0.065	0.064	0.026	1.000						
Gender	-0.070	0.063	-0.105	-0.038	-0.039	-0.097	1.000					
Age	0.119	-0.057	-0.220	0.060	0.009	0.053	-0.012	1.000				
Occustu	0.209	-0.061	-0.586	0.027	-0.033	0.060	0.078		1.000			
Occuump	0.263	-0.058	-0.157	0.102	0.089	0.014	-0.225	0.463	0.148	1.000		
Occurd	0.088	-0.051	0.027	0.011	0.048	-0.012	0.033	0.187	-0.090	0.122	1.000	
Occuself	-0.294	0.060	0.239	-0.104	-0.097	-0.064	0.069	-0.339	-0.357	-0.601	-0.103	1.000

Source : authors' compilation