The Development Direction of the Citizenization of the Agricultural Migrant Population from the Perspective of Classified Citizenization

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Abstract. Economic and technological advances have caused numerous rural surplus laborers to leave the land and flock to the cities in search of survival opportunities. The transition of the agricultural population from farmer to citizen is a long and multi-factor process. This study selected the statistic of Chengdu City in the 2018 China Migrants Dynamic Survey (CMDS), and introduced the Boston Matrix Method to divide the agricultural migrant population of Chengdu into Cash cows, Dogs, Stars and Question Marks groups according to the economic level and the willingness of the citizens. And the group characteristics and development direction were analyzed to help improve the efficiency of the citizenization of the agricultural migrant population.

Keywords: Classified citizenization · The Boston Matrix Method · Agricultural migrant of population

1 Introduction

Agricultural migrants are those who work and live in urban areas (towns) and whose household registration is in rural areas; Citizenization refers to the process in which the agricultural migrant population has equal access to the same basic public services as the urban household registration population in cities and towns. Generally, the citizenization of migrant agricultural population refers to the social phenomenon that some farmers who had been engaged in agricultural production in rural areas moved to cities and lived and worked in cities for a long time after the reform and opening up. According to the "2019 National Economic and Development Statistical Communiqué of the People's Republic of China" released by the National Bureau of Statistics, in 2019, the citizenization rate of China's permanent population has reached 60.6%, and the citizenization rate of the household registration population has reached 44.38%. However, 13.22% of them have lived and worked in cities for more than 6 months and contributed to the development of cities, but they have not completed the citizenization of their social status and are in the state of "semi-citizenship" even though they have already achieved spatial migration and career transformation. In real life, there are differences with locals, and there are obvious phenomena of semi-citizenization and pseudo-citizenization.

The development of modern cities has gained benefits brought by the migrant agricultural population, but failed to give back to the huge migrant agricultural population and local citizens equal public services, rights and social status. Problems in the process of citizenization of the agricultural migrant population have affected the quality of China's urbanization and social equity, which in the long run will intensify social conflicts and need to be solved urgently.

2 Literature Review

What is the real "citizenization", and what factors hinder the pace of citizenization of the migrant agricultural population? At present, scholars have extensively discussed the problem of citizenization of the migrant agricultural population. The researchers mainly focus on the factors influencing the ability and willingness of citizenization of the migrant agricultural population, the standards of citizenization of the migrant agricultural population or the development process of citizenization.

There are a variety of criteria and insights on the standards and development process of the existing research on the citizenization, and Wei Song believes that the citizenization includes the four aspects of identity citizenship, economic citizenization, cultural citizenization, and social welfare protection citizenization [1]. Hongqian Qi proposed that the basic process of peasants to citizens is that farmers break through the shackles of occupation, migrant to agriculture, become agricultural migrant population, and then become real "citizens" through economic citizenization and the citizenization of people, completing this process [2]. Jian Zhu constructed an evaluation index system for the citizenization of the agricultural migrant population from the three aspects of identity, rights and behavior awareness, and put forward countermeasures and suggestions for the citizenization of the agricultural migrant population [3]. Scholars have not yet reached a conclusion on the criteria for the citizenization of the agricultural migrant population, but it is clear that the achievement of the citizenization requires the agricultural migrant population to be no different from the citizens in economic, cultural, social and other aspects, and become a complete citizen. The citizenization of the agricultural migrant population is an important breakthrough point to break the phenomenon of semi-citizenization and pseudo-citizenization, and it is also an important driving force for achieving high-quality citizenization.

Regarding the research on the influencing factors of the citizenization of the agricultural migrant population, from a macroscopic point of view, some scholars believe that the economy, system and culture are important influencing factors for the citizenization of the agricultural migrant population [4]. Specific to people's livelihood and social factors, some scholars believe that the urban integration of housing, employment, household registration system, lifestyle and ideological concepts plays an important role in the process of citizenization of the agricultural migrant population [5]. Living environment problems and the degree of detachment from agricultural production have had a significant positive impact on the willingness of the agricultural migrant population to be urbanized [6]. Some studies have focused on the economic situation, taking Chengdu as an example, pointing out that the income level, urban living expenditure, contracted land area, and the length of time for agricultural migrants to work in the city have a significant impact on their willingness to become citizens [7]. Self-employed migrant workers

Variable	Obs	Mean	Std. Dev.	Min	Max
Ladderscore	149	5.532832	1.073923	2.5229	7.8421
LoggedGDPp~a	149	9.432209	1.158585	6.635322	11.64656
Socialsupp~t	149	.8147263	.114892	.4625956	.9829379
Healthylif~y	149	64.99278	6.762071	48.478	76.95286
Freedomtom~s	149	.7915718	.1133145	.3817485	.970131
Generosity	149	-.0151491	.1506531	-.2881526	.541553
Perception~n	149	.7274772	.179266	.0819586	.9393432

Fig. 1. Classification of agricultural migrant population by Boston matrix method

have a significantly lower sense of urban identity, even if they have higher incomes and stronger citizenization capabilities. In addition to paying attention to the citizenization of the economy, the agricultural migrant population living and working in the city should also pay attention to the household registration system and the establishment of urban social networks.

Based on the review of the literature, the previous research results have reflected the difficulties and obstacles encountered by the agricultural migrants in the process of citizenization. However, there is a lack of stratified and classified studies on the agricultural migrant population in this field. Therefore, based on the perspective of citizenization, this paper will classify the migrant agricultural population according to the problems experienced in the process of citizenization, jumping out of the thinking of phased citizenization, and then accurately put forward suggestions conducive to citizenization.

3   The Boston Matrix Method was Introduced to Divide the Agricultural Migrant Population into Groups

Many previous studies focused on the process of citizenization, but this paper considers that citizenization of migrant agricultural population is a multi-combination, complex and slow process, and multiple factors affect different individuals at the same time. Due to the differences in individual environmental adaptability and subjective initiative, the citizenization of the migrant agricultural population is obviously "non-procedural". Therefore, it is necessary to split this group and accurately boost the citizenization of the migrant agricultural population through personalized analysis of their situation and the regional characteristics of the cities they live in.

To better understand the characteristic conditions of rural migrant population, this paper introduces the Boston Matrix method, which was established by Boston Consulting Group in 1970. According to previous studies, economic level and citizenization intention are the key subjective and objective conditions that scholars concluded in exploring the citizenization results of migrant agricultural population. Therefore, this study replaces the relative competitive position and market growth rate of Boston matrix method with economic level and citizenization intention, and plots the classification graph of agricultural migrant population (Fig. 1).

This paper obtains the data from the China Migrants Dynamic Survey (CMDS) in 2018, which covers 34 provinces and cities in China, with a total sample size of 152,000, covering a wide range of coverage and representative sample size. Considering the different levels of economic development of provinces and cities across the country,

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. reg LifeLadder Positiveaffect Negativeaffect

      Source |       SS           df       MS      Number of obs   =        94
-------------+----------------------------------   F(2, 91)        =     23.33
       Model |  29.4710884         2  14.7355442   Prob > F        =    0.0000
    Residual |  57.4800224        91  .631648598   R-squared       =    0.3389
-------------+----------------------------------   Adj R-squared   =    0.3244
       Total |  86.9511109        93  .934958181   Root MSE        =    .79476

-------------+----------------------------------------------------------------
   LifeLadder |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Positiveaffect |   2.379465   1.045025     2.28   0.025     .3036503    4.455279
Negativeaffect |  -5.739083   1.105386    -5.19   0.000    -7.934797    -3.54337
        _cons |   5.822049    .9233634     6.31   0.000     3.987901    7.656197
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Fig. 2. Proportion of various groups of agricultural migrant population

the average wage of urban population is different, this paper intends to select a city as a case for analysis. Chengdu, as a new first-tier city, is in the center of the chengdu-Chongqing economic circle, attracting a large number of people to work and havings a large proportion of migrant population. According to The Petty-Clark theorem, the migrant agricultural population will continue to transfer to the secondary and tertiary industries and flow into the city, so Chengdu is faced with the challenge of citizenization of the migrant agricultural population. Therefore, the sample size of migrant population in Chengdu, Sichuan province was selected as the data source for this study.

3.1 Data Processing

In the 2018 China Migrants Dynamic Survey (CMDS), the sample size of Chengdu city was 2000, the author excluded 340 samples and 224 erroneous samples with non-agricultural household registration among the migrant population, and finally, the effective sample size extracted was 1436.

According to the Announcement of Chengdu Municipal Bureau of Statistics on the Average Salary of Employed Personnel in All Urban Units in 2018, the average salary of employed individuals in urban areas in Chengdu was 5,942 yuan in 2018. Therefore, 5942 yuan is taken as the dividing line in this study, and individuals with monthly income above 5942 yuan are considered to have the economic level of citizenization. In addition, those individuals who indicated in the questionnaire that they are unwilling or have not decided to continue to stay in Chengdu in the future are divided into the group with low intention of citizenization. After dividing the sample size, it was found that the proportions of the question marks group, the dogs group, the stars group and the cash cows group decreased successively, among which the proportion of the question marks group was as high as 68%, while the cash cows group only accounted for 2% (Fig. 2).

After classifying the agricultural migrant population, this paper predicts that there will be some differences and stratifications in the personal characteristics (education, age), economic level (occupation) and social security (medical and health care) of various groups, so the four groups are statistically described from the three aspects of personal characteristics, economic level and social security.
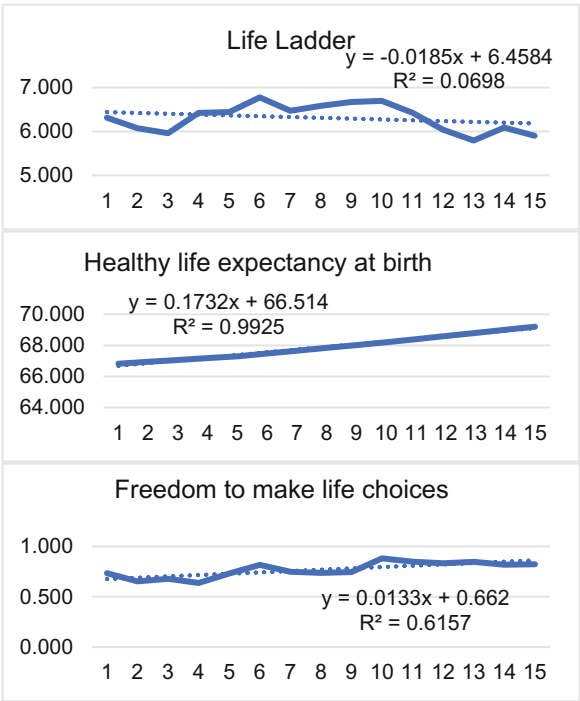
Life Ladder
$y = -0.0185x + 6.4584$
$R^2 = 0.0698$

7.000
6.000
5.000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Healthy life expectancy at birth
$y = 0.1732x + 66.514$
$R^2 = 0.9925$

70.000
68.000
66.000
64.000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Freedom to make life choices

1.000
0.500
0.000
$y = 0.0133x + 0.662$
$R^2 = 0.6157$
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Fig. 3. Radar chart description of the age of four groups of agricultural migrant population

3.1.1 Individual Characteristics of the Four Groups (Education, Age)

This article divides the questionnaire into seven categories: "unschooled", "primary school", "junior high school", "high school", "junior college", "university" and "graduate student", which are divided into three categories: "have not attended school", "received compulsory education" and "received higher education". The age and education of different groups in the four groups were described and counted, and the results showed that the descending order based on the average age found that the proportion of the number of educated people in the cash cows group, the stars group, the dogs group, and the question marks group continued to rise, showing a positive correlation between age and education. The cash cows group, which has the level of the urban economy but lacks the willingness to be urbanized, has received different degrees of compulsory education. Although the current agricultural migrant population belonging to the question mark group is in a weak position at the economic level, in terms of its education level, this group has the largest number of migrants receiving compulsory education and higher education in the sample size, and it is speculated that the economic level of this group is related to the number of years of work (Figs. 3 and 4).

Variable Name	Label	Number of Splitting Rules	Number of Surrogate Rules	Importance
Social_support		0	5	1.00000
Freedom_to_make_life_choices		1	4	0.98689
Logged_GDP_per_capita		2	2	0.96768
Healthy_life_expectancy		0	4	0.93181
Generosity		1	3	0.78672
Perceptions_of_corruption		1	2	0.72553

Fig. 4. Histogram description of education level of four groups of agricultural migrant population

3.1.2 Description of the Economic Level of the Four Groups (Occupation)

Employment is the top priority for people's livelihood. The questionnaire expanded a total of 19 occupations, such as "heads of state organs, party and mass organizations, enterprises and institutions", "professional and technical personnel", "civil servants, clerks and related personnel", and "business". Different groups generally tend to be consistent in terms of the trend of industry selection, and the four groups of people have invariably shown significant agglomeration in the four low-tech occupations of "business", "catering", "security" and "other commercial and service personnel". Only the question marks group has an agricultural migrant population engaged in all occupations, and there are responsible persons of state organs, party and mass organizations, enterprises and institutions, and there is a large space for social responsibility and growth; At the same time, the content of "professional and technical personnel", "production" and "other production and transportation equipment operators and related personnel" in the question marks group is the largest. It can be concluded that the question marks group has great prospects for citizenization. The dogs group and the stars group are roughly the same number of people in different occupations. The cash cows group showed obvious stratification, with the number of "business" and "other business and service personnel" accounting for up to 72% (Fig. 5; Table 1).

3.1.3 Social Security Descriptions of the Four Groups (Health Care)

Health care is the basic condition for residents to build a better life, and it is an important measure of residents' enjoyment of basic public services. In the CMDS, the medical and health sector on the agricultural migrant population itself includes four groups of insurance: basic medical insurance for urban and rural residents, new rural cooperative medical care, urban residents' medical insurance and urban workers' medical insurance. The "Interim Measures for the Basic Medical Insurance of Urban and Rural Residents in Chengdu" stipulates that the basic medical insurance of urban residents and the new rural cooperative medical care are integrated, so this paper combines the data of the basic medical insurance of urban and rural residents, the new rural cooperative medical insurance, and the urban residents' medical insurance, and the data becomes two categories: urban and rural residents' medical insurance and urban workers' medical insurance. After selecting the sample of "I am not sure which medical insurance I participated in" in the sample size of Chengdu, the analysis found that according to the provisions that insured persons are not allowed to participate in and repeat the medical insurance treatment at the same time, the medical insurance coverage rate of the two insurance groups is 99.2%, which almost achieves full coverage.

Table 1. Occupational Description of four groups of agricultural migrant population

Occupation	Stars group (quantity)	Question marks (quantity)	Dogs group (quantity)	Cash cows group (quantity)
Heads of state organs, party and mass organizations, enterprises and institutions	0	4	0	0
Professional technicians	8	56	10	2
Civil servants, clerks and related personnel	1	6	1	0
Businessman	33	203	48	6
Peddler	6	19	7	1
Catering	31	90	30	3
Housekeeping	3	10	3	0
Cleaning	9	38	11	0
Security Staff	32	54	33	1
Renovation	8	68	10	0
Express	7	17	6	1
Other business and service personnel	42	205	45	8
agriculture, forestry, animal husbandry, fishery, water conservancy industries	2	6	1	1
Producation	4	87	4	0
Transport	5	28	5	0
Architecture	7	27	7	0
Other production and transportation equipment operators, related personnel	1	31	1	0
On the drift	3	16	3	1
Others	3	13	2	1

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Fit Statistics
Model Selection based on Valid: Average Squared Error (_VASE_)

                                      Valid:     Train:
                                      Average    Average        Train:
          Selected   Model     Model  Squared    Squared    Misclassification
          Model      Node   Description  Error     Error          Rate

             Y        Reg    Regression   0.36155   0.25389         .
                      Neural Neural Network 0.47805 0.13581         .
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Fig. 5. Line chart description of four groups of occupations of agricultural migrant population

After further statistics on the employment status of the agricultural migrant population, it was found that 65.1% of the agricultural migrant population with fixed employers, while the coverage rate of urban workers' medical insurance was 30.5%, and 34.6% of the agricultural migrant population could only purchase urban and rural residents' medical insurance. With doubts, this paper analyzes the proportion of the sample size of urban workers' medical insurance within this group, and finds that the stars and cash cows groups with high willingness to urbanize show a high proportion of urban workers' medical insurance purchases, while the urban workers' medical insurance purchase ratio of cash cows and dogs groups is only 4% and 3.3%.

3.2   Analysis of Four Groups

The Boston Matrix Method gives the direction of activity for various groups of business units: " cash cows " business units do not need more investment, but only use the existing market share to bring profits to the enterprise; "Stars" business units should receive more investment to increase the scale of their production; "Question marks" business units should invest the necessary funds to increase market share and transform them into "Stars", and if the road to transformation is blocked, they should abandon the field in a timely manner; "dogs" business units should adopt a strategy of shrinking or abandoning.

This paper focuses on the activity direction of various groups of business units in the Boston Matrix, supported by the description of the sample size in 4.1, and the concept of "common prosperity", and selects the development direction of four groups of agricultural migrant population.

3.2.1   The Direction of Development of Cash Cows Groups

The cash cows group accounted for the smallest proportion of the total agricultural migrant population, only 2%, and only 4% of the people in the choice of citizenization willingness explicitly chose not to stay in the local area in the future, and the rest of them held an "unclear" attitude on the issue and did not show a firm refusal. Compared with the social security factors that affect the willingness of citizenization, the proportion of stars and question mark with strong willingness to be urban is much higher than that of the cash cows group. The overall economic level of the agricultural migrant population is low, and the number of people exceeding the watershed of 5942 yuan per month does not exceed 16%. After comprehensive consideration, we should not easily give up the economic status of The cash cows group. We should start with the willingness of citizenization, standardize the labor market, promote the equalization of public services, and transform the cash cows group into the stars group.

3.2.2   The Direction of Development of Stars Groups

The stars group is the group with the greatest potential to transform the identity of the agricultural migrant population to the citizenry. With social progress and the government's policy tilt towards agricultural migration, the stars group will successfully complete the transformation to citizenization. However, it is still necessary to pay attention to the adjustment of the occupational structure of the group, support the migrant of

the group to high-level occupations such as professional and technical personnel, responsible persons of state organs, party and mass organizations, enterprises and institutions, and accelerate the pace of citizenization.

3.2.3   The Development Direction of the Question Marks Group

The question marks group shows great developmental possibilities in terms of individual characteristics. This group has the youngest average age, the largest number and proportion of people receiving compulsory teaching and higher education, and the ability to accept new things, while the group has a higher talent for skilled work. The high willingness of the question marks group to become urbanized reflects its own requirements and future plans for wanting to stay in the city. The government should provide more convenient learning conditions for talents with the desire to learn and the ability to learn, broaden the employment channels for talents, so that the number of employees in this group flows to the skilled industry, and help them transition from the economic level to the stars group.

3.2.4   The Development Direction of the Dogs Group

The dogs group does not have the willingness to be urbanized and the economic level of citizenization at the same time, and under the rules of the market, the group should be liquidated. However, the concept of allowing the broad masses of people to share the fruits of social development makes it impossible for the government to easily abandon any group and should guide the dogs group within a reasonable range. This paper believes that the dog group faces the same difficulties as the cash cows group in terms of social security, and should take social security as the starting point to improve the equalization of public services so that they can enjoy the rights they deserve to live in the city. In terms of personal characteristics affecting income, it does not show a significant gap with the high economic level of the stars group, and has an advantage over the stars group in age, so it is necessary to actively encourage the dogs group to join when improving the technical ability of the question marks group.

However, the government should take into account the difficulty of the citizenization of this group, vigorously develop rural construction, optimize the rural environment, and use the new countryside as the choice for the dogs group to return to the countryside.

4   Conclusion

Properly handling the problem of the citizenization of the agricultural migrant population has an important impact on maintaining social stability and reducing the antagonism between the rich and the poor, which can not only effectively solve the phenomenon of "semi-citizenization", but also solve the social problems such as empty nest elderly and left-behind children brought about by this huge "population migration" trend. This paper uses the Boston Matrix Method and the survey data of Chengdu City in CMDS to divide the group into four groups of groups: " Cash Cows ", "Stars", " Question Marks" and " Dogs", so this paper believes that the study of citizenization should not be limited to the mode or stage of citizenization, such as the first economic citizenization

and then the realization of human citizenization. We should change the perspective, classify the agricultural migrant population according to the different characteristics of the agricultural migrant population group, identify the difficulties encountered by the agricultural migrant population in different groups in the process of citizenization, prescribe the right medicine, accurately implement policies, and effectively improve the efficiency of citizenization.

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