

Table 5) the general evaluative indicators of model affecting the institutional development in rural areas in 2018-2019

Model fitness indicators	Calculated amount	Acceptable amount
CMIN (Chi square)	1192.989	-
Df (Degree of Freedom)	720	-
CMIN/Df (relative Chi square)	1.657	Less than 3
CFI (confirmatory Factor Index)	0.917	More than 0.9
RMSEA (Root Mean Square Error of Approximation)	0.04	Less than 0.08
PCLOSE (P of close fit)	1.00	More than 0.05
HOETLER index	269	More than 75
RMR	0.05	About zero
PRATIO	0.923	Between 0 and 1

Table 6) Confirmatory factor analysis of the Institutional Development Questionnaire in 2018-2019

The hidden and visited variables	Visited variables	Non-standard coefficients	Standard coefficients	T statistics	Significance level
Satisfaction with the available institutions' in the village					
Satisfaction with private organizations and institutions in the village	Q12	1	0.473	-	-
Satisfaction with private agricultural organizations and institutions	Q13	1.122	0.438	7.841	<0.001
Satisfaction with state enterprise	Q14	1.434	0.637	11.332	<0.001
Awareness about the institutions' duties and structure					
Familiarity with NGOs and private institutions	Q15	1	0.419	-	-
Familiarity with agricultural and livestock institutions	Q16	1.429	0.585	12.415	<0.001
Familiarity with various rural institutions' duties	Q17	2.115	0.799	19.061	<0.001
Familiarity with private institutions' duties	Q18	2.057	0.846	20.84	<0.001
Awareness of how to join the informal institutions	Q19	1.478	0.656	14.396	<0.001
Institutional trust					
The government's attention to rural people's well-being	Q20	1	0.729	-	-
Governmental and non-governmental officials' well behavior with rural people	Q21	0.85	0.686	15.959	<0.001
Attention to the justice and rural people's right	Q22	0.771	0.655	14.939	<0.001
Executive managers' attention to the rural people's needs	Q23	0.989	0.733	17.672	<0.001
Executive managers' attention to justice	Q24	0.816	0.57	12.361	<0.001
Private institutions' attention to rural people's needs and tackling them	Q25	0.581	0.434	8.874	<0.001
Social solidary					
Rural people's tendency for collective efforts to solve the problems	Q26	1	0.755	-	-
Rural people's tendency for investing money to solve the problems	Q28	0.574	0.476	9.453	0.002
Social networks					
The relationship with	Q29	1	0.576	-	-

agricultural experts					
Taking part in agricultural meetings	Q30	0.807	0.499	10.518	0.001
Rural people's interaction with private and non-governmental institutions	Q31	1.071	0.748	18.292	<0.001
Rural people's interaction with public sector	Q32	1.251	0.758	18.692	<0.001
Rural people's cooperation and interaction among various social groups and institutions	Q33	0.779	0.475	9.923	<0.001
Inter-institutional relationship in the village	Q34	0.544	0.323	6.413	<0.001
Human and environmental capacities in the village					
Farms and gardens area	Q35	1	0.543	-	-
Livestock	Q35	0.604	0.397	7.938	<0.001
Motivated and educated people in the village	Q37	1.11	0.634	13.966	<0.001
Rural people's income	Q38	0.949	0.518	10.816	<0.001
Rural people's tendency to cooperate in teamwork	Q39	0.921	0.512	10.66	<0.001
The proportion of people working in agriculture sectors	Q40	1.194	0.66	14.762	<0.001
Women's participation	Q41	0.695	0.314	6.148	<0.001
Incentives					
Government's support by giving low-interest loans for example	Q42	1	0.492	-	-
Helping the public sector investors in the village	Q43	1.002	0.482	9.544	<0.001
Permissions given to the private sector to take part in educational courses	Q44	1.32	0.652	13.814	<0.001
Provision of legal opportunities for members (rural people) to transfer equities for instance	Q45	1.038	0.585	12.016	<0.001
Offering cheap inputs to the institutions improving the job opportunities	Q46	1.491	0.778	17.495	<0.001
Provision of the incentives for people to invest money on employment	Q47	0.941	0.577	11.824	<0.001
Institutional capacity					

Institutions capabilities(human capitals, physical capitals, financial capitals, being purposeful, inter-institute relationships, and being flexible in decision making)	Q48	1	0.776	-	-
Institutions homogeneity	Q49	0.986	0.772	18.621	<0.001
Institutions' knowledge	Q50	0.692	0.618	13.486	<0.001
Institutions' education	Q51	0.915	0.741	17.475	<0.001
Proper legal foundation	Q52	0.824	0.621	13.554	<0.001

Table 7) coefficients for the analysis of the influential factors in the institutional development of rural areas in 2018-2019

Factors affecting the institutional development in rural areas	Non-standard coefficients	Standard coefficients	T statistics	Significance level
Satisfaction with available institutions in the village	0.084	0.078	2.332	0.02
Awareness about the institutions' structure and	-0.596	-0.577	-17.25	<0.001
Institutional trust	0.347	0.361	10.777	<0.001
Social solidarity	-0.47	-0.241	-7.198	<0.001
Social networks	0.099	0.115	3.437	<0.001
Human and environmental capacities of the village	0.22	0.056	1.661	<0.001
incentives	0.3	0.297	8.877	<0.001
Institutional capacity	0.298	0.314	9.388	<0.001

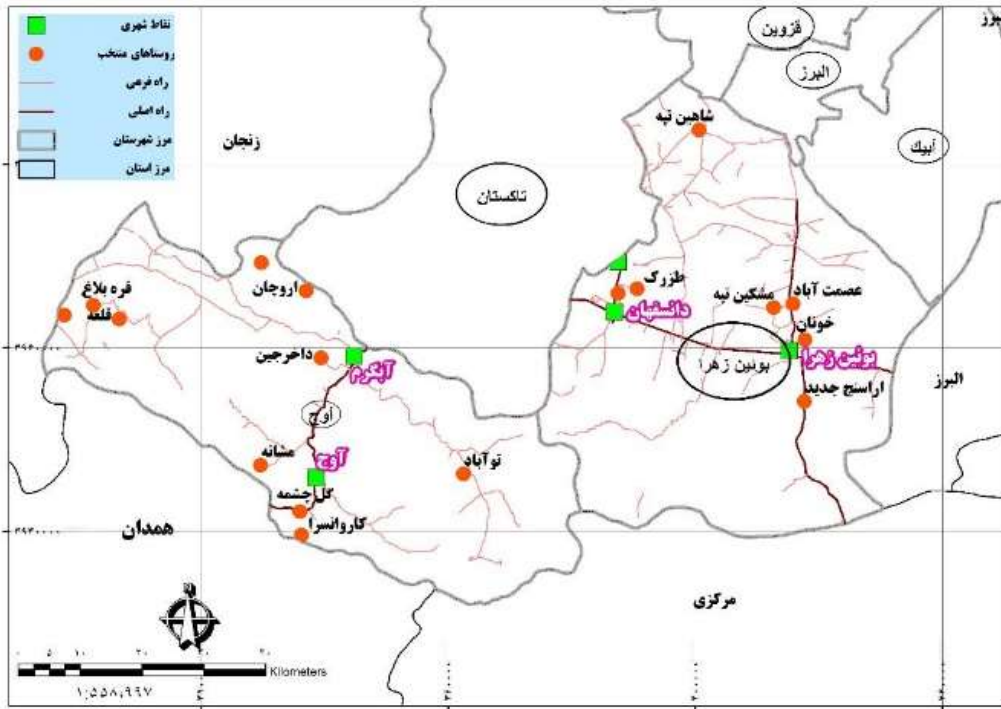


Figure 3) road maps in Boin Zahra and Avaj counties in 2018-2019 (Zanjani, Qarahbolagh, Qale, Arochan, Dakhrajin, Mashane, Gol Cheshme, Karvansara, Avaj, Abgarm, Tuabad, Takistan, Shahin Tape, Tazrak, Danesfahan, Meshkin Tape, Bouin Zahra, Esmat Abad, Khownan, Arasanj, Markazi, Alborz, Abik)

Table 8) zoning the studied village according to the institutional development indices

Village	TOPSIS amount	TOPSIS range	TOPSIS mean	Frequency	Percentage
Very good condition					
Shakhdar	0.6143				
Arochan	0.6140				
Tazrak	0.5688				
Shahin Tape	0.5578	-0.6143			
Khownan	0.5412	0.5004	0.5604	8	44.4
Khuznin	0.5104				
Esmat abad	0.5092				
New Arasanj	0.5007				
Good condition					
Dakhrain	0.4707				
Tuabad	0.4654	-0.5004			
Meshkin Tape	0.4624	0.3866	0.4483	4	33.4
Shingel	0.4064				
Almost good condition					
Gol Cheshme	0.3731				
Mashane	0.3515				
Karvansara	0.3490	-0.3866			
Qale	0.3468	0.2728	0.2789	6	22.2
Qarebolagh	0.3432				
Qushe Qui	0.3099				