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Effective economic and social factors on reducing the consequences of the targeted subsidies from the viewpoint of Semnan greenhouse owners

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ABSTRACT

The purpose of this study is to investigate the economic and social methods for reducing the consequences of the targeted subsidies from the view of greenhouse owners of the Semnan province. This is an applied research and it has done by causal-comparative method. Statistical universe of this study is greenhouse owners of Semnan province. The sample size was calculated using Cochran formula and it includes 287 greenhouse owners. The SPSS software was used to analyze the data obtained the questionnaires. For testing hypotheses of this research, correlation coefficient, multiple regressions were utilized. The results show that there is a positive and meaningful correlation between reducing expenses to age, level of education, greenhouse earning, current expenses, lowering the fare of transportation and proximity to the markets, using the proper structures for constructing greenhouse and the style of placing fuel source. Also, the finding of regression analysis shows that there is a linear relation between the reducing the consequences of target subsidy (dependent variable) and Current expenses (economic factor). In addition, about social factors, there is a linear relation between dependent variable and using the best hired workers in greenhouse, doubling walls in greenhouse, placing heaters in suitable location and the style of placing fuel source.

Keywords: Economic and social, Greenhouse owners, Targeted subsidies, Semnan province.

INTRODUCTION

A greenhouse is a building in which plants are grown. Nowadays, greenhouse products are considered as one of the most important elements of people's daily consumption. This is more important when we consider to this important point that in Iran farmers are forced to produce the crops an enclosed area due to the shortage of water resources and land quality and climate changes. However; targeted subsidies plan had some effects on it in last year's [1,10,12].

The Iranian targeted subsidy plan also known as the subsidy reform plan was passed by the Iranian Parliament on January 5, 2010. The goal of the subsidy reform plan is to replace subsidies on food and energy (80% of total) with targeted social assistance, in accordance with Five Year Economic Development Plan and move towards free market prices in a 5-year period. According to the government, approximately $100 billion per year is spent on subsidizing energy prices ($45 billion for the prices of fuel alone) and many consumable goods including bread, sugar, rice, cooking oil and medicine [2, 11].

As a reflection of the implementation of targeted subsidies plan, many greenhouse owners have been declared bankrupt due to the increasing fuel prices [3]. The main problem of greenhouse owners is not only providing material of production such as, fuel, seeds, plastics, fertilizer, pesticide but also marketing and supplying human resources whose prices have increased manifold [4-5] . On the other hand, the researchers have emphasized that in comparison with other countries the performance of greenhouses in Iran is not desirable due to the lack of proper technical knowledge [6]. Such poor performance, greenhouses debilitate against the shocks produced by price changes of energy.

Whereas in most researches have been stated about educational needs [7, 8, 9], It seems that identifying the economic and social factors in order to deal with the problems stated above is very important.

The overall objective of this study was to investigate the economic and social methods for reducing the consequences of the targeted subsidies from the greenhouse owners of the Semnan province.

MATERIALS AND METHODS

This is an applied research and it has done by causal-comparative method. The place investigated research is Semnan province (One of the provinces of Iran). Based on the detailed results of the General Census, there are nearly 700 active official greenhouses in this province.

The study population is consisted of all greenhouse owners of Semnan province, which plant at least 1,000 square meters (0.1 hectare) of greenhouses in each period planting. Based on the Cochran formula, the sample number was estimated 287 greenhouse owners. In this study, random sampling was used and Collecting data tool is document analysis, library research and field study. The main tool used in this research was questionnaires. Using theoretical and hypotheses research, questions were designed and after the validity and reliability, modifications carried out on them. The field study was used to complete the questionnaires. Descriptive statistics were used and data was analyzed by SPSS21 software. In addition, correlation, multiple regressions were done.

RESULTS AND DISCUSSION

The research findings represent that 12.5% greenhouse owners are below the age of 30 and 1.4% of them are above the age of 60. On this basis, the most frequency greenhouse owners were 92 people, between 31 to 40 year old people (see table.1).

The level of education of 0.7% (2 persons) greenhouse owners is in the level of familiar with reading and writing, and 24.7% (71 persons) had the B. A. degree and above. In addition, the most frequency of this classes belonged to the people with high school graduation (34.1%) users have averagely 98 heads and 29.3% (84 persons) of greenhouse owners had the technician graduation. (Table 1)

Based on the results of amount of greenhouse lands, 57.1% declared the amount of their greenhouse lands is below 0.5 ha, whereas 30.7% (88 persons) declared the amount of their greenhouse lands is between 0.5 to 1 ha. In addition, 12.2% (the minimum frequency) declared it is above 1 ha. (Table 1)

In addition, table 1 shows the fixed expenses and current expenses.

In this study, four economic factors and eleven social factors are investigated. The economic factors include: 1.Reducing the interest rate of loan received by greenhouses. 2. Pricing the products expertly 3. Lowering the fare of transportation and proximity to the markets. 4. Direct payment of subsidy to the greenhouse owner by government

In addition to economic factors, social factors consist of 1.Using the proper structures for constructing greenhouse 2. Using the best hired workers in greenhouse 3.Using the suitable productive soil. 4. Using the suitable seeds. 5. Using pesticides and fertilizer with optimum performance. 6. The assessment of time of cultivation as it reduces the fuel consumption. 7. Using heater jet. 8. Doubling walls in greenhouse. 9. Controlling greenhouse' heat energy. 10. Placing heaters in suitable location. 11. The style of placing fuel source.

The descriptive statistics of economic and social variables are shown in table 2, 3, respectively. According to table 2, lowering the fare of transportation and proximity to the markets is most important factor from viewpoint of

greenhouse owner. As table 3 shows "using the suitable seeds" and "using pesticides and fertilizer with optimum performance" are in first order and second order, respectively.

Table 1.The personal characteristics of specialists under study: Greenhouse owners' age, Level of education and amount of greenhouse lands

Individual characteristics	Range	Abundance (Person)	Percentage
Age: n=287	To 30 yrs	36	12.5%
The lowest:24	31-40	92	32.1%
The highest:65	41-50	64	22.3%
SD:8.653	51-60	91	31.7%
Average:43	Over 60 yrs	4	1.4%
Sex: n=287	Female	24	8.4%
	Male	263	91.6%
Education level:	Reading & writing	2	0.7%
	Eight class	32	11.1%
n=287	High school diploma	98	34.1%
	Associated diploma	84	29.3%
	B.A. and higher	71	24.7%
Amount of lands: n=287	To 0.5 ha	164	57.1%
The lowest:1000.000	0.5-1	88	30.7%
The highest:13500.000	Over 1 ha	35	12.2%
SD:3400.77331			
Average:5404.5296			
Fixed expenses: n=287	To 30 million	32	11.1%
The lowest: 30 million	31-60	6	2.1%
The highest: 85 million	61-90	249	86.8%
SD: 15.20383			
Average: 67.8780			
Current expenses	2-4 million	34	11.8%
	4.1-6	67	23.3%
	6.1-8	35	12.2%
	Over 8	151	52.6%

Table 2. Descriptive statistics of economic variables

Variable name	Mean	Std. Deviation	Coefficient of Variation
Greenhouse earning	19.2683	3.51736	0.18254
Gas bills	2.9108	1.02243	0.35125
Fixed expenses	67.8780	15.20383	0.22398
Current expenses	8.1289	2.66401	0.32772
Reducing the interest rate of loan received by greenhouses	1.00	0.00	0.00
Pricing the products expertly	1.00	0.00	0.00
Lowering the fare of transportation and proximity to the markets	4.34	0.476	0.10967
Direct payment of subsidy to the greenhouse owner by government	1.00	0.00	0.00

1 = very low, 2 = low, 3 = average, 4 = high, 5 = very high.

Table 3. Descriptive statistics of social variables

Variable name	Mean	Std. Deviation	Coefficient of Variation	Rank
Using the proper structures for constructing greenhouse	4.33	0.471	0.10877	7
Using the best hired workers in greenhouse	4.54	0.500	0.11013	5
Using the suitable productive soil	4.79	0.405	0.08455	3
Using the suitable seeds	5.00	0.00	0.00	1
Using pesticides and fertilizer with optimum performance	4.89	0.311	0.06359	2
The assessment of time of cultivation as reduces the fuel consumption	4.11	0.583	0.14184	8
Using Hitter jet	1.00	0.00	0.00	11
Doubling walls in greenhouse	2.41	1.083	0.44937	10
Controlling greenhouse' heat energy	4.01	0.454	0.11321	9
Placing heaters in suitable location	4.46	0.500	0.11210	6
The style of placing fuel source	4.56	0.497	0.10899	4

1 = very low, 2 = low, 3 = average, 4 = high, 5 = very high.

Correlation studies

In order to study the relationship of research variables, we use the spearman correlation coefficient between independent variables and dependent variable. Table 4 shows the results of this part. According to table 4, there is a

positive and meaningful correlation between reducing expenses to age, level of education, greenhouse earning, current expenses, lowering the fare of transportation and proximity to the markets, using the proper structures for constructing greenhouse and the style of placing fuel source.

Table 4. Pearson correlation coefficient between independent variables and dependent variable

Independent variables	Pearson coefficient	Sig.
Age	-0.255	0.000
Level of education	0.273	0.000
Amount of greenhouse lands	-0.043	0.466
Greenhouse earning	-0.160	0.007
Fixed expenses	-0.027	0.643
Current expenses	0.143	0.016
Lowering the fare of transportation and proximity to the markets	0.154	0.009
Using the proper structures for constructing greenhouse	-0.173	0.003
Using the best hired workers in greenhouse	-0.106	0.073
Using the suitable productive soil	-0.002	0.977
Using pesticides and fertilizer with optimum performance.	0.021	0.722
The assessment of time of cultivation as reduces the fuel consumption	0.048	0.396
Doubling walls in greenhouse	0.005	0.920
Controlling greenhouse' heat energy	-0.030	0.607
Placing heaters in suitable location	0.125	0.035
The style of placing fuel source	0.162	0.006

The multi-variable regression analysis

At this stage, we use the multi-variable regression by means of Inter method in order to evaluate the effect of independent variables on dependent variable.

At first, all independent variables were taken into account for regression analysis. Table 5 and 6 show the finding of the regression analysis for economic and social variables, respectively. These two tables provide us with information on each predictor variable. According to table 5, there is a linear relation between the reducing the consequences of target subsidy (dependent variable) and Current expenses.

Table 5. The finding of the regression analysis (Economic variables and dependent variable)

Variable name	B	Beta	S.E.	t	Sig.
Greenhouse earning	-0.007	-0.065	0.008	-0.873	0.383
Gas bill	0.013	0.034	0.030	0.426	0.671
Fixed expenses	0.003	-0.103	0.002	1.369	0.172
Current expenses	-0.027	-0.190	0.012	-2.249	0.025
Lowering the fare of transportation and proximity to the markets	0.068	0.086	0.055	1.244	0.214

In addition, table 6 shows that there is a linear relation between dependent variable and using the best hired workers in greenhouse, doubling walls in greenhouse, placing heaters in suitable location and The style of placing fuel source.

Table 6. The finding of the regression analysis (Social variables and dependent variable)

Variable name	B	Beta	S.E.	t	Sig.
Using the proper structures for constructing greenhouse	-0.311	-0.389	0.179	-1.737	0.084
Using the best hired workers in greenhouse	0.149	0.198	0.070	2.135	0.034
Using the suitable productive soil	-0.139	-0.150	0.107	-1.303	0.194
The assessment of time of cultivation as reduces the fuel consumption	0.217	0.336	0.127	1.716	0.087
Doubling walls in greenhouse	-0.157	-0.450	0.037	-4.245	0.000
Controlling greenhouse' heat energy	0.242	-0.291	0.115	-2.107	0.036
Placing heaters in suitable location	-0.340	0.450	0.074	4.607	0.000
The style of placing fuel source	0.399	0.526	0.153	2.615	0.009

CONCLUSION

The greenhouse industry is one of the most important industries having many benefits for agricultural section; however, many greenhouse owners were bankrupt from the beginning of the target subsidies plan. This survey was

done with the purpose of regression analysis of effective factors on reducing the consequences of targeted subsidies from the viewpoint of greenhouse owners of Semnan province.

This study show that there is a positive and meaningful relation between reducing expenses to age, level of education, greenhouse earning, current expenses, lowering the fare of transportation and proximity to the markets, using the proper structures for constructing greenhouse and the style of placing fuel source (table4).

The finding of regression analysis shows that there is a linear relation between the reducing the consequences of target subsidy (dependent variable) and Current expenses (economic factor).

In addition, about social factors, there is a linear relation between dependent variable and using the best hired workers in greenhouse, doubling walls in greenhouse, placing heaters in suitable location and the style of placing fuel source (table6).

REFERENCES

[1] Jozwik, F.X. (**1992**). *The Greenhouse and Nursery Handbook: A Complete Guide to Growing and Selling Ornamental Container Plants*. Mills, WY: Andmar.
[2] Z. Khoshnood, *new economic*, **2009**,126, 11-14
[3] Mohammadi A Investigation of problems in process of production in level of Shahrood's greenhouses. **2013**.
[4] Dehghani Sanij H, Zarei GH, Heydary N., The first technical workshop of water consumption by planting the greenhouse crops. University of agriculture engineering **2007**.
[5] Momeni D., 4th territorial congress of new ideas in agriculture. Islamic Azad University of Khorasgan **2009**.
[6] Mergen l., *Green world*, **2011**. 75 :4
[7] Latimer, J., Scoggins, H., Barden, V., & Lambur, M., Virginia: Polytechnic Institute and State University, **2002**, 24061-0402.
[8] Mattson, N., New York: Department of horticulture plant science building .Cornell University Ithaca, **2008**, NY 14853.
[9] Sabouri MS, Minaee AH., Agriculture education and promotion researches, **2009**, 2th year, 3.
[10] M.J. Arde, M. Ghazvi, Research institute of medical plant, **2010**.
[11] A. Kazemi, M.R. Mehregan, H. Shakouri Ganjavi, perspective of industrial management, **2011**, 3, 43-65
[12] M. Mohammadi, M.H. Abbaspour fard, M. Goldani, B. Emadi, *Journal of Agricaultural Machinery, September*, **2013**, 3, 16-23.