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## Does the Perception of Unemployment Risk Affect the Willingness of Urban Citizenship of Chinese New-Generation Migrant Workers?

Alan Zheng Ai-Xiang<sup>1</sup>

### Abstract

*Presently, the pace of transformation within traditional sectors of the Chinese economy is accelerating, resulting in the gradual demise of traditional occupations. Consequently, the emerging cohort of Chinese migrant workers confronts unprecedented challenges pertaining to their professional prospects and assimilation into urban society. In order to examine the impact of perceived unemployment risk on the inclination of new-generation migrant workers to embrace urban citizenship, we introduce the notions of environmental dynamism and active skill development as moderating variables. Employing multiple regression analysis, we construct a dual moderating model. The results of our study indicate that the perception of unemployment risk positively predicts the willingness of new-generation migrant workers to embrace urban citizenship. Moreover, we observe that environmental dynamism exerts a positive moderating influence on the relationship between unemployment risk perception and citizenship inclination. Additionally, active skill development serves to positively moderate the moderating effect of environmental dynamism. This study not only reveals the unique influence of subjective unemployment risk perception on the inclination towards urban citizenship but also sheds light on the role played by environmental dynamism and active skill development in this context. The findings of this research further enhance the theoretical framework pertaining to the study of urban citizenship inclination among new-generation Chinese migrant workers.*

**Keywords:** *perception of unemployment risk; willingness of citizenship; new-generation migrant workers; environmental dynamism; active skill development.*

### 1. Introduction

China's total economic strength has substantially increased since it implemented the reform and opening-up policy. However, the economic and social development of China's urban and rural areas is not balanced. There is a significant disparity between China's rural and urban areas in terms of employment opportunities, income, and the distribution of public resources. In this background, a significant portion of rural Chinese citizens have moved to the city to work in non-agricultural producing services, giving rise to the term "migrant workers." Among this group, new-generation migrant workers, those born after 1980 and engaged in or seeking non-agricultural urban work, have exceeded 50%, numbering 148 million in 2019 (National Bureau of Statistics of China 2019).

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<sup>1</sup> School of Management, Wuxi Institute of Technology, China, zhengax@wxit.edu.cn

According to statistics from Beijing Survey Team of National Bureau of Statistics (2020), the share of new-generation migrant workers with high school education and above reached 64.0%. Compared with the previous generation of migrant workers, or old-generation migrant workers, the education level of new-generation migrant workers has improved.

Furthermore, new-generation migrant workers have a stronger willingness to “citizenize” than the previous generation of migrant workers. They are reluctant to return to their hometowns in the countryside and prefer to stay and live in the city for a long time, expecting to have their own housing and urban resident “hukou” in the city, and have the same urban resources, status, and rights as urban citizens ((Tong & Cui 2010; Wang, Liu, & Lou 2011; Xia & Li 2020; Li, Gao, & Huang 2020). Due to their higher average education level than that of their predecessors and preference for urban life, new-generation migrant workers have garnered attention in research on the migrant population in China in nearly two decades.

Most migration studies are based on the theoretical construction and exploration of the “aspiration-ability” research framework (Bernard et al., 2022; Carling, 2002). The issue of unemployment in the process of obtaining urban citizenship by new-generation migrant workers is an area that Chinese scholars have paid more attention to in the past decade. Research in this field has mainly focused on the relationship between the unemployment risk and urban citizenship, including social integration and access to welfare services, of new-generation migrant workers originating from rural parts of China (Wang & Hu 2015; Zhang 2017). Some scholars have noted that the biggest risk facing migrant workers in the process of obtaining urban citizenship is employment and its derivative risks (Deng, Li & Yan 2015). Chinese scholars have generally argued that the risk of unemployment can reduce the quality of life of migrant workers, hinder their urban integration (Li et al. 2020; Xia et al. 2020).

The literature, however, has mainly focused on the impact of objective unemployment risk on the citizenship of new-generation migrant workers. As a subjective variable, the perception of unemployment risk on the citizenship willingness of new-generation migrant workers has received less attention in research because it can be difficult to measure. Conversely, scholars have easily measured and triangulated data on the actual unemployment risk of new-generation migrant workers, resulting in a dearth of research exploring subjective factors. Although academic circles have reached a consensus on the impact of unemployment risk on citizenship, it remains largely unknown whether perceived unemployment risk produces the same impact on the citizenship willingness of new-generation migrant workers.

China’s industrial development has accelerated significantly currently but the nature of the manufacturing and service industries has changed. Having provided the bulk of employment for China’s new-generation migrant workers before, these industries are now experimenting with new formats, such as ‘unmanned workshops’, ‘unmanned delivery vehicles’, and ‘unmanned warehouse’, which can save labour cost, and more importantly, can also prepare for the risk of labour shortages (Wang 2022). As such, jobs that new-generation migrant workers traditionally filled are gradually being replaced by ‘technology’. Currently, external environment has undergone dramatic changes (Dubey et al. 2021), and new-generation migrant workers have suffered unprecedented anxiety and tension over the risk of unemployment and the inability to find new jobs (Li, & Xie 2021). In light of this new reality, we introduce dynamic environmental variables into our study to test their impact on the relationship between perception of unemployment risk and the citizenship willingness of new-generation migrant workers.

Our survey findings indicate, however, that when faced with internal and external pressures, new-generation migrant workers can experience an increase in their willingness for citizenship. This phenomenon is particularly apparent among new-

generation migrant workers with different skill levels (Lu & Zhang 2017). Some scholars have pointed to the differences between new-generation migrant workers and those from the previous generation, such as differing education and skill levels, as a possible explanation for why new-generation migrant workers actively promote their own citizenship (Deng & Ye 2020). In light of these observations, we also introduce active skill development as a variable acting upon the willingness for urban citizenship of new-generation migrant workers.

## **2. Literature review**

Unemployment risk perception is an important branch in the field of risk perception. Risk perception theory stems from cognitive psychology; it involves the measurement and structure of risk perception and the influence of risk on behaviour (Fischhoff et al. 1978). According to risk perception theory, risk perception consists of a person's concerns about a specific thing or event, and it often showcases an individual's beliefs, attitudes, judgments, and emotions about risk (Wildavsky & Dake 1990; Parkinson 1993). Existing unemployment risk perception theories continue the logic of detraditionalisation found in risk perception research, where social issues are introduced through a psychology theoretical framework and presented based on individual perception (Broom, Rennie, & Strazdins et al. 2006; Zheng et al. 2021). Of course, due to individual preferences and experiences, people have ranging risk attitudes and risk perceptions when faced with different risks (Slovic 1987).

Regarding the formation of the perception of unemployment risk, some scholars have attributed the perception of unemployment risk to an individual's memory of past unemployment, suggesting that the perception of unemployment risk can have a negative impact on current and future behaviour towards employment. Grafova (2017) suggested that the perception of unemployment risk is related to past unemployment experience. Clark et al. (2010) noted that past experiences of unemployment can cause a 'scarring' effect, which can cause permanent psychological harm to people. Some scholars, however, hold different views. Laine (2009) noted that unemployment risk can come from the perception of future work insecurity, which can lead to negative behavioural responses and attitudes in the workplace, such as decreased job commitment and satisfaction. Knabe et al. (2011) also believed that the fear of unemployment is not necessarily the fear of past unemployment, but the subjective perception of future unemployment risk.

Although scholars have disagreed on the temporal source of the perception of unemployment risk, they have agreed that the perception of unemployment risk is shaped by the negative effects of unemployment. Unemployment not only affects a person's socio-economic status but can deprive them of social and cultural participation, which can further affect individual behaviour (Wang 2001; Strully 2009).

The literature from Chinese scholars on the perception of unemployment risk has been based on research on unemployment risk. Chinese scholars mainly focused on the unemployment risk brought about by the adjustment of industrial infrastructure. In recent years, some scholars have focused their attention on the unemployment risk caused by technology and gradually extended this research to unemployment risk and the perception of unemployment risk of migrant workers. Specifically, in studies of migrant workers in China, scholars have suggested that the unemployment risk of migrant workers primarily stems from their own low level of human capital and the influence of external institutions (Wen 2015). Unemployment risk not only affects the level and effectiveness of social integration of migrant workers, but it also affects their citizenship (Wang & Hu 2015; Li, Gao, & Huang 2020; Xia & Li 2020).

Compared with research on the unemployment risk of migrant workers, relatively few systematic studies on the perception of unemployment risk of migrant workers have been conducted. With regards to the formation of migrant workers' perception of unemployment risk, Zhong et al. (2014) noticed the potential risk of the large-scale frictional unemployment of migrant workers. They analysed agricultural work experience and education level as perceptual variables that can trigger this risk and affect the employment decisions of migrant workers. With the continuous development of China's industrial environment, Deng et al. (2018) attributed structural unemployment to migrant workers' perception of 'real perplexity' and tried to address associated challenges from the perspective of education relief. Finally, Che et al. (2019) suggested that cyclical unemployment constitutes one of the sources of migrant workers' unemployment risk perception. They noticed that other factors, such as lack of labour contracts, can also exacerbate this perception.

Both Chinese and Western scholars have made progress in research on unemployment risk perception theory. In the Western literature, research on unemployment risk perception has produced a series of results on its formation mechanisms and influencing factors. In China, local scholars have mainly studied unemployment risk but have recently taken interest in the perception of unemployment risk of migrant workers. However, research gaps do remain. On the one hand, scholars have primarily focused on the unemployment risk of migrant workers, with some research on the perception of unemployment risk. On the other hand, research on new-generation migrant workers has been relatively scarce, with a dearth of studies on the relationship between the perception of unemployment risk and willingness of citizenship of migrant workers.

Nowadays, the dynamism of the external environment continues to increase and employment opportunities remain uncertain. Compared with the previous generation of migrant workers, the rate of unemployment of new-generation migrant workers is generally higher (Zhong & Chen 2014), which can contribute to a disconnect between pre-existing expectations and the reality of urban life. Therefore, research on the unemployment risk perception and its influence on new-generation migrant workers' willingness of urban citizenship have strong research value, including strong practical and theoretical significance. Therefore, research on the unemployment risk perception and its influence on new-generation migrant workers' willingness of urban citizenship have strong research value, including strong practical and theoretical significance.

### 3. Research hypotheses

#### 3.1 Perception of unemployment risk and citizenship willingness

Compared with the local urban labour force, new-generation migrant workers have lower human capital. After migrating into the city, most new-generation migrant workers can only enter the secondary labour market to engage in low-tech jobs, and these jobs are typically characterised by low pay, poor working conditions, and easily replaceable employees (Wang & Lu 2014). More seriously, due to urban employment competition, new-generation migrant workers are often forced to accept informal labour contracts, excluding them from the unemployment insurance system (Yao 2001). Once unemployed, it can be difficult for them to obtain unemployment social security equal to that of urban-born workers (Zhang 2006). Ultimately, the unemployment risk caused by low human capital and precarious working conditions can inhibit the citizenisation of new-generation migrant workers in urban centres (Xia & Li 2020; Li, Gao & Huang 2020).

Unemployment risk perception refers to the perception of uncertainty, which may or may not reflect reality, in the occurrence of unemployment incidents among people with the ability to work (Li, Yang, Wu, Wang, & Long 2021). Hu (2015), and Ni et al. (2016) agreed that the urban unemployment of migrant workers is closely related to relative

deprivation. Urban unemployment stemming from labour market competition among low-skilled, low-capital, new-generation migrant workers can be considered as both economic deprivation and deprivation of opportunity. From this logic, the unemployment risk perception of new-generation migrant workers is essentially a manifestation of their sense of the relative deprivation of urban resources (Zheng et al. 2021). Stark et al. (1988) believed that the relative deprivation of urban resources is more likely to prompt potential migrant populations to make migration decisions and, under pressure, opt to stay in the destination city. Substantial urban migration and settlement can promote the expectation of receiving social welfare security, which in turn can remove the institutional obstacles caused by the lack of unemployment security (Wang & Lu 2014).

Given that a sense of urban deprivation can enhance the willingness of rural-dwelling individuals to migrate, the heightened income and opportunity deprivation can affect the willingness of new-generation migrant workers to become urban citizens.

In this context, we propose the following hypothesis:

Hypothesis 1: Perception of unemployment risk has a significant and positive effect on willingness of citizenship of new-generation migrant workers.

### 3.2 The moderating effect of environmental dynamism

Scholars have traditionally conducted research on environmental dynamism in business. Some scholars have suggested that environmental dynamism is closely related to corporate innovation and competitiveness (Roberts 2015; Hou, Hong, Zhu, & Zhou 2019). Environmental dynamism includes both the technological dynamism caused by technological substitution and upgrading and the market dynamism caused by changes in market demand and intensified market competition (Kim & Rhee 2009; Beckman, Haunschild, & Phillips 2004).

New-generation migrant workers also exist in a dynamic environment. Environmental dynamism provides career and development opportunities driven by technology and the market. Technological and market changes risen from environmental dynamism, however, can bring uncertainty and exacerbate the external risks facing new-generation migrant workers. In the current period, environmental dynamism has increased the vulnerability of new-generation migrant workers in urban settings. For example, the "replacement labor force with technology" process in pertinent industries and organizations was further accelerated nowadays, and unmanned, automated, and intelligent transformation was initiated (Wang 2022). Chinese National Bureau of Statistics reported that since 2020, China's industrial robots have had continuous sales increase after experiencing a negative growth trend in 2018 and 2019. (Chinese National Bureau of Statistics, 2021). This technological trend threatens the livelihoods of a large number of migrant workers employed in traditional industries, in addition to some more experienced skilled workers.

With the continuous enhancement of environmental dynamism, the urban survival of new-generation migrant workers includes a new set of challenges. The early human capital investment of new-generation migrant workers is relatively low, with ability barely meeting basic employment requirements (Wang & Hu 2015), while the changing dynamic environment is structurally accelerating the attenuation of the experience and knowledge of new-generation migrant workers and diminishing their future urban employment opportunities. The resulting unemployment risk perception may further aggravate the sense of crisis and deprivation of new-generation migrant workers in China's cities.

The perception of unemployment risk involves a sense of economic and opportunity deprivation (Zheng et al. 2021), with deprivation strengthening the willingness of migrant workers to become urban citizens. The changing dynamic environment can therefore stimulate the acquisition of urban identity and resources by new-generation migrant

workers. We believe that the more dynamic the environment, the greater the pressure on the perception of unemployment risk, and the stronger the willingness of new-generation migrant workers to become urban citizens, and vice versa.

In this context, we propose the following hypothesis:

Hypothesis 2: Environmental dynamism has a positive moderating effect on the relationship between perception of unemployment risk and willingness of citizenship among new-generation migrant workers.

### 3.3 The moderating effect of active skill development

At present, the dynamism of the external market and technological environment continues to increase, affecting the balance of supply and demand in the Chinese labour market (Sun & Huang 2017). In this context, academia and government are increasingly concerned about how to prevent the resulting unemployment risk. According to some scholars, the key to solving this problem lies not in industrial upgrading but in investment in human capital (Zhang 2017). Ding (2016), and Deng et al. (2020) further proposed that new-generation migrant workers should receive capacity building and skills training to better adapt to the city. Compared with traditional passive capacity building, the goals and content of an individual's active pursuit of skill improvement can differ.

In terms of goal orientation, active skill development aims to adapt to changes in the environment and promote career growth through the process of urban integration and citizenship, rather than merely satisfying basic employment needs. In terms of content, active skill development belongs to the category of high-level learning and the autonomous improvement of knowledge and skills instead of static, passive acquisition of employment skills. The differences between traditional employability training and active skill development also indicate a disparity in the pre-citizenship stage of new-generation migrant workers. Through active skill development, new-generation migrant workers can explore and obtain new urban opportunities and adapt to the uncertainties of employment (Liu & Pang 2003).

Duan et al. (2015) noted that personal skills development involves a process of cognitive improvement. In current period, with the acceleration of technological and industrial upgrading, it is no longer possible to meet the needs of social development through passive employment skills training. Faced with the risk of unemployment caused by insufficient technological skills and analytical ability, new-generation migrant workers have shown an increasingly strong sense of anxiety and crisis (Zhang et al. 2017). In this context, active skills improvement may serve as a way forward during an unprecedented time.

Active skill development is an ability development mode that adapts to and fits within the dynamism of the current environment. If the impact of unemployment risk perception on willingness of citizenship in the current dynamic environment can be attributed to the sense of internal and external crisis that contributes to the setting of citizenship goals, then active skill development assumes the role of active behavioural intervention for new-generation migrant workers. As a direct change in capabilities, the active skill development of new-generation migrant workers can strengthen the moderating effect of environmental dynamism.

In this context, we propose the following hypothesis:

Hypothesis 3: Active skill development positively moderates the moderating effect of environmental dynamism.

The conceptual model based on the above analysis is shown in Figure 1.

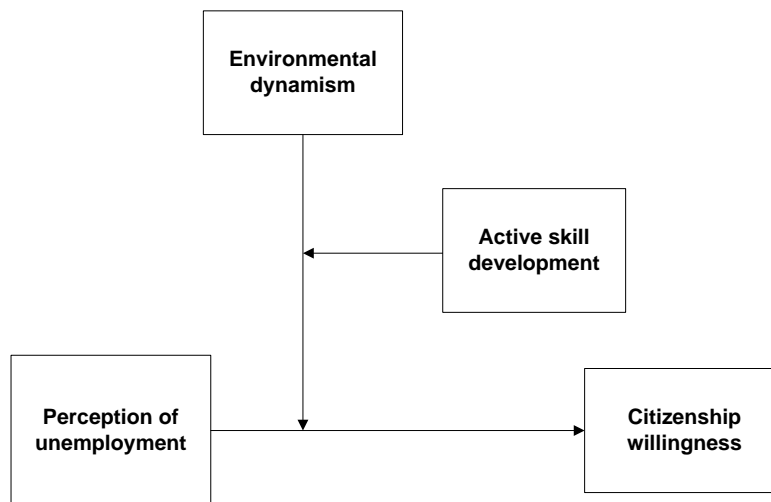


Figure 1. Conceptual model of the mechanisms of perception of unemployment risk on willingness of urban citizenship of Chinese new-generation migrant workers

## 4. Research process

### 4.1 Scale design

In this study, we used the Likert 5-level scale to set the measurement for each variable, where 5 means ‘strongly agree’, 4 means ‘relatively agree’, 3 means ‘fair’, 2 means ‘relatively disagree’, and 1 means ‘strongly disagree’.

We borrowed the initial scale used in this study from existing scales. To help new-generation migrant workers better understand and answer the questions, we adjusted a few items. To ensure the quality of the scale after forming the initial scale, we invited three professors in the field to review the initial scale, paying particular attention to the rationality and accuracy of the items involved in each variable in the scale, including the logical order of each item. After the review and optimisation, we carried out a pre-test of the scale. After the completion of the two rounds of optimisation, we formed a final scale. The specific items of the scale are as follows:

1. Perception of unemployment risk. Drawing from the scale of Zheng et al. (2021), it includes 15 items. Representative items are ‘I am worried that I will be made unemployed’, and ‘If I were unemployed, I wouldn’t be able to maintain my daily expenses’.
2. Willingness of citizenship. Drawing from the scale of Hu (2015), it includes three items. Representative items are ‘I have the willingness to obtain a registered permanent residence in the city’, and ‘I have the willingness to live according to the urban lifestyle’.
3. Environmental dynamism. Drawing on the scale of Li et al. (2014), it includes four items. Representative items are ‘The technology in our industry progresses quickly’, and ‘The acts of competitors are difficult to predict’.
4. Active skill development. Drawing on the scale of Deng et al. (2020), it includes six items. Representative items are ‘I will actively think about new methods that can improve work efficiency’, and ‘I can use the knowledge and skills I have learned to improve existing work methods and processes’.

### 4.2 Questionnaire distribution and data collection

The survey spanned from September to October in 2021. The main survey subjects of this study came from new-generation migrant workers in Jiangsu Province and Zhejiang Province. The provinces above are the primary migration destinations for migrant

workers in China. In terms of the age definition of new-generation migrant workers, we selected migrant workers born after 1980 as the survey object based on the standards set by the National Bureau of Statistics of the National Migrant Workers Monitoring and Survey Report in 2019.

We used stratified random sampling to select the survey samples according to the size of the migration population in the two provinces. Hair (1995) noted that the number of questionnaires distributed should be 5 to 20 times the number of items to ensure the quality of the survey. We followed this standard when we issued questionnaires to enterprises that employed migrant workers.

In the research process, firstly, the research team chose to distribute the questionnaires at the enterprises. The research team contacted the human resource management department of the enterprise in advance and informed the enterprise of the purpose of this survey. With the understanding and support of the enterprise, the researcher conducted a random sample based on the list proposed by the enterprise's human resource management department. After completing the sampling, the respondents were surveyed during their work breaks and the questionnaires were collected on site. A total of 260 questionnaires were distributed in this method and 253 were collected.

In order to reach more migrant workers and improve the reliability of the research. The research team randomly selected new generation migrant workers in station waiting squares and waiting halls in Suzhou and Wuxi in Jiangsu Province and Hangzhou and Wenzhou in Zhejiang Province. These four cities are all the " the most popular cities for migrant workers " in China. The researcher informed the migrant workers of the purpose of the research in order to gain their support. After obtaining their consent, the questionnaires were then distributed and collected on site. A total of 252 questionnaires were distributed in this way and 236 were collected.

In the end, a total of 512 questionnaires were distributed and 489 were collected in both methods. After eliminating invalid questionnaires, 452 valid questionnaires were collected. Among them, 292 were from Jiangsu Province and 160 were from Zhejiang Province.

## 5. Data analysis and results

We used SPSS 19.0 to perform descriptive statistical analysis and supplemented it with Amos 18.0 to measure the reliability and validity of the model. On this basis, SPSS 19.0 was used to test the relationship between the variables in the model and to verify the proposed hypothesis.

### 5.1 Descriptive statistics

The following table shows the results of the descriptive statistical analysis. The indicators of gender, education level, marital status, and income are generally close to the distribution of national indicators in the National Bureau of Statistics of the National Migrant Workers Monitoring Survey Report 2019. The results indicate that the samples selected for this study are representative (see Table 1). Table 2 shows the means, standard deviations, and correlations of the study variables.

Table 1. Sample Characteristics (N = 452)

	Classification	<i>n</i>	Percentage		Classification	<i>n</i>	Percentage
Gender	Male	272	60.2	Working years	Below 1 year	45	10.0
	Female	180	39.8		1 - 5	121	26.8
Education level	Primary school or below	13	2.9		6-10	133	29.4
	Middle school	132	29.2		10-15	112	24.8



51 Does the Perception of Unemployment Risk Affect the Willingness of Urban Citizenship of Chinese New-Generation Migrant Workers?

	High school	225	49.8		16-20	35	7.7
	College or above	82	18.1		More than 20	6	1.3
Marital status	Married	289	63.9	Income (Chinese Yuan)	Below 2,000	49	10.8
	Unmarried	152	33.6		2,000-3,000	61	13.5
	Divorced	11	2.4		3,000-4,000	183	40.5
Age group	16-20	47	10.4		4,000-5,000	120	26.5
	21-25	193	42.7		5,000-6,000	25	5.5
	26-30	153	33.8		6,000-7,000	10	2.2
	31-35	53	11.7		Above 7,000	4	1.0
	36-41	6	1.3	Total	-	452	100.0

Table 2. Mean, Standard Deviation, and Correlation Matrix

Variable	Mean	Standard deviation	Gender	Age	Education level	Income	Perception of unemployment risk	Willingness of citizenship	Environmental dynamism	Active skill development
Gender	0.600	0.490	1.000							
Age	2.510	0.880	0.013	1.000						
Education level	2.830	0.749	0.004	-0.035	1.000					
Income	3.130	1.201	0.407**	0.236**	-0.010	1.000				
Perception of unemployment risk	3.264	0.816	0.112*	-0.039	-0.014	0.008	1.000			
Willingness of citizenship	3.513	0.911	0.011	0.079	0.014	0.069	0.499**	1.000		
Environmental dynamism	3.807	0.746	0.166**	0.054	-0.076	0.196**	0.397**	0.459**	1.000	
Active skill development	3.867	0.747	0.101*	0.154**	-0.105*	0.138**	0.259**	0.406**	0.625**	1.000

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

### 5.2 Reliability and validity analyses

We conducted reliability analysis before validity analysis. Reliability reflects the consistency of measurement tools in repeated measurements. After measurement, the Cronbach's alpha value of each variable in this study was above the standard value: the unemployment risk perception was 0.930; the citizenship willingness was 0.911; the environmental dynamism was 0.874; and the active skill development was 0.954. The above results indicate that the various scales used in this study could explain the research variables consistently and had high reliability.

Validity reflects the measurement accuracy of the measurement tool. After measurement, the Kaiser-Meyer-Olkin (KMO) values of all measurement scales in this study were above the standard value: the unemployment risk perception was 0.914; the citizenship willingness was 0.753; the environmental dynamism was 0.849; and the active skill development was 0.914. The above results indicate that the measurement accuracy of each scale in this study was relatively high, with high structural validity.

### 5.3 Hypothesis testing

In this study, according to the steps proposed by Wen et al. (2006), we carried out the moderating effect test in sequence: (1) perform the regression of Y on X and M to obtain the measurement coefficient  $R_1^2$  and (2) perform the regression of Y on the product of X, M, and XM and get  $R_2^2$ . If  $R_2^2 > R_1^2$ , the moderating effect is significant (See Table 3 for the specific results).

Table 3. Regression Analysis Results

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Variable	Willingness of citizenship	Willingness of citizenship	Willingness of citizenship	Willingness of citizenship	Willingness of citizenship	Willingness of citizenship
Gender	-0.014	-0.079*	-0.097*	-0.110*	-0.111**	-0.110**
Age	0.066	0.082*	0.074*	0.077*	0.053	0.056
Education level	0.017	0.025	0.046	0.045	0.055	0.055
Income	0.059	0.078*	0.026	0.031	0.034	0.030
Perception of unemployment risk		0.511***	0.388***	0.356***	0.348***	0.294***
Environmental dynamism			0.315***	0.348***	0.233***	0.232***
Perception of unemployment risk* Environmental dynamism				0.104*	0.115**	0.175***
Active skill development					0.194***	0.158**
Perception of unemployment risk* Environmental dynamism* Active skill development						0.125*
<b>R<sup>2</sup></b>	0.009	0.266	0.345	0.355	0.377	0.384
<b>ΔR<sup>2</sup></b>	-	0.257	0.079	0.009	0.022	0.007

\*p < 0.1

\*\*p < 0.01

\*\*\*p < 0.001.

Model 1 of this study is the regression of citizenship willingness on the control variables. Citizenship willingness had no significant effect on the control variables, such as gender, age, education level, and income.

Model 2 adds the unemployment risk perception variable on the basis of Model 1. The regression coefficient  $\beta$  of this variable was 0.511 ( $p < 0.001$ ), indicating that the perception of unemployment risk has a positive effect on the citizenship willingness of new-generation migrant workers. These findings support Hypothesis 1.

Model 3 adds environmental dynamism of the moderating variable on the basis of Model 2, and the regression coefficient  $\beta$  of this variable was 0.315 ( $p < 0.001$ ), indicating that environmental dynamism has a significant impact on willingness of citizenship. To further test the moderating effect of environmental dynamism, Model 4 adds the product term of unemployment risk perception and environmental dynamism on the basis of Model 3. Model 4 improves Model 3 significantly ( $\Delta R^2 = 0.009$ ) and the regression coefficient  $\beta$  of the product term was 0.104 ( $p < 0.1$ ), indicating that environmental dynamism has a positive moderating effect on the relationship between unemployment risk perception and citizenship willingness. Under the influence of high environmental dynamism, the perception of unemployment risk had a certain promoting effect on the willingness of citizenship, whereas under the influence of low environmental dynamism, the perception of unemployment risk had less effect on the willingness of citizenship, indicating support for Hypothesis 2.

To further test the effect of active skill development on the moderating effect of environmental dynamism, Model 5 adds the moderating variable active skill development

on the basis of Model 4. The regression coefficient  $\beta$  of this variable was 0.194 ( $p < 0.001$ ), indicating that active skill development has a significant impact on the willingness of citizenship. On this basis, Model 6 further adds the product term of unemployment risk perception, active skill development, and environmental dynamism. Model 6 demonstrated a significant improvement over Model 5 ( $\Delta R^2 = 0.007$ ), and the regression coefficient of the product term  $\beta$  was 0.125 ( $p < 0.1$ ), indicating that active skill development has a positive moderating effect on the moderating effect of environmental dynamism. These findings support Hypothesis 3.

## 6. Discussion and conclusion

This study establishes an analytical framework for examining test the impact of unemployment risk perception on willingness of citizenship of new-generation migrant workers through a questionnaire survey involving 452 respondents.

(1) Firstly, we studied the influential mechanism of citizenship willingness of new-generation migration workers from a new subjective perception perspective and found that the perception of unemployment risk promotes the formation of desire for citizenship.

Previous studies generally believed that unemployment would suppress the citizenship willingness (Li, Gao, & Huang 2020; Xia & Li 2020), and the conclusion of this research opposes the conclusions of objective unemployment and the quality and willingness of citizenship in previous studies. We found that the perception of unemployment risk has a positive effect on the citizenship willingness of new-generation migrant workers. Our conclusion further enriches existing theories of citizenship willingness and addresses the gap in theoretical research on perception of unemployment risk of migrant workers. On the other hand, this conclusion supports research by Stark et al. (1988) and Hu (2015), who suggested that a sense of urban deprivation can strengthen the willingness to migrant of a potential migrant population. The results show that, when facing the pressure of urban unemployment risk, new-generation migrant workers are eager to obtain urban citizenship and look forward to receiving the same social welfare as urban citizens. Therefore, the stronger the perception of unemployment risk, the stronger the willingness of new-generation migrant workers to gain urban citizenship.

(2) Secondly, we found that environmental dynamism can positively moderate the effect of an individual's internal risk perception on citizenship willingness. This conclusion complements the conclusions on the effect of environmental dynamism on the business (Roberts 2015; Hou, Hong, Zhu, & Zhou 2019), and illustrates the special role of environmental dynamism on the psychological influence mechanism of individual behaviour.

We found that environmental dynamism has an intensifying effect on new-generation migrant workers' individual citizenship willingness, which relates to the content and intensity of the effect of environmental dynamism on new-generation migrant workers. After experiencing unprecedented labour shortages and now faced with increasing labour costs, some companies in China's manufacturing, commerce, and service industries are restructuring to rely on technology upgrades. This trend will significantly impact the employment and perception of risk unemployment of new-generation migrant workers.

At present, the overall education and skill levels of new-generation migrant workers in China is low and many work in front-line positions in labour-intensive industries (National Bureau of Statistics of China 2019) that are particularly vulnerable to technological restructuring (Li & Xu 2017). The current domestic market environment has become more dynamic due to the current downward pressure on China's domestic economy, the increasing intensity of competition among relevant industries, and the impact of the Sino-US trade war.

Furthermore, the environmental dynamism has made the fragile urban working and living environment of new-generation migrant workers more unstable. To address the instability caused by environmental dynamism, new-generation migrant workers become more hopeful of obtaining urban citizenship rights to eliminate the risks caused by the lack of unemployment protection.

(3) Finally, this study also found that active skill development positively moderates the moderating effect of environmental dynamism on the perception of unemployment risk and the citizenship willingness of migrant workers. This conclusion addresses the countermeasures to deal with the dynamism of the external environment and to increase the citizenship willingness of new-generation migrant workers.

On the methodological level, it identifies the strategies of new-generation migrant workers facing the risk of unemployment in current period, which shows that the level of individual active skill development can affect the environmental dynamism mechanism to a certain extent, thus affecting the willingness of citizenship of new-generation migrant workers. On the one hand, the results show that the stronger the active skill development, the stronger the ability of new-generation migrant workers to cope with environmental dynamism, and the stronger the role of subjective unemployment risk perception in promoting citizenship willingness. On the other hand, the research conclusion shows that active skill development is a necessary measure to adapt to dynamic environmental changes and promote willingness of citizenship. Combined with the research of early scholars (Ding 2016; Deng et al. 2020), we show that skill development can restrain the negative impact of unemployment risk on both objective and subjective levels and promote the citizenship willingness of new-generation migrant workers.

## 7. Contributions and future research

Currently, environmental dynamism has particularly affected new-generation migrant workers occupying basic front-line positions, and new-generation migrant workers are facing unprecedented challenges on their career and urban survival. Although the relationship between unemployment risk and the willingness of new-generation migrant workers to obtain urban citizenship has been explored, there is a dearth of research on the perception of unemployment risk as a causal mechanism on willingness of citizenship.

By constructing a theoretical model and conducting empirical tests, we not only identified a positive predictive effect of unemployment risk perception on the willingness of citizenship of new-generation migrant workers in the current period but discovered the moderating effect of environmental dynamism on the relationship between the perception of unemployment risk and willingness of citizenship. In addition, we demonstrated that active skill development can positively moderate the moderating effect of environmental dynamism on the perception of unemployment risk and willingness of citizenship of migrant workers. We built this model from assumptions on psychological perception of unemployment risk, environmental dynamism, and the active development of skills, revealing the mechanism of the perception of unemployment risk on willingness of citizenship of migrant workers, which deepens the formation of the willingness of citizenship. An understanding of the mechanism provides a useful theoretical foundation for future research.

This study has certain limitations. Given that the distribution of the questionnaires took place in Jiangsu Province and Zhejiang Province, future research should further expand the geographical scope of survey to improve the adaptability and interpretability of the model. In addition, this research mainly involves the study of perception of unemployment risk and willingness of citizenship of new-generation migrant workers but did not explore the issue of substantive citizenship of migrant workers. Future studies should consider further examination of citizenship quality and social integration of new-

generation migrant workers, among other variables, to explore the mechanism of the impact of migrant workers' unemployment risk perception on citizenship.

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