Chinese Entrepreneurs' Encounter with Gender Discrimination and Unequal Analysis of Social Resources in Urban and Rural Areas

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Abstract: The entrepreneurial economy has become an important driver of China's economic development. With the rapid growth of the number of entrepreneurs, gender and geographic differences in the data of entrepreneurs have gradually emerged. Therefore, the aim of this article is to investigate the gender and geographical inequalities in social resources in entrepreneurial activities based on CGSS Questionnaire Survey and Group Rural Fixed Observation Point Data. Based on the empirical study, we analyze the differences in social resources between male and female, rural and urban entrepreneurs, and the factors influencing these two inequalities from both social capital and human capital perspectives in this article. The results of the study show that women and farmers have social resource disadvantages in entrepreneurial activities compared to male and urban entrepreneur due to socio-cultural constraints. The article points out the causes of the two inequalities in the context of Chinese social culture and provides targeted suggestions for the development of entrepreneurial incentive policies.

1. Introduction

An entrepreneurial economy is a form of economic growth that regenerates resources and develops productivity through entrepreneurial activity. In the context of the current gradual decline in China's economic growth, there is an urgent need to find new driving forces that can drive stable and sustainable economic growth. Studies have shown that the proportion of Chinese residents starting their businesses has increased significantly, and a new generation of young people has gradually acquired entrepreneurial capital [15].

Although the proportion of young people choosing to start their own businesses has increased greatly in recent years, this phenomenon is accompanied by a lack of women in the field of entrepreneurship. The State Council report "2015's Gender Equality and Women's Development in China" shows that the percentage of women entrepreneurs in China is only 25% [2].

The success of individual entrepreneurship depends on the difference between human capital and social capital without financial factors [1]. In this paper, we will analyze how human capital and

social capital affect entrepreneurial choices and how gender discrimination affects both human and social capital.

1.1. Impact of Human and Social Capital on Entrepreneurial Choices

1.1.1. Human Capital

There is currently rich literature on the drivers of entrepreneurship around the world.

Evans & Leighton found no significant relationship between age, work experience, and the decision to start a business, using a behavioral model to explain this [3]. Scott Shane focused on the connection between individuals' knowledge base and their ability to discover entrepreneurial opportunities, arguing that opportunity discovery is tied to the distribution of social information and an entrepreneur's existing information [4]. Ardichvili et al. built upon prior theories to study entrepreneurial opportunity identification in depth, suggesting that factors like individual experience, social resources, and knowledge base affect an individual's sensitivity to business opportunities [5].

1.1.2. Social Capital

The influence of informal institutional-level relationship networks, particularly social resources, on individual entrepreneurial choices has gained significant attention. Social networks are considered the most important form of social capital for entrepreneurs. Yueh studied the role of social resources as informal institutions in promoting entrepreneurship in urban China during a period of transition, finding that they help mitigate uncertainties and increase willingness to start a business [6]. Social resources encompass family, political, and business resources. Zhang & Zhao specifically examined the relationship between social family networks and entrepreneurship among rural migrants, finding that those with larger social family networks were more likely to choose entrepreneurship [7].

Studies have examined the relationship between political relations and entrepreneurial choice. Zhang et al. found that in emerging economies like China, building ties with local governments can improve firm performance, especially through politically connected land investments [8]. Zhou argued that informal institutions like political relations compensate for shortcomings in formal institutions and can increase entrepreneurial intentions in developing countries and transition economies [9]. Hu found that business relationships can help companies obtain resources like raw material supply, product order support, and key business information [10].

1.2. The Impact of Gender Discrimination on Entrepreneurial Choices

Gender discrimination affects the entrepreneurial process for both men and women in terms of human capital and social capital. Women are disproportionately represented in non-technical, engineering, and business industries, limiting their work experience and entrepreneurial opportunities. Factors like psychological risk aversion, societal gender role perceptions, and family responsibilities further constrain women's entrepreneurship. While research has examined the impact of social resources on entrepreneurship, there is a lack of studies on gender inequality in accessing these resources. This paper aims to investigate whether there is significant gender discrimination in social resources and its impact on the entrepreneurial choices of men and women.

2. Model 1

2.1. Descriptive Statistics of Model 1

Table 1: Descriptive Statistics of Model 1

Descriptive Statistics for Variables					
Variable			Calculation		
Explained variable	Entrepreneurship status 0	y1	According to the inquiries about the current work status of the respondents in the CGSS2018 questionnaire, one of the following three =1: Self-employed; Individually-owned business; Private enterprise owner or main partner. The rest (no entrepreneurship)=0		
	Business relationship bus		According to the CGSS2018 questionnaire "frequency of gathering with friends in free time" of the respondents, "never"=0, "a few times a year or less"=1, "a few times a month"=2, "several times a week"=3, "every day"=4		
Explanatory variables	Political relationship pol		Total number of Chinese communist party members of respondents and their parents. Value from 0 to 3		
	Family relationship	fam	According to the CGSS2018 questionnaire "frequency of gatherings with relatives in their spare time", "never"=0, "several times a year or less" =1, "several times a month"=2, "several times a week"=3, "every day"=4		
	Gender	gen	Female=0, male=1		
	Age age		2018 minus year of birth		
	Age squared	age 2	Age squared		
Individual Characteristic	Education level edu		"No education"=0, "Private school and literacy class"or "Primary school"=1, "Junior high school"=2, "Vocational high school"or "General high school"=3, "Secondary school"or "Technical school"=4, "University College"=5, "Undergraduate"=6, "Graduate and above"=7		
control variable	Huko status	huk	Rural Hukou=0, Urban Hukou=1		
	Ethnic status	eth	Non-Han=0, Han=1		
	Marital status	mar	No spouse =0, otherwise =1		
	Health	hea	"Very unhealthy"= 0, "Slightly unhealthy"=1, "Fair"=2, "Fairly healthy"=3, "Very healthy"=4		
	Household income	inc	Respondents "Household Income for the Year Last Year"		
	Regional per capita disposable income	dis	The per capita disposable income of each province in the sample (data source China Statistical Yearbook)		
	Regional GDP	gdp	GDP of each province in the sample (data source China Statistical Yearbook)		
External environmental	Regional GDP per capita	agd	Per capita GDP of each province in the sample (data source China Statistical Yearbook)		
control variables	Regional unemployment rate	une	The registered urban unemployment rate of each province in the sample (data source China Statistical Yearbook)		
	Area population	pop	The population of each province in the sample (data source China Statistical Yearbook)		
	Regional economic ope		GDP/Fiscal Expenditure of Each Province in the Sample (Data Source: China Statistical Yearbook)		

Based on the data from the China General Social Survey (CGSS) questionnaires 2017-2018 data, the original least squares (OLS) occupancy method was used. A regression model will be developed to empirically examine the effects of social resources on entrepreneurship according to Table 1.

2.2. Empirical Regression and Results Analysis

$$y_{1_i} = \beta_0 + \beta_{bus} bus_i + \beta_{pol} pol_i + \beta_{fam} fam_i + \beta'_{control} Control 1_i + \epsilon_i$$
 (1)

Where:

 $Control1_i = (gen_i, age_i, age_i, age_i, edu_i, huk_i, eth_i, mar_i, hea_i, inc_i, dis_i, gdp_i, agd_i, une_i, pop_i, ope_i)^T$

The P-values of several models are all 0, indicating that the joint coefficients of each model equation are very significant. The model regression results are divided into three parts which is shown in Table 2. Model 1 is the benchmark regression without social resources explanatory variables, model 2-7 is the stepwise regression for the three main explanatory variables, and model 8 and model 9 are all-variable regressions considering the interaction between key explanatory variables.

Table 2: The model regression results

Model		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Display										
pol	1		0.050***	0.051***					0.053***	0.054***
pol fam	bus		(4.25)	(4.30)					(4.03)	(4.12)
fam	1				-0.038**	-0.036**			-0.039**	
Fam	pol				(-2.10)	(-2.00)			(-2.19)	(-2.10)
Tam	c						0.021	0.020		-0.008
gen age	fam						(1.51)	(1.44)	(-0.39)	
Age		0.121***	0.115***	0.115***	0.123***	0.123***	0.121***	0.121***	0.117***	0.117***
$\begin{array}{llllllllllllllllllllllllllllllllllll$	gen	(6.30)	(6.00)	(6.00)	(6.41)	(6.41)	(6.32)	(6.32)	(6.08)	(6.07)
age2		0.052***	0.054***	0.054***	0.052***	0.052***	0.052***	0.052***	0.055***	0.055***
age2 -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001*** -0.001** -0.010** -0.010 cdu (-2.02) (-2.54) (-2.19) (-1.36) (-1.03) (-2.11) (-1.74) (-1.84) (-1.53) nuk 0.004 -0.004 -0.001 0.007 0.010 0.001 0.004 0.000 0.003 eth 0.075*** 0.069** 0.070** 0.074** 0.073** 0.074** 0.068* 0.069** colo (1.86) (1.86) (1.97) (1.97) (1.96) (1.82) (1.83) nar (2.38) (2.54) (2.59) (2.42) (2.46) (2.33) (2.38) (2.60) (2.65) nar (3.66) (3.52) (4.83) (4.86) (5.32) (5.36) (5.22) <td>age</td> <td>(7.15</td> <td>(7.48)</td> <td>(7.50)</td> <td>(7.21)</td> <td>(7.23)</td> <td>(7.16)</td> <td>(7.17)</td> <td>(7.55)</td> <td>(7.57)</td>	age	(7.15	(7.48)	(7.50)	(7.21)	(7.23)	(7.16)	(7.17)	(7.55)	(7.57)
$\begin{array}{c} \text{edu} \\ & -0.013^{**} \\ & -0.016^{**} \\ & -0.014^{**} \\ & -0.014^{**} \\ & -0.014^{**} \\ & -0.019 \\ & -0.007 \\ & -0.007 \\ & -0.007 \\ & -0.001 \\ & -0.013^{**} \\ & -0.011^{**} \\ & -0.012^{**} \\ & -0.010 \\ & -0.001 \\ & -0.004 \\ & -0.004 \\ & -0.004 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.001 \\ & -0.002 \\ & -0.005^{**} \\ & -0.009 \\ & -0.000^{***} \\ & -0.000 \\ & -0.000^{***} \\ & -0.000^{**} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\ & -0.000^{***} \\$	2	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
$\begin{array}{c} \mathrm{edu} & \begin{array}{c} -0.013^{***} & -0.016^{***} & -0.014^{***} & -0.009 & -0.007 & -0.013^{***} & -0.011^{**} & -0.012^{**} & -0.010 \\ \hline (-2.02) & (-2.54) & (-2.19) & (-1.36) & (-1.03) & (-2.11) & (-1.74) & (-1.84) & (-1.53) \\ \hline 0.004 & -0.004 & -0.001 & 0.007 & 0.010 & 0.001 & 0.004 & 0.000 & 0.003 \\ \hline 0.075^{***} & 0.069^{**} & 0.070^{**} & 0.074^{***} & 0.073^{***} & 0.074^{***} & 0.068^{**} & 0.069^{**} \\ \hline (2.00) & (1.86) & (1.86) & (1.97) & (1.97) & (1.96) & (1.96) & (1.82) & (1.83) \\ \hline 0.05^{***} & 0.069^{**} & 0.069^{***} & 0.065^{***} & 0.066^{***} & 0.062^{***} & 0.064^{***} & 0.069^{***} & 0.071^{***} \\ \hline (2.38) & (2.54) & (2.59) & (2.42) & (2.46) & (2.33) & (2.38) & (2.60) & (2.65) \\ \hline 0.055^{****} & 0.050^{***} & 0.051^{****} & 0.055^{****} & 0.055^{****} & 0.055^{****} & 0.055^{****} & 0.050^{***} \\ \hline (3.66) & (3.55) & (3.72) & (3.65) & (3.61) \\ \hline 0.000^{***} & 0.000^{***} & 0.000 & 0.000 & 0.000 & 0.000 & 0.000 & 0.000 & -0.000 \\ \hline (-1.31) & (-1.50) & (-1.36) & (-1.35) & (-1.20) & (-1.36) & (-1.20) & (-1.55) & (-1.40) \\ \hline 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} \\ \hline (-2.57) & (-2.03) & (-2.17) & (-2.13) & (-2.28) & (-2.21) & (-2.35) & (-1.91) & (-2.05) \\ \hline 0.000^{***} & 0.000^{***} & -0.000^{**} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & 0.000^{***} & -0.000^{**} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.00$	age2	(-7.21)	(-7.49)	(-7.52)	(-7.22)	(-7.25)	(-7.21)	(-7.24)	(-7.51)	(-7.54)
edu (-2.02) (-2.54) (-2.19) (-1.36) (-1.03) (-2.11) (-1.74) (-1.84) (-1.53) huk 0.004 -0.004 -0.001 0.007 0.010 0.001 0.004 0.000 0.003 eth (0.17) (-0.15) (-0.04) (0.030) (0.41) (0.06) (0.18) (-0.00) (0.11) eth (0.075**) 0.069* 0.070* 0.074** 0.074** 0.074** 0.068* 0.069* (2.00) (1.86) (1.86) (1.97) (1.96) (1.96) (1.82) (1.83) mar (2.38) (2.54) (2.59) (2.42) (2.46) (2.33) (2.38) (2.60) (2.65) hea (5.32) (4.83) (4.86) (5.32) (5.36) (5.22) (5.26) (4.82) (4.86) inc (3.66) (3.55) (3.72) (3.65) (3.61) (3.61) dis -0.000 0.000 0.000 0.000	,		-0.016**	-0.014**	` '			` '		` '
$\begin{array}{llllllllllllllllllllllllllllllllllll$	eau		(-2.54)	(-2.19)	(-1.36)	(-1.03)	(-2.11)	(-1.74)	(-1.84)	(-1.53)
eth	1 1 .	0.004	-0.004	-0.001	0.007	0.010	0.001	0.004	0.000	0.003
eth	huk	(0.17)	(-0.15)	(-0.04)	(0.30)	(0.41)	(0.06)	(0.18)	(-0.00)	(0.11)
eth (2.00) (1.86) (1.97) (1.97) (1.96) (1.96) (1.82) (1.83) mar 0.063** 0.068** 0.069*** 0.065** 0.066** 0.062** 0.064** 0.069*** 0.071*** (2.38) (2.54) (2.59) (2.42) (2.46) (2.33) (2.38) (2.60) (2.65) hea 0.055*** 0.051*** 0.055*** 0.055*** 0.054*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.050*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000*** 0.000***	.1	0.075**	0.069*	0.070*	0.074**	0.074**	0.073**	0.074**	0.068*	0.069*
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	etn	(2.00)		(1.86)	(1.97)	(1.97)	(1.96)	(1.96)	(1.82)	(1.83)
hea			0.068**			0.066**			0.069***	
hea	mar	(2.38)	(2.54)	(2.59)	(2.42)	(2.46)	(2.33)	(2.38)	(2.60)	(2.65)
inc		0.055***	0.050***	0.051***	0.055***	0.055***		0.055***	0.050***	0.050***
dis (3.66) (3.55) (3.72) (3.65) (3.61) dis -0.000 0.000 0.000 0.000 0.000 0.000 -0.000 (-1.31) (-1.50) (-1.36) (-1.35) (-1.20) (-1.36) (-1.55) (-1.40) gdp 0.000*** 0.000** 0.000*** 0.000*** 0.000*** 0.000** 0.000**	nea	(5.32)	(4.83)	(4.86)	(5.32)	(5.36)	(5.22)	(5.26)	(4.82)	(4.86)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	inc	0.000***	0.000***		0.000***		0.000***		0.000***	
$ \begin{array}{c} \text{dis} \\ \text{(-1.31)} & (-1.50) & (-1.36) & (-1.35) & (-1.20) & (-1.36) & (-1.20) & (-1.55) & (-1.40) \\ 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} \\ \hline 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} & 0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.004^{***} & -0.043^{***} & -0.045^{****} & -0.044^{****} & -0.046^{****} & -0.044^{***} & -0.045^{****} & -0.046^{****} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.004^{***} & -0.045^{****} & -0.046^{****} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} & -0.000^{***} \\ \hline 0.004^{***} & 0.032^{**} & 0.031^{**} & 0.034^{***} & 0.032^{**} & 0.032^{**} & 0.031^{**} \\ \hline 0.034^{***} & 0.032^{**} & 0.031^{**} & 0.034^{***} & 0.033^{***} & 0.033^{***} & 0.032^{**} & 0.033^{***} \\ \hline 0.0618^{***} & -0.713^{***} & -0.702^{***} & -0.643^{***} & -0.629^{***} & -0.635^{***} & -0.621^{***} & -0.740^{***} & -0.727^{***} \\ \hline 0.384 & (-4.40) & (-4.33) & (-3.99) & (-3.90) & (-3.94) & (-3.85) & (-4.55) & (-4.47) \\ \hline N & 5907 & 5908 & 5907 & 5908 & 5907 & 5908 & 5907 & 5908 \\ \hline \end{array}$		(3.66)	(3.55)		(3.72)		(3.65)		(3.61)	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	J: -	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000
$\begin{array}{c} \text{gdp} \\ \text{agd} \\ \text{agd} \\ \end{array} \begin{array}{c} (3.08) (2.97) (3.17) (2.91) (3.12) (3.07) (3.27) (2.79) (2.99) \\ \\ -0.000^{**} -0.000^{**} -0.000^{**} -0.000^{**} -0.000^{**} -0.000^{**} -0.000^{**} \\ \hline (-2.25) (-2.03) (-2.17) (-2.13) (-2.28) (-2.21) (-2.35) (-1.91) (-2.05) \\ \hline \text{une} \\ \end{array} \begin{array}{c} -0.044^{**} -0.043^{**} -0.045^{***} -0.044^{***} -0.046^{***} -0.044^{**} -0.045^{***} -0.044^{***} -0.046^{***} \\ \hline (-2.57) (-2.55) (-2.65) (-2.62) (-2.73) (-2.57) (-2.68) (-2.60) (-2.70) \\ \hline \text{pop} \\ \hline -0.000^{***} -0.000^{***} -0.000^{***} -0.000^{**} -0.000^{***} -0.000^{***} -0.000^{***} -0.000^{***} -0.000^{***} \\ \hline (-4.86) (-4.67) (-4.90) (-4.69) (-4.94) (-4.83) (-5.07) (-4.48) (-4.72) \\ \hline \text{ope} \\ \hline (2.69) (2.56) (2.47) (2.73) (2.63) (2.65) (2.55) (2.61) (2.51) \\ \hline \text{cons} \\ \hline (-3.84) (-4.40) (-4.33) (-3.99) (-3.90) (-3.94) (-3.85) (-4.55) (-4.47) \\ \hline \text{N} 5907 5908 5907 5908 5907 5908 5907 5908 \\ \hline \end{array}$	ais	(-1.31)	(-1.50)	(-1.36)	(-1.35)	(-1.20)	(-1.36)	(-1.20)	(-1.55)	(-1.40)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	- 4	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
$\begin{array}{c} \text{agd} \\ \text{une} \\ \text{une} \\ \end{array} \begin{array}{c ccccccccccccccccccccccccccccccccccc$	gap	(3.08)	(2.97)	(3.17)	(2.91)	(3.12)	(3.07)	(3.27)	(2.79)	(2.99)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		-0.000**	-0.000**	-0.000**	-0.000**	-0.000**	-0.000**	-0.000**	-0.000*	-0.000**
$\begin{array}{c} \text{une} \\ \hline \\ \text{pop} \\ \hline \\ \text{pop} \\ \hline \\ \text{cons} \\ \hline \\ \text{cons} \\ \hline \\ \text{Cons} \\ \hline \\ \text{cons} \\ \hline \\ \text{cons} \\ \hline \\ \hline \\ \text{cons} \\ \hline \\ \\ \text{cons} \\ \hline \\ \text{cons} \\ \hline \\ \\ \text{cons} \\ \hline \\ \text{cons} \\ \hline \\ \\ \\ \text{cons} \\ \\ \\ \\ \text{cons} \\ \\ \\ \\ \text{cons} \\ \hline \\ \\ \\ \text{cons} \\ \\ \\ \\ \\ \text{cons} \\ \\ \\ \\ \\ \\ \\ \text{cons} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	agu	(-2.25)	(-2.03)	(-2.17)	(-2.13)	(-2.28)	(-2.21)	(-2.35)	(-1.91)	(-2.05)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		-0.044**	-0.043**	-0.045***	-0.044***	-0.046***	-0.044**	-0.045***	-0.044***	-0.046***
pop (-4.86) (-4.67) (-4.90) (-4.69) (-4.94) (-4.83) (-5.07) (-4.48) (-4.72) ope 0.034*** 0.032** 0.031** 0.034*** 0.033*** 0.032** 0.033*** 0.031** (2.69) (2.56) (2.47) (2.73) (2.63) (2.65) (2.55) (2.61) (2.51) cons -0.618*** -0.713*** -0.702*** -0.643*** -0.629*** -0.635*** -0.621*** -0.740*** -0.727*** (-3.84) (-4.40) (-4.33) (-3.99) (-3.90) (-3.94) (-3.85) (-4.55) (-4.47) N 5907 5908 5907 5908 5907 5908 5907 5908	une	(-2.57)	(-2.55)	(-2.65)	(-2.62)	(-2.73)	(-2.57)	(-2.68)	(-2.60)	(-2.70)
ope 0.034*** 0.032** 0.031** 0.034*** 0.033*** 0.033*** 0.032** 0.033*** 0.031** 0.031** (2.69) (2.56) (2.47) (2.73) (2.63) (2.65) (2.55) (2.61) (2.51) (-3.84) (-4.40) (-4.33) (-3.99) (-3.90) (-3.94) (-3.85) (-3.85) (-4.55) (-4.47) (-4.		-0.000***	-0.000***	-0.000**	0.000*	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
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Ope (2.69) (2.56) (2.47) (2.73) (2.63) (2.65) (2.55) (2.61) (2.51) cons -0.618*** -0.713*** -0.702*** -0.643*** -0.629*** -0.635*** -0.621*** -0.740*** -0.727*** -0.727*** (-3.84) (-4.40) (-4.33) (-3.99) (-3.90) (-3.94) (-3.85) (-4.55) (-4.47) N 5907 5908 5907 5908 5907 5908 5907 5908		0.034***	0.032**	0.031**		0.033***	0.033***	0.032**	0.033***	0.031**
cons (-3.84) (-4.40) (-4.33) (-3.99) (-3.90) (-3.94) (-3.85) (-4.55) (-4.47) N 5907 5908 5907 5908 5907 5908 5907 5908	ope	(2.69)	(2.56)		(2.73)	(2.63)	(2.65)	(2.55)		(2.51)
N 5907 5908 5907 5908 5907 5908 5907 5908 5907 5908	0070	-0.618***	-0.713***	-0.702***	-0.643***	-0.629***	-0.635***	-0.621***	-0.740***	-0.727***
	cons				(-3.99)		(-3.94)		(-4.55)	(-4.47)
p 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	N	5907	5907	5908	5907	5908	5907	5908	5907	5908
	p	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

^{*}p<0.10,**p<0.05,***p<0.010

The results in Table 1 show that no matter in which model, compared with women, the probability of men choosing to start a business increases significantly by more than 11.5%. One of the main reasons is that men have a higher risk appetite than women, and entrepreneurial people have a higher risk appetite than people with stable jobs. This may also be because, compared with men, the concept of gender roles in the female workforce significantly inhibits women's motivation and enthusiasm for choosing to start a business.

The results of model 1 show that age is positively correlated with entrepreneurial choice but negatively correlated with the squared term of age. The influence of age on labor entrepreneurship presents an inverted U shape, that is, with the increase in age, the probability of starting a business first increases and then decreases [12].

Model 2 - model 7 performed stepwise regressions on the three key explanatory variables separately. Model 2 and model 3 introduce the key explanatory variable "business relationship" on the basis of model 1. Considering the reverse causality between household income and individual entrepreneurial choices, the model has an endogeneity problem [10]. We performed two regressions with and without household income for each model to improve the robustness of the results. From the regression results of model 2, it can be seen that when other variables in the sample remain unchanged, business relationship has a positive effect on individual entrepreneurial choice, and it is significant at the 1% significance level. Specifically, the probability of an individual choosing to start a business increases by 5% for each unit increase of business relationship.

Model 4 and model 5 introduce political relations on the basis of model 1. When other variables in the sample remain unchanged, political relations are significantly negatively correlated with individual entrepreneurial choices. For each number increase of communist members in the family, the probability of an individual choosing to start a business is expected to decrease by 3.8%.

Model 6 and model 7 introduce family relationships on the basis of model 1. Although family relationships have a positive impact on entrepreneurial choice, the relationship is not significant. The closeness of family relationships may provide individuals with psychological and emotional support, and entrepreneurs' fear of failure and risk aversion are also common.

From the results of model 8 and model 9, it can be seen that no matter whether family income is included or not, the significance level of the business network and political network and the direction of influence have not changed. The influence of family relationships on entrepreneurial choice is still insignificant, and the estimated coefficient changes from positive to negative. In the total variable regression model, the significant levels and estimated coefficients of individual characteristics and external environment control variables are basically consistent with model 1 - model 7.

3. Explore Gender Inequality in Social Resources

3.1. Influencing Factors of Entrepreneurial Choice Based on Gender Discrimination

The analysis of the above model leads us to two important conclusions. Firstly, social resources have a significant effect on entrepreneurial choice. Secondly, of all the individual characteristics variables except age and age squares, gender has the most significant effect on entrepreneurial choice.

In terms of higher education and career choices, women are mostly concentrated in non-technical, engineering, and business sectors, either actively or by force. The gender dominance of men in these three areas leaves women with less extensive work experience than men in these three most dominant entrepreneurial markets [11]. Due to the unavoidable unequal gender role perceptions inherited from a patriarchal society, women are constrained by activities such as housework and childbirth and need to spend more time away from childbirth and family-care responsibilities. Equal

gender role perceptions will reduce the amount of housework for women and increase the amount of housework for men, which may safeguard women's time commitment to entrepreneurship and thus contribute to their probability of starting a business.

In terms of social resources, the most significant form of social capital for entrepreneurs is in the form of social resources. This is in line with the findings of our model1 study. Next, we would like to further investigate whether discriminatory factors exist in the area of social resources. If they exist, to what extent are gender inequalities influential? Therefore, in this paper, we use T-Test to conduct mean characteristics and variance analysis of social resources (the main source of social capital) under different gender samples, and whether there is gender inequality in social resources in the entrepreneurial process.

3.2. Significant Test of Mean Difference between Gender

Variables	G1(0)	Mean1	G2(1)	Mean2	MeanDiff	p-Value
bus	3102	1.43	2809	1.60	-0.17	0.00***
pol	3102	0.25	2809	0.33	-0.08	0.00***
fam	3102	1.24	2809	1.24	0.00	0.94
age	3102	39.32	2809	38.82	0.49	0.07*
age2	3102	1652.07	2809	1620.75	31.32	0.14
edu	3100	3.00	2808	3.30	-0.30	0.00***
huk	3102	0.52	2809	0.54	-0.02	0.15
eth	3102	0.93	2809	0.93	0.00	0.63
hea	3102	2.83	2809	2.96	-0.12	0.00***
inc	3101	110000.00	2809	129999.99	-18000.00	0.02**

Table 3: Two-sample t test with unequal variances

As is shown in Table 3, there is a significant difference in business and political resources between males and females. The mean values of both are greater in the male sample than in the female sample. This indicates gender inequality in social relations, including business and political relationships. The inequality is attributed to lower female employment rates compared to men, as reported by the UN's 2018 ILO report. Women are also less involved in business due to job market discrimination and face greater difficulties in business socialization due to physical and social factors. The text also highlights significant differences between males and females in individual characteristics variables like age, education, health status, and household income, reinforcing the existence of gender differences in human capital relevant to entrepreneurial choices. Women tend to have lower household economic and capital returns compared to men, limiting their entrepreneurial opportunities.

3.3. Chow Test for Gender Characteristics

3.3.1. Model

$$y_a = \beta_0 + \beta_1 \text{ bus}_{female} + \beta_2' \text{ Control2}_{female} + \epsilon_i$$
 (equation for female) (2)
 $y_b = \beta_3 + \beta_4 \text{ bus}_{male} + \beta_5' \text{ Control2}_{male} + \epsilon_i$ (equation for male)(3)

Where:

Control2 = $(age_i, age_i, edu_i, huk_i, eth_i, mar_i, hea_i, inc_i, dis_i, gdp_i, agd_i, une_i, pop_i, ope_i)'$, is control variable without gender.

We use Chow tests:

where y_c is the set of all outcomes and d_1 is a variable that is 1 when the data are for group 1

and 0 otherwise, d_1 is 1 when the data are for group 2 and 0 otherwise, and therefore we have

$$\begin{aligned} y_c &= d_1 \times (\beta_1 \; bus_{female} + \beta_2' \; Control2_{female} + \epsilon_i \;) + d_2 \times (\beta_3 + \beta_4 \; bus_{male} + \beta_5' \; Control2_{male} + \epsilon_i) \end{aligned} \tag{4}$$

$$y_c = \beta_1 \times (d_1 \text{ bus}_{female}) + \beta_4 \times (d_2 \text{ bus}_{female}) + (\cdots)$$
 (5)

We can therefore test if $\beta_1 = \beta_4$, and repeat the test for bus and fam respectively, and the three variables combined.

3.3.2. Results and Analysis

Table 4: Chow Test

	bus	pol	fam	bus,pol,fam
Prob>F	0.0000	0.0179	0.0000	0.0000

As is shown in Table 4, we can see that all four situations are significant. Business resources, family resources, and the three tested together are very significant. This means social resources have very different degrees of influence on the entrepreneurial choices of men and women.

For business resources, it can be interpreted as: even for those females who have the same level of business resources as males, they could still have less probability to start a business.' In another word, if a man and a woman have the same level of business resources, the man may exploit more and make better use of the resource to help them start a business.

4. Explore Rural-urban Inequality in Social Resources

Table 5: Rural-urban Inequality

	(1) rural		(2) urban	
pol	0.0356	(0.92)	-0.0535***	(-2.69)
bus	0.0684***	(3.59)	0.0313*	(1.76)
fam	0.00821	(0.34)	-0.0199	(-0.98)
gen	0.134***	(4.59)	0.0995***	(3.91)
age	0.0602***	(3.79)	0.0623***	(6.68)
age2	-0.000767***	(-3.50)	-0.000775***	(-6.88)
edu	0.00572	(0.52)	-0.0225***	(-2.71)
eth	0.0759	(1.55)	0.0422	(0.71)
mar	0.103**	(2.39)	0.0475	(1.39)
hea	0.0614***	(4.02)	0.0328**	(2.32)
inc	0.000000297***	(3.68)	8.57e-08**	(2.52)
dis	-0.00000522	(-0.63)	-0.0000127*	(-1.84)
gdp	0.00000492**	(2.06)	0.00000138	(0.68)
agd	-0.00000236	(-1.32)	-0.000000355	(-0.25)
une	-0.0760**	(-2.56)	-0.0186	(-0.89)
pop	-0.0000639***	(-4.02)	-0.0000151	(-0.98)
ope	0.0254	(1.19)	0.0290*	(1.85)
cons	-0.834***	(-2.79)	-0.862***	(-3.92)
N	2804		3103	

As is shown in Table 5, it reveals significant disparities in the influence of social resources on entrepreneurship between urban and rural areas. Business resources positively impact rural entrepreneurship but not urban, while political resources negatively affect urban entrepreneurship but not rural. This underscores the complexity and regional variance of social relations' effects. The higher density of Communist Party members in urban families compared to rural areas may explain

this, as rural entrepreneurs tend to have weaker political ties. Given the vast disparities between rural and urban China and the crucial role of business resources in rural areas, further research is needed to explore the relationship between social resources and entrepreneurial behavior in rural China, utilizing targeted data and variables..

5. Model 2: Explore More Specifically the Entrepreneurial Behavior of Rural Entrepreneurs under Social Resources, Using Micro-data of National Rural Fixed Observation Point Data

In rural China, farmers often prioritize capital over technology and innovation when pursuing necessity-driven entrepreneurship [14]. A robust credit market and financial support facilitate entrepreneurship growth [13]. However, rural banking remains underdeveloped. Research in 2011 found state-owned banks had little impact on rural entrepreneurship, while rural credit cooperatives positively influenced it. Given this, social resources become crucial for farmers seeking loans. Primary financing channels are through credit cooperatives and personal networks, both reliant on strong 'guanxi' (social connections) in Chinese society.

5.1. Descriptive Statistics of Model 2

Entrepreneurship can have a more targeted definition when specific research is done in rural areas. Model 1 studies individual entrepreneurship and is a mixed model of urban and rural areas. It is unavoidable to have a wider concept when defining entrepreneurship in Model 1, considering different backgrounds and contexts in urban and rural areas as a whole.

Table 6: Descriptive Statistics for Variables

Variable			Calculation		
Explained variable	New rural-targeting Entrepreneurship status	y*	The following three =1:"having private enterprise as the main business"; "household business"in production, construction, transportation, commerce, catering, and service industries; or in planting, animal husbandry, forestry, fishery industries with annual operating costs greater or equal than to 15,000 yuan (that is we set scale requirement for primary industry). The rest =0.		
	New rural-targeting business relationship	giftgiving	=1 if the household spends more than 5,000 yuan on gift giving in a year. The rest =0.		
Explanatory variables	New rural-targeting political relationship	cadre	=2 if there is a family member who is a village cadre;=1 if there is not,		
variables	Housevalue: possible collateral for a loan to start a business		The total price of the house owned by the family at the end of the year.		
Household	Ethnic status	eth	=2 if the household is not minority ethnic household;=1 if it is.		
characteristic	Residents	res	The number of permanent residents in the family		
control	Labor force	lab	The number of family's labor force		
variable	Household income	inc	Household Income for the Year		
variable	Household net	netinc	Respondents Household Income for the Year		
	Regional GDP gdp		GDP of each province in the sample (data source China Statistical Yearbook)		
External	Regional GDP per capita	agdp	Per capita GDP of each province in the sample (data source China Statistical Yearbook)		
control variable	Regional unemployment rate	une	The registered urban unemployment rate of each province in the sample (data source China Statistical Yearbook)		
	Regional economic openness	open	GDP/Fiscal Expenditure of Each Province in the Sample (Data Source:China Statistical Yearbook)		

As is shown in Table 6, it offers nuanced definitions of rural household entrepreneurship. The dominant model is family businesses, with diverse business activities. We define 'family businesses'

entrepreneurship as engaging in production, construction, transport, commerce, catering, services, or large-scale agriculture. Instead of profit or income, we use annual production cost (set at 15000 yuan) as a criterion, as it better reflects production scale amidst weather and market fluctuations.

Moreover, we define more rural-targeting business resources, that is if the household spends more than 5,000 yuan on giftgiving in a year. In Chinese 'guanxi' society, giftgiving is a very important way to establish contact with other people. We will solve the multicollinearity problem by introducing control variables such as household income and household net income.

Besides, we chose more rural-targeting political resources, that is if there is a family member who is a village cadre. Having connections with a village cadre can be a very helpful way to get a loan from both local banks and farmers' credit cooperatives, because village cadres may have direct control over them. Besides giftgiving and cadre, we bring housevalue in expectation of representing factors of possible collateral for a loan.

5.2. Regression and Results

$$y_i^* = \beta_0 + \beta_1 giftgiving_i + \beta_2 cadre_i + \beta_3 housevalue_i + \beta'_{control} Control_i^* + \epsilon_i(6)$$

As expected, the new business variable 'giftgiving' has a significantly positive effect on y*; in contrast, cadre, which represents political resources, appear to be insignificant. This is consistent with the regression results in model 1 on the rural subset.

For housevalue, the result shows an insignificant effect on y*, which may imply more complex factors influencing credit availability and borrowing cost that need further detailed study. As is shown in Table 7.

giftgiving	0.025***	(3.02)
cadre	-0.025	(-1.20)
housevalue	0.000	(-0.69)
eth	-0.004	(-0.28)
res	0.013***	(4.21)
lab	0.012***	(2.76)
inc	0.000***	(25.14)
netinc	-0.000***	(-11.00)
gdp	0.000***	(4.37)
agdp	0.000**	(2.22)
une	0.039***	(4.16)
open	-0.035***	(-5.82)
_Cons	0.124**	(2.19)
N	1.1e+04	
r2_a	0.080	

Table 7: Urban unemployment rate's impact on rural entrepreneurial choice

Model3 y regression

Another interesting finding is that the urban unemployment rate has a significant negative impact on rural entrepreneurial choice (y*). This can be interpreted as: for rural-urban migrant workers, the rise in urban unemployment rate will cause them to lose their jobs in cities and encourage them to return to rural areas to start businesses.

^{*}p<0.10,**p<0.05,***p<0.010

6. Conclusions

6.1. Gender Discrimination in the Social Resources Present in Entrepreneurial Activities

The study found that social networks and gender have significant effects on entrepreneurial choice, with females facing fewer business and political resources than males. Even when females have equal business resources, they are still less likely to start a business. In response, the government is recommended to focus on addressing gender discrimination in entrepreneurship by developing policies to reduce the disadvantage of women's resources and addressing the underlying issues that create gender inequality. The government should also promote social and cultural change through advocacy tools and policies to address the inequality in the treatment of men and women.

6.2. Geographical Inequality in Social Resources Present in Entrepreneurial Activity

Geographic discrimination limits entrepreneurial activity among rural populations due to the economic and cultural gap between rural and urban areas. Encouraging farmers to start their own businesses has become a key goal for China to promote rural economic development and create new employment opportunities. Our study found that different social resources have varying degrees of influence on urban and rural labor forces, which can provide guidance to the government in formulating effective policies to encourage farmers' self-employment.

The persistence of the household registration system and the dualistic structure of urban and rural areas in China has led to inequalities in social resources between the two regions, particularly in the area of entrepreneurship. For rural entrepreneurs, business resources have a significant positive impact on their entrepreneurial activity, while the impact on urban entrepreneurs is not as significant. Entrepreneurs' human and social capital, market environment, and resources are all important factors influencing their entrepreneurial behavior, especially for individual farmers. Family and business networks provide valuable information, knowledge, resources, and capital for farmers, and the higher the quality of these networks, the more likely farmers are to choose entrepreneurship and successfully start a business.

This paper finds that gift-giving, a common practice in Chinese 'guanxi' society, has a positive impact on rural entrepreneurship by helping individuals establish wider business contacts and access loans or competitive advantages. However, political resources have a negligible effect on rural entrepreneurship but a significant negative effect on urban entrepreneurship. Additionally, house value is not a significant factor for rural people seeking loans to start a business, and unemployment rates significantly promote entrepreneurship among rural populations.

Therefore, the recommendations for policies to encourage rural entrepreneurship include farmers actively broadening their social resources to access information and knowledge, the government promoting financial reform in rural areas to facilitate access to funding, and discouraging the use of gift-giving as a means of obtaining loans. Instead, the government should make it easier for creditworthy and capable individuals to obtain loans from financial institutions like banks to start their businesses.

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