



Research on the Relationship Between the Perceptual Ability of Supervisors and the Public's Value Demands

Quanyong Shui, Minxuan Yi*, Dunhu Liu, Hua Shi

School of Management, Chengdu University of Information Technology, Chengdu, 610103, China

*Corresponding author's e-mail: Yiminxuan0903@163.com

Abstract. Improving the perceptual ability of policy implementers can enhance the satisfaction of the public. The competent departments need to conduct effective communication with the public and collect information to understand the public's demands and expectations regarding policies. The perceptual ability of the competent departments influences the perceptual ability of the implementing units and the value demands of the public. Therefore, the competent departments should strengthen the improvement of their perceptual ability to ensure that policy information is accurately, promptly and clearly conveyed to the implementing units. The implementing units will then carry out project implementation after fully perceiving the policies and fully take into account the value demands of the public. This paper conducts an empirical study based on the micro-foundation of policy implementation and the performance feedback model, taking the transfer payment funds for rural revitalization in Province S as an example.

Keywords: Performance Feedback Model; Performance Evaluation; Fiscal Funds; Perceptual Ability.

1 Introduction

Against the backdrop of Province S's deepening the reform of the management of fiscal funds related to agriculture and strengthening the efficiency of fund utilization, fiscal funds are playing a crucial role in the development of the agricultural and rural economies. The Department of Finance of Province S has revised the "Administrative Measures for the Transfer Payments for Rural Revitalization in Province S", aiming to strengthen and standardize the management of the use of transfer payments for rural revitalization and enhance the efficiency of fund utilization. Policy perception ability refers to the ability of enterprises to perceive, understand, and interpret relevant policy documents^[1]. The perception ability of policy implementers is different from that of enterprises. The perception ability of policy implementers refers to their ability to perceive, recognize, and understand external stakeholders such as the public, social organizations, and other government departments. It aims to understand the public's attitudes, feedback, and expectations regarding government policies and administrative behaviors, as well as the evaluation of government performance. The perception ability of

© The Author(s) 2025

M. F. Sedon et al. (eds.), *Proceedings of the 4th International Conference on Culture, Design and Social Development (CDS D 2024)*, Advances in Social Science, Education and Humanities Research 917, https://doi.org/10.2991/978-2-38476-380-1_42

policy implementers belongs to the micro-foundation in performance evaluation. Currently, most government performance evaluations are conducted from a macro perspective, exploring the governance and control of government performance deviations from the perspective of governance deviations [2] [3] [4] [5] [6] [7], studying the factors influencing deviations in policy implementation [6] [7] [8], and in path research, performance evaluation is affected by path dependence [5] [7] [9] [10] [11].

While existing studies have emphasized the influencing factors and policy suggestions regarding government performance deviations from a macro perspective, they have failed to attach importance to the micro-foundation in policy implementation and have seldom noticed the perception ability of policy implementers during the policy implementation process. Moreover, regarding the micro-foundation in policy implementation, existing studies have paid more attention to policy suggestions and path research, while less attention has been given to the cognitive research on policy implementers. Based on this, this paper analyzes the internal mechanism of the relationship between the value demands of policy implementers and the public in the performance evaluation of fiscal funds related to agriculture from the perspective of the reverse path. Based on the performance feedback model, a relationship model between the perception ability of policy implementers and the value demands of the public, which is "cognition - deviation", is constructed, and an empirical analysis is carried out with the questionnaire data of the performance evaluation projects of the transfer payments for rural revitalization in Province S from 2020 to 2022.

2 Theoretical Basis and Research Hypothesis

Policy implementation units are responsible for the specific implementation of the policies issued by the policy competent departments. The relationship between policy implementation units and the beneficiary masses is a very important aspect in the process of policy implementation. Policy implementation units are institutions of the government or government agencies that are specifically responsible for implementing policies, while the beneficiary masses are the people who obtain benefits directly or indirectly affected by the policies. Therefore, the roles and mutual coordination at all levels of the government and the behaviors and attitudes of subjects such as farmers cannot be ignored [12]. This will help policy implementation units better understand the needs, concerns, and opinions of the beneficiary masses, solve problems in a timely manner, and improve the effectiveness of policy implementation. Meanwhile, the perception ability of the beneficiary masses will also affect their expectations and satisfaction regarding policy implementation, as well as aspects such as word-of-mouth dissemination and social influence. Therefore, policy implementation units should actively build a good image, provide effective communication and feedback mechanisms, establish a good interactive relationship, and enhance the perception ability of the beneficiary masses, so as to finally effectively implement the policy objectives.

Based on this, the following hypotheses are put forward:

H1a: The improvement of the perception ability of policy implementation units has a significant positive impact on the satisfaction of the public.

H1b: The improvement of the perception ability of the policy competent departments promotes the improvement of the satisfaction of the public.

The interaction between the perception ability of the competent departments and that of the implementation units is of great significance in policy implementation. In the process of policy formulation and policy implementation, the coordination and integration among different levels of the government may affect policy performance^[13]. The interaction between the two can be understood as the recognition and support of the perception ability of the implementation units by the competent departments, as well as the application and feedback of the perception ability of the competent departments by the implementation units. During the policy implementation stage, the competent departments can strengthen the supervision and feedback of the implementation process through cooperation and support with the implementation units to ensure the smooth implementation of the policies. Meanwhile, during the policy evaluation and adjustment stage, the competent departments can understand the actual effects and problems of the policies through interaction and consultation with the implementation units and make timely adjustments and optimizations.

Based on this, the following hypothesis is put forward:

H2: There is an interaction between the perception ability of the competent departments and that of the implementation units.

3 Research Design

3.1 Data Sources

This paper takes the questionnaire surveys of the rural revitalization transfer payment fund projects in Province S from 2020 to 2023 as the initial samples. The questionnaire adopts the Likert scale. Referring to the practices in mainstream literature, the samples are screened as follows: 1) Questionnaires submitted within less than 5 minutes or more than 40 minutes are treated as invalid questionnaires; 2) Questionnaire samples with serious data missing are removed; 3) The missing values are filled with the average value. Eventually, 1,297 valid questionnaires are obtained from the public questionnaires, 501 valid questionnaires are obtained from the questionnaires of the competent departments, and 519 valid questionnaires are obtained from the questionnaires of the implementation units.

3.2 Variable Measurement

3.2.1 Dependent Variable.

Social Public Value Demands (SPVD). The social public value demands regarding the rural revitalization fiscal fund policies vividly reflect the public's expectations and concerns about rural revitalization. The public hopes that through the investment of fiscal funds by the government and the implementation of relevant policies, rural economic development can be promoted, rural governance and rural social affairs can be improved, emphasis can be placed on rural ecological environment protection and sustainable development, and the rights and interests of farmers can be protected. When

formulating rural revitalization fiscal fund policies, the government should fully consider and respond to the public's value demands, facilitate the smooth progress of the rural revitalization strategy, promote rural economic and social development, improve farmers' living standards, and realize the public's demands for rural areas. Meanwhile, the government should also strengthen the supervision and evaluation of policy implementation to ensure the rational allocation of resources and the maximization of effects.

3.2.2 Explanatory Variables.

Perceptual Ability of the Competent Department (PERA_CD) and Perceptual Ability of the Implementation Unit (PERA_IU). During the policy implementation process, the work flow between the policy competent department and the project implementation unit is of vital importance. The policy competent department and the project implementation unit need to maintain close communication and collaboration throughout the entire process, solve problems and difficulties, and report the progress and problems of the work in a timely manner to ensure the smooth implementation of policies and projects and achieve the expected economic and social benefits.

Interaction Term (PERA_CD * PERA_IU). By studying the interaction term between the two perceptual abilities, the interaction effect between the competent department and the project implementation unit in the impact of the perceptual abilities on the policy implementation process can be revealed.

3.2.3 Construction of the Econometric Model.

To examine whether the perceptual ability of the competent department and that of the implementation unit will enhance the satisfaction of the public, as well as the interaction between the perceptual ability of the competent department and that of the implementation unit, this paper constructs the following econometric model:

$$SPVD = \alpha + \beta_1 PERA_CD + \beta_2 PERA_IU + \varepsilon_2 \quad (1)$$

$$SPVD = \alpha + \beta_1 PERA_CD + \beta_2 PERA_IU + \beta_3 (PERA_CD \times PERA_IU) + \varepsilon_2 \quad (2)$$

Among them, SPVD is the dependent variable, representing the satisfaction degree of the public; the explanatory variables are the perceptual ability of the competent department (PERA_CD) and the perceptual ability of the implementation unit (PERA_IU); ε_1 and ε_2 represents the random error term.

4 Data Analysis and Research Results

Statistical analysis and regression analysis were conducted using IBM SPSS Statistics 25 software. The results of descriptive statistics and correlation coefficients of variables are shown in Table 1 and Table 5. From Equation (1), as seen in Model 1 of Table 3 where $\beta_1 = 0.53 > 0$, it can be known that the social public satisfaction (SPVD) is positively correlated with the perceptual ability of the implementation unit (PERA_IU). The significance level $p = 0.024 < 0.05$, passing the significance test, indicating that there

is a significant correlation between the social public satisfaction (SPVD) and the perceptual ability of the implementation unit (PERA_IU). Thus, Hypothesis H1a is supported.

In Table 2 and Table 4, Model 2 adds the explanatory variable, the perceptual ability of the competent department (PERA_CD), on the basis of Model 1. In Table 4, the R² value increases from 0.281 (Model 1) to 0.538 (Model 2), indicating that adding the explanatory variable, the perceptual ability of the competent department (PERA_CD), increases the degree of explanation for the dependent variable, the social public satisfaction (SPVD). In Model 2, $\beta_1 = 0.693 > 0$, $\beta_2 = 0.532 > 0$, and the significance levels $p_1 = 0.002 < 0.05$, $p_2 = 0.01 < 0.05$, all passing the significance tests, indicating that the improvement of the perceptual ability of the competent department (PERA_CD) and that of the implementation unit (PERA_IU) can increase. In Model 2 of Table 4, all the Variance Inflation Factors (VIF) are less than 10, indicating that there is no multicollinearity among variables. Thus, Hypothesis H1b is supported.

Table 1. Descriptive Statistics of Equation (1)

	N	MIN	MAX	MEAN	STDEV
SPVD	18	43	53.69565217	48.06383278	3.209718543
PERA_CD	18	63	82.5	71.56882871	5.960708622
PERA_IU	18	51.88888889	69.03846154	60.63277393	5.998775523

Number of Valid Cases (in columns) 18

Table 2. Model Summary of Equation (1)

Model	R	R ²	Adjusted R ²	Standard Error	change statistics				
					R ² variation	F variation	DF 1	DF 2	Significance F variation
a Predictor: (Constant), PERA_IU	0.53a	0.281	0.236	2.805116488	0.281	6.258	1	16	0.024
b Predictor: (Constant), PERA_IU, PERA_CD	0.733b	0.538	0.476	2.322589357	0.257	8.339	1	15	0.011

Table 3. Model Coefficients of Equation (1)

Model	Unstandardized Coefficients		Standardized Coefficients		t	Significance	Collinearity Statistics	
	B	Standard Error	Beta				Tolerance	VIF
1	(Constant)	30.862	6.908		4.467	0		
	PERA_IU	0.284	0.113	0.53	2.502	0.024	1	1
	(Constant)	5.078	10.604		0.479	0.639		
2	PERA_IU	0.371	0.099	0.693	3.759	0.002	0.907	1.103
	PERA_CD	0.287	0.099	0.532	2.888	0.011	0.907	1.103

a DV:SPVD

Table 4. Model Summary of Equation (2)

Model	R	R ²	Adjusted R ²	Standard Error	change statistics				
					R ² Variation	F Variation	DF 1	DF 2	Significance F Variation
a Predictor: (Constant), PERA_CD×PERA_IU,PERA_CD,PERA_IU	.937a	0.877	0.851	1.238941366	0.877	33.366	3	14	0

Table 5. Model Coefficients of Equation (2)

Model		Unstandardized Coefficients		Standardized Coefficients		Significance	Collinearity Statistics	
		B	Standard Error	Beta	t		Tolerance	VIF
1	(Constant)	314.802	50.098		6.284	0		
	PERA_CD	-4.06	0.7	-7.539	-5.795	0	0.005	193.088
	PERA_IU	-4.98	0.862	-9.308	-5.78	0	0.003	295.864
	PERA_CD×PERA_IU	0.075	0.012	10.78	6.222	0	0.003	342.452

a DV:SPVD

After adding the interaction term (PERA_CD × PERA_IU) to Equation (1), the R² value in Equation (2) increases to 0.877, and the model's ability to explain the variation of the dependent variable is further enhanced. The significance level p of the coefficient of the interaction term (PERA_CD × PERA_IU) is p = 0.000 < 0.05. The significance of the interaction term indicates that it can better explain the variation of the dependent variable. It shows that there is an interaction effect among variables. The interaction term reflects the interaction effect among independent variables, that is, when two or more independent variables exist simultaneously, their impacts on the dependent variable are not independent. Thus, Hypothesis H2 is supported.

5 Conclusions and Prospects

Enhancing the perceptual ability of the competent departments is indeed crucial for improving the satisfaction of the public. Through effective communication with the public and information collection, the competent departments can better understand the demands and expectations of the public, and thus formulate policies and measures that meet public expectations. By doing so, it can increase the public's recognition and satisfaction with the policies, and further improve the implementation effect of the policies. The competent departments need to understand the public's demands and expectations regarding policies, governance, and public affairs through effective communication and information collection channels with the public. When the competent departments have a strong perceptual ability, they can more accurately capture the changes and trends of the public's value demands, and then formulate corresponding policies and measures to meet the public's expectations.

The perceptual ability of the competent departments will have an impact on the relationship between the perceptual ability of the implementation units and the public's value demands. If the competent departments can accurately perceive the concerns and demands of the public and convey them to the implementation units, the implementation units can better understand the public's expectations and demands and improve their own perceptual ability. In addition, the competent departments can promptly perceive the problems and difficulties in the implementation process, address the public's feedback, and better respond to the public's value demands, which can also increase public satisfaction. Therefore, the competent departments should strengthen the improvement of their perceptual ability, conduct effective communication and information collection with the public, understand the public's demands and expectations, and formulate policies and measures that meet public expectations. Meanwhile, the competent departments should also promptly solve the problems and difficulties in the implementation process, respond to the public's feedback, and increase public satisfaction. Doing so will help to enhance the perceptual ability of the implementation units, improve the implementation effect of the policies, and make the public more satisfied with the effects brought about by the policies.

References

1. Chen Z, Cheng H. The influence of green technology cognition in adoption behavior; On the consideration of green innovation policy perception's moderating effect [J]. *Journal of Discrete Mathematical Sciences and Cryptography*, 2017, 20(6-7): 1551-1559.
2. He, W.S., Wang, Y., & Cai M.J. (2013). Exploration of Bias in Government Performance Evaluation: From a Three-Dimensional Perspective. *Chinese Public Administration*, (01):50-54.
3. Zhang, S.T. (2020). Executive Deviation and Policy Control in Government Performance Evaluation: An Analytical Framework of Networked Governance. *Hubei Social Science*, (05): 45-50. DOI: 10.13660/j.cnki.42-1112/c.013589.
4. Zhang, S.T. (2016). Policy Deviation and Rectification in Government Performance Evaluation: A Perspective of Intergovernmental Collaborative Governance. *Journal of Henan Normal University (Philosophy and Social Sciences)*, 43 (02): 17-22. DOI:10.16366/j.cnki.1000-2359.2016.02.004.
5. Zhang, S.T. (2016). Systematic Deviation and Policy Control in Government Performance Evaluation: An Analytical Framework of Holistic Governance. *Forum on Administration*, 23(04): 54-58. DOI: 10.16637/j.cnki.23-1360/d.2016.04.010.
6. Zhang, S.T. (2021). Embedded Governance and Deviation Control in Government Performance Evaluation: A Structure-Relation Analysis Framework. *Journal of Henan Normal University (Philosophy and Social Sciences)*, 48(03): 48-54. DOI: 10.16366/j.cnki.1000-2359.2021.03.07.
7. Zhang, S.T. (2020). Multilevel Governance and Deviation Control in Government Performance Evaluation: An Analysis Framework of Policy Synergy. *Journal of Henan Normal University (Philosophy and Social Sciences)*, 45(06): 13-18. DOI: 10.16366/j.cnki.1000-2359.2018.06.003.
8. Sun, H.M. (2020). Innovation in Government Performance Management: Key Challenges and Implementation Pathways. *Exploration and Insight*, (07): 47-57.

9. Zhang Z.X., Chen H.C. Research on the Impact of Knowledge Base on the Innovation Willingness of High-tech Enterprises —The Moderating Effect of Knowledge Field Activity and the Mediating Effect of Market Perception Ability [J]. *Science & Technology Progress and Policy*, 2023, 40(1): 142-150.
10. Quintana García, Benavides Velasco. Innovative competence, exploration and exploitation: The influence of technological diversification [J]. *Research Policy*, 2008, 37(3): 492-507.
11. Lü D., Chen W.H., Qiu W.M., et al. Performance Expectation Gap and Firm's Inward Open Innovation: From the Perspective of Cognition-Behavior [J]. *Journal of Management Sciences in China*, 2023, 26(2): 49-65. DOI: 10.19920/j.cnki.jmsc.2023.02.004
12. Cao Y., Lei M., Kong X.B., et al. Research on the Process Performance Evaluation and Improvement Strategies of the Fallow Policy in the Groundwater Over exploitation Areas of the Huang-Huai-Hai Plain [J]. *Journal of China Agricultural University*, 2023, 28(5): 163-174.
13. Xu Z.N., Chen S., Zhang C. Research on the Influencing Factors of the Implementation Performance of Development Plans from the Perspective of Holistic Governance: An Empirical Analysis Based on the Outline of the 13th Five-Year Plan [J]. *Administrative Tribune*, 2023, 30(6): 72-81. DOI: 10.16637/j.cnki.23-1360/d.2023.06.011

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

