

# A Model about the Influence of Social Capital on Small Towns

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## **Abstract:**

There have been many studies on the influence of social capital on the construction of small towns in academic. This study takes 10 small towns in Xiamen city, Fujian Province, China as samples, and explores the role of social capital in promoting community construction of these small towns by dividing social capital into social capital at the individual level, namely micro social capital, and social capital at the community level, namely macro social capital. The findings, based on survey data from 2016 to 2019, show that social capital plays a positive role in promoting rural community building. The social capital of rural communities plays an especially significant role in promoting public services in rural communities.

**Keywords:** A model, Social capital, Small towns.

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## I. INTRODUCTION

Refers to the community, most people will think it seemed to be the patent of the city, urban community, after all, this concept has been deeply rooted in people's minds But, in fact, rural community has always been old and very important in human history and social community, the old is that it is the private ownership and commodity economy, before there is a primitive tribe. It is very important because it has been one of the communities of human social life since ancient times and still plays a unique social function. Nowadays, with the further deepening and promotion of reform, the integration of urban and rural residents has gradually become an inevitable trend in the process of urbanization.

Community is a typological concept corresponding to society proposed by Tennis. Compared with the society established on rational will with the emergence of industrialization, community refers to a traditional community of social life with human touch and sense of identity based on consents, geoemotions and natural will [1]. For Tennis, community is a warm and beautiful concept, which is put forward in contrast to the cold society based on contract and full of rational calculation. By this, Tennis

expresses a sentimental attachment to the community based on blood, family, common habits and traditional ties in pre-industrial society. In subsequent community studies, although there are endless definitions of community, regional interaction and identity are recognized as the basic elements of community, and community has always carried a community spirit that people can take collective actions for common interests. However, the community constructed in the current Chinese community construction movement has failed to produce a community spirit in the countryside. The participation mobilized by the village committee is mainly individualized discrete participation, and the process of participation is mostly to implement the policies of the Party and the state to achieve the goal of social control. The participation process does not change the psychological characteristics of villagers, and does not make them develop a spirit of citizenship beyond individual interests and the subjectivity generated by participating in the process of social transformation. Then, in contemporary Rural China, how can villagers transcend individual interests and form a rural community with a sense of collective responsibility and belonging? And how should such a regional community be formed in contemporary Rural China?

New urbanism is a movement advocating the revival of traditional community spatial pattern in urban architecture and planning, also known as new traditionalism. His interest in community space is to try to reshape the form of community to create more public space and promote communication between people in the community. According to the viewpoint of new urbanism, the design of community environment should conform to the following principles. First, the scale should be small and all places should be walkable so that people in the community can easily interact with each other. Second, there should be a proper scale of public space so that people have the opportunity to participate in a wider range of public activities or express and defend their community interests. Third, the pattern of the community should be mixed, so as to meet the needs of residents for shopping, entertainment, learning, communication and receiving public services. Fourth, the community should have distinctive blocks, buildings and so on [2]. Anthony Giddens, a contemporary British sociologist, introduced the concept of field in his analysis of space. He examined time, space and people's behavior from the perspective of structure, and carried out multidimensional interpretation of community space. His research shows that sociologists have multi-dimensional perspectives on issues such as field and space. Anthony Giddens borrowed time geography from Swedish geographer Hegstrand. According to time geography, human purposeful actions are constrained by the inseparability of human body and the capacity of space and time [3].

There has been a longstanding debate about the influence of social capital on towns. Since most theories have focused on explaining social capital at a macro level or micro level, there has been little systematic analysis of intra-national differences in the implementation of democratic reforms. This paper fills this gap by presenting evidence showing that investments in the micro and macro social structure of small towns can assist in rural urbanization and strengthening perceptions of community infrastructure. Theoretical arguments about the influence of social capital on small towns can be traced back to Putnam

[4] .He proposed perhaps the most widespread generalization linking political systems to other aspects of society has been that democracy is related to the state of economic development. According to these ideas, there are currently two streams of social capital theory and research that provide foundations for examining how the social organization of small towns might influence perceptions of infrastructure quality. One theory defines social capital as a kind of resource for people, while the other emphasizes interpersonal interaction and regards interpersonal interaction and reciprocal relationship as social capital at the community level. This kind of social capital is of great significance to community construction [5-7].

Kenneth Newton believes that through reciprocity and trust, social capital transforms individuals from self-interested and egocentric individuals lacking social conscience and responsibility to members of a community of common interests through interactive, reciprocal relationships. Thus, this interactive and reciprocal relationship becomes social capital at the community level. In the construction of small towns, this kind of social capital becomes the glue that binds community members together [8-10]. Bourdieu [11-13], and the Coleman etc. In this sense, social capital can be operationalized as a mutually beneficial and interactive relationship between people in the community. Such relationships are conducive to increasing interpersonal communication among people, which is conducive to promoting collective action. That is, people in the community may generate social capital at the community level due to mutual reciprocity and interaction. This kind of social capital plays an active role in promoting community construction. This is also what this article wants to emphasize.

## **II. RESEARCH DESIGN**

Social scientists continue to debate the relationship between social capital and the economic development and have done much to unpack this relationship or lack thereof along multiple dimensions. For ease of discussion, we classify existing research on the relationship between social capital and Public services by whether researchers consider social capital and Public services as being independent of each other or as having a causal relationship.

In the existing research results, many studies have pointed out that public service is the economic and social pillar of small towns. These public services include road transportation system, water supply, electricity supply, heating system, sewage and garbage treatment system; it also includes schools, hospitals, housing, facilities for the elderly, and cultural and recreational facilities for youth. In rural communities, these public services affect residents' satisfaction with community construction. The quality of public service in rural communities is positively correlated with residents' satisfaction with the community. That is, the better the public services in rural communities, the better the construction of schools, hospitals, housing and other facilities, the higher the residents' satisfaction with the community; On the contrary, residents' satisfaction with the community is lower. For some communities, due to lack of

resources, aging population and other problems, resulting in community construction is extremely backward. Not only is funding for public services lacking, but community confidence in them is waning. In these cases, there will be cyclical negative effects. On the one hand, community residents have less and less confidence in community construction; on the other hand, community construction is increasingly lacking. In this case, enhancing the social capital of the community will be the key to solving the problem. By enhancing social capital at the community level, the interaction and reciprocal activities among the community residents will increase, thus enhancing the community residents' concern for the community. Community residents care more about the community, will actively promote community construction. In this way, community construction will be promoted by social capital and enter a virtuous cycle. Therefore, in this article, I will examine what factors affect the construction of small towns in rural communities and rural residents' satisfaction with public services in rural communities from the perspectives of social capital at the individual level, social capital at the community level and the structure of communes.

Our thoughts as shown in Fig 1:

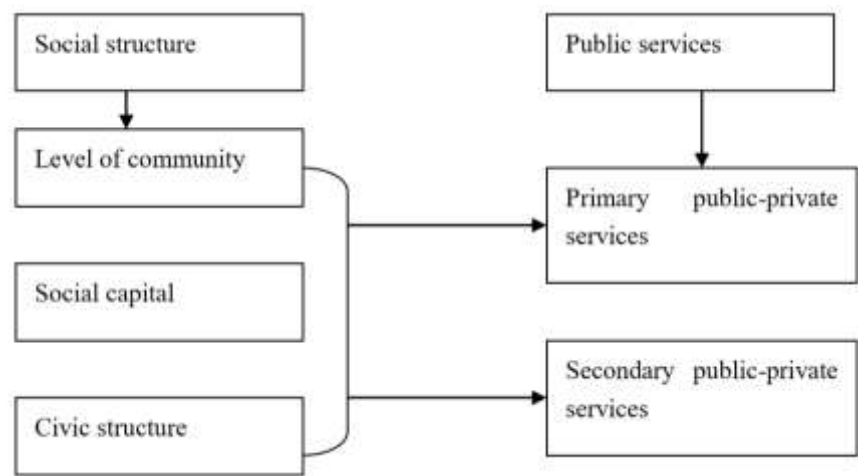


Fig 1: Research design

In this article, we assume that social structure consists of community, social capital, and civic structure. Public service includes primary and secondary levels. Therefore, in the construction of small towns, three specific research hypotheses can be established respectively on the relationship between the quality of rural infrastructure construction, residents' satisfaction evaluation and social capital of rural communities. The first hypothesis model and the second hypothesis model are used to measure the contribution of private and public social capital at the micro and macro levels respectively. The third model was used to measure the importance of social structure in predicting infrastructure perception in small towns.

H1: Individual-level, private social capital is positively associated with perceptions of the quality of core and secondary infrastructures, controlling for civic structure.

H2: The civic structure of community is positively associated with perceptions of quality of core and secondary infrastructures.

In the hypothesis model of this study, the relationship between individual rural residents belongs to the first level. The measure of social capital came from a random sample of 100 residents in 10 small towns. Data on level 1 and level 2 social Capital were obtained by testing them and having them fill out questionnaires and answer relevant questions. The data for this paper are from a social survey on small towns conducted in Fujian Province, China, from January 2016 to December 2019. In this study, the researchers sampled only Fujian province, so only one province was compared. There is no comparison between provinces. One advantage of this is that in China, small towns within a province are subject to the same institutional constraints, so the comparison results are authentic. If the selected small towns come from different province, they may not be comparable due to different policies.

We use a multi-stage sampling method. First, Xiamen was selected as the sampling frame, and then 10 towns were randomly selected in Xiamen, and then 4 villages were selected from each town. Finally, 10 villagers were selected from each village. Have them fill out questionnaires and answer questions. At the same time, they were interviewed case by case. Through this survey, the research group obtained 100 samples. That is, the total sample includes 100 villagers, 40 villages and 10 townships. At the same time, the research group also successfully interviewed 100 villagers. Their case interview materials provide supplementary materials for quantitative research.

Sample composition is shown in Fig 2:

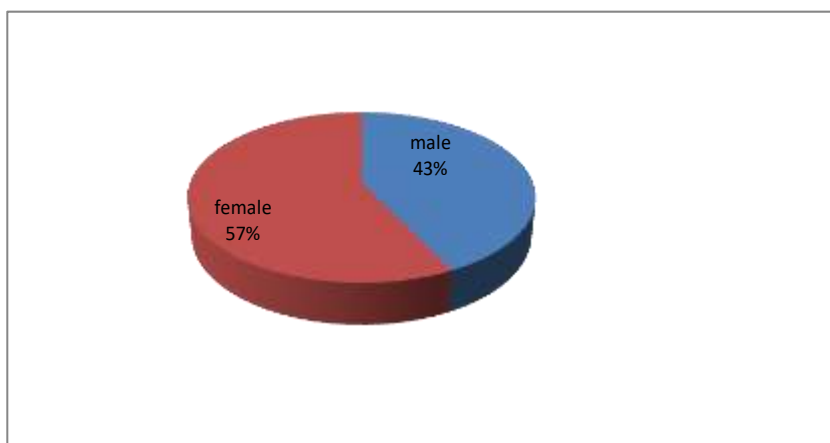


Fig 2: Gender composition

From above, we see that in the sample composition, of the 100 respondents, 57.3% are male and 42.7% female, and 24.4% are under age 30, 24.4% from age 31 to 40, 23.6% from 41 to 50, 12.9% from 51 to 60, and 11% older than 61.

III. VARLABLES MEASUREMENT

In order to correct shortcomings in exiting research, we should have more sophisticated variables to measure social capital and civic structure. Variables in this study can be categorized into three sets: First, a dependent variable to measure small town services in each village. Second, two intermediate variables, individual-level social capital in Model 2. Third, independent variables and control variables.

Two indices of small town services (perceived quality of core public and secondary facilities and services) are dependent variables as follows:

Indices of rural town services as shown in Table I:

TABLE I. Indices of rural town services

a: index of core public services. The richter scale was used. there are four levels of answers based on individual perceptions	b: index of secondary public-private services. The richter scale was used. There are four levels of answers. summated scale consisting of six variables based on individual perceptions
“Please rate the following government services available in (community name)” 4=very good, 3=good, 2=fair, 1=poor.	“Please rate the following services/facilities” 4=very good, 3=good, 2=fair, 1=poor.
road transportation system, water supply, electricity supply, heating system, sewage and garbage treatment system	schools, hospitals, housing, facilities for the elderly, and cultural and recreational facilities for youth.
Range of scores 4-16; a=0.61;mean score 11.84;SD2.10	Range of scores 6-24; a=0.74; mean score 13.84; SD3.15

From the figure above, we can see that the two dependent variables respectively represent citizens' opinions on the public service quality of their towns. There is a correlation between public service and residents' satisfaction with the community. By measuring residents' attitudes through the Richter scale, the conclusions obtained have reference value for analyzing how to improve the level of public service in

small towns.

Trust and reciprocity, as two important indicators to measure social capital represent the individual level of social capital of community residents. We can further classify it as building micro-level social capital through trust and reciprocity; and build social capital at the macro level through norm and interactive networks.

### 3.1 Measures of Individual-level Social Capital

#### 3.1.1 Personal benefit index

We use five questions to measure the individual social capital of rural residents. The responses were divided into five levels using the Richter scale.

The result is shown below in Table II:

**TABLE II. Personal benefit index**

(1) "About what proportion of the adults living in (community name) would you say you know by name?" 1=none or very few of them,2=none of them live here,3=less than one-half of them live here,4=most of them,5=all of them	(2) "About what proportion of all of your close personal adult friends live in (community name)?" 1=I really have no close personal friends, 2=none of them live here, 3=less than one-half of them live here,4=most of them live in here,5=all of them live in here
(3) "If I feel just like talking, I usually can find someone in (community name) to talk to" 1=strongly disagree to5=strongly agree	(4) "I can always count on my neighbors when I need help." 1=strongly disagree to5=strongly agree.
(3) "If I feel just like talking, I usually can find someone in (community name) to talk to" 1=strongly disagree to5=strongly agree	(4) "I can always count on my neighbors when I need help." 1=strongly disagree to5=strongly agree
(5) "If I had an emergency even people I don't know would help out" 1=strongly disagree to5=strongly agree	
Range of scores 5-27; a=0.67; mean score 19.84; SD2.85	



3.1.2 Individual public social capital indicators

We use two questions to measure the macro-level social capital of rural residents. Responses were measured using the Richter scale.

The result is shown below in Table III:

**TABLE III. Individual public social capital indicators**

(1) “Considering ALL of the types of groups and organizations listed above, about how many LOCAL groups in total do you belong to?”	(2)”In general, how would you describe your level of involvement in local community improvement activities and events?”
Range of scores 1-12; mean score 1.84; SD1.85 mean score 2.84; SD0.85	

3.2 Measures of Civic Structure

Capital in promoting community construction at the community level. The cumulative scale includes reciprocity, norms and other indicators, which are used to express the multiple relationships in small towns. For example, what are the common aspirations of the community? How to build consensus through the accumulation of social capital, thus forming collective action? This variable is the sum of several other variables. The variable reflects the actions taken by small towns in dealing with community problems and their ability to solve problems. This variable is an important indicator to measure the impact of social capital on the construction of small towns.

We use three questions to measure the Community norms and reciprocal of rural residents. Responses were measured using the Richter scale.

The result is shown below in Table IV:



**TABLE IV. Community norms and reciprocal of rural residents**

(a) “When something needs to get done in, the whole community usually gets behinds it”. The Richter scale was used. There are five levels of answers. From strongly disagree to strongly agree. That's equal to 1-5.	(b) “Here is a list of things people have said may pose a threat to the future of small communities”. The Richter scale was used. There are three levels of answers. From severely threatens, somewhat threatens, to doesn't threatens. That's equal to 1-3.	(c) “Community club and organizations are interested in what is best for all residents”. The Richter scale was used. There are five levels of answers. From strongly disagree to strongly agree. That's equal to 1-5.
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### 3.3 Control Variables

In addition to the above variables, we added control variables into each model, such as education, age, income, distance from county seat, proportion of villagers going out, etc. Among them, education level is a continuous variable, which is used to examine the education situation of rural residents. In addition, in existing studies, income and age are also two important indicators for stratification of rural residents.

## IV. FINDINGS

Three progressively complex models are fitted to each of the service indices. As follows Table V and Table VI:

**TABLE V. models of social structure effects on rural core public services**

<b>FIXED EFFECTS</b>		<b>MODEL 1(ANOVA)</b>			<b>MODEL 2(RANDOM SLOPE)</b>			
Model 1(intercept as outcome)								
Within community	effect	se	t	effect	se	t	effect	
se t								
Community mean	11.92	0.093	129.33***	11.73	0.089	129.89***	11.79	0.087
129.73***								
Social capital-private				0.253	0.012	21.01***	0.238	
0.013 20.98***								
Index#								
Number of groups				-0.013	0.017	-0.73	-0.013	

0.017	-0.71						
Belong to#							
Level of community		0.117	0.043	2.71**		0.117	
0.034	2.58**						
involvement							
Age		0.024	0.003	7.32***		0.022	
0.003	7.83**						
Education		- 0.067	0.029	-2.29*		-0.011	
0.332	- 2.11*						
Income		0.059	0.028	2.13**		0.051	
0.029	2.11**						
Civic structure index							
Median household						0.000	
0.000	3.11***						
Percent high school						2.531	
1.882	1.52						
Median age						0.032	
0.681	0.442						
Total variance		4.4388					
Intra-class correlation		16.2%					
Pseudo R2		29.99%					

**TABLE VI. Models of social structure effects on rural secondary public-private services**

FIXED EFFECTS		MODEL 1(ANOVA)			MODEL 2(random slope)		
Model 1(intercept as outcome)							
Within community	effect	se	t	effect	se	t	effect
se t							
Community mean	13.92	0.091	122.34***	12.74	0.049	127.81***	12.09
122.74***							0.081
Social capital-private				0.263	0.016	21.02***	0.248
0.014	20.18***						
Index#							
Number of groups				-0.012	0.016	-0.76	-0.019
0.010	-0.70						
Belong to#							

Level of community	0.113	0.042	2.70**	0.119
0.030 2.50**				
involvement				
Age	0.027	0.002	7.31***	0.012
0.013 7.89**				
Education	- 0.057	0.028	-2.39*	-0.021
0.322 - 2.10*				
Income	0.049	0.038	2.23**	0.050
0.027 2.12**				
Civic structure index				
Median household				0.000
0.000 3.21***				
Percent high school				2.431
1.872 1.62				
Median age				0.036
0.683 0.446				
Total variance	4.8388			
Intra-class correlation	18.2%			
Pseudo R2	31.97%			

From the results of the three models shown in Table V and Table VI above, the first model provides information for calculating how many individual perceptions differ between communities rather than within communities. The second model, after controlling for social capital at the micro level, showed no significant differences between communities. The third model adds variables that reflect the community structure index, such as urban population, age, and income. According to the results, these variables have an impact on community structure, reflecting the differences between different communities.

Secondly, at the individual level, micro social capital index has the largest influence coefficient on rural residents, and has a significant positive impact. This confirms hypothesis 1 to some extent. Thirdly, after age, education level, income and other variables were taken as control variables, the correlation coefficient showed positive and significant. Therefore, hypothesis 2 is also confirmed.

## V. CONCLUSION

One of the more interesting aspects of the emergence of community policy in China is the speed with which the concept of ‘community’ has been transformed from a relatively abstract idea into a specific institutional model. In China, the discourse of ‘community’ that has appeared in recent years turns upon a similar logic in seeking to develop more localized and economic forms of governance, where citizens are

mobilized and trained to govern themselves [14].

The research findings show that the social capital and the civic structure of the small towns compared with other township within the same county or district, it arouse villagers' interests for participation and enhance the implementation of policies. Based on above analysis, we may conclude that individual-level social capital is crucial for the implementation of policy. With the social capital and the civic structure increases in the small towns, institutions regarding town infrastructure quality, which are mechanisms for interest articulation and mediation among villagers, will be implemented more successfully.

In this paper, the research group analyzes the social capital at the individual level, namely micro social capital, and the civic structure at the community level, namely macro social capital. The sample analysis results from ten small towns in Xiamen, Fujian, China suggest that social capital plays an important role in the construction of small towns, and there is a positive correlation between them. At the same time, the research group finds the quality of services and facilities in small towns are dependent on the social organization of those places. Two components of this social organization are the social capital that inheres among individuals and the civic structure of the town. Ten small towns in Xiamen, Fujian province, are a microcosm of Chinese society. Surveys made with them as samples can help us understand Chinese society. From the research results we think these findings reflect the characteristics of contemporary Chinese. On the one hand, economic factors and social capital are increasingly valued, while government jurisdiction and other factors gradually fade out, indicating that China's social marketization trend is obvious. On the other hand, the duality of our society left by the planned economy has not disappeared. By multi-level models that combine individual-level social capital and community-level civic structure to explain variations among 10 towns in China, We find that civic structure contributes positively and significant contributor to effects within communities. The civic structure models points that investments in the micro and macro social structure of small towns can assist in rural urbanization and strengthening perceptions of community infrastructure.

According to the conclusion, in the future, small towns should pay attention to the development of cultural intermediary organizations with the nature of the third sector, such as clubs, associations, training course and so on. According to past experience study [15-17], community participation is an important factor of social capital stock. Putman also regards social members' participation in associations as an important part of social capital to a large extent. According to his research on Italy, the democratic operation in northern Italy is better, mainly because there are many horizontal associations, such as neighborhood organizations, chorus groups, cooperatives, sports clubs, popular political parties, etc. There are close horizontal social interactions between members of these societies and these networks are the basic building blocks of social capital, because the more dense such networks are in a community, the more likely its citizens are to cooperate for the common good.

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