

Governance Conditions on Satisfaction with Public Services for Early Childhood Education (Ece)

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Abstracts

The questionnaire method has been used to survey 555 households in Shanxi Province of China, in order to explore the factors affecting the household's satisfaction of public services for early childhood education; to study the effect of governance conditions on satisfaction with public service for early childhood education; to investigate the pathways of governance conditions affecting families' satisfaction with public services for early childhood education and to explore the indicators of governance conditions that influence household's satisfaction with public services in early childhood education. Through confirmatory factor analysis and path analysis of 555 data, it is found that four conclusions. Three factors, governance conditions, family expectations, and perceived quality, affect satisfaction. There are positive and significant impact of governance conditions. Influence paths of governance conditions to satisfaction is direct and indirect. Moreover, Voice, Response, Participation, Monitoring and Fairness are five indicators of governance conditions.

Keywords: Governance Conditions; Household's Satisfaction Public Services; Early Childhood Education (ECE)

Introduction

It is well known that citizen satisfaction is generally regarded as an effective and reliable way to evaluate the actual quality of public services. If this is true, such knowledge could be useful in a number of ways (Lewis, B.D. and Pattinasarany, D. ,2009). It may help governments understand the urgent needs of their citizens and make appropriate decisions, be able to assist local governments in prioritizing particular service sectors for improvement.

However, author has noticed that most satisfaction surveys focus on the effects of customer expectations and perceived quality on satisfaction (Liu X, Zheng M. 2021 : 20-25). Previous research has lacked research and discussion on the impact of governance conditions on satisfaction with public services in early childhood education. Most of the work in the published literature on satisfaction with public services in early childhood education has explored the impact of demographic factors (Li, Q and Sun, X. K. 2021 : 58-62) and tuition fees (Li, R.L. 2015 : 28-32) on family satisfaction . In terms of governance conditions, only individual researchers mentioned that government work performance (Lin, C.Y. 2021 : 245-247) and financial factors (Du,L.L. 2016 : 43-49,) have an impact on satisfaction with public services in early childhood education. However, exactly what indicators are included in government work performance is not clearly explained by previous studies.

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Research Objectives

1. To explore the factors affecting the household's satisfaction of public services for early childhood education.
2. To study the effect of governance conditions on satisfaction with public service for early childhood education.
3. To investigate the pathways of governance conditions affecting families' satisfaction with public services for early childhood education.
4. To explore the indicators of governance conditions that influence household's satisfaction with public services in early childhood education.

Research Conceptual Framework

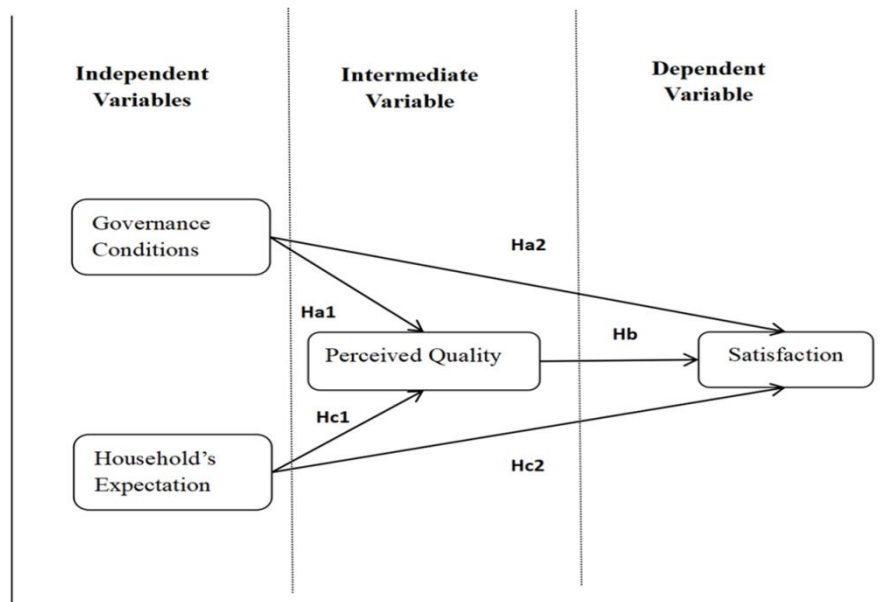


Figure 1 Conceptual Framework Source: Original research

Research Methodology

Research Design . The research strategy of this study was quantitative. Author have obtained latent and observed variables through literature and in-depth interviews. Based on the latent and observed variables, author have designed the scale. The questionnaire has been administered after the IOC and reliability tests of the scale were passed.

Population and sample size. Approximately 897,800 households of Shanxi province are population (. The sample of quantitative method have been selected by simple random sampling, and 555 households have been randomly selected as the sample, whose children are participating in public services for early childhood education. Moreover, these samples have covered eight cities in Shanxi Province of China.

Research Method. Research method of this study is questionnaire survey method. In the questionnaire, a seven-level scale has been used as an instrument to measure families' satisfaction with local public services for early childhood education. Four latent variables, that are Governance Conditions (GC), Household's Expectation (HE), Perceived Quality (PQ),

Satisfaction (SAT), have been measured in the scale.

Expected Finding and Discussion

Confirmatory Factor Analysis (CFA). Through validation factor analysis, the author has tested the reliability and validity of the measurement instrument, a 7-level scale. Four unqualified measures have been delete, which is Transparency, Accessibility Expectation (AE2), Availability Expectation (AE3) and Availability Perceived (AP3). Ultimately, 17 observed variables have been obtained by confirmatory factor analysis. The final results of the confirmatory factor analysis are shown in Table 1. From Table 1, the following results can be found.

(a) Factor loadings' Standardization coefficient (Std.) are qualified. In general, the appropriate threshold for factor loadings (Std.) should be greater than 0.50 (Truong & Mc Coll, 2011). It can be noted from Table 4.12 that after the revision, the Std. indices of all observed variables are greater than 0.5. Therefore, the observed variables of each latent variable can effectively respond to the latent characteristics of the latent variable.

Fairness (Std.=0.68), Monitoring (Std.=0.71), Participation (Std.=0.72), Response(Std.=0.70), Voice (Std.=0.71), the five measures five items have been used to observe Governance Conditions (GC).

Teacher Expectation (TE,Std.=0.82), Education Expectation (EE,Std.=0.93), Care Expectation (CE,Std.=0.89), Affordability Expectation (AE1,Std.= 0.65), the four items have been used to observe Household's Expectation (HE).

Teacher Perceived (TP,Std.=0.73), Education Perceived (EP,Std.=0.88), Care Perceived (CP,Std.=0.87), Accessibility Perceived (AP2,Std.=0.57), Affordability Perceived (AP1,Std.=0.53), the five items have been used to observe Perceived Quality (PQ).

Satisfaction level for governance of ECE public services (SAT3,Std.=0.87), Satisfaction level for ECE public services (SAT2,Std.=0.89), Recommendation (SAT1,Std.=0.90), the three items have been used to observe Satisfaction (SAT).

(b) Cronbach's alpha coefficient is qualified. From Table 1, it can be noted that the Cronbach's alpha coefficient for each latent variable is greater than 0.8 (GC, $\alpha=0.823$; HE, $\alpha=0.881$; PQ, $\alpha=0.827$; SAT, $\alpha=0.915$). It means that the data of this sample has good reliability.

(c) From Table 1, the composite reliability coefficient values (composite reliability, CR) of each latent variable are greater than 0.7, which indicates that the measurement questions of each latent variable have internal consistency (GC, CR=0.831; HE, CR=0.897; PQ, CR=0.846; SAT, CR=0.917).

(d) AVE pass. The average variance extracted (AVE) of each latent variable needs to be greater than 0.5, indicating that the measurement model has good convergent validity for each dimension. It can be noted from Table 1 that the revised AVE for each latent variable is greater than 0.50, which meets the acceptance criteria (GC, AVE=0.50; HE, AVE=0.69; PQ, AVE=0.53; SAT, AVE=0.79). It indicates that the revised measurement model has good convergent validity for each latent variable.

Table 1 Modified single factor reliability and validity tests

Latent Versus	Observed Variables	P	Std. (>.50)	Cronbach's α (>.80)	CR (>.70)	AVE ($\geq .50$)
Governance Conditions (GC)	Fairness	***	0.68	0.823	0.831	0.50
	Monitoring	***	0.71			
	Participation	***	0.72			
	Response	***	0.70			
	Voice	***	0.71			
Household's Expectation (HE)	TE	***	0.82	0.881	0.897	0.69
	EE	***	0.93			
	CE	***	0.89			
	AE1	***	0.65			
Perceived Quality (PQ)	TP	***	0.73	0.827	0.846	0.53
	EP	***	0.88			
	CP	***	0.87			
	AP2	***	0.57			
	AP1	***	0.53			
Satisfaction (SAT)	SAT3	***	0.87	0.915	0.917	0.79
	SAT2	***	0.89			
	SAT1	***	0.90			

Note. *** means $P < 0.01$ level, the correlation is very significant.

Discriminant Validity Test. Discriminant validity refers to the presence of low correlation or significant differences between the latent traits represented by the latent variables and the traits represented by other latent variables. If the square root of each latent variable's AVE value is greater than the correlation coefficient between that latent variable and other latent variables, it indicates that there is good differential validity among the dimensions and that the latent variables reflected by the indicator variables are significantly different from each other.

As shown in Table 2, the square roots of each latent variable's AVE value in this study are greater than the correlation coefficients between that latent variable and other latent variables. Therefore, the measurement model has differential validity .

Table 2 Latent variables discriminant validity test

Latent Variables	GC	HE	PQ	SAT
GC	.7041	—	—	—
HE	.242**	.8295	—	—
PQ	.351**	.470**	.7308	—
SAT	.489**	.468**	.598**	.8867

Note. The bold diagonals elements are the square roots of each AVE; construct correlations are shown off-diagonal

** means at the 0.01 level (two-tailed), the correlation is significant.
Statistically significant at the .01 level, two tail.

Path Analysis and Hypothesis Validation

Detection of Direct Effects. The results of the path analysis for the five direct effects of this study are presented in Table 3. From Table 3, it can be observed :

(a) The path from governance conditions to perceived quality (Ha1): B=0.189, S.E.=0.027, C.R.=6.980 (> 3.29) with significant probability value P showing "****". This indicates that the direct effect path Ha1 exists and reaches a significant level.

(b) Household's expectation to perceived quality path (Hc1): B=0.423, S.E.=0.046, C.R.=9.556 (> 3.29) with significant probability value P showing "****". This indicates that the direct effect path Hc1 path exists and reaches a significant level.

(c) Perceived quality to satisfaction path (Hb): B=0.509, S.E.=0.057, C.R.=8.985 (> 3.29), significant probability value P presents "****". This indicates that the direct effect path Hb path exists and reaches a significant level.

(d) Governance Conditions to Satisfaction path (Ha2): B=0.251, S.E.=0.03, C.R.=8.384 (> 3.29), significant probability value P presents "****". This indicates the presence and significant level of direct effect path Ha2 path.

(e) Household's expectation to satisfaction path (Hc2): B=0.221, S.E.=0.048, C.R.=4.621 (> 3.29), significant probability value P presents "****". This indicates that the direct effect path Hc2 was present and reached a significant level.

Table 3 Regression Weights

Path Relationship	Estimate (B)	S.E.	C.R. (>3.29)	P	Label
GC→PQ	0.189	0.027	6.980	***	Ha1
HE→PQ	0.438	0.046	9.556	***	Hc1
PQ→SAT	0.509	0.057	8.985	***	Hb
GC→SAT	0.251	0.030	8.384	***	Ha2

HE→SAT	0.221	0.048	4.621	***	Hc2
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Note. Estimate (B) means unstandardized regression coefficient.

*** means $P < 0.01$ level, the correlation is very significant.

The path coefficients of path analysis are generally standardized regression coefficients- β values as direct effect values. The standardized regression weights, that is the standardized regression coefficient values (β values), are presented in Table 4.

(a) The path from governance conditions to satisfaction (Ha1) $\beta=0.31$, β value is positive, indicating that the direct effect of this path is positive. The direct effect value is 0.31.

(b) The path from family expectations to perceived quality (Hc1) $\beta=0.44$, β value is positive, indicating that the direct effect of this path is positive. The direct effect value is 0.44.

(c) Perceived quality to satisfaction path (Hb): The value of $\beta=0.42$, β is positive, indicating that the direct effect of this path is positive. The direct effect value is 0.42

(d) Governance Conditions to Satisfaction path (Ha2): The value of $\beta=0.34$, β is positive, which indicates that the direct effect of this path is positive. The direct effect value is 0.34.

(e) Household's expectation to satisfaction path (Hc2): The value of $\beta=0.19$, β is positive, which indicates that the direct effect of this path is positive. The direct effect value is 0.19.

Table 4 Standardized Regression Weights

Label	Ha1	Hc1	Hb	Ha2	Hc2
Path	GC→PQ	HE→PQ	PQ→SAT	GC→SAT	HE→SAT
Estimate (β)	0.31	0.44	0.42	0.34	0.19

Note. Estimate (β) means standardized regression coefficient.

Bootstrapping Estimation. In this study, the bias-corrected nonparametric percentile Bootstrap method was used to test the model mediation effect, which was randomly selected 5000 times in a valid sample ($n = 555$), and the results are shown in Table 5. From Table 5, the results of model mediation effect detection are as follows.

(a) "PQ" has an indirect effect in the path of "GC" to "SAT". It is because the indirect effect's 95%CI of "PQ" in the "GC" to "SAT" path does not include 0. Moreover, the Z-values are all greater than 1.69 and the P-values show that "****" reaches a significant level. This indicates that the hypothesis of a partial mediating role of "PQ" in the path from "GC" to "SAT" is valid.

Moreover, the β value of the indirect effect of Perceived Quality (PQ) in the path from Governance Conditions (GC) to Satisfaction (SAT) is 0.13.

(b) "PQ" has an indirect effect in the path of "HE" to "SAT". It is because the indirect effect's 95%CI of "PQ" in the "HE" to "SAT" path does not include 0. Moreover, the Z-values are all greater than 1.69 and the P-values show that "****" reaches a significant level. This indicates that the hypothesis that "PQ" is a partial mediator in the path from "HE" to "SAT" is valid.

Moreover, the β value of the indirect effect of Perceived Quality (PQ) in the path from Household's Expectation (HE) to Satisfaction (SAT) is 0.18.

Table 5 Bootstrap Indirect Effects Test

		Product of Bootstrapping 5000 times 95% CI							
Path	Estimates	Coefficient		Bias-corrected			Percentile		
		SE	Z	Lower	Upper	P	Lower	Upper	P
Indirect Effects									
G→P→S	0.13	0.026	5.08	0.081	0.181	***	0.077	0.179	***
E→P→S	0.18	0.037	5.08	0.115	0.264	***	0.110	0.26	***

By Bootstrap Indirect Effects Test, the hypothesis that Perceived quality has indirect effects on both the governance conditions-to-satisfaction pathway and the households' expectations-to-satisfaction pathway is support. The study hypotheses all hold and the results are shown in the table 6.

Table 6 Research hypothesis validation results

Label	Hypothesis	Results
Ha1	Governance conditions have an indirect positive effect on satisfaction with public services in early childhood education.	Support
Ha2	Governance conditions have a direct and positive effect on satisfaction with public services in early childhood education.	Support
Hb	Perceived quality has indirect effects on both the governance conditions-to-satisfaction pathway and the households' expectations-to-satisfaction pathway.	Support
Hc1	Household's expectations have an indirect positive effect on satisfaction with public services in early childhood education.	Support
Hc2	Household's expectations have a direct and positive effect on satisfaction with public services in early childhood education.	Support

Conclusion

(a) Three factors, governance conditions, family expectations, and perceived quality, affect satisfaction with public services in early childhood education.

(b) Positive and significant impact of governance conditions. Governance conditions have a positive and significant effect on satisfaction with ECE public services.

(c) Influence paths of governance conditions to satisfaction: direct and indirect. There is a direct positive effect of governance conditions on satisfaction with public services in early childhood education. The direct impact effect value is 0.34. Moreover, there is an indirect positive effect of governance conditions on satisfaction with public services in early childhood education. The indirect effect value was 0.13. The indirect effect is mediated by perceived quality.

(d) Governance conditions affecting satisfaction with ECE public services contained five observed variables: Voice, Response, Participation, Monitoring and Fairness.

New knowledge

Voice, Response, Participation, Monitoring and Fairness are the salient governance conditions that influence satisfaction with public services in early childhood education. In previous studies, the governance conditions affecting satisfaction with ECE public services were often defined as financial transparency (Du, L.L. 2016 : 43-49). However, it can be note that compared to fiscal transparency, the other five governance indicators, access to voice, government response to complaints and inquiries, access to citizen participation in decision making, access to citizen oversight of government, and fairness in education, have more significant effects on satisfaction with public services in early childhood education. As shown in Figure 5-1.

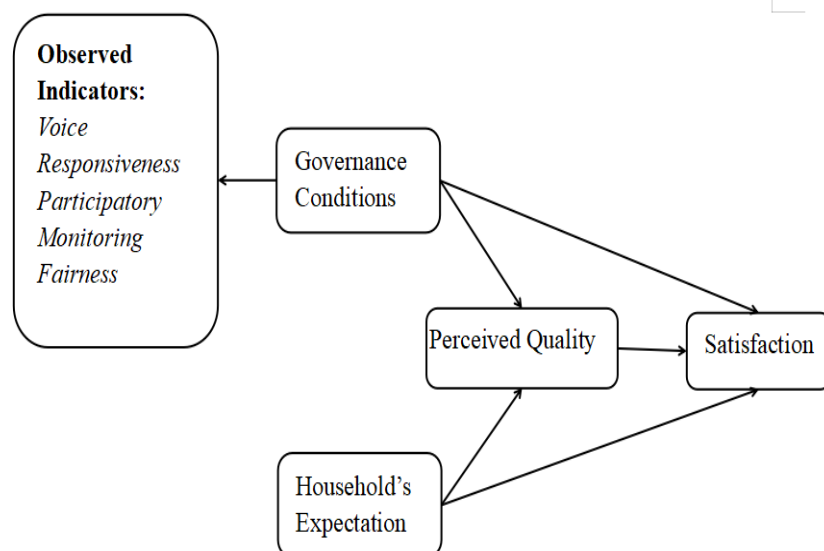


Figure 3 New Knowledge *Source*: Original research

Recommendations

Actively promote vocal channels and encourage citizens to speak out. Citizen voice refers to citizens' aspirations for public services in early childhood education, such as requests, complaints and suggestions for early childhood education (Merilee, S. G. 2011 : *s199-s221*). It is a basic way for citizens to participate in public governance and is one of the manifestations of governance democracy. In the survey and research, it was found that many families are not aware of the channels for complaints and consultation. This situation can prevent citizens from having an effective voice. Therefore, the government should pay attention to this issue. The government should use media such as radio, TV, and internet to actively promote the channels for citizens to voice their opinions. Let citizens understand the channels of voice and encourage them to actively raise their needs, questions and suggestions.

Increase skills training for personnel in education public services to improve responsiveness. In the governance of public services for early childhood education, responses to family complaints and inquiries are also an important indicator of family satisfaction (Cao, X.Q. 2019 : 19-30). Therefore, in addition to actively and quickly responding to families' complaints and inquiries, the government needs to improve its responsiveness. When responding to complaints or inquiries from the public, staff often focus on the speed of response and neglect the manner of response. Awareness of response alone, without response skills and in the wrong way, can also pose challenges to improving satisfaction with early childhood education. Therefore, it is necessary for the government to regularly upgrade the skills of public service staff, organize regular learning, update and learn about the new work software put into use, and be good at summarizing and categorizing families' complaints and inquiries to improve services and solve families' difficulties and questions in a timely manner.

Emphasis on external monitoring of government governance by citizens. External monitoring of government governance by the public has an important role in government governance (Yang, S.L. 2020 : 127-136). It can keep abreast of the real status of government governance, and it can also help the government quickly find the weak points of governance, and then quickly improve the governance behavior. Among them, citizen satisfaction survey is an effective means of external supervision of government. The government should strengthen the survey on the satisfaction of families with early childhood education public services and link citizen satisfaction with the performance of early childhood education public services. Through early childhood education public service satisfaction surveys, the government can understand the current status of early childhood education public services, listen to the needs and suggestions of the general public, understand the direction of government governance in the next stage, and improve the service level and service efficiency of weak departments in a targeted manner.

Fostering Citizen Participation. Although the government has set up a smooth pathway for citizen participation in the current construction of the public service system for early childhood education, citizens themselves do not realize the importance of participation due to their long-term dependence on the government. However, citizens' participation is essential to improve the quality and satisfaction of public services for early childhood education. Therefore, it is very important to cultivate citizens' awareness of participation (Zheng, J.J. 2017 : 164-171).

An effective way to develop a sense of civic engagement is to foster social organizations for public service in early childhood education. Cultivating social organizations for public service of early childhood education can create a social atmosphere for public participation, drive more public participation in the public service system of early childhood

education education, and stimulate more public awareness and enthusiasm for participation. The government's efforts to cultivate rural service social organizations can also improve the ability of social self-service.

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