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THE IDENTIFICATION AND ANALYSIS OF THE EFFECTS OF THE RURAL HADI PROJECT IN RURAL AREAS (CASE STUDY: JULAKI RURAL DISTRICT OF JAYEZAN CITY IN OMIDIYEH)

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ABSTRACT

Important steps that have taken place in the field of the development of rural areas in recent years in Iran are the preparation and execution of the rural Hadi project as the primary means of directing construction in the villages. The villagers would benefit from the increase of service facilities by the execution of Hadi project, and it increases the villagers' interest to continue living in the village and as a result, it has a significant impact on reducing the rural-urban migrations. This study has been performed with the aim of identifying and analyzing the effects of the execution of Hadi project in order to investigate its physical effects on Julaki rural district of Omidiyeh. The research method is practical in terms of goal and it is based on descriptive-analytical method and the gathered data is based on a field study of the sample villages. The data is gathered by using documents from libraries, universities, municipalities and seats within the range. The data are also analyzed using the (SPSS and GIS software). EXCEL software and TOPSIS formula are used for drawing on diagrams and statistical tables. Every head of the household from villages of Julaki rural district with more than 200 inhabitants are selected as the sample population (n=405) in those locations that the project is implemented and completed by the end of 2010. 120 individuals are selected through random sampling by using single-sample t-test and TOPSIS method.

INTRODUCTION

The importance of the village becomes clear when we accept villages as the mother of cities and accept that the food that consumes cities are produced in the village and know that the development of the village will lead to the development of the city and the world will develop with the development of the city. But how do we develop the village?

Awareness about the village is not possible without knowing its infrastructures, nor would the knowledge of its infrastructures be possible without their historical review. The rural Hadi project is the most important tool in the administration of the rural development in Iran that considers the physical aspects of villages rather than their other aspects. This project provides the context for the revitalization and leading of the village in terms of its social, economic and physical dimensions [1]. Following the preparation and execution of the urban development plans in the 1961 decade, preparation and execution of rural construction plans has begun since the mid-1971 decade. After the revolution of 1978 and after the establishment of the organizations such as Jihad construction and the housing foundation. Firstly, the rural development is in the form of agricultural individual project and services such as construction of roads, bridges, canals, schools and clinics[2]. Hadi projects include projects that are developed and implemented for providing the field of rural development and construction that the foundations of these projects have been implemented in the country since 1983 and under the ministry of housing and urban development and in later years, especially since 1987, they have been followed more seriously by the housing foundation of Islamic revolution. The physical structure of villages which has been formed over time and according to different requirements have changed by the execution of the rural Hadi project and by building new constructions, widening streets, creating parks and green areas, creating places such as educational, medical, military and the police force, and they have led to relative prosperity and enhancement of the sense of security in villagers, as a result, they have an impact in reducing rural-urban migrations. The rural settlements in our country have been naturally developed and formed based on the needs of human societies living in them, so the formation and development of villages has not been performed based on proper planning and they have had no identity and birth certificate before the rural Hadi projects. The importance of preparation and execution of rural Hadi projects could give identity to the villages as cross sectional projects have a significant impact on one of the rural developmental projects so as to improve the economic, social and cultural conditions and especially the improvement of their physical aspects. Other factors that have always affected the villages in Iran and the Julaki village, are the migrations of the young and creative people for reasons such as searching for a better job, the higher quality of life and the higher incomes and this bitter reality impede the progress of villages and even their surrounding cities, and because of the migration of these people, not only the villages will not progress and would be empty of the young and creative people, but also living in the surrounding towns adds problems such as the creation of false jobs which would reduce the quality of life in cities. Giving a just attention to our country villages would lead to the right solution. Since the improvement of the quality of life in different dimensions of the rural life would lead to feeling of comfort in those locations, not only would they not be away from their home villages; but also, it would lead to the return of the refugees to their villages. Thus, the rural environment would become a place that the urban people would be willing to

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live in[3]. Among the factors that could affect the quality of life of the villagers are the preparation and the execution of the rural Hadi project. Due to this factor, in this study the amount of the impact of the preparation and the execution of the rural Hadi projects would be measured by selecting villages of the Julaki section of Omidiyeh in order to find proper solutions to increase the quality of life and the quality of the preparation and execution of the rural Hadi project in the villages, thus we encounter three basic points in this article:

The execution of the rural Hadi project can be effective on improving the parameters of a sustainable rural development.

The execution of the rural Hadi project has been effective on reducing migration of the villagers and on increasing their satisfaction.

And by using TOPSIS model, the rank of the villages under the study would be based on the satisfaction of the transition effect and on the execution of the rural Hadi project and on the satisfaction of reducing the villagers' migration in the best way.

Studies during the last century, specifies weakness in local and regional planning as a factor of slow development in Iran. The rural development is one of the fundamental aspects of the national development. Researchers emphasize that preparation and adjustment and execution of the rural developmental planning will be done in a desirable form if governments would have a strategic intervention [4].

Among the government actions of the Islamic Republic toward the rural development is focusing on the villages' structure which will be done through the rural Hadi project that comes from the urban Hadi project. The definition of the housing foundation of the rural Hadi project: The rural Hadi project is a project that determines the amount and possibility of extending in the future and how to use land for various purposes such as residential, commercial, agricultural, units and equipment and rural basic needs in addition to organizing and modifying the existing tissue. By implementing Hadi projects, Villages are changing not only environmentally, but also physically, socially and economically. Now, after 20 years of preparation and execution of the rural Hadi projects, identification of their execution performance in various aspects, is an important issue that on the one hand, it can specify its consequences in the villages and on the other hand, it can provide the necessary information for a better management by identifying its existing strengths and weaknesses [5].

The villages located in the Omidiyeh are one of the rural country areas that Hadi project has reached its stage of completion and execution. This is located in the southeast of Khuzestan province. Limited from north to Ramhormuz, from south to Hendijan, from east to Behbahan and partly to Kohgiluyeh and Boyer-Ahmad province and from west to Bandar-e Mahshahr. Identifying and analyzing the effects of Hadi project execution to improve the villagers' quality of life can lead to successful rural management.

MATERIALS AND METHODS

This is an applied research in terms of goal. In terms of data collection, it is a kind of survey research which has two types: 1. Descriptive 2-Analytical; therefore, collecting information has been done through objective observation from the sample population. The research approach is also a combination of (questionnaire, library, interview and review and field observations) which has been obtained from different sources.

The methodology in this study is the type of identification after the execution which investigates the effects of sustainable developmental indicators of the studied villages and the realization of their goals.

Gathering and collecting data and information

A) Documentary and library study, archives of local newspapers and magazines, online resources to identify and to develop concepts and frameworks and studying the literature of the topic and the statistics, information which are needed.

B) Field observations: The direct observation of the studied areas to obtain information from people and executives and the relevant experts in order to identify bottlenecks and problems and to provide solutions.

Information analysis methods

The data will be analyzed using SPSS and geographic information system GIS soft wares and finally, the results will be provided in the forms of tables, graphs and maps.

The statistical population and sample size of the research

The statistical population includes every head of the households of villages with more than 200 households in Julaki rural district of Omidiyeh which Hadi project is executed and completed in those areas by the end of 2010.

Three groups were selected for questioning and interviews in order to study the effects of the execution of the rural Hadi project and to investigate the different opinions about these plans in the field studies.

The first group: Residents from the villages under study with more than 200 households (Ab Baran-e 2 village, 266 families, with a population of 1080) and (Eslamabad, 379 families, with a population of 1582) and (Sar Joulaki village, 235 families, with a population of 1013). The total population of Julaki rural district in year 2011 was about 1602 people.

The second group: Local authorities (Islamic councils from three villages).

The third group: Three authorities were interviewed who belonged to the rural Hadi project in the housing foundation of Omidiyeh. By using SPSS software, the obtained data were coded and extracted and then they were analyzed.

The estimation of the sample size

In terms of statistical population, all members of the Islamic council and rural managers of three villages will be interviewed; however, Cochran's sampling method was used with 95% confidence level and 5% probability of error in order to determine the sample size of the head of households and it was performed as a simple random sampling.

According to these matters, in this study, to obtain the standard deviation of the desired attribute in the statistical society as well as to determine the probable accuracy for society, a sample of 10 people were randomly selected and the standard deviation of the desired attribute was obtained. The obtained standard deviation is equal to 0.84. According to Cochran formula, the number of the samples under investigation in this research for delving into studies was 120 people who were questioned.

RESULTS

The author used descriptive statistics such as mean, standard deviation, to excess the testable and minimum and maximum score and then to attempt to evaluate the data and variables analytically by using one-sample t-test and TOPSIS method in order to test the research hypotheses and the results of the entire population.

Descriptive findings

According to the [Table], the average total impact of satisfaction with the effectiveness of the execution project is equal to 3.46. Among the research items in the satisfaction section, the lowest average belongs to the library index with an average of 2.02 and the standard deviation of 0.320 and its highest belongs to water distribution index with an average of 4.62 and the standard deviation of 0.567. The total degree of satisfaction from the performance of the execution of the rural Hadi project is equal to 3.30. Among the research items in the section of the degree of satisfaction from the performance of the execution project, the lowest average belongs to the satisfaction index with the effectiveness of the project on the environment with an average of 2.42 and the standard deviation of 0.862 and its highest belongs to the satisfaction of the effectiveness of Hadi project in the creation of no motivation for migration with an average of 3.74 and the standard deviation of 1.04.

Table of the degree of satisfaction with the effectiveness of the execution of the rural Hadi project and the performance of the project in the studied villages

Row	Performance	The degree of satisfaction with the effectiveness of the execution of the rural Hadi project					Standard Deviation	Mean
		Very Low	Low	Average	High	Very High		
1	Water Distribution	1.7	1.4	2.7	20.3	73.9	0.567	4.62
2	Library Construction	27.6	39.6	12.5	8.4	11.9	0.320	2.02
	Total	8.3	11.2	18.1	30.7	31.7	0.544	3.46

Row	Performance	The degree of satisfaction with the performance of the execution of the rural Hadi project	Standard Deviation	Mean

		Very Low	Low	Average	High	Very High		
1	Are you satisfied with effectiveness of Hadi project on the environment?	11.2	15.3	35.7	12.8	25.0	0.862	2.42
2	Are you satisfied with the effect of the project on the creation of no motivation for migration?	10.1	8.6	10.3	32.4	38.6	1.04	3.74
	Total	9.9	15.7	20.3	25.2	28.9	0.535	3.30

Analytical Findings

The first hypothesis: The execution of the rural Hadi project in rural settlements could affect the improvement of sustainable rural developmental indicators.

According to [Table 4.1], the average responses to the components of the execution of the rural Hadi project in rural settlements is equal to 3.46 that shows the focus of the responses is far from number 3 which represents an immense difference between the average of sample and the amount of test 3, and according to contents of the table of results, the achieved value of the significance level is smaller than the error level of α=0.5 and the upper bound of the achieved confidence interval for the difference between the mean of society and the test value is positive and at least this difference is equal to 0.665. Therefore, the first hypothesis is accepted.

Table 4.1: Comparison of the average testable scores in one sample t-test

Number	Mean	Standard Deviation
120	3.46	0.554
Statistic τ	Degree of freedom $\delta\phi$	The significance level
4.11	119	0.000
The difference between the mean and the test value	0.95 confidence interval for the mean difference and the test value	
	Lower bound	Higher bound
0.665	0.449	0.880

The second hypothesis: It seems that the execution of the rural Hadi project would be effective on reducing the rural-urban migration and on increasing the satisfaction of the villagers from the village environment.

According to [Table 4.2], the average responses to the reduction components of the villagers' migration in rural settlements is equal to 3.30 that represents the focus of responses is far from number 3 which represents an immense difference between the average of sample and the amount of test 3, and according to the table, the achieved value of significance level is smaller than the error level of α=0.5 and the achieved confidence interval bounds for the difference between the mean of society and the test value is positive and at least this difference is equal to 0.482. Therefore, the second hypothesis is accepted.

Table 4.2: Comparison of the average scores of the testable in one sample t-test

Number	Mean	Standard Deviation
120	3.46	0.554
Statistic τ	Degree of freedom $\delta\phi$	The significance level
3.13	119	0.000
The difference between the mean and the test value	0.95 confidence interval for the mean difference and the test value	
	Lower bound	Higher bound
0.482	0.316	0.647

The third hypothesis: The studied villages can be ranked in the best way based on their satisfaction with the effectiveness and the execution of the rural Hadi project and on the satisfaction of the rural migration reduction using TOPSIS model.

One of the multi-criteria planning methods is TOPSIS method which was introduced in 1981 by Hwang and Yoon. The idea of this method is to sort out priorities based on the similarity with an ideal: A choice has a better rating if it would be closer to the positive ideal and it would be further away from the negative ideal. The positive and the negative ideal: Which has the best and the worst value in all indicators that we call(A^+) and (A^-). This hypothesis, takes advantage of TOPSIS or ranking preferences method based on its similarity to the ideal and entropy response for ranking villages of Julaki rural district of Jayezan city functions in Omidiyeh (Ab Baran-e 2, Eslamabad and Sar Joulaki villages) based on the criteria of "satisfaction with the effectiveness and the execution of the rural Hadi project and the satisfaction in reduction of the rural migration".

This research identifies and analyzes the effects of the execution of the rural Hadi project in rural areas of Julaki rural district of Jayezan city functions of Omidiyeh in the 2010-2011 by using one-sample t-test and TOPSIS method, and the following results are obtained:

The first hypothesis: The execution of the rural Hadi project in rural settlements could affect the improvement of sustainable rural developmental indicators.

According to [Table 4.1], the average responses to the components of the execution of the rural Hadi project in rural settlements is equal to 3.46 that shows responses are far from number 3 which represents an immense difference between the average of sample and the amount of test 3, and according to contents of the table of results, the achieved value of the significance level is smaller than the error level of $\alpha=0.5$ and the bounds of the achieved confidence interval for the difference between the mean of society and the test value is positive and at least this difference is equal to 0.665 and therefore, the first hypothesis is accepted and because the mean of the responses is more than the average limit which means the majority of the testable items have chosen too many and too much options and because of the positive minimum difference between the mean of society and the test value, we conclude that the degree of satisfaction with the effectiveness and execution of the project in the studied area is high.

The second hypothesis: The execution of the rural Hadi project could be effective in reducing the rural-urban migration and in increasing the satisfaction of the villagers from the village environment.

According to [Table 4.2], the average responses to the reduction of the components of the villagers' migration in rural settlements is equal to 3.30 that shows the focus of the responses is far from number 3 which represents an immense difference between the average of the sample and the amount of test 3, and according to contents of the table of the results, the achieved value of the significance level is smaller than the error level of $\alpha=0.5$ and the achieved confidence interval bounds for the difference between the mean of society and the test value is positive and at least this difference is equal to 0.482 and thus, the second hypothesis is accepted and since the mean of the responses is more than the average limit which means the majority of the testable items have chosen too many and too much options and because of the positive minimum difference between the mean of society and the test value, we conclude that the effectiveness of the execution of the rural Hadi project in the studied area on reducing the rural-urban migration and an increase in the villagers' satisfaction from the village environment is high.

The third hypothesis: The studied villages can be ranked in the best way based on the satisfaction with the effectiveness and the execution of the rural Hadi project and the satisfaction of the rural migration reduction using TOPSIS model.

According to the results obtained from the entropy part that is shown in the table below, the impact of the most important indicator on the studied villages is found as the satisfaction with the effectiveness and the execution of the rural Hadi project which according to the calculated weight of 0.6, it can be said that 0.6% of the individual's satisfaction in the village is dedicated to the effectiveness and the execution of the rural Hadi plan. Also, according to the calculated weight, the satisfaction of the rural migration reduction is in the second place with the weight of 0.3.

Table 5.1: Calculation of the values and quantities of the entropy method and the weights of indicators

The satisfaction of the rural migration reduction	The satisfaction with the effectiveness and the execution of the rural Hadi project	Indexed statistics
0.999	0.998	E_i
0.001	0.002	D_i
0.3	0.6	W_i

Continuing with TOPSIS method, the studied villages are ranked based on the relative closeness to the ideal solution (R_i) that among these, according to the following table: R2>R1>R3. According to experts, most villagers' satisfaction with the effectiveness and the execution of the rural Hadi plan and rural migration reduction is on the option A_2 which means Eslamabad village and then on the option A_1 means Ab Baran-e 2 village and at the end on the option A_3 which means Sar Joulaki village. Therefore, the third hypothesis is accepted.

Table 5.2: Calculation of the values and quantities of the entropy method and the weights of indicators

Rank	R_x	d_x^-	d_x^+	Options
2	0.995	0.012	0.000049	Ab Baran-e 2
1	1	0.024	0	Eslamabad
3	0	0	0.024	Sar Joulaki

CONCLUSION

Analyzing the results of the descriptive statistics show that the mean of the total satisfaction with the effectiveness of the rural Hadi project is equal to 3.46, that is in good condition in terms of rank. Also the mean of the total satisfaction with the performance of the rural Hadi project in the studied villages is equal to 3.30, that is in good condition in terms of rank. Thus, the following results are obtained in the inferential statistics using one sample t-test and TOPSIS method: According to the first hypothesis, the execution of the rural Hadi project in rural settlements could affect the improvement of sustainable rural developmental indicators. On the other hand, the degree of satisfaction with the effectiveness and the execution of the project in the studied area is high and according to the second hypothesis, the execution of the project could affect the reduction of rural-urban migration and the increase of the satisfaction of the villagers from the village environment. Also its effectiveness in the studied area could affect the reduction of rural-urban migration; therefore, the increase of the villagers' satisfaction with the village environment would be high. On the other hand, by using TOPSIS model, the villages under study can be ranked based on the satisfaction of the transition effect and the execution of the rural Hadi project and the satisfaction of reducing the villagers' migration in the best way. The villagers' satisfaction with the effectiveness and the execution of the rural Hadi plan and the reduction of rural migration is mostly in Eslamabad village and then in the Ab Baran-e 2 village and at the end in Sar Joulaki village.

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