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Article

URBAN immigrant diversity and entrepreneurial choice

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Abstract: Based on the national dynamic monitoring data of floating population, this paper investigates the impact mechanism and effect of immigrant diversity on entrepreneurial choice. The study found that the diversity of immigrants will significantly reduce the probability of individual entrepreneurship. The mechanism is that entrepreneurship itself is a relatively open process. In a complex and diverse city, the interpersonal psychological distance is widened and there is a lack of mutual trust and social identity, so entrepreneurship is significantly restrained In addition, this paper finds that compared with self-employed, entrepreneurs in the form of enterprise employers can benefit from diversity, which indicates that diversity promotes "Schumpeter" entrepreneurship; The impact of diversity will also vary according to educational skills and regional differences This paper empirically reveals the impact of diversity on Immigrant Entrepreneurship decision-making, which can provide profound Policy Enlightenment under the background of "Mobile China".

Keywords: immigrant diversity; entrepreneurship selection; wage earners

1. Introduction

Allowing the free migration of labor force in different spaces is not only the direct embodiment of "Mobile China", but also an important basis for urban immigrant diversity. On 9 April 2020, the CPC Central Committee and the State Council issued the opinions on building a more perfect market-oriented allocation system and mechanism of factors (hereinafter referred to as the opinions). This is the first document of the central government on the market-oriented allocation of factors, which emphasizes "guiding the rational, smooth and orderly flow of labor factors". It includes milepost registered residence system reform, smooth labor and talent flow channels for social mobility, perfect the unified and standardized human resources market system, create a fair employment environment, correct employment discrimination phenomena such as gender discrimination, protect the right of equal employment for urban and rural workers, and so on. In recent years, with the rapid advancement of China's urbanization process, the cross geographical migration of labor force has become more and more active. In 2008, the residents who live in the same city are mainly strangers, and the residents who live in the same city are naturally the same. Moreover, with the acceleration of population flow, immigrants from all over the world, with different local voices and different living customs and ideas continue to gather, and the diversity of urban immigrants increases.

So what is the economic impact of diversity? Theoretically, the economic impact of diversity is a double-edged sword The positive impact is that people born in different places usually have different production skills and ideas to solve problems,

and diversity produces complementarity. The negative impact comes from the psychological distance and communication cost between different groups, as well as the possible mutual hostility [1], which affects the production efficiency In the empirical literature, there is no consensus on the economic effects of diversity, among which the negative effects seem to occupy a more dominant position [2,3]. In recent years, the topic of "diversity" has also attracted the attention of domestic scholars. Most domestic literature discusses the impact of diversity around urban innovation, economic growth, team productivity and so onhowever, how the diversity of urban immigrants affects the choice of individual employment status (entrepreneurs vs. Wage earners) remains to be discussed.

In view of this, this paper attempts to empirically investigate the impact and mechanism of immigrant diversity on individual entrepreneurial choice. The study found that the diversity of immigrants promotes individual employment to choose wage earners rather than entrepreneurs. The mechanism is that in an urban environment full of diversity, people's psychological distance from each other will be widened, social identity will be reduced, and finally the probability of entrepreneurship will be reduced. However, the impact of diversity on different groups is not evenly distributed. Employers and highly skilled people engaged in developmental entrepreneurship can benefit from the external effects brought by diversity.

Compared with the existing research, the main innovations of this paper are as follows: First, city is calculated according to the location of each registered residence, and then the index of diversity of the cities is calculated. This can accurately capture the heterogeneity caused by the migration convergence of each city. The existing domestic literature only analyzes the source of urban migrants at the provincial level, ignoring the heterogeneity of different cities in the same province. Second, this paper systematically examines how immigration diversity affects individual entrepreneurial choices, and then expounds the constraints of the action mechanism: What types of immigrants benefit from diversity and promote entrepreneurship? What types of immigrants are squeezed out of the entrepreneurial market due to diversity? Answering this question can provide new clues for understanding the decision-making behavior of floating population under today's "floating China" policy, and provide new enlightenment for policy-making departments in unblocking the channels of labor force and talent flow.

2. Theoretical mechanism of diversity affecting entrepreneurship

From the existing research, the economic impact and formation mechanism of diversity is an emerging research field. There are two competitive hypotheses about the relationship between diversity and entrepreneurship.

First, diversity is conducive to the discovery of business opportunities and promote individual entrepreneurship. Theoretically, the interaction between heuristic heterogeneous groups can improve production efficiency and production possibility, and then create more business opportunities [4]. In terms of empirical literature, Ottaviano and peri [5] constructed the measurement standard of cultural diversity from 1970 to 1990 using the immigration data of American metropolitan areas, and

empirically confirmed that diversity has a positive impact on productivity Similar conclusions can also be found in Ashraf, galor [6] and peri [7]. Diversity not only improves productivity, but also stimulates the generation of new knowledge and promotes people's entrepreneurial behavior. According to the entrepreneurial knowledge spillover theory, new knowledge is the source of entrepreneurial opportunities, and the environment full of new knowledge has more entrepreneurial opportunities [8]. People from different regions are likely to have different production skills, different life experiences and prior knowledge, so as to form different ideas and perspectives for analyzing and solving problems. This diversity is conducive to product innovation and the discovery of business opportunities [9] Niebuhr [10] found that patent applications everywhere are directly proportional to the diversity of labor force OZGEN et al. [11] found that the diversity of migrant workers increases the possibility of product and process innovation. The diversified background will also make the team's decision-making more comprehensive and have more advantages in the face of opportunities and challenges. Lazear [13] found that skill complementarity in cross-cultural teams effectively offset the potential cost of diversity, thus significantly improving the overall productivity of the enterprise.

Second, diversity is not conducive to entrepreneurship. The main reason is that people from different backgrounds often have challenges in business cooperation and trust, resulting in increased transaction costs, thus reducing the possibility of entrepreneurship. Entrepreneurship is a relatively open economic activity, which not only needs to have the entrepreneurial environment and resources, but also needs to win the trust of the other party, so as to reduce the transaction cost Alesina and La Ferrara [13,14] found that ethnic diversity will reduce people's social participation and trust in neighborshuang Jiuli and Liu Chang (2017) found that diversity will affect the formation of social trust between strangers by using China's micro data Especially in an "acquaintance society" like China, trust is an important condition for doing business and winning business opportunitie. Moreover, a good social trust environment is conducive to reducing financing costs and increasing the probability of financing success [15], enhancing team cohesion and promoting people to engage in entrepreneurial activities. Therefore, once diversity affects interpersonal trust and increases psychological distance, it will naturally increase transaction costs and inhibit entrepreneurial motivation.

In conclusion, the impact of diversity on entrepreneurship is actually an open empirical problem, which depends on the trade-off between efficiency and conflict formed by diversity.

3. Data, variables and model setting

3.1. Data and variable description

This paper uses 2017 China migrants dynamic survey (CMDS). The city registered residence registered in 2017. The reason why the data was only used in 2017 is that in the past year (before 2017), the census information of floating population was only at the provincial level (information missing at the city level), while in 2017, the information of the registered residence of the floating population could reach the city level for the first time. This laid a valuable data base for the accurate information

of urban diversity based on the migration information. In the process of empirical estimation, we limited the working age of immigrants to 15–60 years old, and there was employment identity information, and finally obtained more than 100,000 observations

This paper focuses on the relationship between urban immigrant diversity and entrepreneurial choice. Therefore, the explanatory variable is whether to start a business or not According to the questionnaire, "what kind of employment status do you belong to now?" To identify whether the respondents are entrepreneurs. When the respondents answer "employers or self-employed workers", they are regarded as entrepreneurs, and when they answer "employees with employers or workers without employers (casual workers, casual workers, etc.), they are wage earners In terms of variable setting, binary dummy variables are adopted. The value of entrepreneurs is 1 and that of wage earners is 0.

The core explanatory variable is the diversity of immigrants at the urban level Based on the existing research methods, we use the fragmentation index to describe the diversity of immigrants:

$$Fractionlization_j = 1 - \sum_{r=1}^{R} s_{rj}^2 \quad (1)$$

$Fractionlization_j$ is immigrant diversity of City j, S_{rj} for urban j and registered residence in urban r population accounted for the proportion of urban j mobile population, R is in the city j contains in the city j, but the household registration in other cities total number of cities. The index is between 0 and 1. The larger the index, the more diverse the city is.

According to the diversity measurement results, the diversity of immigrants in coastal cities is generally higher than that in inland cities, the diversity of immigrants in provincial capital cities is generally higher than that in non provincial capital cities, and the diversity of immigrants in economically developed cities is generally higher than that in economically underdeveloped cities. It is worth noting that the Pearl River Delta, Yangtze River Delta and Beijing Tianjin Hebei metropolitan areas have the highest diversity of immigrants, which is closely related to the large-scale gathering of floating population in these areas, which is in line with the economic reality. Furthermore, we drew a scatter diagram of the relationship between the diversity of immigrants and the proportion of urban entrepreneurs. As can be seen from **Figure 1**, the higher the immigration diversity index, the lower the proportion of urban entrepreneurs, which may imply a message that people from different regions gather in the same city, and their purpose of leaving home is more likely to seek a relatively stable employment opportunity (entering the factory to work), rather than carrying out high-risk entrepreneurial activities (especially self-employed Entrepreneurship).

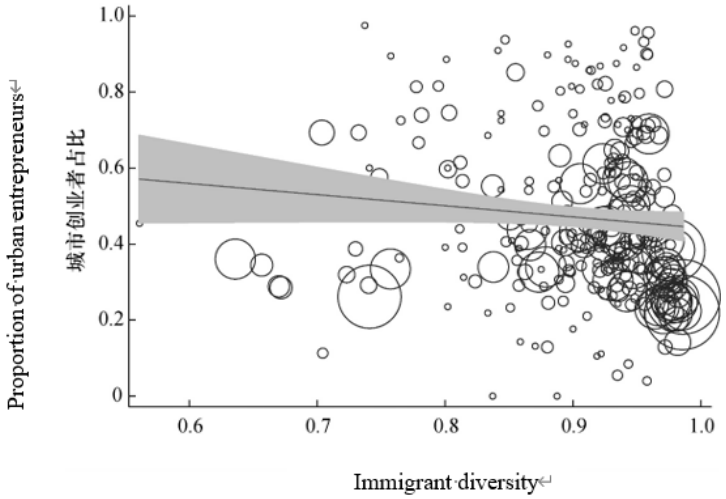

Figure 1. scatter chart of immigrant diversity and the proportion of entrepreneurs.
Note: The size of the circle represents the weight of the number of immigrants in each city, and the gray part represents the 95% confidence interval.

3.2. Empirical model

The regression model is set as follows:

$$Enp_{ic} = \beta_0 + \beta_1 Findex_c + \sum \beta X + \varepsilon_{ic} \quad (2)$$

where, i represents the individual code, c represents the city code, the explained variable Enp_{ic} represents whether the individual starts a business, and is represented by a binary virtual variable; $Findex_c$ indicates the diversity index of cities where immigrants live; X is the set of control variables, including personal characteristics, family characteristics and urban economic variables. In addition, we also control the fixed effect of provinces and regions.

Control variables at the individual level include: (1) years of education Well educated people are more likely to win a relatively stable and high paying job. If they choose to do business, it will undoubtedly produce a large opportunity cost (2) age. As people grow older, their life experiences become richer and richer, which is conducive to dealing with interpersonal interactions in business and organizing various entrepreneurial resources [16]. On the other hand, the older people are, the more risk averse they are [17], thus reducing entrepreneurial motivation. Therefore, the influence of age on entrepreneurship may show an inverted U-shaped relationship (3) gender. Theoretically, women's risk preference is lower than that of men [18], so it can be expected that women's entrepreneurial possibility is lower than that of men (4) marriage. The premium of marriage is generally found in the literature of entrepreneurship economics. Married people are easier to start a business than unmarried people (5) health status. Entrepreneurship is a long-lasting activity that requires a lot of energy. Individuals with good health are more competent for entrepreneurial activities than those with poor health (6) registered residence. At present, registered residence discrimination still exists. Those who are unable to obtain stable wage income have to form self employment survival entrepreneurship in order to maintain their livelihood. (7) Whether it is Han nationality The Han population in China accounts for the vast majority of the total population. For ethnic minorities with

a small proportion of the population, their identity characteristics will make them more likely to become wage earners rather than entrepreneurs, and the Han has a higher probability of entrepreneurship (8) migration time. The length of migration of floating population will not only affect their social integration, but also determine whether they are willing to stay in the local area, which plays an important role in deciding whether to carry out entrepreneurial activities in the local area.

Family characteristic variables include: (1) household income and expenditure. The income and expenditure of a family reflect the economic situation of a family. The situation of family assets will obviously have an impact on its entrepreneurial activities. Rich families can provide sufficient financial support for high-risk entrepreneurship, while poor families are often unwilling to take this risk (2) whether there is homestead in the hometown. The homestead owned by immigrants in their hometown actually exists as a hidden asset, which can resist the potential risks brought by entrepreneurship to a certain extent.

Urban characteristic variables include: (1) population size. The larger the urban population, the greater the potential of urban consumption demand, which can create more business opportunities (2) per capita income level. This impact has two sides. On the one hand, a higher urban income level will attract more people to work with wage income. On the other hand, a higher urban income level means a more developed economy and a better business environment, which can stimulate entrepreneurial activities Therefore, its influence direction is uncertain (3) urban innovation index[1]. The relationship between innovation and entrepreneurship is an interesting topic. In fact, it is closely related to the "creative destruction" caused by innovation reform. On the one hand, innovation may destroy some old industries and have a negative impact on jobs (i.e. "technical unemployment"). When workers are squeezed out of the formal job market, they have to carry out survival entrepreneurship; On the other hand, innovation will promote economic prosperity and create more employment opportunities, so as to attract people to choose wage jobs.

4. Empirical analysis of the impact of immigrant diversity on entrepreneurial choice

4.1. Benchmark estimation results

Table 1 reports the results of full sample benchmark regression, in which columns (1), (2) and (3) are estimated by linear probability model for comparison, column (4) is estimated by probit model, and the marginal effect is reported Column (1) only contains the core explanatory variables (urban immigrant diversity index), column (2) adds the control variables at the individual and family level on the basis of the core explanatory variables, and columns (3) and (4) further control the urban variables and provincial effects Considering that the core independent variable "diversity of urban immigrants" in this paper is a variable at the urban level, and the dependent variable "whether to start a business" is a variable at the individual level, we adopt the estimation method of standard error through urban clustering.

According to the univariate regression results in column (1), the estimated coefficient of urban migrant diversity is significantly negative at the level of 1%,

which indicates that diversity will reduce the entrepreneurial probability of immigrants and make them more willing to choose the employment status of wage earners. After controlling the characteristic variables at the individual and family levels in column (2), the estimation coefficient of the diversity of core independent variables is still significant at the level of 1% After further controlling the regional economic variables in column (3), the estimated coefficient of the core independent variable is significantly negative at the level of 5%, and the absolute value of the coefficient decreases. The estimation result of the probit model in column (4) is very close to that of the linear probability model in column (3) Take column (3) as an example. Specifically, the probability of an individual becoming an entrepreneur will decrease by about 13% every time the immigrant diversity index increases by 1 unit This validates one of the previously stated competitive hypotheses: Diversity is not conducive to immigrant entrepreneurship Because diversity will increase the cost of interpersonal communication, increase mutual psychological distance, hinder the establishment of social trust, and make people tend to become wage earners rather than entrepreneurs Compared with studies on similar topics, we use China's large-scale immigration data to provide a conclusive and direct empirical evidence.

The conclusions obtained from the estimation of control variables are similar to those found in previous studies Taking column (3) as an example, it can be found that the higher the education years of immigrants, the more inclined they are not to start a business The estimation coefficient of the square term of age is significantly negative, which confirms the previous analysis that there is an inverted U-shaped relationship between the age of immigrants and their entrepreneurial decision-making Men have higher entrepreneurial probability than women, which reflects the risk preference of different genders Marital status and health status will significantly affect immigrants' entrepreneurial choicesthere are also significant differences in entrepreneurial behavior among immigrants with different types of hukouthe probability of starting a business of Han nationality is higher than that of non Han nationalityamong the family variables, family expenditure, family income and homestead in their hometown have a significant role in promoting immigrants' entrepreneurshipin urban economic variables, a larger urban population will generate more entrepreneurs, and a higher urban innovation index will also generate more wage earners.

Table 1. Benchmark estimation results (explained variables: (entrepreneur or not).

	Linear probability model			**Probit model**
	(1)	(2)	(3)	(4)
Immigrant diversity	−0.3502***	−0.4029***	−0.1284**	−0.1314**
	(0. 0507)	(0.0593)	(0.0599)	(0.0555)
Years of Education		0.0201***	−0.0206***	−0.0204***
		(0.0008)	(0.0007)	(0.0007)
Age		0.0156***	0.0126***	0.0146***
		(0.0014)	(0.0013)	(0.0014)
Age square / 100		0.0170***	−0.0132***	−0.0158***
		(0.0018)	(0.0017)	(0.0018)
Male		0.0100***	0.0103***	0.0125***

		(0.0031)	(0.0030)	(0.0030)
Married		0.1316***	0. 1205***	0.1610***
		(0.0062)	(0.0058)	(0.0064)
Health		0.0193***	0.0173***	0.0167***
		(0.0043)	(0.0039)	(0.0038)
Rural household registration		0.0305***	0.0203**	0.0208**
		(0.0086)	(0.0086)	(0.0085)
Han nationality		0.0343***	0.0640***	0.0638***
		(0.0123)	(0.0095)	(0.0100)
Migration time		0.0056***	0.0061***	0.0059***
		(0. 0004)	(0.0003)	(0.0003)
Ln (household expenditure)		0.1166***	0.1099***	0.1122***
		(0.0038)	(0.0036)	(0.0038)
Ln (family income)		0.0040	0.0578***	0.0595***
		(0.0047)	(0.0042)	(0.0042)
Homestead		0.0303***	0.0301***	0.0290***
		(0.0045)	(0.0040)	(0.0040)
Ln (urban population size)			0.0334***	0.0349***
			(0.0059)	(0.0059)
Ln (urban per capita income)			0.0315	0.0249
			(0.0259)	(0.0260)
Ln (urban innovation index)			−0.0211***	−0.0211***
			(0.0029)	(0.0028)
Provincial effect	Not controlled	Not controlled	Control	Control
N	124,494	104,032	103,468	103,468
R^2	0.0028	0.0989	0. 1714	

Note: The standard error of urban clustering in brackets, * p < 0.10,**p < 0.05,***p < 0. 01.

4.2. Robustness test

4.2.1. Transform core arguments

This paper further uses entropy index to replace differentiation index to measure diversity. As a common alternative method, entropy index can also be used to measure diversity [19]. Its calculation method is as follows (subscript and letter representation are the same as differentiation index):

$$Entropy_j = -\sum_{r=1}^{R} s_{rj} \times \ln(s_{rj}) \quad (3)$$

Column (1) of **Table 2** is the estimation result of the transformation core independent variable. It can be seen that the estimation coefficient of entropy index is still negative and reaches a significant level of 1%. The estimation conclusion is consistent with the above, that is, the diversity of immigrants in cities will significantly reduce the probability of entrepreneurship.

4.2.2. Consider potential endogenous problems

(1) Instrumental variable estimation

It is true that diversity will affect entrepreneurship, but "mass entrepreneurship" will also attract more immigrants, thus further shaping the diversity of cities In this way, it may lead to the endogenous problem of causal inversion. To this end, we use the ideas of Alesina et al. [1] for reference and construct instrumental variables by weighting geographical distance. The city's city city J is the first city to calculate the geographical distance between the immigrants from the registered residence (Urban J) to the current residential area (Urban I). Then the weighted average of the geographical distance of the city is calculated as the tool variable of the immigration diversity. Theoretically, the higher the weighted average of geographical distance, the higher the diversity of immigrants. When people from all over the world gather in a city, the diversity of immigrants in the city will naturally be improved because geographical variables are not easily affected by economic behavior, they can meet the exogenous of instrumental variables to the greatest extent.

It can be seen from the results in column (2) of **Table 2** that in the first stage estimation, this IV is highly significantly correlated with the diversity of urban migrants, which well explains the diversity of urban migrants F statistic (450.07) is greater than the critical value of 10, and the original hypothesis of "weak instrumental variable" is rejected in combination with the minimum eigenvalue statistic Further using Durbin Wu Hausman (DWH) endogenous test method, it is found that the p value of DWH test is less than 5%, which confirms the objective fact that immigrant diversity is an endogenous explanatory variable Compared with the OLS estimation results, the absolute value of immigrant diversity coefficient obtained by 2SLS estimation has increased, which means that in the case of endogenous problems, if OLS method is adopted, the negative impact of immigrant diversity on individual entrepreneurial behavior will be underestimated This also shows the necessity of using instrumental variable estimationhowever, it should be emphasized that even considering the endogenous problem, the impact of immigrant diversity on entrepreneurship is still significantly negative.

Table 2. Core independent variables of robustness test Transformation: Entropy index instrumental variable estimation method second stage estimation.

	Transformation core independent variable: entropy index	**Second stage estimation of instrumental variable estimation method**
	(1)	(2)
Immigrant diversity	−0.0328***	−0.4367***
	(0.0074)	(0.1461)
Control variable	Yes	Yes
		Phase I estimation
IV: Geographical weighted distance of urban migrants		0.0601
		(0.0028)
		4.8839
DWH		[p = 0.0272]
F statistic		450. 07
Minimum characteristic root		20,605. 9

N	103,507	103,468
R^2	0.1716	0.1708

Note: The explanatory variable is whether the entrepreneur or not The standard error of urban clustering in brackets, *p < 0.10,**p < 0.05,***p < 0. 01.

(2) “approximate exogenous” instrumental variable test

By relaxing the strong exclusivity constraint of instrumental variables, we test the impact of approximate exogenous instrumental variables on the robustness of estimation results The union of confidence intervals (UCI) method proposed by Conley et al. (2012) is used to test here. The test results are shown in **Figure 2**. It can be seen that the estimation coefficient of immigrant diversity variables is relatively stable and still maintains a high significant level, and the confidence interval is mostly below zero, indicating that it is reasonable to select the geographical weighted distance of immigrants as IV.

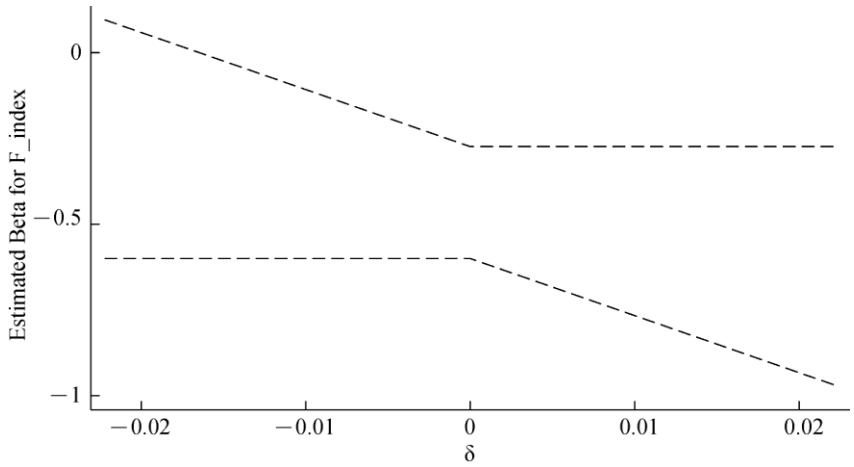

Figure 2. Robust confidence interval of immigrant diversity variable estimation based on conley et al. (2012).

Note: The dotted lines in the figure respectively represent the upper and lower robust confidence limits of the estimated coefficient at 95% under UCI assumption.

5. Mechanism test and heterogeneity analysis

5.1. Action mechanism test

5.1.1. Why does immigration diversity inhibit entrepreneurship

It has been confirmed from experience that the diversity of immigrants is not conducive to individual entrepreneurship. In this section, we will further test its mechanism. Theoretically, in an increasingly diversified urban space, the exchange or collision of various immigrant cultures will inevitably lead to obstacles in social integration, including the mastery of local dialect culture. In addition, immigrants who wander away all year round will inevitably have strong homesickness, especially in an environment with a large number of strangers, which will produce a certain psychological distance and lack of sense of belonging and attachment to the city Once immigrants lack the social identity and sense of belonging to the cities, their relatively open entrepreneurial activities will be further weakened.

Table 3. Mechanism inspection: The impact of immigrant diversity on social identity.

	Social integration	Start a business	Sense of belonging	Start a business	Accepted by local people	Start a business
	(1)	(2)	(3)	(4)	(5)	
Immigrant diversity	−0.5123***(0.0737)		−0.6698*** (0.0917)		−0.4494*** (0.0691)	
Social integration		0.0093***(0.0026)				
Sense of belonging				0.0104***(0.0023)		
Accepted by local people						0.0158***(0.0025)
Control variable	Yes	Yes	Yes	Yes	Yes	Yes
N	103,468	103,468	103,468	103,468	103,468	103,468
R^2	0.0628	0.1715	0.1181	0.1716	0.0671	0.1717

Note: The standard error of urban clustering in brackets, *p < 0.10,**p < 0.05,***p < 0.01.

We test the mechanism through two progressive steps. The first step is to test whether the diversity of immigrants has a negative impact on the social trust and identity of the floating population in the place of immigration. The second step is to test the impact of social trust of floating population on their entrepreneurial probability. According to the three questions in the questionnaire, we describe the social trust and identity of immigrants in the cities they move to, which are: (1) social integration, characterized by "I am willing to integrate into the local people and become one of them"; (2) the sense of belonging is characterized by "I think I'm already a local"; (3) being accepted by local people is characterized by "I think local people are willing to accept me as one of them". The three variables all use discrete numbers 1–4 to represent the degree of social recognition and psychological distance of immigrants to the city in turn **Table 3** provides the results of mechanism inspection It is not difficult to find that the diversity of immigrants has a significant negative impact on the social integration, sense of belonging and acceptance by local people of floating population, while the social integration, sense of belonging and acceptance by local people of immigrants have significantly increased the probability of entrepreneurshipthis means that the diversity of immigrants reduces the social trust of the floating population in the place of immigration, and finally inhibits their entrepreneurial probability. After all, entrepreneurship and business need to be based on mutual trust. Once the psychological distance between the two sides increases, the possibility of entrepreneurship will decline or even disappear.

5.1.2. Evidence of another mechanism test: Impact of migration time

The degree of social trust and recognition generated by immigrants in the inflow place is closely related to the length of migration. When immigrants first enter a strange city, they are prone to psychological distance due to lack of understanding of the local job market and multiculturalism, which usually has an adverse impact on entrepreneurship. With the extension of immigration time, this cognitive and psychological gap will gradually disappear, offsetting the negative impact of diversity on entrepreneurial activities to a certain extent This can also be used as another evidence of mechanism testtherefore, according to the information about "current floating time of floating population" in the questionnaire, we classify those who have

been floating for more than 5 years as long-term immigrants and those who have been floating for less than 5 years as short-term immigrants.

The estimated results in columns (1) and (2) of **Table 4** show the difference in the impact of the length of migration time. The results show that in the sub sample of long-term immigrants, the impact of diversity on entrepreneurship is not significant, which means that with the gradual extension of immigration time, the impact on local social integration and identity will also deepen, thus alleviating the negative impact of diversity on entrepreneurship to a great extent In the sub sample of short-term immigrants, diversity significantly reduces the probability of individual entrepreneurship. Specifically, for each unit of diversity, the probability of individual entrepreneurship will decrease by 28%. This estimation result implies that social trust and identity can hedge the negative impact of diversity on entrepreneurship to a certain extent. This also provides another evidence for the mechanism test in the first section above.

5.2. heterogeneity analysis

5.2.1. Impact differences of entrepreneurial types

We divide the entrepreneurial types of floating population into employer and self-employed. Among them, the employer is the opportunity entrepreneur, which carries out entrepreneurial activities in order to obtain business value, which is an entrepreneurial form that can reflect the "enterprise effect" Self employment is more embodied in survival entrepreneurship. In part, it is due to unemployment or inability to obtain employment opportunities, and forced to carry out "Grass-roots" entrepreneurship due to livelihood, which reflects the "refugee effect" of Entrepreneurship [20]. For entrepreneurs, diversity is full of challenges, but it breeds all kinds of opportunities. Compared with subsistence self-employed workers, those entrepreneurial employers in the form of enterprises will favor diversified employee teams, because diversified backgrounds will make the team make more comprehensive decisions and be more sensitive to business opportunities. At the same time, the skill complementarity of diversified teams can greatly improve the productivity and profitability of enterprise [13]. Therefore, it can be expected that the impact effects of urban migrant diversity should be different.

The estimated results of two types of entrepreneurship are listed in (1) and (2) of **Table 5**. It can be seen that the impact of urban immigration diversity is obviously different. For the sub sample with entrepreneurs as employers, the impact of diversification index on entrepreneurship is not significant. For the self-employed sub samples, diversification significantly inhibits the entrepreneurial probability, and the estimation results are consistent with the theoretical expectation and the actual situation. In reality, there are significant differences in the influencing factors of these two forms of Entrepreneurship [21]. In order to benefit from diversity as much as possible, immigrant individuals should strive to develop and grow from small-scale business self employment (i.e. Self-employed households) and become "Schumpeter" entrepreneurs in a real sense; On the other hand, this finding also implies that while making full use of the diversity of immigrants to stimulate entrepreneurship in the city, the policy level should also create a good institutional soft environment (including

business environment and social culture) as much as possible to alleviate the negative impact of diversity on the entrepreneurship of immigrant self-employed households.

Table 4. Impact of migration time.

	Long term immigration	Short term migration
	(1)	(2)
Immigrant diversity	−0.0564	−0.2784***
	(0.0727)	(0.0739)
Control variable	Yes	Yes
N	50,348	53,120
R^2	0.1465	0.1741

Note: The standard error of urban clustering in brackets, *p < 0.10,**p < 0.05,***p < 0.01.

5.2.2. Impact differences between coastal and inland areas

The economy of coastal areas is more developed than that of inland areas, attracting a large number of immigrants. Therefore, while shaping urban diversity, it can provide more opportunities to obtain stable wage income. Therefore, we expect that in coastal areas, when the diversity is high, the probability of immigrants becoming entrepreneurs will be lower, and the probability of becoming wage earners will be higher.

The empirical results in columns (3) and (4) of **Table 5** show that the estimated coefficient of immigrant diversity in coastal areas is significantly negative, indicating that diversity improves the probability of immigrants becoming wage earners and reduces the probability of becoming entrepreneurs. In inland areas, diversity has no significant impact on immigrants' entrepreneurial choices.

5.2.3. Influence differences of people with different skills

Theoretically, highly skilled people will have a more flexible adaptive response in the face of diverse environments and difficulties, and can absorb the external effects produced by diversification, which is conducive to the formation of division of labor and cooperation Low skilled people usually cater passively when facing diversity, and will also reduce the frequency of individual participation in social activities due to lack of trust. Therefore, for people with different skills, the impact effect of diversity will be different. According to the years of education of the respondents, people with different skills are divided into: Those with more than or equal to 16 years of Education (i.e. Completion of Undergraduate Education) are regarded as high skilled, and those with less than 16 years of education are regarded as low skilled.

In the estimation of **Table 5**, columns (5) and (6) report the impact of diversity on immigrants' entrepreneurial behavior when their education level is different. The results show that high skilled people and low skilled people are affected differently by the diversity of immigrants. Under the same other conditions, whether highly skilled people choose to start a business is not significantly affected by the diversity of immigrants. In contrast, the entrepreneurial probability of low skilled people will decrease significantly with the increase of diversity. This result means that increasing

human capital investment is a powerful barrier against potential risks brought by diversity.

Table 5. Estimation results of heterogeneity impact.

	Employer (1)	**Self-employed (2)**	**Coastal (3)**	**Landlocked (4)**	**Highly skilled (5)**	**Low skilled person (6)**
Immigrant diversity	0.0504 (0.0320)	0.1476** (0.0619)	0.6274*** (0.1149)	0.0533 (0.0384)	0.2526 (0.1685)	0.1231** (0.0611)
Control variable	Yes	Yes	Yes	Yes	Yes	Yes
N	67,103	97,880	48,970	54,498	4094	99,374
R2	0.1151	0.1656	0.1255	0.1666	0.1023	0.1676

Note: The explanatory variable is whether the entrepreneur or not Standard error of urban clustering in brackets, *p < 0.10,**p < 0.05,***p < 0.01.

6. Conclusion and Enlightenment

When people go out of the "local society" dominated by acquaintances and move towards the urban society dominated by strangers, with more and more immigrants gathering in the city, the diversity of the city is becoming more and more obvious. In economic activities, the diversity of immigrants will have unexpected effects. This paper attempts to provide micro evidence of the impact of immigration diversity from the perspective of individual entrepreneurial choice and demonstrate its mechanism. The study found that after controlling various factors that may affect entrepreneurship and endogenous problems, immigrant diversity will indeed reduce the probability of Immigrant Entrepreneurship. In a city with high diversity, people prefer to become wage earners rather than entrepreneurs. The mechanism is that diversity will significantly reduce the social trust and identity of immigrants, and then affect entrepreneurial activities. This paper also found the differences of the impact of diversity on entrepreneurship in different situationsfor entrepreneurs in the form of enterprises, the diversity of immigrants is more favorable, while for "Grass-roots" entrepreneurship in the form of self employment, the diversity of immigrants is unfavorable; Education level will play a certain role in hedging the impact of diversity on immigrants' entrepreneurship. The impact of diversity is also different in different regions (coastal vs. Inland).

This paper empirically confirms the impact and mechanism of immigrant diversity on individual entrepreneurial choice, and enriches the research perspective of diversity issues Although this paper concludes that the diversity of immigrants will significantly reduce the probability of immigrants' entrepreneurship, it does not mean that the diversity will have an adverse impact on other aspects of economic development In fact, diversity is full of challenges, but also contains various opportunities, with unlimited possibilities. For example, diversity is more conducive to innovation, and diverse teams will be more creative than homogeneous teams and can put forward creative solutions.

Based on the above research findings, the policy enlightenment of this paper is obvious: (1) because of the city registered residence control and exclusiveness, the floating population can not enjoy equal services. This naturally increases the psychological distance between migrants and their social integration. Therefore,

governments should do something to relax registered residence management, promote social security to form a mechanism of mutual recognition between city and city, and make floating population enjoy the local public welfare while contributing to the development of the city. (2) the government should make full use of the social activity mechanism to promote communication and interaction within the community, so as to make the floating population have close contact with residents, which not only strengthens the floating population's recognition of local culture, but also helps them to accumulate local social capital and carry out entrepreneurial activities. (3) entrepreneurs in the form of enterprises benefit from diversity, which reminds us that more "Schumpeter" entrepreneurship should be encouraged in the context of the diversity of urban immigrants However, it should be noted that most immigrants start their businesses in foreign places in the form of self employment. They may start their businesses passively because they are squeezed out of the employment market. Therefore, at the policy level, we should try our best to create a better institutional soft environment for immigrant self-employed households and increase business cooperation and social trust, so as to eliminate the negative effects of diversity. (4) highly skilled people and immigrants who have moved in for a long time can coexist with diversity. Therefore, urban policy-making departments should actively attract the flow of skilled talents and reasonably reduce the obstacles for the floating population to settle locally, so as to promote urban entrepreneurial activities and economic prosperity.

Conflict of interest: The authors declare no conflict of interest.

Note

1. The data comes from Kou zonglai and Liu XueYue (2017).

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