

STRUCTURE ANALYSIS ON RESIDENTS' PARTICIPATION CONSCIOUSNES FOR THE PROJECT OF IMPROVING RESIDENTIAL STREETS

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Abstract: For efficient execution of district transportation project, the right understanding of residents' participation consciousness is very significant. In this paper we divided the project process into two or three stages and analyzed, in each stage, the resident's participation such as request of circular information, participation to meetings and more active participation to the project overall. We carried out the questionnaire including two hypothetical district transportation projects. We analyzed resident's participation consciousness by using the data which obtained from the questionnaire and clarified the structure of cause and effect on the relationship of the individual attributes, the aspects of residential area and the attitude towards resident participation to the projects by using the Covariance Structure Analysis.

Key Words: Residents' participation, District transportation planning, Covariance structure analysis

1. INTRODUCTION

The recognition of the importance of the resident participation and provision of information in the infrastructure development is increasing in Japan. The same trends are apparent in the field of district transportation planning that reduce automobile speed, through traffic, and ultimately improve road safety in the residential area. "Community Street" project, which is one of the project for district transportation planning, physically improves a single residential street with chokers, road humps, sidewalks and so on, in a residential area. The other project of the district transportation planning is "Community Zone" project that expands the "Community Street" measures into all applicable streets in a residential district and regulates automobile speed under 30km/h in all roads within the residential district. The objective of this project is to improve not only traffic safety in residential district by using the above combined measures, but also amenity, convenience, and landscape aggressively.

In order to effectively develop these district transportation projects, it is necessary to understand as accurately as possible the attitudes of residents towards participation, to establish a mutual understanding between residents and those making policy, and to establish a process for resident participation.

At the same time, much remains unclear in regard to the attitudes of residents towards participation in the district transportation projects. These areas that need to be examined include:

- (1) At which step, and to what extent, do residents require information from the authorities on the district transportation project, and how do they wish to present their opinions on the matter?
- (2) In response to calls from the authorities, which residents wish to participate, and to what extent do they wish to participate?

A number of studies have been conducted in relation to resident participation in, and provision of information on, district transportation projects (eg Kubota et al. 1986; Sakamoto et al. 1999; Yamaoka and Isobe 1999). In all these studies, the validity of specific methods of participation were proven and investigated through traffic simulations and workshops, and a number of problems and topics relating to resident participation in district transportation projects were investigated. There was a study that examined questions (1) and (2) for the arterial road project (Mochizuki and Terabe 1999). However, because district transportation projects are different from the arterial road projects that profit the whole city or country, residents' consciousness toward each projects is different. And, there is a study that clarified structure of residents' participation consciousness for transportation planning comparing the United States and Japan (Terabe and Yai 1999). However, detail analysis of attitudes of residents to participation at the district transportation project was not conducted, and questions (1) and (2) above have not been covered. We have already conducted a study about questions (1) and (2) (Yamaoka et al. 2000). However, this study didn't clarify the residents' consciousness toward community and resident participation that influence the intention to participate.

This study is an attempt to clarify questions (1) and (2) by setting two projects for the establishment of a single community street within an area (hereafter referred to as the 'single road project'), and the establishment of a Community Zone project involving allocation of one-way regulation and related road works (hereafter referred to as the 'comprehensive project'). The progress of each project was divided into two or three stages, and questionnaires were given to residents to determine changes in attitudes at each stage. The data obtained from the questionnaires was applied to covariance structure analysis in order to provide considerations on the relationship between the characteristic of the resident of the area and the attitude towards resident participation. Additionally, we clarify residents' consciousness toward their district resident participation, and we consider a relationship between the consciousness and intention to participate in the project.

The purpose of this study is therefore to provide basic data for promoting a mutual understanding between the residents and the authorities who make policy, and for facilitating the smooth and effective development of district transportation projects.

2. OUTLINE OF QUESTIONNAIRE ON RESIDENT ATTITUDES AT EACH STAGE OF DISTRICT TRANSPORTATION PROJECTS

The questionnaire was conducted in District A in Nagoya City. As shown in Figure 1, the district has been a high-density residential area for many years. A primary school and kindergarten are located in the center of the district, and roads within the district are used by children going to and from both facilities. The road indicated by <====> in Figure 1 is the subject of a hypothetical single road project. The morning rush hour, during which an extremely high volume of traffic passes from east to west, coincides with the time at which children leave home for school and kindergarten.

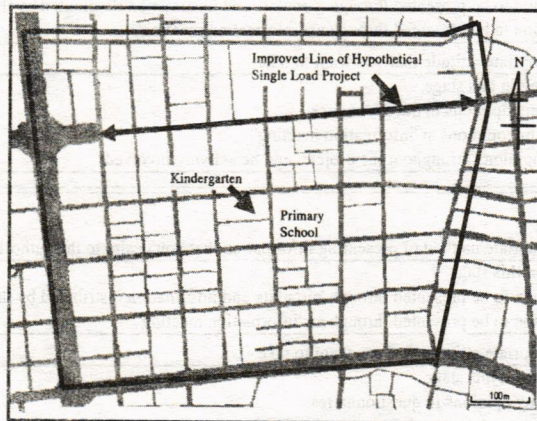


Figure 1. District A

The questionnaire investigated the attitudes of residents towards dangerous locations and road conditions within the district, the attitudes at each stage of the hypothetical district transportation project, attitudes to community, the attributes of individuals and so on. Of the points investigated in the questionnaire, the most important is that of attitudes at each stage of the hypothetical district transportation project.

The feasibility of the single road project (Section 3) was investigated in the two stages of a 'survey stage' in which the question of whether or not the project should be implemented was considered, and a 'design stage' in which the design details for the community street were considered.

For the comprehensive project (Section 4), a 'one-way stage', in which reallocates one-way regulation of roads, was added to the two stages used for the single road project such that the comprehensive project consisted of a 'survey stage', a 'one-way stage', and a 'design stage'. The 'one-way stage' reallocates one-way regulation of roads within a district in order to reduce through traffic in the "Community Zone". Reallocations of one-way regulation of roads were also considered for the single road project, however since it did not impact upon the entire district, only the 'survey stage' and 'design stage' were adopted.

<p>(1) Survey Stage</p> <p>Select the most appropriate method of presenting information that you desire to the authorities</p> <ol style="list-style-type: none"> 1. I desired nothing in this stage. 2. I desired information to be presented through 'circulars and information distributed by the authorities'. 3. I desired information to be presented through an 'information meeting'. <p>Select the most appropriate attitude that you want to take</p> <ol style="list-style-type: none"> 1. I want to do nothing in this stage. 2. I want to transmit my opinions in questionnaires. 3. I want to transmit my opinions at 'information meeting'. 4. I want to present opinions throughout the project, and be actively involved.
<p>(2) One-way Stage</p> <p>Select the most appropriate method of presenting information that you desire to the authorities</p> <ol style="list-style-type: none"> 1. I desired nothing in this stage. 2. I desired information to be presented through 'circulars and information distributed by the authorities'. 3. I desired information to be presented through an 'information meeting'. <p>Select the most appropriate attitude that you want to take</p> <ol style="list-style-type: none"> 1. I want to do nothing in this stage. 2. I want to transmit my opinions in questionnaires. 3. I want to transmit my opinions at 'information meeting'. 4. I want to present opinions throughout the project, and be actively involved.
<p>(3) Design Stage</p> <p>Select the most appropriate method of presenting information that you desire to the authorities</p> <ol style="list-style-type: none"> 1. I desired nothing in this stage. 2. I desired information to be presented through 'circulars and information distributed by the authorities'. 3. I desired information to be presented through an 'information meeting'. <p>Select the most appropriate attitude that you want to take</p> <ol style="list-style-type: none"> 1. I want to do nothing in this stage. 2. I want to transmit my opinions in questionnaires. 3. I want to transmit my opinions at 'information meeting'. 4. I want to present opinions throughout the project, and be actively involved.

Figure 2. The Actual Content of the Questions for Each Stage of the Comprehensive Project

The actual content of the questions for each stage of the comprehensive project is shown in Figure 2. Except for the section on the 'one-way stage' in Figure 2(2), the project description for the single road project is similar to the figure. Figure 2 includes the requirements of residents in relation to the authorities (1~3), and the activities in which each resident wishes to participate (1~4). Only the most appropriate selection was required.

Analysis of the answers to the questions was designed to clarify the differences between resident attitudes towards participation in the single road and comprehensive projects, and the changes in attitudes at each stage.

The questionnaire was distributed in parts by post to households in District A (households within the black outline in Figure 1) during April 2000, filled in by residents, and returned by post. Of the 974 copies distributed, 234 were returned, a recovery rate of 24.0%.

The attributes of the respondents are as shown in Figure 3. A comparison of the attributes of the respondents with data from the 1997 census of the entire ward (including District A) showed that the proportion of persons in the 30~39 age group was slightly greater, and that the proportion of persons in the 10~19 age group was slightly less, in comparison to census data. The proportion of persons living in apartments was slightly greater, and the average

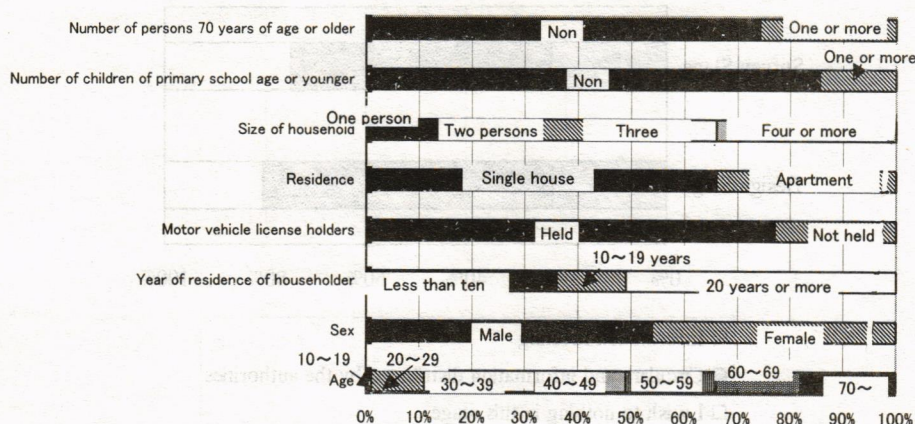


Figure 3. The Attributes of the Respondents

family size was approximately one person greater, compared to census data.

3. ATTITUDES OF RESIDENTS TO PARTICIPATION IN SINGLE ROAD PROJECT

As described in the previous section, the single road project was divided into a 'survey stage' and a 'design stage'. The attitudes of residents to participation in each stage and the relationship between the attitude to overall participation and the distance from the route of the single road (see Figure1) to each house, were investigated.

3.1 Attitudes of Residents towards Participation at Each Stage of the Single Road Project

Figure 4 shows the requests of each of the residents regarding the method of presenting information desired by the residents to the authorities as a proportion of the total. Figure 5 shows the proportion of desired actions on the part of residents and the proportion of the method transmitting the desires of residents.

The figure shows that 75~80% of respondents desire some kind of information. Approximately 20% desire the information to be presented through an 'information meeting', and approximately 60% desire it to be presented through 'circulars and information distributed by the authorities'. The number of respondents desiring information in the 'design stage' was slightly higher than in the 'survey stage'.

Figure 5 shows that approximately 60% of respondents wished to present their opinions at some stage; 40% of these respondents wished to present their opinions in the questionnaire, and 15% at an 'information meeting'. Approximately 5% of residents wished to 'present opinions throughout the project, and be actively involved'.

As in Figure 4, the number of residents wishing to present their opinions in the 'design stage' was higher than in the 'survey stage'.

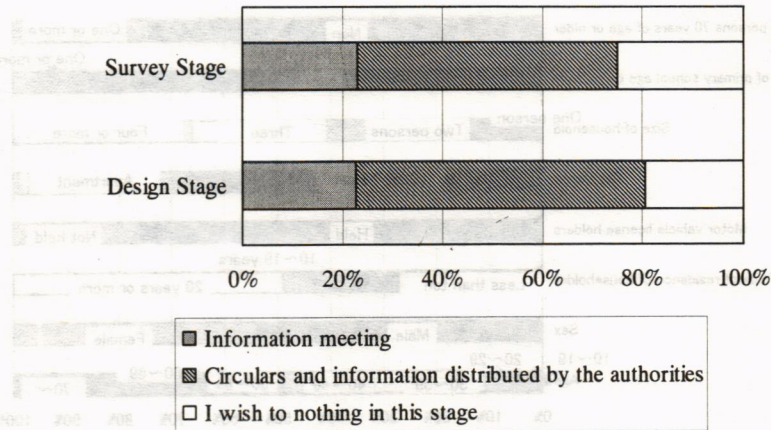


Figure 4. The Method of Presenting Information Desired by Residents in Single Road project

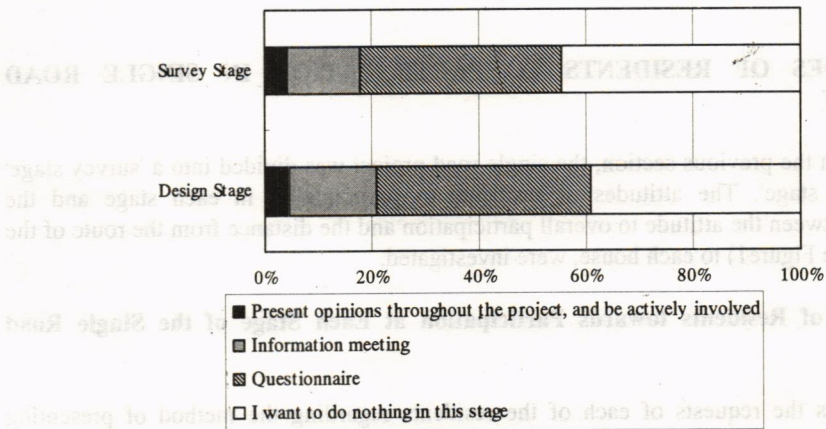


Figure 5. The Method of Transmission of Opinions Desired by Residents in Single Road project

The majority of residents desire participation in the form of receiving information via circulars and transmitting their opinions in questionnaires, whereas only 20% wish to actively present their opinions at information meetings and throughout the duration of the project. There appears to be a tendency to desire participation at the design stage, rather than in the 'survey stage'.

3.2 Relationship between Distance of Residence from Route, and Attitude towards Participation

The questionnaire asked residents to check the road in front of their residences. By measuring the straight-line distance between the road in front of the residence and the single road of the hypothetical project, it was possible to analyze attitudes towards resident participation in terms of the distance from the project route.

Figures 6 and 7 show the desire of residents for information and for the communication of their opinions in terms of distance from the road in front of their residence to the single road during each stage of the project. The numbers of responses for each distance range were as follows: 0~99m(76 responses), 100~199m(53 responses), 200~299m(44 responses) and 300m~(24 responses).

Figure 6 shows that there is a tendency at the 'survey stage' to desire regional meetings and distribution of information with proximity to the project site. On the other hands, the difference by distance from the road in front of respondent's home to the single road isn't seen at 'design stage'. However, the respondents who live within 99m from the single road tend to desire regional meetings and distribution of information in comparison with others

Figure 7 shows that the proportion of residents desiring to actively present their opinions during the project at resident information meetings also increases with proximity to the project site at the 'survey stage'. And, the proportions of the active respondents who live within 299m from the single road are about the same. Therefore, the consciousness toward residents' participation becomes passive in the border about 300m from the single road.

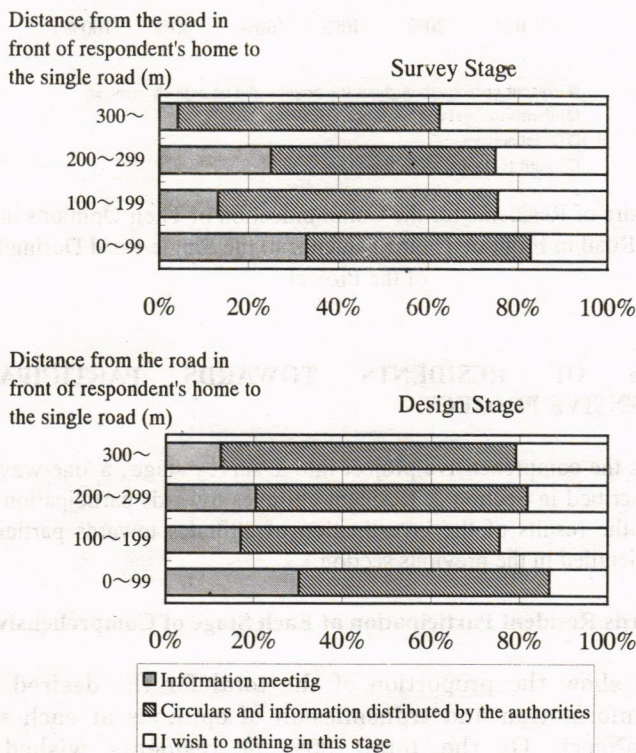


Figure 6. The Desire of Residents for Information in Terms of Distance from the Road in Front of Their Residence to the Single Road During Each Stage of the Project

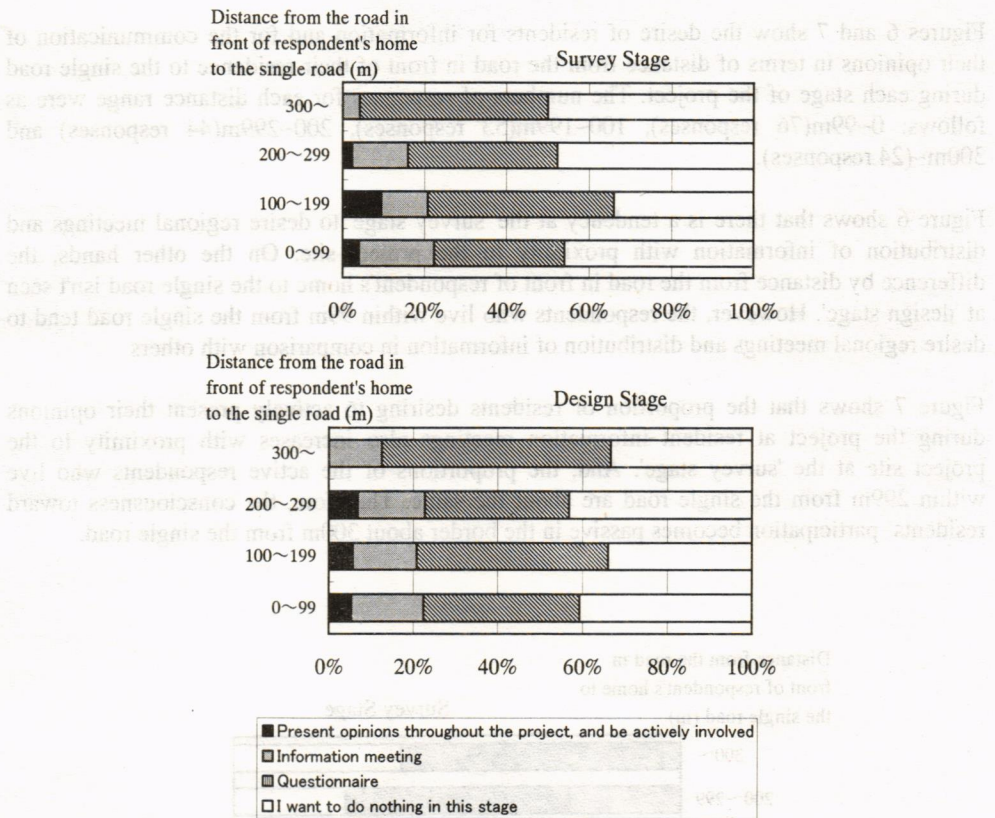


Figure 7. The Desire of Residents for the Communication of Their Opinions in Terms of Distance from the Road in Front of Their Residence to the Single Road During Each Stage of the Project

4. ATTITUDES OF RESIDENTS TOWARDS PARTICIPATION IN COMPREHENSIVE PROJECT

This section divides the comprehensive project into a 'survey stage', a 'one-way stage', and a 'design stage' as described in Section 2. Resident attitudes towards participation at each stage are compared with the results of the investigation of attitudes towards participation in the single road project detailed in the previous section.

4.1 Attitudes towards Resident Participation at Each Stage of Comprehensive Project

Figures 8 and 9 show the proportion of the total for the desired methods of presentation of information and transmission of opinions at each stage of the comprehensive project. Of the total, 80% of residents wished to obtain information on the project, 60% wished to present their opinions, 20% wished to participate in information meetings, and 5% wished to actively present their opinions throughout the duration of the project. The figures were very similar to those pertaining to the single road project. In contrast, whereas the desire for active participation in the single road project was highest in the 'design stage',

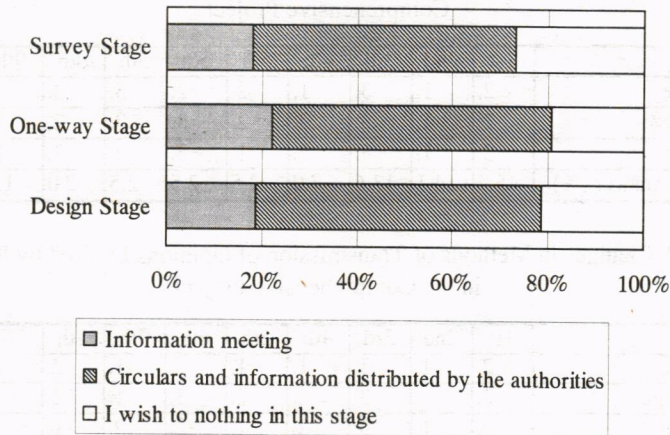


Figure 8. The Method of Presenting Information Desired by Residents in Comprehensive Project

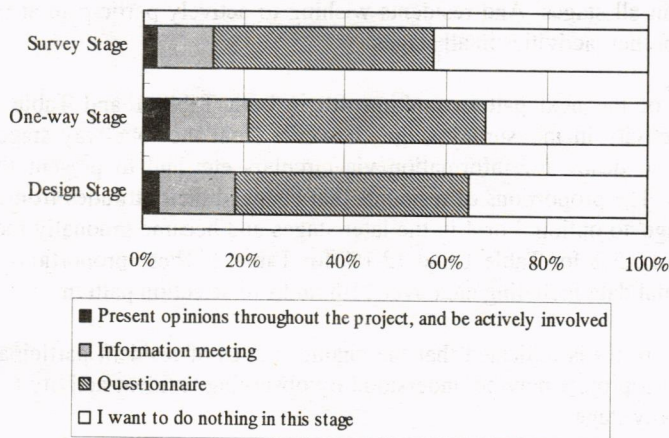


Figure 9. The Method of Transmission of Opinions Desired by Residents in Comprehensive Project

the desire for information and opportunities to present opinions in the 'one-way stage' of the comprehensive project and the desire for active participation were higher than for other stages for the comprehensive project. This is thought to be due to the fact that attitudes towards the 'one-way stage' were associated with changes to the proximity of motor vehicle traffic to residences, and concern over this point was higher than with the details of design.

4.2 Changes in Methods of Participation Desired by Residents in The Comprehensive Project

Table 1 and Table 2 show the selection pattern of option numbers (option numbers 1~4 in A and B in Figure 2) in the three stages, associated with 'presentation of information' and 'method of transmission of opinions'. And the tables show the selection patterns that the rate of respondents for each pattern are within tenth ranks from the top of the rate as a rate of total. Approximately 70% of respondents selected the same method of participation in each of the

Table 1. Changes in Methods of Presenting Information Desired by Residents in the Comprehensive Project

	1st	2nd	3rd	4th	5th	5th	5th	8th	9th	9th	9th
Survey Stage	2.	1.	3.	1.	2.	2.	3.	2.	1.	1.	2.
One-way Stage	2.	1.	3.	2.	2.	3.	3.	2.	1.	2.	3.
Design Stage	2.	1.	3.	2.	1.	3.	2.	3.	2.	1.	2.
Ratio of the Answer (%)	45.7	14.1	13.6	7.0	2.5	2.5	2.5	2.0	1.5	1.5	1.5

Table 2. Changes in Methods of Transmission of Opinions Desired by Residents in the Comprehensive Project

	1st	2nd	3rd	4th	5th	6th	7th	7th	7th	10th	10th
Survey Stage	2.	1.	3.	1.	1.	2.	1.	2.	2.	2.	4.
One-way Stage	2.	1.	3.	2.	2.	3.	1.	2.	2.	3.	4.
Design Stage	2.	1.	3.	2.	1.	2.	2.	1.	3.	3.	4.
Ratio of the Answer (%)	30.7	27.1	8.0	6.0	3.5	3.0	2.5	2.5	2.5	1.5	1.5

three stages. Residents not wishing to participate at the beginning of the project did not wish to participate in all stages. And residents wishing to actively participate at the beginning of the project kept their activities in all stages.

The residents of the next pattern ranking 4th in both Table 1 and Table 2 expressed no demands or activity in the 'survey stage', however from the 'one-way stage' they changed their attitudes to desire for information via circulars etc, and to present their opinions in questionnaires. The proportions of residents that changed their attitudes from option 1 or 2 in the 'survey stage' to option 3 or 4 in the later stages and became gradually more active in the later stages, are 7.5% for Table 1 and 12.1% for Table 2. These proportions were calculated by using the total data including data over 11th ranks of selection pattern.

Therefore, this result is indicated that the characteristics of resident participation throughout the duration of a project may be understood by observing resident activity to participation at the initial 'survey stage'.

5. RELATIONSHIP OF RESIDENTS WITH THEIR RESIDENTIAL AREA AND AWARENESS TOWARDS RESIDENT PARTICIPATION

It is thought that the desire of residents to participate in a project is affected by their relationship with the local area in which they live. This section focuses on understanding the awareness of resident towards the relationship with the local area, and awareness of the importance of resident participation. Based on these results above, the relationship with the residential area and awareness towards participation in a project are analyzed in detail by using the Covariance Structure Analysis in the next section.

5.1 Awareness towards the Local Area in Which They Live

The questionnaire employed in this study contained six questions on respondent's awareness towards the local area in which they live. These results are shown in Figure 10. More than 70% of respondents indicated that they felt an attachment to the local area in which they live.

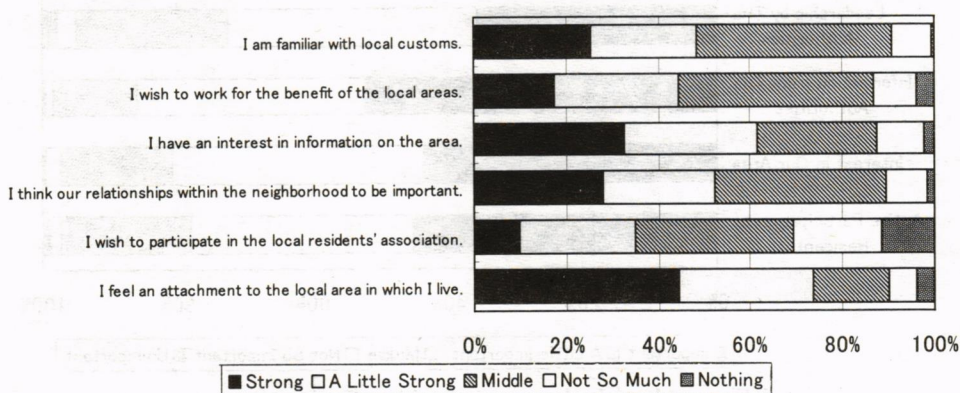


Figure 10. Awareness towards the Local Area in Which They Live

It is thought to be for the reason that 51% of respondents had lived in the area for 20 years or more.

Approximately 60% of residents expressed an interest in information on the area, and approximately 50% stated that they considered their relationships within the neighborhood to be very important. Approximately 45% of residents stated that they were familiar with local customs, and wished to work for the benefit of the local area, with only approximately 10% of residents stating otherwise. Approximately 35% of residents expressed an interest in participating in the local residents' association, and approximately 30% of residents stated that they did not wish to participate.

These results show that the residents of District A felt familiar and interested in their area of residence. However, the proportion of affirmative responses to 'would like to work for the benefit of the local area' and 'would like to participate in the local residents association' was lower than for the other questions.

5.2 Attitudes towards Resident Participation

The questionnaire employed in this study contained four questions on the respondent's attitudes on resident participation. These results are shown in Figure 11.

Approximately 80% of residents responded that they thought that 'information from the authorities', 'interest in their area', and 'active participation by residents' were important, and approximately 70% of residents responded that 'leadership by the authorities' is important. The results above indicate that the residents of District A generally consider participation in district transportation projects to be of importance. The lower proportion of respondents indicating that 'leadership by the authorities' is important tends to indicate that the project might not be a subject managed by the authorities. The fact that the proportion of approximately 70% of residents consider 'leadership by the authorities' to be important would suggest that leadership by the authorities with resident involvement is considered to be a matter of importance.

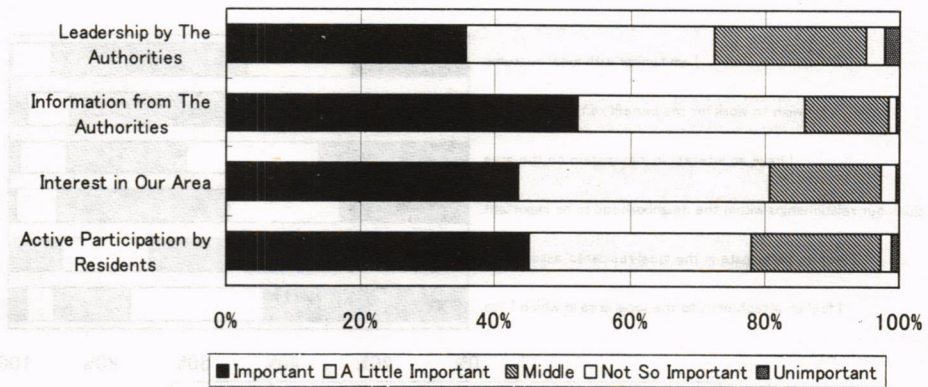


Figure 11. Attitude towards Resident Participation

6. THE COVARIANCE STRUCTURE ANALYSIS IN ATTITUDES OF RESIDENTS TOWARDS PARTICIPATION IN COMPREHENSIVE PROJECT

The previous section provided a fundamental analysis of the methods for provision of information, and for transmission of opinions, as desired by residents at each stage of the project. This section aims to provide a statistical interpretation of the attitudes towards participation of residents for each stage in the comprehensive project through the covariance structure analysis.

6.1 Variable Details

Missing values contained in the questionnaire data was excluded, so that the number of data samples used in the analysis was $n=190$. A total of 26 observed variables (see Table 3) were employed, being classified into seven latent variables. We considered the other individual attributes of the table such as mode of daily trip, occupation, etc. However, the other attributes were removed due to their low t statistics.

6.2 Interpretation of the Cause-and-effect Structure Model

After estimations with a variety of pattern in variables as shown in Table 3, the optimum model and its path diagram were employed as shown in Figure12. The GFI optimization index was 0.834 and the AGFI was 0.800, indicating comparatively good results. Except for one variable, the t value of each cause-and-effect coefficient for the structural equation was 1% or 5% significance. Similarly, except for one variable, the t value for the measurement equation was 1% significance.

Of the three latent variables (see Figure12) indicating intention to participate in each stage of the project, only 'intention to participate in survey stage' receives arrows from 'individual attributes of residents', 'attitudes of residents towards participation', and 'awareness of current situation of roads within district'. The 'intention to participate in one-way stage' and 'intention to participate in design stage' do not receive any arrows from the other latent variables except for 'intention to participate in survey stage' because the cause-and-effect coefficients for these other latent variables were small and no significant differences were obtained. As described in Section 4 (2) this reason is that residents actively participating in the project participate from

Table 3. Latent Variables and Observed Variables

Latent Variables	Observed Variables		Choices
Individual attributes of residents	X1	Age	Actual numerical value
	X2	Years of residence of householder	
	X3	The number of the elderly	
	X4	Residence	
Relationship with local area	X5	I feel an attachment to the local area in which I live.	Single House:1, Apartment:0
	X6	I wish to participate in the local residents' association.	Strong: 5
	X7	I have an interest in information on the area.	A Little Strong: 4
	X8	I think our relationships within the neighborhood to be important.	Middle: 3
	X9	I wish to work for the benefit of the local areas.	Not So Much: 2
	X10	I am familiar with local customs.	Nothing: 1
Awareness of current situation of roads within district	X11	Traffic volume is small	Strong: 5
	X12	The number of cars parking on-street is small	A Little Strong: 4
	X13	Automobile speed is slow	Middle: 3
	X14	There are few blind points.	Not So Much: 2
	X15	There are few obstacles	Nothing: 1
	X16	There is much green	
Attitudes of residents towards participation	X17	Active participation by residents is important	Important:5, A Little Important:4
	X18	Information from the authorities is important	Middle:3
	X19	Interest in our area is important	Not So Important:2
	X20	Leadership by the authorities is important	Unimportant:1
Intention to participate in survey stage	X21	The method of presenting information desired by residents in survey stage	The number shown in Figure 2 (1-3)
	X22	The method of transmission of opinions desired by residents in survey stage	The number shown in Figure 2 (1-4)
Intention to participate in one-way stage	X23	The method of presenting information desired by residents in one-way stage	The number shown in Figure 2 (1-3)
	X24	The method of transmission of opinions desired by residents in one-way stage	The number shown in Figure 2 (1-4)
Intention to participate in design stage	X25	The method of presenting information desired by residents in design stage	The number shown in Figure 2 (1-3)
	X26	The method of transmission of opinions desired by residents in design stage	The number shown in Figure 2 (1-4)

the initial survey stage, and those not actively participating did not participate in all stages. In other words, the attitudes of residents to participation tend to remain unchanged from the survey stage through to the design stage.

The other relationships between the latent variables show that 'individual attributes of residents' strongly affects 'relationship with local area'. In terms of the measurement variable for 'individual attributes of residents', this indicates that the longer residents live in a single house, and the older these residents are, the stronger the 'relationship with local area' becomes. From the 'relationship with local area' measurement variable, individuals who have strongly the 'relationship with local area' tend to answer positively to 'would like to participate in the local residents association' and 'feel an attachment to the local area'.

In the same way, 'attitudes to resident participation' is strongly affected by 'relationship to local area'. This is related to the fact that active participation in the project is considered important by residents with a close relationship to the local area, however while these residents consider information from the authorities to be of importance, they do not place much importance on the leadership of the authorities.

'Attitudes of residents towards participation' is also affected by 'awareness of current situation of roads within district', with a negative cause-and-effect coefficient. This indicates the increasing importance placed on participation in the project by residents as they become more aware of problems of traffic volume, roadside parking, and vehicle speed.

'Intention to participate in survey stage' was evaluated as the most important of the three, and was not influenced by 'individual attributes of residents', however it was strongly influenced by 'attitudes of residents towards participation' and 'awareness of current situation of roads within district'. This indicates that the way of thinking, and the awareness of problems in the district, rather than the attributes of each resident, strongly affected the intention to participate

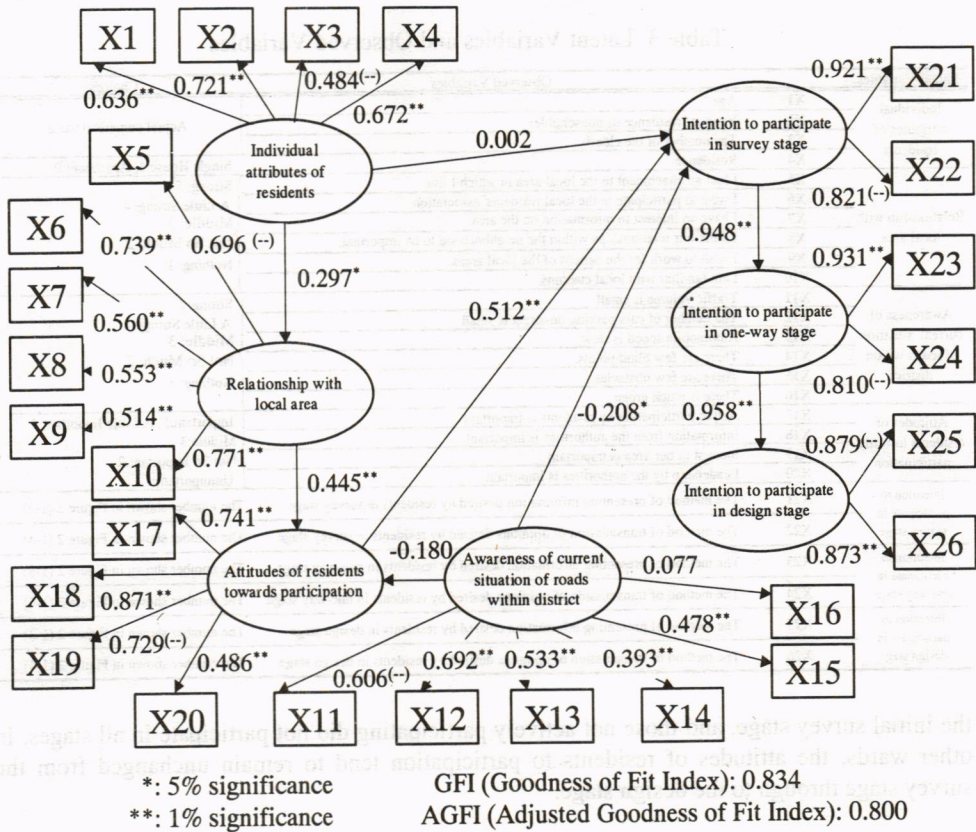


Figure 12. The Cause-and-effect Structure Model

in the project.

The cause-and-effect coefficients for change from 'intention to participate in survey stage' to 'intention to participate in one-way stage', and from 'intention to participate in one-way stage' to 'intention to participate in design stage' were high at 0.948 and 0.958, respectively. From this it is noted that intention to participate at a given stage is strongly affected by the intention to participate in the previous stage. This reinforces statistically the conclusion from Table 1 and Table 2 that the nature of resident participation throughout all stages of the project may be understood in the survey stage.

The cause-and-effect coefficient for latent variables and measurement variables in each stage of the project shows that the coefficient for the method of providing information in all stages is greater than that for transmission of opinions. This indicates that residents firstly desire information from the authorities, and agrees with the results of the analysis in sections 3 and 4.

7. CONCLUSIONS

This study analyzed attitudes of residents towards participation in district transportation projects in terms of stages of progress in a single road project and a comprehensive project.

The cause-and-effect structure of attitudes towards resident participation was understood with the use of covariance structure analysis. The conclusions drawn from the study are summarized as follows:

- (1) The questionnaire showed that, for both projects, 80% of residents wished to obtain information by some means, and 60% of residents wished to present their opinions in some manner. Approximately 20% of residents expressed a strong desire to obtain information, and a strong intention to actively participate in resident information meetings.
- (2) The desire of residents to participate in the single road project tended to be related to the distance of residence from the route of the single road.
- (3) A lot of residents held an attachment to, and interest in, their area of residence. However, the proportion of affirmative responses to 'would like to work for the benefit of the local area' and 'would like to participate in the local residents association' was not so high..
- (4) From the model of resident attitudes towards participation in the comprehensive project, it was indicated that the older the resident, and the longer he/she had been living in an individual residence, the greater the attachment to the local area, i.e. the deeper the 'relationship with local area', the more positive are the 'attitudes of residents towards participation'. Residents with a greater 'awareness of current situation of roads within district' such as roadside parking considered it important to participate in the project. The intention to participate in each stage of the project was strongly influenced by 'attitudes of residents towards participation' and 'awareness of current situation of roads within district' rather than by 'individual attributes of residents'. Residents wishing to actively participate in the project remained so throughout all stages of the project, leading to the conclusion that the nature of resident participation throughout the duration of a project may be understood via an initial survey stage.

Results of this study would be used for establishing a basic process of resident participation in the future projects of district transportation. In other words, we can predict the information that we should present for residents and the method which is the most suitable for getting residents' opinion.

The following points must be considered when understanding the results of the study. Only data from residents with relatively high interest in the projects were extracted from the questionnaire. As only District A was studied, differences in the characteristics of some areas may preclude comparisons. The use of questions relating to hypothetical cases may introduce a variety of distortions into the results. To overcome these limitations to the conclusions of the study, it is necessary to conduct similar studies of other district transportation projects in other districts.

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