



Journal of Applied Sciences

ISSN 1812-5654

science
alert

ANSI*net*
an open access publisher
<http://ansinet.com>

Evaluation of Managers' Attitude Toward Effects of Targeted Subsidy: A Case Study (Vulnerable Food Industry in Mazandaran Province in Iran)

¹Iman Seyedi, ²Aref Maleki-Daronkolaei, ²Muriati Mukhtar and ²Shahnorbanun Sahran
¹Department of Industrial Engineering, Payame Noor University, 19395-4697, Tehran, Iran
²School of Information Technology, Faculty of Information Science and Technology,
Universiti Kebangsaan Malaysia, 43600, Bangi, Selangor, Malaysia

Abstract: The aim of this study is to evaluate effects of targeted subsidies on vulnerable food industries in Mazandaran province of Iran in relation to variables including the cost price, competitive advantage, productivity and quality. One of the requirements for entering to the global market and competition in free market is removing governmental subsidies or replace them with targeted subsidies in different parts of industry. As for implementing targeted subsidies plan from early 2010, the effects of determination necessity to perform this plan were felt over industry portion. The considered statistical society consists of all food industry executives impressionable in Mazandaran that their number is about 60 people. According to the Morgan's table, the statistical sample for this study is determined 45 people. In this study, it was used from survey method and 5-point Likert scale questionnaires with the purpose of measured 4 foregoing variables in the form of 20 questions. The questionnaire stability was calculated by using Cronbach's alpha by means of SPSS software equal to 0.784 and in assessing the research questions that were used for single-sample t-test hypotheses. The findings have shown that targeted subsidies have been meaningfully effective on decreasing the cost price, creating competitive advantage, quality improvement and enhancing productivity.

Key words: Targeted subsidy, vulnerable food industry, competitive advantage, productivity, quality

INTRODUCTION

Examination of available capabilities and potentials in Iran's economy shows that this economy has significant capacities. However, surveying performance of key components of macro-economic including economic growth and other development indicators shows that despite having a high capacity and official efforts to achieve to higher levels of development, Iran's economy faces with structural problems including slowness and fluctuation in growth, high inflation and inequality of income distribution. With looking at subsidy payment status in the country, it is noticeable that subsidies allocate high volume of governmental budget and GDP to themselves in Iran, so that direct subsidies ratio to GDP increased from 1.58 in the year 2001 to 2.97 in the year 2007, energy subsidies ratio to GDP from 7.6 in the year 2001 to 25.9 in the year 2007 and share of total subsidies of GDP from 9.2 in the year 2001 to 28.9 in the year 2007. Also, energy subsidies ratio to government current expenditures increased from 50.2 in the year 2001 to 127 in the year 2007, the ratio of hidden subsidies are calculated in this ration too. To analyze the aforementioned statistics, it should be noted that much of subsidies are allocated to hidden subsidies for energy in Iran. For

example, energy subsidy ratio to GDP in Iran's economy during 2001-2007, the mean was equivalent 16.4%, the main reason for this is deepening the gap between internal and external prices of energy during the period under review. Studies show that the gap between energy price in inside and outside during the 2001-2007 has been strictly increasing. Such that at the early year 2008, the ratio of energy prices abroad to the domestic price has raised more than 9 times. It is obvious that continuity of this trend which leaves adverse effects on state, leads to widespread problems for the economy. 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. Implementation of targeted subsidies plan is one of the most important components of the economic development plan that will have important effects on manufacturing sector.

Opportunities for economic development plan for industries are including; releasing energy sources to use in production sector, allocation of significant resources for the industry and mine sectors, demand increase for

domestically produced goods and creating new business opportunities. Also, the major challenges of targeting subsidies to the mine and industry sector are; increasing cost of production and changes in demand for products. Purposes of this law in mine and industry sector are; management of production cost increase and productivity increase in mine and industry parts. Ali (1996) examined the effect of the Egyptian food subsidy system on income distribution. Lofgren and El-Said (2001) considered food subsidies in Egypt and since it was not targeted, however, had improved food security. They used Computable General Equilibrium (CGE) model to simulate possible alternatives food subsidies plans. Gutner (2002) considered the political economy of food subsidy reform in Egypt and concluded that there are some pragmatic policies that can be useful to the poor however, this reform is politically very controversial. Hatamian (2005) investigated the inflationary effects of rising prices of basic goods and energy carriers in Iran with using Social Accounting Matrix (SAM) which shown that it has small inflationary effect on economy and the positive consequences of reduction in subsidies like other countries if modifying the prices coincides with the reform in other economic sectors. Van Goeverden *et al.* (2006) considered subsidies role in public transportation. They divided transportation into two parts; public and free and then studied effects of removing subsidies on transportation. Carried studies in Netherlands, according to model of income-cost, have shown the positive effect of managing subsidies on both free and public transportation parts. Since, one of the main elements of an efficient targeted subsidy plan in Iran is distinguishing needy families from needless ones, Permeh and Heidari (2007) used Proxy-Means Testing. Jensen and Miller (2008) propounded this question in that: Do subsidies payment to consumers really leads to improving people feeding? They expressed this point that in many of developing countries, subsidizing the price of food is done to improve the nutritional needs of the poor, besides they believe the control of this payment causes to create more wealth for the welfare of society. This study, that conducted with accidental sampling in two provinces of china, shows very low effect of subsidies payment in the best status on improving people feeding and it, even, had a negative impact. Coates and Humphreys (2008) reviewed the empirical literature assessing the effects of subsidies for professional sports franchises and facilities. The evidence shows that sports subsidies cannot be justified on the grounds of local economic development, income growth or job creation, those arguments most frequently used by subsidy advocates. Ramadan and Thomas (2011) used a mixed demand approach to analyze the consumption structure of Egyptian food subsidy system, where some food items have predetermined (subsidized) prices. The witnesses for the survey have shown that

most economists have consensus on lack of effect of subsidy payment on improving sport status. Lin and Jiang (2011) researched into the China energy subsidies and to this end, they applied the price-gap approach. They found that removing energy subsidies will lead to considerable reduction in demand and emissions but will cause negative effect on macroeconomic variables and they expressed that offsetting policies could be useful for environment and reducing energy consumption. Waterlander *et al.* (2012) explored the effectiveness of varying taxing and subsidizing schemes to stimulate healthier food purchases. Karami *et al.* (2012) investigated the effects of alternative food subsidy reforms on household's welfare and government expenditure in Iran. They applied Computable General Equilibrium (CGE) model. Jha *et al.* (2013) considered the targeted public distribution system performance in three Indian states. They collected the data from a representative sample of rural households to figure out various access issues related to the TPDS. Mehta *et al.* (2013) conducted research on the targeting outcomes of a self-targeted rice subsidy program in the Philippines and concluded that self-targeting consequences are not really a proper function for subsidy and indeed there are some variations could affect that.

Mazandaran province has very good relative abilities and competitive advantage in the food industries. Food industries have the highest share in industrial employment and investment in the province. In aspect of employment and investment, the food industry with 24% has allocated the highest proportion to itself. Rising raw material prices, the necessity to upgrade the products quality, deterioration of machinery, lack of suitable investment in research and development are the main difficulties of food industries (portal of Industries and Mines organization of Mazandaran). Due to the above problems which have led to low efficiency of food industries in the province, in this study we consider the industries managers' attitudes toward effects of targeted subsidies on food industries which be impressed the more effect from targeted subsidies. While, determining the directors' attitude toward effects of this legislation on improvement of productivity and quality of products, creation of competitive advantage and decrease in price and other results from this research, can be helpful for governmental and industrial managers to continue or modify the existing policies and planning to promote vulnerable food industries.

METHODOLOGY

According to the ministry of industries and mines research, during 87-90 years, 25 vulnerable industrial fields because of performing targeted subsidies plan that these fields include about 15000 industrial units in the

country and according to the government’s proclamation of supportive package, performing the efficiency projects are the most important long term and middle-term governments plan in support of these firms, therefore, necessity to examine the attitudes of industrial managers towards effects of targeted subsidies plan on vulnerable food industries in Mazabndaran province has been felt. Three kinds of vulnerable food industry are working in Mazandaran province are included dairy production, tap oil and oil refining consumption and fridges. Considering effects of targeted subsidies on productivity, price, creating competitive advantage and quality of food industries products can lead to development of Mazandaran food industries. Statistical community for this study consists of 60 managers of food industries in Mazandaran. According to Morgan Table 1, the statistical sample in this study was determined 45 people (about 75% of the society).

In this study, simple accidental sampling method has been used and the questionnaire was given to 75% of the society. Finally, 85% of the questionnaires were returned which is acceptable statistics. To do this study, a questionnaire has been used which consist of 20 questions which measured targeted subsidies effects based on the following four variables:

- Reduction in cost including items per rows (1-2-3 -4-5-6)
- Creation of competitive advantage including row items (7-8-9-10-11)
- Improvement in quality including row items (12-13-14-15-16)
- Improving productivity including row items (17-18-19-20)

To grade items response, it has been used of spectrum Likert 2 at 5 degrees. The value of options was determined as follows: (1) At all, (2) Very few, (3) Few, (4) High and (5) Very much.

Reliability and validity of research tool: In this study, for increasing questionnaire validity, the questionnaire design has been done based on theoretical model and literature and experts and specialists ideas in this domain. In order to increase the questionnaire stability, 100 questionnaires were distributed among the group of respondents and all their ambiguities in regard to the questionnaires were determined. So, some of the questionnaires were adjusted and finally after resolving ambiguities, the final questionnaire was provided and distributed. To estimate questionnaire stability, Cronbach’s alpha method has been used. Cronbach’s

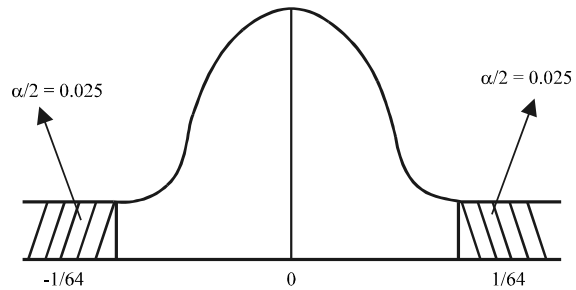


Fig. 1: Normal distribution

Table 1: Questionnaire final alpha

Variables	Final sample	No. of items	Final reliability
Cost	38	6	0.723
Competitive advantage	38	5	0.778
Quality	38	5	0.784
Productivity	38	4	0.725
Total	38	20	0.784

alpha coefficient formula has been recommended while questionnaires are multi choice. The calculated alpha coefficient by the SPSS software has been shown in Table 1. So, it can be said that above questionnaire has sufficient validation, this means that given responses were not accidental and by chance but because of variable effect that was tested.

Since, the questionnaires validation, in all of the items and variable, is more than 0.7 and due to attention the other related outputs inserted in research appendix, variables validity is acceptable.

Method of data analyzing: In this part with drawing frequency distribution table and various diagrams, every research indexes and their items were described briefly and in the deductive part, to examine the research questions, single-sample hypothesis T-testing (single-community) will be used.

The statistics for this test in non-mechanical calculations by following equation:

$$t = \frac{\bar{d} - \mu_0}{\frac{sd}{\sqrt{n}}}$$

To do this hypothesis test, at first, statistics T is calculated by using the above equation. Then, by using of obtained amount of T, decision will be made about acceptance or reject zero assumption by using of normal distribution curve (Fig. 1).

According to the being bilateral of this test, if the obtained modulus value T being more than 1.64, the zero assumption will be rejected or if the computed sigma value

(the level of significance) by software SPSS being lower than allowable error rate (0.05), the statistical zero assumption will be rejected. By having value of sigma, there is no need to refer to probability table T to prove or reject zero assumption. Whenever the obtained absolute value of T being more than 1.64, it indicates that targeted subsidies have meaningful effect on variables industrial units managers' view and if the obtained absolute value of T being lower 1.64, it indicates that targeted subsidies had not influence on variables.

DATA ANALYSIS

The collected data from questionnaires has been analyzed by SPSS software.

Evaluating the demographic characteristics of the sample: The demographic characteristics consist of identifying demographic characteristics of the statistical sample. This part has components like: age, sex, education and vulnerable food industries managers' industrial background in Mazandaran as follows.

Respondents distribution based on sexuality: The research respondents in personal information were identified their sexuality. In Table 2, respondents frequency distribution came based on sexuality. As shown in Table 2, 89.5% of respondents were men and 10.5% were women.

Respondents distribution based on level of education: In the Table 3, frequency distribution of the education level of respondent has given in four levels. As shown in Table 3, 47.4% of respondents have Bachelor degree. 15.8% have Master degree. The 28.9% of statistical sample have Associate degree and 7.9% of sample have Ph.D.

Respondents distribution based on industrial activity background: In the Table 4, the frequency distribution of respondents' industrial activity background has given in 3 levels. According to the inserted statistics, in this table, 44.7% of people have lower than 5 years industrial experience. The 36.9% have between 5-15 years and 18.4% have more than 15 years activity record.

Respondents' distribution based on age: In Table 5, frequency distribution of respondents' age has given in 3 levels according to the inserted statistics in this table, 18.4% of people are lower than 30 years old, 55.3% are between 30 and 45 years old and about 26.3% are more than 45 years old.

Table 2: Respondents distribution based on sexuality

Respondents	Description	
	Frequency	Percentage frequency
Man	34	89.5
Woman	4	10.5
Total	38	100.0

Table 3: Respondents distribution based on education level

Respondents	Description	
	Frequency	Percentage frequency
Associate	11	28.9
Bachelor	18	47.4
Master	6	15.8
Ph.D	3	7.9
Total	38	100.0

Table 4: Respondents distribution based on industrial activity background

Respondents	Description	
	Frequency	Percentage frequency
Lower than 5 years	17	44.7
Between 5-15 years	14	36.9
More than 15 years	7	18.4
Total	38	100.0

Table 5: Respondents distribution based on age

Respondent's	Description	
	Frequency	Percentage frequency
Lower than 30 years	7	18.4
Between 30-45 years	21	55.3
More than 45 years	10	26.3
Total	38	100.0

STATISTICAL SURVEY

Statistical survey of answers to the items related to variable decreasing cost price: In the appendix 1, people response to every questionnaire items related to variable decreasing the cost price have been categorized and the mean and standard deviation have been calculated. According to the comparison of the mean of related items mean to variable of decreasing the cost, the Fig. 2, shows that in the attitude of industrial units managers, the highest impact of targeted subsidies was on increasing work shifts in amount of 3.58 and the lowest impact was on decreasing input price in amount of 2.08.

Statistical survey of answers to the items related to variable creation of competitive advantage: In appendix 2, people response to every questionnaire items related to variable creating competitive advantage have been categorized and the mean and standard deviation of each item inserted beside it. The highest mean (3.74) is related to the item 7 (reinforcement of marketing and sale). The lowest mean (3.05) is related to the item 11 (increasing personnel participation). According to comparison of mean of items related to variable creating competitive advantage, the Fig. 3 shows that in the attitude of industrial units' managers, the highest impact of targeted

subsidies was on reinforcement of marketing and sale in amount of 3.74 and the lowest impact was on increasing personnel participation in amount of 3.05.

Statistical survey of answers to the items related to variable quality: In the appendix 3, people response to every questionnaire items related to variable creating competitive advantage have been categorized and the mean and standard deviation of each item inserted beside it. The highest mean (3.50) is related to item 13 (increasing customers satisfaction). The lowest mean (2.87) is related to item 12 (increasing quality of raw material). According to comparison of mean of items related to variable quality, the Fig. 4 shows that in the attitude of industrial units'

managers, the highest impact of targeted subsidies was on increasing customers' satisfaction in amount of 3.50 and the lowest impact of performing this plan was on increasing raw material quality in amount of 2.87.

Statistical survey of answers to the items related to variable productivity: In the appendix 4, people response to every questionnaire items related to variable productivity have been categorized and the mean and standard deviation of each item inserted beside it. The highest mean (3.74) is related to item 17 (improving personnel knowledge). The lowest mean (2.55) is related to item 18 (increasing sale). According to comparison of mean of items related to variable productivity, the Fig. 5

Appendix 1: Assortment of items responses related to variable of decreasing the cost

Item context and number	Choice mean	SD	Description									
			At all		Very little		Little		A lot		Very a lot	
			F	%	F	%	F	%	F	%	F	%
1: Decrease energy consumption	2.32	0.809	7	18.4	13	34.2	17	44.7	1	2.6	0	0
2: Decrease outputs price	2.08	0.749	9	23.7	17	44.7	12	31.6	0	0	0	0
3: Decrease production wastage	2.74	0.503	0	0	11	28.9	26	68.4	1	2.6	0	0
4: Facility of securing raw material	2.42	0.683	4	10.5	14	36.8	20	52.6	0	0	0	0
5: Improvement and remake the machinery	2.53	0.762	3	7.9	15	39.5	17	44.7	3	7.9	0	0
6: Increase work shifts	3.58	0.642	0	0	0	0	19	50	16	42.1	3	7.9

Appendix 2: Assortment of items responses related to variable of creasing competitive advantage

Item context and number	Choice mean	SD	Description									
			At all		Very little		Little		A lot		Very a lot	
			F	%	F	%	F	%	F	%	F	%
7: Reinforcing sale and marketing parts	3.74	0.685	0	0	0	0	15	39.5	18	47.4	5	13.2
8: Promoting accounting and financial management system	3.39	0.638	0	0	0	0	26	68.4	9	23.7	3	7.9
9: Revision and promotion unit management method	3.45	0.602	0	0	0	0	23	60.5	13	34.2	2	5.3
10: Increasing unit activity of development and research	3.29	0.694	0	0	3	7.9	23	60.5	10	26.3	2	5.3
11: Increasing participation morale in personnel	3.05	0.655	0	0	7	18.4	22	57.9	9	23.7	0	0

Appendix 3: Assortment of items responses related to quality variable

Item context and number	Choice mean	SD	Description									
			At all		Very little		Little		A lot		Very a lot	
			F	%	F	%	F	%	F	%	F	%
12: Increasing raw material quality	2.87	0.844	3	7.9	7	18.4	20	52.6	8	21.1	0	0
13: Increasing customers satisfaction	3.50	0.726	0	0	0	0	24	63.2	9	23.7	5	13.2
14: Increasing personnel satisfaction	3.34	0.481	0	0	0	0	25	65.8	13	34.2	0	0
15: Using of modern quality control methods	3.47	0.557	0	0	0	0	21	55.3	16	42.1	1	2.6
16: Documentation and improvement of production processes	3.42	0.552	0	0	0	0	23	60.5	14	36.8	1	2.6

Appendix 4: Assortment of items responses related to productivity variable

Item context and number	Choice mean	SD	Description									
			At all		Very little		Little		A lot		Very a lot	
			F	%	F	%	F	%	F	%	F	%
17: Promotion personnel knowledge	3.47	0.603	0	0	0	0	22	57.9	14	36.8	2	5.3
18: Sale increase	2.55	0.724	4	10.5	10	26.3	23	60.5	1	2.6	0	0
19: Using of modern technologies	3.26	0.446	0	0	0	0	28	73.7	10	26.3	0	0
20: Decreasing disposability resources level in lieu of production unit	3.29	0.460	0	0	0	0	27	71.1	11	28.9	0	0

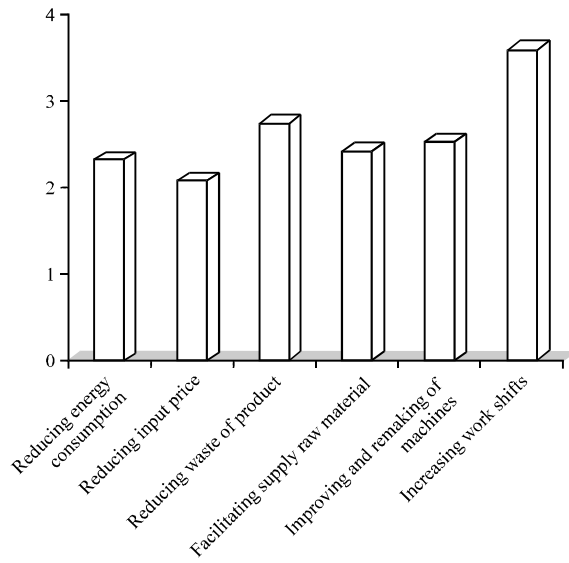


Fig. 2: Comparison of mean of items of variable decreasing cost price

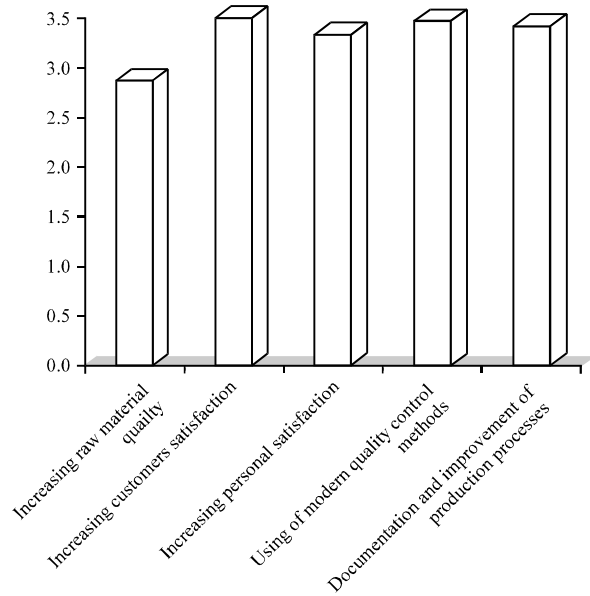


Fig. 4: Comparison of mean of items of quality variable

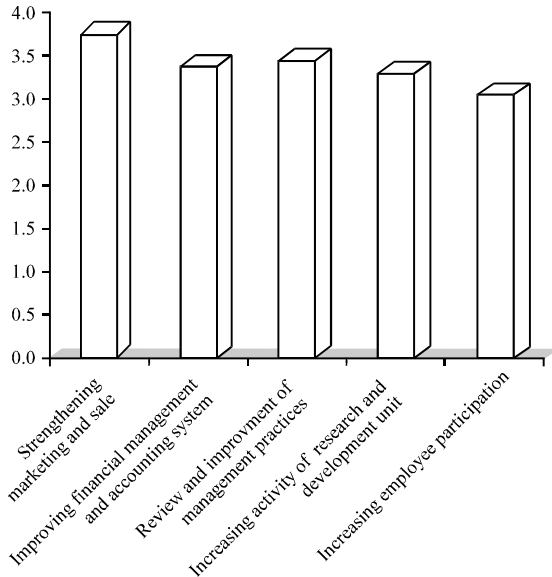


Fig. 3: Comparison of mean of items of variable creating competitive advantage

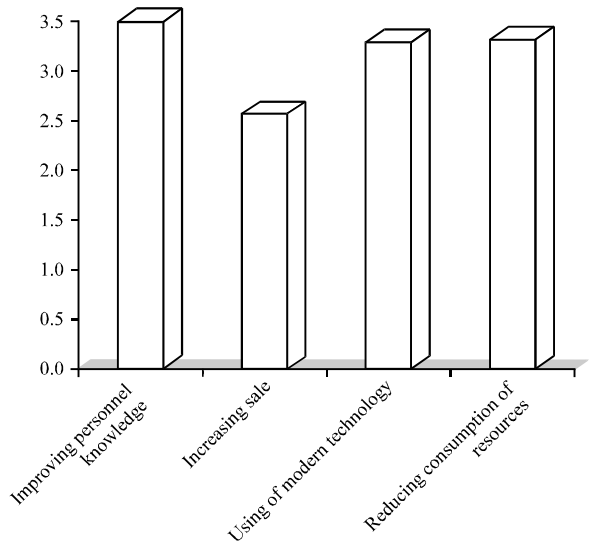


Fig. 5: Comparison of mean of items of quality variable

shows that in the attitude of industrial units' managers, the highest impact of targeted subsidies was on improving personnel knowledge in amount of 3.47 and the lowest impact of performing this plan was on increasing sale in amount of 2.55.

ANALISIS AND INTERPERTATION OF STATISTICAL RESULTS

First question: How is Mazandaran vulnerable food industries managers' attitude toward impact of targeted subsidies on decreasing price cost?

Description of related items data with this part of questionnaire is given in Table 6. To answer above question single-sample T-test is used. The test statistical hypotheses for the test are:

- **Ho:** Implementation targeted subsidies plan has no effect on decreasing price cost of vulnerable food industries' products
- **H1:** Implementation targeted subsidies plan has effect on decreasing price cost of vulnerable food industries' products

The output of test-t data is given in Table 6.

Statistical analysis: The measured mean of this variable is 2.6096. Surveying t-test with software SPSS shows that the computed sigma (level of Significance) is 0.000 and since it is lower than 0.05 (allowable error level), zero hypothesis be rejected.

Interpretation and decision making: The zero hypothesis of this test be rejected and it can be claimed that in industrial managers attitude, implementation targeted subsidies plan had meaningful impact on decreasing price cost of Mazandaran vulnerable food industries' products.

Second question: How is Mazandaran vulnerable food industries managers' attitude toward impact of targeted subsidies on creating competitive advantage?

Description of related items data with this part of questionnaire is given in Table 7. To answer above question single-sample T-test is used. The test statistical hypotheses for the test are:

- **Ho:** Implementation targeted subsidies plan has no effect on creating competitive advantage vulnerable food industries' products:

$$H_0 = \mu_1 - \mu_2 = 0$$

- **H1:** Implementation targeted subsidies plan has effect on creating competitive advantage vulnerable food industries' products:

$$H_1 = \mu_1 - \mu_2 \neq 0$$

The output of test-t data is given in Table 7.

Statistical analysis: The measured mean of this variable is 3.3842. Surveying t-test with software SPSS shows that the calculated sigma (level of Significance) is 0.000 and since it is lower than 0.05 (allowable error level), the zero hypothesis be rejected.

Interpretation and decision making: The zero hypothesis for this test be rejected and it can be claimed that in industrial managers attitude, implementation targeted subsidies plan had meaningful impact on creating competitive advantage for Mazandaran vulnerable food industries.

Third question: How is Mazandaran vulnerable food industries managers' attitude toward impact of targeted subsidies on improvement of products quality?

Table 6: Output of t-test for considering variable decreasing cost price

Level of Sig.	Degrees of freedom		SD	Number	Mean
	freedom	t-statistic			
0.000	37	-5.32	0.45235	38	2.6096

Table 7: Output of t-test for considering variable creating competitive advantage

Level of sig.	Degrees of freedom		SD	Number	Mean
	freedom	t-statistic			
0.000	37	4.962	0.47734	38	3.3842

Table 8: Output of t-test for considering variable quality

Level of Sig.	Degrees of freedom		SD	Number	Mean
	freedom	t-statistic			
0.000	37	4.183	0.47315	38	3.3211

Description of related items data with this part of questionnaire is given in Table 8. To answer above question, single-sample T-test is used. The test statistical hypotheses for the test are:

- **Ho:** Implementation targeted subsidies plan has no effect on vulnerable food industries' products quality:

$$H_0 = \mu_1 - \mu_2 = 0$$

- **H1:** Implementation targeted subsidies plan has effect on vulnerable food industries' products quality:

$$H_1 = \mu_1 - \mu_2 \neq 0$$

The output of test-t data is given in Table 6-9.

Statistical analysis: The measured mean of this variable is 3.3211. Surveying t-test with software SPSS shows that the calculated sigma (level of Significance) is 0.000 and since it is lower than 0.05 (allowable error level), the zero hypothesis be rejected.

Interpretation and decision making: The zero hypothesis for this test be rejected and it can be claimed that in industrial managers attitude, implementation targeted subsidies plan had meaningful impact on improvement of Mazandaran vulnerable food industries product quality.

Fourth question: How is Mazandaran vulnerable food industries managers' attitude toward impact of targeted subsidies on improvement of productivity?

Description of related items data with this part of questionnaire is given in Table 9. To answer above question, single-sample T-test is used. The test statistical hypotheses for the test are:

Table 9: Output of t-test for considering variable productivity:

Level of Sig.	Degrees of freedom	t-statistic	SD	Number	Mean
0.041	37	2.116	0.42167	38	3.1447

- **Ho:** Implementation targeted subsidies plan has no effect on vulnerable food industries' productivity:

$$H_0 = \mu_1 - \mu_2 = 0$$

- **H1:** Implementation targeted subsidies plan has effect on vulnerable food industries' productivity:

$$H_1 = \mu_1 - \mu_2 \neq 0$$

The output of test-t data is given in Table 9.

Statistical analysis: The measured mean of this variable is 3.1447. Surveying t-test with software SPSS shows that the calculated sigma (level of Significance) is 0.041 and since it is lower than 0.05 (allowable error level), the zero hypothesis is be rejected.

Interpretation and decision making: The zero hypothesis for this test be rejected and it can be claimed that in industrial managers attitude, implementation targeted subsidies plan had meaningful impact on improvement of Mazandaran vulnerable food industries productivity.

Suggestions for industries managers and producers:

- In order to decrease the price cost of products, the following items are suggested:
 - Identifying and reducing the factors of dissipation of capital in firm-level, Changing and revising the methods of supplying raw material and distribution, transportation and sale of products, detailed planning for shifts in order to efficient use of all of the resources and capacities, doing economical and technical feasibility studies and certainty of new plans profitability or a development with special attention to raw materials and inputs price
- In order to create more competitive advantage for vulnerable food industries in Mazandaran the following items are suggested:
 - Paying attention to doing market research and studies, use of modern technologies for design and produce goods and development of suggestions system and collaborative management in order to In order to use more of the creativity of employees, share income from saving and cost reduction with employees

- In order to enhance Mazandaran vulnerable food industries products quality, the following items are suggested:
 - Identifying customer needs as one of the key priorities, reviewing of and revision in raw material resources
- To enhance the Mazandaran vulnerable food industries productivity the following items are suggested:
 - Performing educational plans to increase productivity and decrease the cost for all managers and personnel, welcoming government's supportive plans in line with improvement of productivity

SUGGESTION AND CONCLUSION

The main purpose of this study was to survey Mazandaran vulnerable food managers' point of view toward impact of targeted subsidies on industry. To do this investigation after theoretical studies, a questionnaire was provided with four variables based on literatures and been distributed among managers and was collected. Results of statistical analysis conducted with software SPSS and single-sample test t shown that according to the industries managers attitude, targeted subsidies have meaningful impact on the variables such as: decreasing cost price, creating competitive advantage, enhancing the quality and improvement of productivity. Thus, since in vulnerable food industries managers' attitude, all of four variables under study were influenced by performing targeted subsidies plan so, we can conclude that with reinforcing the items related to above variables, the industries' success conditions after performing targeted subsidies plan is reachable. Therefore, to strengthen the most important items related to every variable some suggestions are given.

Since the studied variables, in this study, are the only some of the available variables in this domain so, surveying the other variables of production domain that probably will be affected by performing targeted subsidies plan should be considered in the future research. Furthermore, surveying sub-variable of decreasing the cost price particularly and impact of targeted subsidies on them, especially on inputs price and facilitate the supply of raw material as the first link in the chain of production process, can be considered by the future researchers.

ACKNOWLEDGMENT

We are deeply grateful to Mazandaran food industries managers for their cooperation with us to complete questionnaires and their advice on variant aspects of subsidies plan.

REFERENCES

- Ali, S.M., 1996. The Egyptian food subsidy system: Operation and effects on income distribution. *World Devel.*, 24: 1777-1791.
- Coates, D. and B.R. Humphreys, 2008. Do economists reach a conclusion on subsidies for sports franchises, stadiums and mega-event? *Econ. J. Watch*, 5: 294-315.
- Gutner, T., 2002. The political economy of food subsidy reform: The case of Egypt. *Food Policy*, 24: 455-476.
- Hatamian, H.F., 2005. *The Impacts of Economic Policies on Household Welfare*. 1st Edn., Institute for Trade and Studies and Research, Tehran.
- Jensen, R.T. and N.H. Miller, 2008. Consumer price subsidies and nutrition. CID Working Paper No. 160, Harvard University, April 2008. http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centers-programs/centers/cid/publications/faculty/wp/160.pdf
- Jha, R., R. Gaiha, M.K. Pandey and N. Kaicker, 2013. Food subsidy, income transfer and the poor: A comparative analysis of the public distribution system in India's states. *J. Policy Model.*, 35: 887-908.
- Karami, A., A. Esmaili and B. Najafi, 2012. Assessing effects of alternative food subsidy reform in Iran. *J. Policy Model.*, 34: 788-799.
- Lin, B. and Z. Jiang, 2011. Estimates of energy subsidies in China and impact of energy subsidy reform. *Energy Econ.*, 33: 273-283.
- Lofgren, H. and M. El-Said, 2001. Food subsidies in Egypt: Reform options, distribution and welfare. *Food Policy*, 26: 65-83.
- Mehta, A., S. Jha and P. Quising, 2013. Self-targeted food subsidies and voice: Evidence from the Philippines. *Food Policy*, 41: 204-217.
- Permeh, Z. and K.H. Heidari, 2007. Identifying poor families and non poor families for targeting subsidies in Iran by employing proxy means test. *Iranian J. Trade Stud.*, 11: 1-26.
- Ramadan, R. and A. Thomas, 2011. Evaluating the impact of reforming the food subsidy program in Egypt: A mixed demand approach. *Food Policy*, 36: 638-646.
- Van Goeverden, C., P. Rietveld, J. Koelemeijer and P. Peeters, 2006. Subsidies in public transport. *Eur. Transport/Transporti Europein*, 32: 5-25.
- Waterlander, W.E., I.H.M. Steenhuis, M.R. de Boer, A.J. Schuit and J.C. Seidell, 2012. Introducing taxes, subsidies or both: The effects of various food pricing strategies in a Web-based supermarket randomized trial. *Prevent. Med.*, 54: 323-330.