Satisfaction evaluation of Y City's talent policy

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Abstract: Effective talent policies can contribute to a favourable situation in which everyone can be talented and everyone can make the most of his or her talents, leading to high-quality and balanced economic development. This paper evaluates the supply performance of talent policy in Y city based on the satisfaction perspective. By means of questionnaire survey, 321 talents of Y city are taken as research objects for empirical analysis. Using exploratory factor analysis and confirmatory factor analysis methods, the five-dimension structure model of talent policy is constructed, which is talent mobility, talent protection, talent incentives, talent cultivation and talent introduction. The study found that: the overall satisfaction of talents with the talent policy of Y City is high, and the satisfaction with the talent introduction policy is the lowest among the five dimensions of the talent policy. There are significant differences in the satisfaction of talents of different ages and different household registration in the factors of talent introduction policy. Therefore, this paper suggests that relevant departments should pay attention to the balance of interests between different talent groups when formulating talent policies, while continuing to strengthen the policy advantages of talent introduction.

Keywords: Talent; talent policy; policy instruments

1. Introduction

Talent is a core resource for urban development. Talent policy covers all aspects of talent, including the introduction, development and utilisation of talent. Talent policy promotes the mobility of talent, improves the educational level and knowledge structure of talent, mobilises the enthusiasm and creativity of talent, creates a social atmosphere in which talent is respected and develops freely, improves the competitiveness and innovativeness of cities, and guarantees the sustainable development of the economy and society.

Talent policy is directly targeted at talent, which presents a direct relationship between policy and people. The evaluation of talent policy should not ignore the subjective perception from the perspective of the policy object^[1]. By understanding the subjective perception of the policy object, policy-making department can comprehensively assess the actual effect and impact of the policy, so as to provide useful feedback and suggestions for the optimisation of policy making. Therefore, this paper evaluates talent policy from the perspective of talent's satisfaction.

2. Theoretical basis and literature review

In the middle of the 20th century, with the gradual maturation of marketing and consumer behaviour disciplines, the business community began to take customer satisfaction as a core indicator of the success or failure of products and services. By the 1980s, the concept of new public management promoted the application of satisfaction evaluation in the field of public management. In the field of policy and public services, satisfaction evaluation encourages the government or public institutions to ensure that the policy formulation and service delivery process is in line with public needs and expectations, and improves the transparency and participation of services. Satisfaction evaluation is also a significant way to put the concept of "people first" into practice, which creates favorable conditions for strengthening government credibility and improving public services.

Many scholars have deeply discussed and elaborated the importance of public policy satisfaction evaluation. Swindell et al. conducted a correlation analysis of citizen surveys and performance benchmarks of local governments, indicating that satisfaction with service quality may be related to service performance^[2]. Van Ryzin et al. found an obvious and consistent correlation between the street cleanliness scorecard of New York City and citizen evaluation, indicating that citizens' judgment of government performance can objectively measure the indicators of government performance^[3].

According to Qifan Jia, public satisfaction with government constitutes a key feedback mechanism in the "citizen-government" interaction model, and is an important dimension in measuring government performance^[4]. Subjective satisfaction assessment is of non-negligible importance in the precise implementation of talent policies, the implementation of policies at the individual level, and the realisation of public benefits.

This paper evaluates the talent policy based on satisfaction for the following three reasons. Firstly, in view of the shortage of publicly available government statistics, the adoption of satisfaction surveys can simplify the evaluation index system from a technical point of view and achieve operability. In the case of insufficient or difficult to obtain statistical data, public feedback becomes a direct source of data for obtaining the quality of government services and the public's feelings about them. Secondly, examining policy performance from the perspective of satisfaction adapts to the actual situation in China, reflecting the people-oriented thinking of the Party and the government and the principle of serving the people. Finally, satisfaction evaluation has been widely used in the field of public policy and has achieved a series of successful cases in practice. For example, Pengfei Sun used a multiple linear regression model and a mediation effect model to empirically test the data using the pilot areas of farmers' homestead withdrawal, and found that both rights security and information capacity had a positive and significant impact on farmers' satisfaction with the homestead withdrawal policy^[5]. Guangya Sun constructed a quasi-natural experiment using data from the 2010-2018 China Household Tracking Survey with the pilot provinces of comprehensive healthcare reform as the research object, and found that comprehensive healthcare reform significantly increased residents' satisfaction with medical care^[6]. Yan Li used the National Industry and Commerce's joint business environment survey data and the China Tax Bureau's survey data, combined with the enterprise's satisfaction evaluation system to study the implementation effect of tax and fee reduction policies^[7].

3. Satisfaction evaluation of Y City's talent policy

3.1. Assessment of programme design, objectives and methodology

Y City, located in the central region of Zhejiang Province, is a typical county economic development in Zhejiang since the reform and opening up, and is one of the top ten counties in China. In 2022, the GDP growth rate of Y City is much higher than the provincial and national average. Focusing on high-quality development and building a demonstration area for common prosperity, Y City has carried out special actions such as improving the quality of employment and entrepreneurship, attracting and nurturing talents and improving the skills of Y-city's craftsmen. Y City's talent policy provides high-quality talent support for the economic development of Y city. Therefore, it is of great academic value and practical significance to conduct academic research and practical exploration on Y City's talent policy.

This study uses Jiang He's way of categorising policy content from the perspective of policy tools in the screening of indicators of policy content, and takes the policy satisfaction of talent introduction, cultivation, mobility, incentives, and protection as the satisfaction measurement indicators of the policy content dimension^[8].

The questionnaire of this study is designed in four parts: title, introduction, background data collection and specific content investigation. The title of this questionnaire is "Y City Talent Policy Satisfaction Survey", indicating the subject of the survey. The questionnaire for this study used the Likert five-point scale, which divided the answers into five levels: strongly disagree, disagree, general, agree, strongly agree, and assigns scores of 1, 2, 3, 4, and 5 respectively. This scoring method provides an accurate assessment of the respondent's attitudes or opinions on a particular issue.

3.2. Data collection and questionnaire collection

In this study, questionnaires were distributed through the Internet. During the questionnaire distribution period starting from September 2023 and ending in October 2023, a total of 359 valid electronic questionnaires were collected. According to the principles of completeness, logic, and time screening, the samples of questionnaires with omitted answers, contradictory questionnaires, and questionnaires with no understanding of talent policies at all were removed, leaving 321 valid questionnaires, and the effective recovery rate of questionnaires was 89.41%.

The samples collected and screened in this study were representative. In terms of gender division,

female respondents accounted for 55.14 per cent; the 26-35 year-old age group had the largest number of respondents, accounting for 68.22 per cent; in terms of education level, respondents with bachelor's degree accounted for 73.83 per cent; in terms of household registration, 79.44 per cent of the respondents were domiciled in Y city; and in terms of years of work, 39.25 per cent had worked for 5-9 years, and 35.51 per cent had worked for more than 10 years. In terms of the organizational nature of the unit in which the respondents work, the majority of respondents work in state-owned enterprises, accounting for 37.07%, followed by private enterprises, accounting for 29.60%; in terms of the average monthly income, the largest number of respondents work in the average of 5,001-10,000 yuan per month, accounting for 52.02%. From the point of view of the enjoyment of talent policy, there are 114 respondents who have enjoyed the talent policy of Y city.

3.3. Research on content structure of talent policy satisfaction

3.3.1. Exploratory research

Exploratory Factor Analysis (EFA) is a statistical method whose main goal is to understand the nature of the underlying factors in a multitude of observable variables that affect these variables during operation.

Before formally conducting the EFA, we will carry out the necessary pre-tests such as KMO measure and Bartlett's spherical test to make sure that our data are suitable for this type of factor analysis. The test results of the data of the Talent Policy Satisfaction Assessment Scale of City Y through SPSS 26.0 software are shown in Table 1. The KMO value is 0.966, the Sig. value of Bartlett's spherical test is 0.000, indicating that the selected indicators are suitable for factor analysis.

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Tablal	Agg og gree oret	Cogloo	f Catiafaction	with Talan	+ Dalian	VMO	d Dantlatt'a	Toat
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KMO Quantity of	.966	
	approximate chi-square (math.)	4176.570
Bartlett's test of sphericity	degrees of freedom (physics)	171
	significance	0.000

Based on the above test, this paper extracts factors from 24 quantitative indicators affecting the satisfaction of talent policy in Y city by principal component analysis, and finally eliminates 5 items and retains 19 items. After that, this paper implemented factor analysis again on these 19 retained items, and the result statistics show that the structure of talent policy in this survey is a five-factor structure, and the variance explanation rate reaches 92.8%, which indicates that the data have less information loss, and can explain the initial data better, so the five common factors are extracted as F1-F5. The loadings of the specific items are shown in Table 2.

Orrentitation in directory			Factor	Factor		
Quantitative indicators	F1	F2	F3	F4	F5	
RC2					.753	
RC3					.702	
RC5				.541		
RC6				.674		
RC7				.702		
RC8				.644		
RC13	.639					
RC14	.685					
RC15	.676					
RC16	.671					
RC17			.593			
RC18			.656			
RC19			.650			
RC20			.672			
RC21		.714				
RC22		.759				
RC23		.640				
RC24		.535				
Characteristic root	3.75	3.55	3.40	3.30	2.62	
Variance explained (%)	20.83	19.71	18.87	18.35	14.55	
Overall variance explained (%)			92.30			

Based on the results of the factor analysis and combining the relevant literature with the items contained in each factor, we named the factors as follows.

Factor 1: Talent Mobility. This factor mainly includes the promotion of free movement of talents, broader job opportunities, better prospects for individual career development, and optimisation of the local talent structure.

Factor 2: Talent Protection. This factor mainly includes comprehensive coverage for talent protection, easy access to coverage, benefits to the work-life environment, and benefits to settling in and adapting to the environment.

Factor 3: Talent Incentives. This factor mainly includes retaining talent, improving work motivation, enhancing professional competence, and promoting innovation and knowledge output.

Factor 4: Talent Cultivation. This factor mainly includes fair opportunities for talent cultivation, strong targeting, well-developed platform resources, and improvement of talent quality.

Factor 5: Talent Introduction. This factor mainly includes the attraction of talent by the level of funding and career prospects.

The five factors of talent policy respectively reflect different compositions of talent policy satisfaction, and there is a significant correlation between these five factors, which can form a unified whole.

3.3.2. Validation Study

This study employed the statistical method of validated factor analysis using Amos 28.0 software. In this paper, the acceptability of the model was determined by considering a combination of absolute fit indices, relative fit indices and simplified fit indices in order to produce a consistent assessment.

Based on the five-factor model derived from the results of the exploratory factor analysis, it is reasonable to assume that the ideal model of talent policy satisfaction is also a five-factor model, as shown in Figure 1 below.



Figure 1 Conceptual model of content structure of talent policy satisfaction

Using validation factor analysis, the observations of the 321 valid sample data were obtained and fitted to the conceptual model, and the fit indicators of the conceptual model to the observed data were obtained as shown in Table 3. The fully standardised interpretation of the five-factor model of talent policy satisfaction is shown in Figure 2, which can be used to eliminate the effects between the different variable scales, allowing for the variables to be directly compared and interpreted with each other.

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Index	X²/df	RMSEA	GFI	NFI	CFI	PNFI	PGFI
Fitted value	2.954	0.078	0.900	0.967	0.978	0.727	0.605
Recommended value	<5	< 0.10	>0.90	>0.90	>0.90	>0.50	>0.50

Table 3 Fitting indicators of the five-factor structural model of satisfaction with talent policy in city Y

From Figure 2 and Table 3, it can be observed that the fitted indicators selected for this study show a good fit, while the fully standardised solution for each parameter meets the statistical requirements. This result indicates that the results of the exploratory factor analysis are supported by the validation.



Figure 2 Fully standardised solution to the five-factor structure of talent policy satisfaction

3.4. Reliability and Validity of the Talent Policy Satisfaction Questionnaire

3.4.1. Reliability Test

Confidence is the degree to which a measurement method produces stable and consistent results over multiple uses. This study uses the statistical software SPSS 26.0 to calculate the reliability of the talent scale as shown in Table 4 below, the Cronbach'alpha coefficients of the talent policy content satisfaction scale in general and of the five factors are all greater than 0.9, which indicates that the reliability level of the talent policy policy instrument satisfaction scale is high.

Factor	Cronbach'a	Item count
F1: Talent Mobility	0.977	4
F2: Talent Protection	0.955	4
F3: Talent Incentives	0.976	4
F4: Talent Cultivation	0.965	4
F5: Talent Introduction	0.928	2
Talent policy scale overall	0.988	18

Table 4 Cronbach's alpha coefficients for the talent policy satisfaction scale

3.4.2. Validity Test

Structural validity is whether the measurement instrument structurally reflects the researcher's theoretical conception. Although validity is difficult to measure, factor analysis is recognised as the

most effective means of identifying structural validity. Exploratory and validation factor analyses show that the indicators of the Talent Policy Satisfaction Questionnaire are up to standard, and the five-dimensional model is clear, which confirms that the questionnaire of this study has good structural validity.

Convergent validity is the agreement between different methods of measuring a variable. Bentler, a leading researcher in structural equation modelling SEM, suggests that in the SEM setting, convergent validity is typically assessed by looking at indicator loadings (>0.5), average variance extracted (AVE >0.5) and combined reliability (CR >0.7)^[9]. According to the data in Figure 2 and Table 5, the indicators of the Talent Policy Questionnaire satisfy the aforementioned criteria, indicating that the questionnaire has good convergent validity.

	Trails		Estimate	AVE	CR
RC2	<	F5	0.920	0.865	0.029
RC3	<	F5	0.940	0.803	0.928
RC5	<	F4	0.934		0.072
RC6	<	F4	0.927	0.862	
RC7	<	F4	0.920	0.862	0.962
RC8	<	F4	0.933		
RC13	<	F1	0.932		0.975
RC14	<	F1	0.951	0.007	
RC15	<	F1	0.960	0.907	
RC16	<	F1	0.967		
RC17	<	F3	0.935		0.976
RC18	<	F3	0.967	0.010	
RC19	<	F3	0.963	0.910	
RC20	<	F3	0.951		
RC21	<	F2	0.892		
RC22	<	F2	0.863	0.822	0.040
RC23	<	F2	0.921	0.823	0.949
RC24	<	F2	0.951		

Table 5 Convergent validity of talent policies

3.5. Descriptive statistical analysis

The results of the survey are shown in Table 6. The overall satisfaction with the talent policy in City Y is high, with an average value of 4.09, in which 76.84 per cent of the respondents indicated that they were satisfied with the talent policy.

Among the different policy factors, the order of satisfaction is: talent mobility, talent incentive, talent protection, talent cultivation and talent introduction. Talent mobility policy has the highest level of satisfaction, while the talent introduction policy has the lowest level of satisfaction. In addition, for other types of talent policies, such as talent incentive policy, talent protection policy and talent cultivation policy, although the satisfaction level is lower than that of talent mobility policy, they are still accepted by the majority of those surveyed.

item	Strongly disagree	disagree	general	agree	Strongly agree	М	SD
Talent Introduction	1.25%	2.96%	24.77%	34.58%	36.45%	4.02	0.842
Talent Cultivation	0.39%	2.49%	23.75%	38.63%	34.74%	4.05	0.717
Talent Mobility	0.39%	0.93%	17.45%	45.72%	35.51%	4.15	0.579
Talent Incentives	0.55%	2.02%	19.08%	42.60%	35.75%	4.11	0.666
Talent Protection	0.78%	2.34%	19.55%	42.29%	35.05%	4.08	0.702
Talent policy overall	0.61%	2.06%	20.49%	41.45%	35.39%	4.09	0.688

Table 6 Overall talent policy and satisfaction with various factors

3.6. Comparative Study of Differences in Satisfaction with Talent Policies

Independent sample T test and ANOVA analysis in SPSS are commonly used to analyze whether the difference between sample means is significant. If the F-value of the ANOVA analysis result reaches significance, there is at least one group of significant differences in the means, then LSD multiple comparisons can then be used to analyze which specific groups differ.

Independent sample T test and ANOVA analysis were conducted on the samples of different genders, education levels, working years, nature of work units and income levels in all dimensions of talent policy and in aggregate. The results show that the confidence level of the satisfaction of talent policy is greater than 0.05, which indicates that there is no significant difference in the impact of gender, education level, years of work experience, nature of the unit, and income level on the overall talent policy and on the five dimensions.

	Fv	value T		he sig value	
Item	Δge	Household	Age	Household	
	Age	registration	Age	registration	
Talent Mobility	1.225	1.639	0.301	0.201	
Talent Protection	1.083	0.815	0.357	0.367	
Talent Incentives	1.633	1.848	0.182	0.175	
Talent Cultivation	1.274	1.363	0.283	0.244	
Talent Introduction	2.853	3.918	0.037	0.049	

Table 7 Difference results of talent policy satisfaction on statistical variables

ANOVA analysis and LSD multiple comparison methods were used for the samples of different age groups and household registration. As shown in Table 7, the results found that there is a difference in the talent introduction dimension of the talent policy at the 0.05 level of significance. The LSD multiple comparison results show that the talent in the age group of 36-45 years old is significantly less satisfied with the talent introduction dimension than the talent in the age group of 26-35 years old, and the talent who is not a household member of Y city is significantly more satisfied with the talent introduction dimension than the talent who is a household member of Y city.

4. Conclusion

After the systematic questionnaire survey and exploratory factor analysis, validation factor analysis, reliability and validity test as well as comparative study of differences for the survey data, the following main conclusions are drawn. First, the content of talent policy can be summarised as a structure containing five factors, namely, talent mobility, talent protection, talent incentive, talent cultivation and talent introduction. These factors contribute significantly in explaining talent policy satisfaction. Second, the satisfaction of talent policy in descending order is as follows: talent mobility, talent incentive, talent mobility, talent incentive, talent mobility, talent incentive, talent protection, talent cultivation, talent introduction, and the assessment results show that the satisfaction of the talent introduction policy is the lowest. Third, there is a significant difference in the satisfaction of the talent introduction factor.

In view of the above conclusions, this paper suggests the following. The Government can continue to strengthen the advantages of the talent admission policy and reduce the restrictions on population inflow in order to attract more entrepreneurs and talents with excellent business insights and innovative thinking to Y City and provide strong manpower support for City Y. At the same time, the government needs to formulate personalized talent policies and measures for different groups to improve the satisfaction of talent policies. The government should pay attention to promoting the interest balance between incremental talents and stock talents, so as to avoid the loss of existing talents.

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