Evaluation the Performance of the Mehr Housing Project in Iran (Case Study Saqez City)

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Abstract: Providing house for various people in societies has become the main concerns for governance in countries. Iran as a country with the population growing and providing housing for this population has been one of the main concerns is government. In recent decade, Mehr housing project has been considered as serious policy by the government in Iran. The main objective of this project is providing housing for homeless people with priority to low-income strata. However, in this study the main purpose is determining functional status of Mehr housing project and assessing successful of project in Saqez. The research hypothesis is; Mehr housing project achieved to desired performance in Saqez. Statistical population of this study consisted of all Experts and managers in organization involved in with mehr housing projects in Saqez city (N= 300). Using Cochran's sampling formula, 169 people were selected as a sample. Respondents were selected by using Stratified random sampling method. The instrument of the study was a questionnaire which its validity was confirmed by a panel of experts and its reliability was established by calculating Chronbach's Alpha Coefficient ($\alpha > 0.7$). Thus, the reliability of the questionnaire was excellent for research. Data analysis was performed by $SPSS_{win18}$ software. The results of this study shows that the mehr housing project in Saqez has not achieved to desired performance. In addition, in all aspects of the favorable situation have negative residuals (difference between observed and expected) that it reflects a gap in these index with satisfactory state. It suggests making appropriate changes in during the implementation of project and supporting project by funding sources such as banks that will help this project to obtain desired performance.

Key words: Mehr housing · Performance · Evaluation · Saqez

INTRODUCTION

Providing house for various people in society has been the main concerns for governance in different countries and in different historical periods. In some countries housing programs have been projected as short-term scheduling and in some countries as strategic and long- term projects, also, some of these programs are flexible [1,2]. In Iran after land reform, collapsing residence system and the flow of oil revenue into the center of country (capital), population migrated to the capital city. Due to imprudence of government, some problems such as pressure and density of population, environmental challenges and homelessness became a major concern of the capital dwellers. Gradually this crisis was created in other major cities in Iran. After this period, government decided to solve livelihood, health and housing problems [3].

In recent years, Mehr housing project[1] has been considered as serious policy by the government. In this housing project, land owned by the government and is transferred to the applicants without the cost [4].

Mehr housing cooperative project based on cooperative economics law of Iran has been approved in September 1991 and are inspired by principles of 43 and 44 of the Constitution of Islamic Republic of Iran.

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[1]Mehr housing project is the wide project to construct housing by government for low-income people in order to reduce the price of house. This is Mass production of housing units in order to control the supply and demand in the housing market until the end of the project (2007-2013).

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The goals of Mehr housing cooperatives are: a) providing housing for homeless people with priority to low-income strata, b) Provide residential land with the help of Housing and Urban Development Organization for members in the form of 99-year lease contract [5]. The latest decision made by the government is privatizing the government-provided housing. However, a part from the socialist public ownership of urban housing in China and Vietnam, Hong Kong, Singapore and South Korea all have very powerful housing authorities which have built, distributed and managed urban housing stock [6].

There are many studies in the field of housing. For example cooperatives and condominiums housing by empirical analysis is based on hedonic models of house values and uses rich data on apartments sold in New York City between 1984 and 2002. Results showed that condominium apartments are significantly more valuable than comparable Cooperative apartments [2]. In addition studies showed that rational entrepreneurs should not invest in new buildings and renovation when home values are below replacement cost [8]. Construction costs are not very sensitive to building activity but do vary with local income, unionization rates in the construction sector, the level of local regulation and region. In 2006 a book named "Housing and social transition in Japan" was published. It is a book which seeks to gather a number of perspectives on the Japanese housing system in order to provide a comprehensive and multifarious account of the dynamic role of the housing system during the period of unprecedented social and economic systems in the industrial/post-industrial world. In an article named: 'Housing demand in the urban fringe around Kumasi,Ghana" analyze the changing values ascribed to traditional villages and urban locations, the changing preference for single-household housing and increased expatriate housing demand [9]. Buckley and Kalrickal (2005) in their article "Housing policy in developing countries: conjectures and Refutations" discuss housing policy in developing countries [3]. This paper examines recent research findings in light of earlier arguments as to the benefits of more market- oriented approaches. It also looks at whether the recommendations of earlier work have been refuted or developed in subsequent analyses and policy measures. Some authors have conducted different investigations in this field like Azizi (2004) who studied the status of housing indicators in projectning process and Ziyari *et al.*, (2006) who carried out some research into changes of housing in Maragheh, a city in Iran, with the application of 12 housing indicators and felt the positive changes in all indicators during 20 years [10, 11].

Generally, the main problem of this research is surveying Mehr housing project in the Saqez city in order to determine the status of the project and affecting factors to improve this project. The main purpose of study is determining functional status of Mehr housing project, also assessing successful of Mehr housing project in Saqez city and achieving to predetermined goals. The research hypothesis is that Mehr housing project achieved to desired performance in Saqez city.

MATERIALS AND METHOD

Selecting Performance Assessment Method: Among the methods for performance evaluation, performance prism model is appropriate to assess performance of Mehr housing project. A series of affecting factors on Mehr housing project can be examined by performance prism model. In several studies, World Bank has used performance prism model to evaluate the development projects in different countries [12].

Performance Prism Model (World Bank Pattern): One way of measuring the success of a project is Prism Model using five criteria to evaluate the project. In this method, evaluation questions are prepared based on five criteria and Comprehensive system of evaluation questions are created. In addition, this method is used in data collection, analysis and conclusions. Materials and Methods are based on description analysis. In this study, using performance indicators, performance status is measured and described and then the results are analyzed [13,14].

Variables of Research: Based on performance prism model independent variables included communication, efficiency, effectiveness, influence and persistent and the dependent variable is the performance of Mehr housing project. Variables in this method are used to evaluate a project include:

- Communication: it shows accordance the activity with priorities in national development policies.
- Efficiency: it is criteria to investigate that inputs are converted effective, useful and efficient to outputs.
- Effectiveness: in this criterion we survey all of activities in project and these activities have achieved to desired goal.
- Influence: it indicates positive and negative changes caused by development activities, directly and indirectly, favorable or unfavorable.
- Persistent: this criterion evaluates durability and sustainability of project benefits after completion of the project.

Statistical Population, Sampling Method, Sample Size and Tolls: Statistical Population included all Experts and managers in organization involved in with mehr housing projects in Saqez city (N= 300). Using Cochran's sampling formula, 169 people were selected as a sample. Respondents were selected by using Stratified random sampling method. The instrument of the study was a questionnaire which its validity was confirmed by a panel of experts and its reliability was established by calculating Chronbach's Alpha Coefficient (α>0.7). Thus, the reliability of the questionnaire was excellent for research. Data analysis was performed by SPSS$_{win18}$ software. Thus, in the part of descriptive method describes demographic variables and inferential statistics including nonparametric test (Kolmogorov–Smirnov test) examines normal distribution, ANOVA is used to test the research hypothesis and experimental tests is used to evaluate the affecting factors on project performance. Data analysis is performed by Spss$_{win15}$ software.

$$n \geq \frac{(N)*\left(Z_{\frac{\alpha}{2}}^2\right)*(p)(1-p)}{(N-1)*(E^2)+\left(Z_{\frac{\alpha}{2}}^2\right)*(p)(1-p)}$$

RESULTS

In This section in order to describe the sample characteristics, the data is classified using descriptive statistics indices and then use the statistics to confirm or reject the hypotheses.

Table 1: Gender distribution of the respondents

Sex	Frequency	Percent
Male	136,	80.5
Woman	33,	19.5
Total	169,	100,

Table 2: Frequency distribution of the responders in relation to housing seal

Position	Frequency	Percent
Applicant	30	17.8
Expert	69	40.8
Contractor	20	11.8
Employee related administration	50	29.6
Total	169	100

Descriptive Statistical: Table 4, illustrates the results of our research on gender distribution, as it can be seen that of 169 samples, 19.5 percent of them are female and 80.5 percent are male. Source: authors own

The findings of study in relation to the distribution of mehr housing shows in table 2. That among the sample considered, 30 patients (17.8%) applicants, 69 (40.8%) experts, 20 contractors (11.8%) and 50 (29.6%) are Employee related administration. Source: authors own

Inferential Statistics and Hypothesis Test: After describing the variables and responses from the population in this part investigates the hypotheses raised and the statistical tests that have been used in the study. In other words, in this chapter will be paid up to an analysis of results achieved which examined statistically verify of the research hypothesis.

Assumption of Data Normality Test Kolmogrov - Smirnov (K-S): To use of statistical techniques first must be specified that the distribution of data been gathered is normal or abnormal. Because an assessment of the normality of data a prerequisite for many statistical tests because normal data is an underlying assumption in parametric testing. The Kolmogorov-Smirnov test (K–S test) is a nonparametric test for the equality of continuous, one-dimensional probability distributions that can be used to compare a sample with a reference probability distribution (one-sample K-S test), or to compare two samples (two-sample K-S test). The Kolmogorov–Smirnov statistic quantifies a distance between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution, or between the empirical distribution functions of two responders.

$$\begin{cases} H_0 \text{ The variable i is normally distributed} \\ \\ H_1 \text{ The variable i isn't normally distributed} \end{cases}$$

According to the table 3, conclude the zero hypotheses and if the significance level is greater than the error value and one hypotheses when significance level is smaller than the error value.

According to the results, amount of significance level for all components are smaller than the amount of error 0.05. Consequently, these variables were not normally distributed and should be used nonparametric tests for the analysis. But inferential statistics is as part of

Table 3: Normality test variables

Factor	Significant	The error	Confirm the hypothesis	Conclusions
Factors associated with the overall objectives of the project	0.001	0.05	H_1	Not normal.
Indicators of project efficiency	0.003	0.05	H_1	Not normal.
Effectiveness Indicators Project	0.001	0.05	H_1	Not normal.
Indicators of project impact	0.001	0.05	H_1	Not normal.
Sustainability Indicators Project	0.001	0.05	H_1	Not normal.

Table 4: Description indicators to survey variables of the performance evaluation of mehr housing project in the city of Saqez

Factor	Average	Standard deviation
Performance evaluation of housing stamps turpentine city	0.29	2.77
Factors associated with the overall objectives of the project	0.33	3
Indicators of project efficiency	0.33	2.66
Effectiveness Indicators Project	0.44	1.99
Indicators of project impact	0.46	3.01
Sustainability Indicators Project	0.32	2.95

Table 5: Results of chi-square test of the variables to evaluate the performance of Mehr housing project in Saqez

Statistics	Performance Evaluation	Relation to the overall objectives of the project	Efficiency Project	Effectiveness of the project	Project impact	Sustainability Project
chi − squar	160.81	248.95	Of 134	265.57	129.45	199.32
Degrees of freedom	2	2	2	2	2	2
Sig	0	0	0	0	0	0

Table 5: Results of chi-square test of the variables to evaluate the performance of Mehr housing project in Saqez

Status Indicators	Expected number	Performance Evaluation		Relation to the overall objectives of the project		Efficiency Project		Effectiveness of the project		Project impact		Sustainability Project	
		Number of Views	Difference between observed and expected	Number of Views	Difference between observed and expected	Number of Views	Difference between observed and expected	Number of Views	Difference between observed and expected	Number of Views	Difference between observed and expected	Number of Views	Difference between observed and expected
Inappropriate	56.3	29	-27.3	6	-50.3	44	-12.3	156	99.7	24	-32.3	24	-32.3
Average	56.3	133	76.7	153	96.7	123	66.7	12	-44.3	126	69.7	142	85.7
Favorable	56.3	7	-49.3	1	-46.3	2	-54.3	1	-55.3	19	-37.3	3	-53.3
Total	-	169	-	169	-	169	-	169	-	169	-	169	-

statistics to estimate and testing hypotheses about population parameters via samples. Actually ultimate goal of inferential statistics is to estimate characteristics of the population. In order to analyze data and statistical inference has been used of various analyzes. For example, Binomial test was used to analyze the hypothesis testand Friedman test was used for ranking and comparing the factors.

Here we examine the hypothesis that the mehr housing project in the city of Saqez achieves the desired performance. The mean and standard deviation of description indicators to survey variables of the performance evaluation of mehr housing project in the Saqez city are shown in table 4.

Results of chi-square test of the variables to evaluate the performance of Mehr housing project in Saqez is given on the table 5. The result of this test is significant at the 1% level.

The results show that the mehr housing project in Saqez has not achieved to desired performance. In addition, in all aspects of the favorable situation have negative residuals (difference between observed and expected) that it reflects a gap in these index with satisfactory state. So Mehr housing project in the city of Saqez has not achieved the desired performance in any of the parameters of the project. Moreover, the result represents the average situation and also has been unsuitable for Mehr housing in this city.

CONCLUSIONS

In this study, the hypothesis that shows the Mehr housing project in the city of Saqez is achieved to their performance desired were used to analyze by using descriptive and inferential statistical methods. The result for the above hypothesis (Sig = 0.000 $<\alpha$ = 0.05) for the test statistic indicated that the performance of mehr housing in Saqez to all aspects investigated is significantly different from the expected performance. So that for all aspects of the favorable performance exist a gaps and the remainder were negative, however showing the unsuitable performance of housing and having a gap from the expected and desired. In order to provide optimal performance Mehr housing project in the city Saqez recommended that well apply the changes in during the implementation of mehr housing project in order to proper to make project. Furthermore, Mehr housing project for the housing needs of Saqez city. Funding sources of financing such as banks concerned at project finance of Mehr housing will play the role of Saqez city. Useful life of Mehr housing project has consistent with future housing needs in Saqez city. At any mass housing projects need to be considered local of climatic conditions and indeed the design of the target spectrum. For example, if while people applying divide the middle class and poor for each project and have carry depending on the design of specific support to be divided. Getting adequate financial guarantees from contractor's seriousness of such projects and monitoring their activities. The importance of the timing of the project, especially in cities such as Saqez city due to the coldest season of work is limited. As well as for future research suggestions that evaluation problems and issues related to upgrading and strengthening the effect of mehr housing projects and reporting the development project and its effect on the financial performance of the project.

REFERENCE

1. Diana, H., 1999. Theories of economic development, economic analysis of competing theories, Gh, Armaki, publication Ney.

2. Douglas, N., 2000. Economic structure and metamorphic history, Gh, Azad (Armki), publication Ney.

3. Buckley, R.M. and J. Kalarichal, 2005. Housing policy in developing countries: conjectures and Refutations TheWorldbank Research Observer, 20(2): 233-257.

4. Research Center of Iran's economy, 2002. The projectning and management of development, the National Conference and the pervasive set of challenges and newer development, Institute of education and research management and projectning.

5. Iran's Ministry of Cooperation, 2008. Statute of Mehr housing cooperatives, available in: http://www. tavoni-maskan.ir/fa.

6. Ramesh, M., 2004. Social Policy in East and Southeast Asia, Education, Health, Housing and Income Maintenance. London: Routledge Curzon.

7. Schill, M.H., I. Voicu and J. Miller, 2004. The Condominium v. Cooperative Puzzle: An Empirical Analysis of Housing in New York City. Social Science Research Network Electronic Paper Collection.

8. Gyourko, J. and A. Saiz, 2003. Urban decline and housing reinvestment: The Role of Construction Costs and the Supply Side. Federal Reserve Bank of Philadelphia.

9. Owusu-Ansah, J.K. and K.B. O'Connor, 2010. Housing demand in the urban fringe around Kumasi, Ghana J. Hous and the Built Environ., 25: 1-17.

10. Azizi, M.M., 2004. Housing Indicators in the process of housing projectning Honar-ha-ye-ziba (in Persian), 8(1): 31-42.

11. Ziari, K. and A. Zarafshan, 2006. Study of Housing quantitative and qualitative changes in the Mirage city and its housing prediction to 2023, Geography and Development (in Persian), 4(2): 85-106.

12. World Bank, 1999. Government's role in an evolving world, group and commercial research studies Institute of translators.

13. razani, A., 2006. Review of international patterns of performance evaluation, proceedings of the first National Conference on performance management, University of Tehran.

14. Alirezaei, M., 2002. New methods of performance evaluation, Parliament Research Center.