Research of Unbalanced Regional Economic Development and Entrepreneurial Happiness based on CFPS Data

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Abstract. Based on the perspective of happiness economics and using the data of China Family Panel Studies in 2020, this paper empirically analyzes the impact of regional economic development imbalance on entrepreneurial happiness. The results show that regional economic development has a significant negative impact on entrepreneurial happiness on the whole, and it changes with the regional difference and the difference of urban and rural structure. Further research shows that economic development can improve the happiness of urban entrepreneurial groups in economically underdeveloped areas, but it has a significant hindering effect on the happiness of rural entrepreneurial groups in economically developed areas. In addition, this paper studies the mechanism of economic development on entrepreneurial happiness, and finds that each component of entrepreneurial happiness responds differently to economic development. The research results of this paper will provide theoretical basis for the government to formulate more reasonable incentive policies for innovation and entrepreneurship.

Keywords: Entrepreneurial Well-being; Unbalanced Regional Economic Development; Happiness Economics; Entrepreneurial Activities.

1. Introduction

Entrepreneurs play an important role in social employment during the major development transition period such as economic restructuring and state-owned enterprise reform, and more importantly, as the backbone force to promote social development, maintain and improve the vitality of social innovation, their important research value has given rise to a number of innovative research topics. Among them, entrepreneurial happiness, as a measure of innovators' experience of satisfaction, emotional balance, psychological function and social function in the process of enterprise planning, establishment, growth and operation(Cui et al., 2022) , not only measures entrepreneurs' attitude towards business value, but also determines whether entrepreneurs stick to difficulties. At present, it is generally believed in the theoretical circle that entrepreneurial happiness is the degree to which entrepreneurs are satisfied with the material and spiritual wealth brought by entrepreneurship (Huang et al.,2023). Improving entrepreneurial happiness of entrepreneurial groups can not only serve as a sign of significant reform results, but also has great significance for major national strategies such as urban innovation and development, rural revitalization and common prosperity.

According to previous studies, there are mainly three factors affecting innovative well-being, including subjective well-being, psychological well-being and social well-being. Subjective well-being reflects individual happiness, that is, individual emotional experience and life evaluation, measured from the overall life satisfaction, positive emotion and negative emotion (Diener et al, 1999). On the other hand, psychological well-being is based on the realization of self-potential, so as to achieve the realization effect of goals (Shir & Ryff, 2022). On this basis, individuals are bound to participate in social division of labor, undertake socially assigned tasks and get paid. From this perspective, the significance of individuals to others and society will also be an important source of their own happiness (Keyes, 2007).

It is undeniable that due to the differences of regional location conditions and the different strength of policy support, the development of east is superior to the central and western regions and urban development is superior to rural areas. Meanwhile, with the passage of time, the gap between urban and rural areas, the gap between the east and the west is still widening. Statistics show that the Gini

Coefficient of per capita annual income gap between 2003 and 2020 was above 0.46, exceeding the warning line set by the United Nations Development Programme and other organizations. The solidification of social class caused by the huge gap in income level will directly harm the stable development of society, thus making the soil for social innovation disappear continuously and suppressing the power of social innovation (Li,Shi 2018). The huge gap in economic strength will cause entrepreneurs in different regions to be eliminated by the market due to the gap in information and other aspects, which will greatly affect the happiness of entrepreneurs. Ding et al., (2021), starting from the five macro levels of the new development pattern, concluded that economic development has a significant positive correlation with the improvement of residents' happiness. Wei et al., (2023) further proved that economic development has a positive effect on the improvement of happiness. The research results of Li, Huihui et al., (2022) show that social support can improve entrepreneurial happiness by enabling entrepreneurial self-efficacy. Therefore, unbalanced regional development will bring advantages to regions with better economic development and thus have higher entrepreneurial happiness.

Of course, there is no denying that a region with good economic development means better talent resources and greater competitive pressure. From the perspective of psychological happiness, entrepreneurs will have greater difficulties to achieve their goals, thus restricting the improvement of entrepreneurial happiness. At the same time, considering the higher cost of living in such areas, from the perspective of subjective well-being, whether entrepreneurs in such areas can bear the high cost of living also determines whether they are happier. On the contrary, areas with relatively weak economic development have lower living costs, less competitive pressure, less development degree in some areas, and beautiful environment. In addition, with the emergence of new business forms such as live broadcasting, more and more entrepreneurs return to their hometown and achieve success. All of these factors lead entrepreneurs in these regions to avoid brutal obsoletions and thus enjoy greater happiness.

From the above analysis, the influence of regional economic development on entrepreneurial happiness is complex and diverse, and different conditions affect different aspects of entrepreneurial happiness. Therefore, it is necessary to establish a reasonable model to comprehensively quantify the influence of different factors on entrepreneurial happiness, so as to provide reference for improving entrepreneurial environment and driving force of innovation in different regions.

In this paper, entropy weight method will be used to construct the measurement index of entrepreneurial happiness and regional economic development imbalance, and the benchmark correlation between the two is obtained through regression analysis. At the same time, this paper plans to analyze regional heterogeneity, and split the indicators of entrepreneurial happiness into separate studies, in order to explain the mechanism and influence details of the two from a microcosmic perspective. Compared with previous studies, the possible marginal contribution of this paper is mainly reflected in two aspects: first, it puts forward the measurement method of entrepreneurial happiness, measures it better, and expands the research method and scope; Second, it analyzes the effect mechanism of macroeconomic variables on micro individual clusters at different levels and influencing factors, so as to provide a more targeted reference for government decision-making.

2. Theoretical Basis and Research Hypothesis

2.1 Domestic Research Status

At present, a large number of domestic literatures focus on entrepreneurial happiness, mainly focusing on the impact of individual factors and social environment on entrepreneurial happiness. First of all, from the perspective of personal factors, a large number of empirical studies show that entrepreneurs have to face greater work intensity and work pressure, although life satisfaction is higher, but there are quite a lot of psychological problems, thus reducing the psychological happiness. Chen et al., (2018) studied the impact of entrepreneurs' entrepreneurial motivation, self-esteem and

social environment on entrepreneurial psychological well-being, and found that the happiness of opportunistic entrepreneurs was higher than that of subsistence entrepreneurs.Liu et al., (2019)studied the impact of entrepreneurship on personal happiness and concluded that the happiness of floating population entrepreneurs was significantly lower than that of local population. In addition, some scholars studied entrepreneurs' happiness from various personal aspects, such as working hours, family assets and income level (Wu, 2016); (Liang, 2022); (Su & Zhang, 2021). From the perspective of social environment, Li,Huihui et al., (2022) studied the impact of social support on entrepreneurial happiness, and expanded their research direction by studying entrepreneurial performance. Yang, (2021) studied social public services and concluded that convenience of urban public services should be paid attention to improve happiness. Many other scholars pay attention to the happiness of rural entrepreneurs. For example, Chen,Hewu et al., (2018) concluded that entrepreneurship significantly improves the happiness of rural entrepreneurs by constructing the intermediary model of "rural entrepreneurship -- village social status -- rural well-being". (Zhou & Xu,2022) have studied that the business environment will affect farmers' entrepreneurship and concluded that the local government should strengthen environmental construction in order to attract and protect more innovative talents for entrepreneurial activities.

From the perspective of individual factors, economic conditions greatly affect subjective well-being. At the same time, various factors in personal life, such as marriage and job satisfaction, will become one of the determinants of subjective well-being. From the perspective of social mechanism, a sound incubation and protection mechanism can share the pressure of entrepreneurs to a large extent (Rui, 2017), and the resources provided by the regional platform will also greatly facilitate the development of entrepreneurs. In terms of social relations, if entrepreneurs can better connect with resource platforms, they are more likely to be successful, thus improving their psychological happiness. Li,Lulu & Shi, (2017), starting from the theory, analyzed the growth limit of happiness brought by China's economic development. Wu,Fei, (2016) used the data of China's economic development for ten years to verify the objective existence of the Esterling Paradox in our country.By summarizing the above studies, it is not difficult to find that domestic scholars' researches on the factors that affect entrepreneurial happiness are relatively complete, and the comparison between personal factors and social environment has been equipped with research examples and research scale.

2.2 Foreign Research Status

Foreign studies on entrepreneurial happiness are earlier and more comprehensive. The most important thing is to first put forward three main influencing factors of innovative happiness, thus laying the foundation for the subsequent research on innovative happiness. The three factors are respectively subjective happiness, psychological happiness and social happiness. Subjective well-being reflects an individual's degree of happiness, measured from three aspects: overall life satisfaction, positive emotion and negative emotion. And psychological happiness is based on the realization of self-potential, so as to achieve the realization of goals. On this basis, individuals are bound to participate in the division of labor of the society, undertake tasks assigned by the society and get paid. From this perspective, the significance of individuals to others and the society will also be an important source of their own happiness.

In terms of element studies, foreign studies have also carried out detailed and comprehensive discussion. Shir et al., (2019) conducted a comparative study on whether entrepreneurs have more happiness, and concluded that entrepreneurs have more happiness through studying the autonomy brought by entrepreneurship and the realization of self-worth. Benz & Frey, (2008) measured job satisfaction with data from Germany, the United Kingdom and Switzerland, and concluded that entrepreneurial activities have a significant positive impact on job satisfaction. Binder & Coad, (2013) adopted the data of British household tracking survey from 1996 to 2006 and concluded that entrepreneurs could compensate for the disutility caused by the instability of working hours and income through the autonomy of work, thus improving their happiness. Hyytinen & Lahtonen, (2013) used data from the United States and Finland to prove that compared with non-entrepreneurs,

entrepreneurs have a lower income level. Meanwhile, Halvarsson et al, (2018) found that entrepreneurship also has a significant impact on income inequality.

In general, foreign research has a more in-depth understanding of the connotation of entrepreneurial well-being, and the research mode adopted is worth learning from. However, most of their research data come from abroad, and the conclusion is not decisive for the actual situation in China. In addition, foreign studies have not avoided equating entrepreneurial happiness with subjective well-being, and also avoided the complexity of model construction. At present, there is no accurate model to quantitatively analyze the true entrepreneurial happiness.

2.3 Foreign Research Status

To sum up, regional economic development imbalance represents the impact of personal feelings and social pressure on entrepreneurial happiness. Social environment determines the basic feelings of entrepreneurs when they participate in entrepreneurial activities, so the measurement of entrepreneurial happiness plays a decisive role. Economic development at the macro level matches individuals, which brings more competitive pressure and reduced availability of opportunities. At the same time, the depression effect brought by economic development leads to the enrichment of various high-quality resources in the society, and the phenomenon that supply exceeds demand, resulting in more intense competition and harsh screening mechanism. For example, the requirements of working hours and the constraints of market screening will have a significant negative impact on the happiness of entrepreneurs and it is difficult to reverse. Based on this, the following hypothesis is proposed:

Hypothesis 1: Regional economic development level is negatively correlated with entrepreneurial happiness.

However, in terms of regional development, there is an objective difference in the level of economic development of east central and western regions in geographical terms. The level of social resources and economic development of eastern areas is obviously higher than that of central and western regions. At the same time, the cities and rural areas are the two main carriers of social development of our country, and there are significant gaps in economic development. Form a more convincing proof. Based on this, the following hypothesis is proposed:

Hypothesis 2: The negative correlation is higher in the eastern region than in the Midwest.

Hypothesis 3: The negative correlation is higher in urban areas than in rural areas.

3. Literature References

3.1 Data Source

This paper selects the data of CFPS (China Family Tracking Survey) questionnaire, which covers 25 provinces (municipalities and autonomous regions) in China and includes individual characteristics, family relations, family dynamics and social participation, etc. It is a nationwide, large-scale and interdisciplinary social tracking survey project. In addition, for the measurement of regional economic development index, the data selected in this paper are from the National Bureau of Statistics, China Statistical Yearbook, China Rural Statistical Yearbook, etc.

3.2 Variable Selection and Description

The key variable of this paper is the imbalance between entrepreneurial happiness and regional economic development. Referring to the research method of Li,Qirong et al., (2021), the concept of entrepreneurial happiness is measured by "life satisfaction", "social status perception" and "future confidence" in the adult questionnaire, and entrepreneurial happiness is comprehensively measured from three aspects: subjective happiness, psychological happiness and social happiness. For the measurement of regional economic development index, Jin et al., (2022) established an evaluation system from urban and rural dimensions, based on social life, economic foundation and other perspectives, and the specific construction indicators are shown in Table 1. According to the research results of Zheng, (2022), the construction of regional economic development index can well reflect

the development status of local economy, so as to provide better suggestions for government decision-making.

Table 1. Regional economic development index

Variable name	Variable description
Urban economic development index	Computers per 100 people of urban population
	Per capita consumption of urban population
	Technology market turnover
	Urban per capita disposable income
	Number of medical institution beds per 10,000 people
	Urban health personnel per 10,000 people
	Environmental satisfaction
Rural economic development index	Technology market turnover
	Health personnel per 10,000 people in rural areas
	Rural per capita disposable income
	Number of medical institution beds per 10,000 people in rural areas
	Number of computers per 100 rural households
	Rural per capita consumption expenditure
	Environmental satisfaction

Table 2. Primary variable interpretation

Variable name	Variable description
Entrepreneurial happiness	The entropy weight method is used to calculate subjective well-being, psychological well-being and social well-being
Subjective well-being	How happy do you think you are? 0 is the lowest and 10 is the highest
Psychological well-being	How would you rate your confidence in the future? One means no confidence, and five means very confident
Social happiness	How would you rate your social status here? 1 means very low, 5 means very high
Whether to start a business	Is it an individual business? Yes =1; No =5
Age	Individual age
Gender	Female =1, Male =0
Highest degree	What is the highest degree you have completed?
Political status	Are you currently a member of the Communist Party of China? Yes =1, No =0
Marital status	What is your marital status? Unmarried =1, married (married) =2, cohabiting =3, divorced =4, widowed =5
Environmental satisfaction	Overall, how serious do you think environmental problems are in our country? Zero means not serious, 10 means very serious
Religious belief	Are you currently a member of a religious/faith group? Yes =1; No =5
Medical insurance	What kind of medical insurance do you have?

The control variables selected in this paper mainly involve the individual characteristics, family characteristics and work characteristics of the interviewees. Considering the availability of data and existing literature, this paper selects age, marital status, religious belief, gender, education level, Party member and health level as control variables. The specific questions and assignment methods of control variables are shown in Table 2.

To sum up, the main variables and descriptive statistics of this paper are shown in Table 3. From the sample results, out of 28,590 samples investigated by the database, 29.55% of entrepreneurs were selected, and among 8450 entrepreneurs, the average value of entrepreneurial happiness was above 0.89 within the range of 0-1, indicating that entrepreneurs' happiness was relatively high on the whole. In terms of gender distribution, there are 7.69% more females than males, which is generally more uniform. It has a large age span and complete sample coverage, which is convenient for further research. The detailed distribution of sample characteristics is shown in Table 3.

Table 3. Descriptive statistics of variables

Variable name	Sample size	Mean value	Standard deviation	Minimum value	Maximum value
Entrepreneurial happiness	8435	0.8912	0.0686	0.0001	1
Subjective well-being	8435	7.4008	2.2504	-8	10
Psychological well-being	8435	4.1835	1.0206	-8	5
Social happiness	8435	3.2394	1.1625	-8	5
Whether to start a business	8435	-7.8288	1.1516	-9	0
Age	8435	52.0135	13.6405	15	86
Gender	8435	0.4853	0.4998	0	1
Highest degree	8435	-4.3813	5.6865	-8	10
Political status	8435	-7.3884	2.2651	-8	1
Marital status	8435	2.1614	0.7742	-8	5
Environmental satisfaction	8435	5.7569	3.3915	-8	10
Religious belief	8435	-0.0616	0.8586	-8	1
Medical insurance	8435	10.3818	19.8319	-9	78

3.3 Variable Selection and Description

This paper mainly studies the impact of regional economic development on entrepreneurial happiness. The main model design is as follows:

$$Happiness_i = \alpha Economic + \beta X_i + \mu_i . \quad (1)$$

Where, $Happiness_i$ is the entrepreneur's entrepreneurial happiness, i is the sample individual, $Economic$ is the regional economic development index, X is the control variable, including gender, age and other personal and family characteristic variables, μ_i is the error term.

4. Regression Results and Analysis

4.1 Baseline Regression Result

OLS model was used for regression processing in all of this paper. Table 3 reports the benchmark regression results of entrepreneurial happiness and regional economic development.

Table 4. Baseline regression result

Variable name	Urban entrepreneurial happiness index	Rural entrepreneurial happiness index
Economic development index	-0.011*** (-2.99)	-0.018*** (-5.18)
Be a party member or not	0.001*** (4.45)	0.001*** (4.36)
Age	0.001*** (7.54)	0.001*** (7.81)
Gender	-0.001 (-0.55)	-0.001 (-0.52)
Highest degree	0.000 (1.24)	0.000 (1.52)
Marital status	-0.004* (-1.66)	-0.004* (-1.69)
Religious belief	0.037** (2.45)	0.037** (2.45)
Medical insurance	-0.000*** (-3.30)	-0.000*** (-3.06)
Constant	0.878*** (130.86)	0.880*** (131.44)
Observations	8,434	8,434
R-squared	0.033	0.035

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4 reports the baseline regression results, from which it can be seen that economic development has a significantly negative impact on entrepreneurial happiness in both urban and rural areas. This is inconsistent with the research results of Li Qirong et al., (2021) and Wang Qiong & Huang Weiqiao, (2020). The main reason is that the research scope of happiness of entrepreneurs is limited to entrepreneurs themselves, and the impact of macro environmental factors is not taken into consideration. Further analysis shows that entrepreneurial activities themselves can improve the long-term and short-term happiness of entrepreneurial subjects, which is not inconsistent with the mass innovation called for by the current society. However, the pressure of macro environment has a crowding out effect on the improvement of happiness, that is, the improvement of happiness brought by entrepreneurial activities itself is erased and the burden of entrepreneurs is increased. It also kills a potential boost to happiness.

From the perspective of each control variable added, the influence of party membership, religious belief and age on entrepreneurial happiness is significantly positive, indicating that the improvement of political consciousness and the expansion of social network brought by party membership can significantly improve entrepreneurial happiness. At the same time, the growth of age will improve the happiness of entrepreneurs, which is mainly because in the early stage of entrepreneurship, young people face greater survival pressure and social pressure, and the double restrictions of financial constraints and social responsibilities will prevent young people from taking the step of starting a business. As they grow older and have more experience, their career will be gradually stable, the risks will be reduced and they will feel happier. Gender and educational background variables are not significant, indicating that they have no significant impact on happiness. Marriage and medical insurance variables are significantly negatively correlated with entrepreneurial happiness, indicating that marriage and other intimate relationships are likely to become a burden for entrepreneurs, making them unable to balance career and family. At the same time, the lack of perfect medical insurance as a basic guarantee will significantly affect entrepreneurial happiness. In summary, hypothesis 1 is verified.

4.2 Study Results by Region

In this paper, the regions in the sample are screened and divided into three parts according to the region, the East, the West, and the West, so as to investigate the differences in the influence of entrepreneurial happiness in regions with different degrees of economic development in a more detailed way. Tables 4, 5 and 6 report the regression results for different regions. The measurement results in the table show that the negative correlation between economic development and entrepreneurial happiness gradually becomes less significant as the coastal areas move to the inland areas. In western cities, economic development has a significant positive effect on entrepreneurial happiness, indicating that the opportunities brought by economic development for entrepreneurs do not play a decisive role in entrepreneurial happiness. Development space, competitive pressure and environmental conditions in different regions also have significant effects on entrepreneurial happiness. In summary, hypotheses 2 and 3 are verified.

Table 5. Results of regional heterogeneity regression

Variable name	(1) Eastern region	(2) Eastern region	(3) Central region	(4) Central region	(5) Western region	(6) Western region
Urban economic index	-0.021** (-2.17)		-0.045* (-1.79)		0.083** (2.47)	
Rural economic index		-0.019** (-2.45)		-0.019** (-2.45)		-0.019** (-2.45)
Be a party member or not	0.003*** (3.66)	0.001 (1.33)	0.001 (1.14)	0.001 (1.20)	0.001 (1.52)	0.001*** (2.70)
Age	0.000 (1.54)	0.001*** (2.70)	0.000 (1.49)	0.000 (1.53)	0.000** (2.25)	-0.001 (-0.29)
Gender	-0.005 (-1.15)	-0.001 (-0.29)	-0.034*** (-4.99)	-0.036*** (-5.35)	-0.029*** (-5.96)	0.001 (1.33)
Highest degree	0.000 (0.09)	-0.000 (-0.22)	-0.001 (-0.98)	-0.001 (-0.94)	-0.000 (-0.87)	-0.000 (-0.22)
Marital status	-0.004 (1.34)	0.008 (0.80)	-0.010*** (-2.91)	-0.010*** (-2.90)	-0.001 (-0.22)	0.008 (0.80)
Religious belief	0.084*** (4.49)	0.008 (0.67)	0.009 (0.93)	0.010 (0.97)	-0.005 (-0.52)	0.008 (0.67)
Medical insurance	-0.000*** (-3.11)	-0.000 (-0.62)	-0.000 (-1.23)	-0.000 (-1.23)	0.000 (0.24)	-0.000 (-0.62)
Constant	0.908*** (65.24)	0.854*** (34.64)	0.891*** (50.66)	0.897*** (48.09)	0.865*** (51.50)	0.854*** (34.64)
Observations	1304	1054	815	815	2106	828
R-squared	0.116	0.049	0.043	0.042	0.014	0.119

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.3 Analysis on the Influence Mechanism of Entrepreneurial Happiness

How does economic growth affect entrepreneurial happiness? Starting from the components of entrepreneurial happiness, this paper conducts regression analysis from three aspects. Table 6 reports the analysis results of subjective well-being, psychological well-being and social well-being. The results show that from the perspective of subjective cognition. The happiness of entrepreneurial groups in rural areas can be improved with economic development, while that of urban groups is on the contrary. At the same time, marital relationship can significantly improve the subjective emotional experience of happiness, but in the future confidence level and social status perception is negatively correlated, which is not in conflict with the influence of intimate relationship on energy occupation analyzed above. At the same time, for people with religious belief, the contradiction between social

reality and belief will make them painful and thus subjectively unhappy. However, because religious belief can serve as the spiritual pillar and guidance for people, they can be supported in the future confidence and thus improve their psychological happiness. In terms of the cognition of confidence in the future, higher competitive pressure and more brutal market elimination mechanism in urban areas will make entrepreneurs feel nervous all the time, so they have a sense of crisis about the future, which affects their psychological happiness. In terms of perception of social status, entrepreneurial groups in rural areas show more significant lack of confidence, which is closely related to the current social cognitive bias and stereotype of rural areas, and also reflects that there is still a lot of room for progress in the development of rural areas.

Table 6. Regression results of entrepreneurial happiness sub-index

Variable name	(1) Urban subjective happiness	(2) Rural subjective happiness	(3) Urban psychological happiness	(4) Rural psychological happiness	(5) Urban social happiness	(6) Rural social happiness
Urban economic index	-0.155 (-1.23)		-0.160*** (-3.00)		-0.261*** (-4.03)	
Rural economic index		0.019 (0.16)		-0.056 (-0.96)		-0.451*** (-7.51)
Gender	0.929 (1.22)	0.915 (1.20)	0.221 (1.11)	0.211 (1.05)	-0.440 (-1.14)	-0.421 (-1.09)
Be a party member or not	0.028*** (2.94)	0.028*** (2.95)	0.012*** (2.83)	0.012*** (2.88)	0.019*** (3.80)	0.018*** (3.69)
Age	0.019*** (6.43)	0.019*** (6.34)	-0.002 (-1.59)	-0.002* (-1.79)	0.018*** (11.52)	0.018*** (11.93)
Highest degree	-0.944 (-1.24)	-0.933 (-1.22)	-0.002 (-0.50)	-0.002 (-0.70)	-0.004 (-1.07)	-0.002 (-0.64)
Marital status	0.037*** (5.38)	0.036*** (5.29)	-0.022 (-0.54)	-0.021 (-0.52)	-0.031 (-0.84)	-0.033 (-0.88)
Religious belief	-0.204*** (-5.55)	-0.203*** (-5.52)	0.583** (2.50)	0.583** (2.50)	0.508** (2.41)	0.508** (2.41)
Medical insurance	0.364 (1.26)	0.364 (1.26)	-0.001 (-1.22)	-0.001 (-1.41)	-0.001* (-1.78)	-0.001 (-1.39)
Constant	-0.006*** (-4.30)	-0.006*** (-4.37)	4.439*** (40.72)	4.417*** (40.39)	2.598*** (23.92)	2.648*** (24.45)
Observations	8434	8434	8434	8434	8434	8434
R-squared	0.013	0.013	0.018	0.017	0.062	0.066

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.4 Robustness Test

Due to the limited control variables in the model and the large variation in data distribution, there may be bias in measuring the impact on the explained variables. In this paper, the following two methods are selected for robustness test. Table 6 reports the robustness test results of the two methods, in which formula (1) represents the construction method of replacement variable and formula (2) represents the tail reduction processing of data.

(1) Change the construction method of explanatory variables

Table 7 reports the regression analysis after the change in the economic development index measurement method, and the results are still significant.

(2) Data processing

In order to avoid the influence of extreme data in the data sample, this paper chose to reduce the tail of variables by 1% up or down, and the result was still significant.

Table 7. Robustness test results

Variable name (The control variable is controlled and omitted here)	(1) Entrepreneurial happiness index	(1) Entrepreneurial happiness index	(2) Entrepreneurial happiness index	(2) Entrepreneurial happiness index
Urban economic index	-0.155 (-1.23)		-0.160*** (-3.00)	
Rural economic index		0.019 (0.16)		-0.056 (-0.96)
Observations	8434	8434	8434	8434
R-squared	0.013	0.013	0.018	0.017

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5. Summary

5.1 Research Conclusion

According to the regression results of the model, the negative correlation coefficient between urban areas and rural areas is relatively small, indicating that cities with high economic development level have a lower reduction degree of entrepreneurial happiness with the improvement of economic development level. Urban resources still give entrepreneurs more opportunities to be closer to success to realize their value, while rural areas due to the limited resources and platforms, entrepreneurial groups face greater difficulties, and therefore more difficult to feel happiness.

In addition, on the whole, for entrepreneurial groups, economic development does not increase the sense of happiness, but significantly reduces the sense of entrepreneurial happiness, indicating that our current economic development does not play a good role in entrepreneurial groups, but adds difficulties to their development, so that it is more difficult for entrepreneurs to find the value of realizing their own meaning from entrepreneurial activities.

The analysis of heterogeneity is as follows: (1) From the perspective of gender, and the proportion of women engaged in entrepreneurial activities is relatively small. The impact of gender on entrepreneurial happiness was reported in the baseline regression result, which was not significant. After the screening of male and female groups and the regression, we find that women are more sensitive to the improvement of economic development, and they feel less happy than men, which may be related to the increased pressure of social competition for women. In addition, women entrepreneurs show a stronger negative correlation in marriage. Marriage does not help women entrepreneurs to be happier, but makes them significantly unhappy. From a practical point of view, since women are already in a weak position in social competition, they need to make more efforts to achieve the same level as men, thus aggravating their unhappiness. (2) From the results, although entrepreneurial happiness is still roughly negatively correlated with the level of economic development, this negative correlation gradually becomes less significant as the country progresses to the west. In western urban areas, there is also a significant positive correlation between entrepreneurial happiness and economic development, which indicates that resources and platforms are not the determining factors of entrepreneurial happiness. Development potential and space are also important factors affecting entrepreneurial happiness. According to the data, when a local competition pressure is large and resources are relatively limited (such as the eastern rural areas), entrepreneurial activities are particularly difficult, and it is bound to be more difficult for entrepreneurial groups to obtain happiness. On the contrary, when the regional competition pressure is relatively small and the development space is still incremental space (western urban areas), entrepreneurial groups are more likely to obtain happiness.

5.2 Policy Suggestions

Based on the above conclusions, the following suggestions can be made:

(1) The fruits of economic development should be shared more widely. The significant negative correlation between economic development and well-being has become one of the main backgrounds hindering individual development. The government should listen to the opinions of the masses widely, respond to emergencies in time, guide and improve market rules, and alleviate the difficulties of the masses.

(2) Formulate relevant policies to protect vulnerable entrepreneurial groups in cities. The government should issue relevant policies to protect the vulnerable entrepreneurial groups who are short of funds, improve the social endurance of entrepreneurial groups, and give appropriate psychological care to reduce their psychological pressure and enhance their confidence in future life.

(3) The rural entrepreneurial environment needs to be improved. As the potential of local industrial transformation and upgrading, rural entrepreneurs should be given preferential policies such as taxes and loans to support their development. On the platform, build a rural entrepreneurial talent platform, build a public entrepreneurial service community, and provide more considerate services for local entrepreneurial talents. In terms of supporting services, we will introduce foreign high-quality training systems and establish a financial service supporting system with local characteristics.

(4) The central and western regions should create a good entrepreneurial environment and improve the siphon effect of the introduction of innovative talents. The crowding out effect of entrepreneurs in the eastern region is becoming more and more significant. The central and western regions should be prepared to accept the inflow of talents, strive to serve entrepreneurs, make them closely combined with the local development status, and create an innovation platform with local characteristics

(5) Due attention should be paid to the entrepreneurial activities of female entrepreneurial groups, and the market bias against female entrepreneurial groups still exists. All sectors of society should strive to create a more inclusive atmosphere, establish a unified standard with performance and enterprise efficiency as the sole evaluation criteria, and help more talented and capable women entrepreneurs enter the market. Stimulate the innovation atmosphere of the whole society.

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